



ANALYTICAL SUMMARY REPORT

March 04, 2022

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

Work Order: B22020415 Quote ID: 5912

Project Name: CV18F0126, 60571032.02.46.01

Energy Laboratories Inc Billings MT received the following 36 samples from AECOM - Honolulu on 2/8/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B22020415-001	ERH2522 (Sump Adit 3)	02/03/22 15:20	02/08/2022	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
B22020415-002	ERH2521 (Trip Blanks)- 14694	02/03/22 15:20	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22020415-003	ERH2521 (Trip Blanks)- 14733	02/03/22 15:20	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-004	ERH2521 (Trip Blanks)- 14733	02/03/22 15:20	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-005	ERH2521 (Trip Blanks) 14709	02/03/22 15:20	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M



ANALYTICAL SUMMARY REPORT

B22020415-006	ERH2514 (RHMW01R)	02/03/22 13:40	02/08/2022	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
B22020415-007	ERH2513 (Trip Blanks)- 14694	02/03/22 13:40	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22020415-008	ERH2513 (Trip Blanks)- 14733	02/03/22 13:40	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-009	ERH2513 (Trip Blanks)- 14733	02/03/22 13:40	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-010	ERH2513 (Trip Blanks)- 14709	02/03/22 13:40	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22020415-011	ERH2507 (OWDFMW07A)	02/02/22 18:15	02/08/2022	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
B22020415-012	ERH2506 (Trip Blank)- 14733	02/02/22 18:15	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B



ANALYTICAL SUMMARY REPORT

B22020415-013	ERH2506 (Trip Blank)-14694	02/02/22 18:15	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-014	ERH2506 (Trip Blank)-14694	02/02/22 18:15	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-015	ERH2506 (Trip Blank)-14709	02/02/22 18:15	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22020415-016	ERH2510 (OWDFMW08A)	02/02/22 15:05	02/08/2022	Ground Water	DRO-Liquid-Liquid Extraction SW3520C Low Level PAH by 8270C SIM SW8270CSIM Separatory Funnel SW3510C Liquid-Liquid Ext. 8260-Volatile Organic Compounds-Short List SW8260B Gasoline Range Organics SW8015C Diesel Range Organics SW8015C Semi-Volatile Organic Compounds, Extended List SW8270C
B22020415-017	ERH2509 (OWDFMW08A)	02/02/22 15:05	02/08/2022	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
B22020415-018	ERH2508 (Trip Blank)-14733	02/02/22 15:05	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22020415-019	ERH2508 (Trip Blank)-14694	02/02/22 15:05	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-020	ERH2508 (Trip Blank)-14694	02/02/22 15:05	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-021	ERH2508 (Trip Blank)-14709	02/02/22 15:05	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M



ANALYTICAL SUMMARY REPORT

B22020415-022	ERH2512 (RHMW19)	02/02/22 15:05	02/08/2022	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
B22020415-023	ERH2511 (Trip Blank)- 14653	02/02/22 15:05	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22020415-024	ERH2511 (Trip Blank)- 14694	02/02/22 15:05	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-025	ERH2511 (Trip Blank)- 14694	02/02/22 15:05	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-026	ERH2511 (Trip Blank)- 14663	02/02/22 15:05	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22020415-027	ERH2516 (RHMW2254- 01 Bailer)	02/03/22 13:00	02/08/2022	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
B22020415-028	ERH2515 (Trip Blanks)- 14694	02/03/22 13:00	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B



ANALYTICAL SUMMARY REPORT

B22020415-029	ERH2515 (Trip Blanks)-14733	02/03/22 13:00	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-030	ERH2515 (Trip Blanks)-14733	02/03/22 13:00	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-031	ERH2515 (Trip Blanks)-14709	02/03/22 13:00	02/08/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22020415-032	ERH2519 (RHMW2254-01 Low Flow)	02/03/22 13:55	02/08/2022	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
B22020415-033	ERH2518 (Trip Blanks)-14733	02/03/22 13:55	02/08/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22020415-034	ERH2518 (Trip Blanks)-14694	02/03/22 13:55	02/08/2022	Trip Blank	Gasoline Range Organics SW8015C
B22020415-035	ERH2518 (Trip Blanks)-14694	02/03/22 13:55	02/08/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22020415-036	ERH2518 (Trip Blanks)-14709	02/03/22 13:55	02/08/2022	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: B22020415

Report Date: 3/4/2022

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 SW060A 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).



Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

COC # 202202-6NOI

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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.ramos / margie.pascua@aecom.com		
Receive Invoice	<input type="checkbox"/> Hard Copy	<input checked="" type="checkbox"/> Email	Receive Report
Purchase Order	Quote		Bottle Order
N/A	N/A		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-DRO 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	Sampler Phone		
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 CDC 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

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-Methylene) by 8270DSIM*	EPA 8630/8015 TPH-d10 +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
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All turnaround times are standard unless marked as RUSH.

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

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested									See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time			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-Methylene) by 8270DSIM*	EPA 8630/8015 TPH-d10 +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)			
1 ERH2522 (Sump Adit 3)	2/3/22	1120	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	B22020415-01
2 ERH2521 (Trip Blanks)	2/3/22	1110	8	WQ	✓	✓	✓	✓							X	-002 -003 -004 -005
3 TB-14694 (8260)			2													-002
4 TB-14733 (620)			1													-003
5 TB-14733 (8011)			1													-004
6 TB-14709 (Methane)			2													-005
7 TB-14705			2													-008
8																
9																

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmond	2/2/22 1430	[Signature]	Richard [Signature]	2/8/22 1145	[Signature]

LABORATORY USE ONLY

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

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



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Chain of Custody & Analytical Request Record

COC # 202202-5NOI

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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.ramos / 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	Quote	Bottle Order
N/A	N/A	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"/> INELAC <input checked="" type="checkbox"/> EDD/EDT (contact laboratory) <input type="checkbox"/> Other	

Comments

1. Project performed under DoD QSM.
2. TPH-DRO 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	Gwin Mura	Sampler Phone	808 987-3201
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

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 8270CSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 8060 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
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All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested									RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time			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 8270CSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 8060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] (field Filtered)		
1 ERH2514 (RHMW01R)	02/03/22	0940	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	B2202.415 - 6
2 ERH2513 (Trip Blanks)	02/03/22	0925	8	WQ	✓	✓	✓	✓						X	
3															
4 TB 14684 - 8260	2/8/22		2												-7
5 TB 14733 - DRO	2/8/22		2												-8
6 TB 14705 - 8011/14733/8011	03/22		2												-9
7 TB 14709 - Methane	03/22		2												-10
8 TB 14705			2												-042
9															

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmon Jr	02/03/22 1030	[Signature]	Sony Mallett	2/8/22 1115	[Signature]

LABORATORY USE ONLY

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



Trust our People. Trust our Data.

Chain of Custody & Analytical Request Record

COC #: 202202-1NOI

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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.ramos / 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	Quote	Bottle Order
N/A	N/A	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-DRO 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-methylnathalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01		
Sampler Name	Ryan Shimmelt	Sampler Phone	808-3936607
Sample Origin State	Hawaii	EPA/State Compliance	<input type="checkbox"/> Yes <input 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 - Solids/Solids
- V - Vegetation
- B - Bioassay
- O - Oil
- DW - Drinking Water

Analysis Requested

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-Methyl/nap) by 5270DSIM*	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
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All turnaround times are standard unless marked as RUSH

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

Sample Identification (Name, Location, Inlay, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested									RUSH TAT	ELI LAB ID Laboratory Use Only	
	Date	Time			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-Methyl/nap) by 5270DSIM*	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)			
1 ERH2506 (Trip Blank)	2/2/22	1345	8	WQ	✓	✓	✓	✓							✗	B2202-415-11
2 ERH2507 (OWDFMW07A)	2/2/22	1416	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓		✗	
3																
4 TB 14733 - 8260	2/8/22		2													-12
5 TB 14694 - 280			2													-13
6 TB 14705 - 8011 KHOP AW			2													-14
7 TB 14709 Methane			2													-15
8 TB 14705			2													-048
9																

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmond	2/2/22 1611	[Signature]	Received by Laboratory (print)	Date/Time	Signature
	Relinquished by (print)	Date/Time	Signature			
	Alex Edmond	2/3/22 1430	[Signature]	Sonye Mallett	2/8/22 1115	[Signature]

LABORATORY USE ONLY

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



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Chain of Custody & Analytical Request Record

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COC # 202202-3 NOI

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.ramos / 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	Quote	Bottle Order	
N/A	N/A	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 ~~etc~~ 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	Ryan Shinmoto	Sampler Phone	8083936607
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 - Drilling Water

Analysis Requested

6260 VOC's (Full Suite) + DCA* [40ml VOA w/HCL]	8013 TPH-g [40ml VOA w/ HCL]	RSK175 Methane [40ml VOA w/H2SO4]	8011 EDB [40ml VOA w/HCL]	SVOCs (full suite+Nap, 1,2-Methylene) by B2700S1M*	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

All turnaround times are standard unless marked as RUSH.
 Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)		Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested	See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only
Date	Time								
1	ERH2510 (OWDFMW08A)	02/02/2022	11:05 am	4	GW				X B2020415-016
2									
3									
4									
5									
6									
7									
8									
9									

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmonds	2/3/22 1930	[Signature]	Jab-Ha Edwards	2/8/22 115	[Signature]

LABORATORY USE ONLY

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

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



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Chain of Custody & Analytical Request Record

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COC # 202202-2 NOI

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.ramos / margie.pascua@aecom.com		
Receive Invoice	<input type="checkbox"/> Hard Copy	<input checked="" type="checkbox"/> Email	Receive Report
Purchase Order	Quote	Bottle Order	
N/A	N/A	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"/> INELAC <input checked="" type="checkbox"/> EDD/EDT (contact laboratory) <input type="checkbox"/> Other		

Comments

1. Project performed under DoD QSM
2. TPH-DRO 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	Ryan Shinmoto	Sampler Phone	8083936607
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 analysis 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

	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 82700SIM*	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
1	✓	✓								×
2	✓	✓	✓	✓						×
3	✓	✓	✓	✓	✓	✓	✓	✓	✓	×
4										
5										
6										
7										
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

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 82700SIM*	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 ERH2510 (OWDFMW08A)	02/02/2022	11.05 am	6	GW	✓	✓									×	R20220415-016
2 ERH2508 (Trip Blank)	02/02/2022	10.30 am	8	WQ	✓	✓	✓	✓							×	
3 ERH2509 (OWDFMW08A)	02/02/2022	11.05 am	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓		×	017
4																
5 TB-14733 (8260)			2													018
6 TB-14694 (GRD)	un	2/3/22	1													019
7 TB-14694 (8011)			1													020
8 TB-14709 (Methane)			2													021
9 TB-14705			2													039

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmond	02/03/22 1730	[Signature]	[Signature]	02/28/22 1115	[Signature]

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp 0.5°C	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)
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In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.



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Chain of Custody & Analytical Request Record

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COC #: 202202-4NOI

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.ramos / 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	Quote	Bottle Order	
N/A	N/A	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-DRO 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-methylnathalene, 2-methylnaphthalene)

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01		
Sampler Name	Cam Mura	Sampler Phone	808-987-3201
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)	RSK176 Methane (40ml VOA w/H2SO4)	8011 EDB (40ml VOA w/HCL)	SVOCs (full suite-Nap, 1-2-Methylnap) by 6270DSIM*	EPA 3630/8015 TPH-dio +SGC [1-L AG w/H2SO4]	EPA 9060 TOC (250ml AG w/H3PO4)	EPA 8020 Total Lead (250ml HDPE w/HNO3)	EPA 8020 Diss. Lead (250ml HDPE w/HNO3) (field Filtered)	See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only	
	Date	Time															
1 ERH2511 (Trip Blank)	02/02/22	1040	8	WQ	✓	✓	✓	✓							✗	B2202 0415-022	
2 ERH2512 (OWDEN #07A) (RH ml 19)	02/02/22	1105	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓		✗		
3																	
4 TB 14653 - 8260 2/8/22		2/13/22															023
5 TB 14694 - JRO																	024
6 TB 14705 - 8011/4/6/22																	025
7 TB 14663 - Methane																	026
8 TB - 14705																	040
9 TAF-2-8-22																	

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)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex E. Marks	02/03/22 1430	[Signature]	[Signature]		
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Sonia Melles	2/8/22 1115	[Signature]

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice	Payment Type	Amount	Receipt Number (cash/check only)
	1	(Y) N C B	(Y) N	2.4 °C	(Y) N	(Y) N	CC Cash Check	\$	

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



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Chain of Custody & Analytical Request Record

COC # 202202-4NOI

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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.ramos / 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	Quote	Bottle Order
N/A	N/A	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-DRO 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	MY, RL, JV	Sampler Phone	808-636-3319
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 - Solids/Solids
- V - Vegetation
- B - Bioassay
- O - Oil
- DW - Drinking Water

Analysis Requested

8260 VOC's (Full Suite) + DCA* (40ml VOA w/HCL)	8015 TPH-q (40ml VOA w/HCL)	RSK175 Methane (40ml VOA w/H2SO4)	8011 EDB (40ml VOA w/HCL)	SVOCs (full suite+Nap, 1-2-Methylnap) by 82700SIM*	EPA 3630/8015 TPH-d10 +SGC [1-L AG w/H2SO4]	EPA 8060 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
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X

All turnaround times are standard unless marked as RUSH

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

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested									RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time			8260 VOC's (Full Suite) + DCA* (40ml VOA w/HCL)	8015 TPH-q (40ml VOA w/HCL)	RSK175 Methane (40ml VOA w/H2SO4)	8011 EDB (40ml VOA w/HCL)	SVOCs (full suite+Nap, 1-2-Methylnap) by 82700SIM*	EPA 3630/8015 TPH-d10 +SGC [1-L AG w/H2SO4]	EPA 8060 TOC (250ml AG w/H3PO4)	EPA 6020 Total Lead (250ml HDPE w/HNO3)	EPA 6020 Diss. Lead (250ml HDPE w/HNO3) (field Filtered)		
1 ERH2516 (RHMW2254-01 Bailer)	2/3/22	0900	19	GW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	PS22020415-027
2 ERH2515 (Trip Blanks)	2/3/22	0850	8	WQ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X	-028 / -029 / -030 / -031 / -041
3 TB-14694 (8260)			2												-028
4 TB-14733 (GLO)			1												-029
5 TB-14733 (8011)			1												-030
6 TB-14709 (Methane)															-031
7 TB-14705	2/3/22	0900	3	GW											-041
8	2/8/22														
9															

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Edmonds	02/03/22 1430	[Signature]	Vicki Stew	2/18/22 11:15	[Signature]

LABORATORY USE ONLY

Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp °C	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)
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In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.



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Chain of Custody & Analytical Request Record

COC # 202202-5NOI

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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.ramos / 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	Quote	Bottle Order
N/A	N/A	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-DRO 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	Kevin Lu	Sampler Phone	808 636 3319
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

Analysis Requested	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 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/PNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] [field Filtered]	See Attached
1 ERH2519 (RHMW2254-01 Low Flow)	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
2 ERH2518 (Trip Blanks)	✓	✓	✓	✓						X
3										
4 TB 14733 - 8260										
5 TB 14694 - DRO										
6 PB 14694 - 8011										
7 TB 14709 - Methane										
8 TB 14705 -										
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

Sample Identification (Name, Location, Interval, etc.)	Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested										RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time			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 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/PNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] [field Filtered]			
1 ERH2519 (RHMW2254-01 Low Flow)	02/05/2022	0955	19	GW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	B2202 0415-032
2 ERH2518 (Trip Blanks)	04/03/2022	0930	8	WQ	✓	✓	✓	✓							X	
3																
4 TB 14733 - 8260	2/8/22		2													033
5 TB 14694 - DRO			2													034
6 PB 14694 - 8011			1													035
7 TB 14709 - Methane	02/03/22		1													036
8 TB 14705 -			1													037
9																

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

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Alex Emond	02/03/22 1430	[Signature]	[Signature]		
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	Signature
				Sonya Mallett	2/8/22 1115	[Signature]

LABORATORY USE ONLY

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

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

B22020415

Login completed by: Tabitha Edwards
Reviewed by: BL2000\rshular
Reviewed Date: 2/12/2022

Date Received: 2/8/2022
Received by: tae
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:

Additional Received By:
Richard L. Shular
Sonya Mallett

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

The Temperature Blank temperature for shipping container 1 was 1.2°C [ERH2522/ERH2521], shipping container 2 was 0.6°C [ERH2514/ERH2513], shipping container 3 was 0.8°C [ERH2507/ERH2506], shipping container 4 was 0.5°C [ERH2510/ERH2509/ERH2508], shipping container 5 was 0.2°C [ERH2510], shipping container 6 was 2.4°C [ERH2512/ERH2511], shipping container 7 was 0.4°C [ERH2516/ERH2515], and shipping container 8 was 1.2°C [ERH2519/ERH2518].

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

Qualifiers and Abbreviations

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

Lab ID: B22020415-001

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2522 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Fluorene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
Pyrene	ND	ug/L	1	U	0.10	0.048	0.023		SW8270CSIM	02/11/2022 18:01/jph	SV5975.I_220211A : 7	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.7 to 0.7	0.68	mg/L	1		0.50	0.50	0.17		SW9060A	02/9/2022 17:48/eli-ca	SUB-C279590 : 4	C_R279590
METALS, DISSOLVED												
Lead	0.00037	mg/L	1	J	0.001	0.0001	0.00006		SW6020	02/14/2022 14:51/srh	ICPMS207-B_220214A : 34	R374695
METALS, TOTAL												
Lead	0.00028	mg/L	1	J	0.001	0.0001	0.00008		SW6020	02/14/2022 15:22/srh	ICPMS207-B_220214A : 39	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Chloroform	0.21	ug/L	1	J	1.0	0.20	0.079		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-001

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2522 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Surr: Dibromofluoromethane	112.0	%REC	1			80-119			SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1			81-118			SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-001
Collection Date: 02/03/2022 15:20
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2522 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
Surr: p-Bromofluorobenzene	102.0	%REC	1		85-114				SW8260B	02/9/2022 08:23/msc	VOA5975C.I_220209A : 5	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	02/11/2022 18:52/clt	GECD.I_220211A : 21	163636
Surr: 1,1,1,2-Tetrachloroethane	96.0	%REC	1		70-130				SW8011	02/11/2022 18:52/clt	GECD.I_220211A : 21	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	3.7	ug/L	1	J	20	8.7	2.3		SW8015C	02/9/2022 22:28/jp	PE 1_220209A : 19	R374604
Total Purgeable Hydrocarbons	63	ug/L	1		20	10	3.6		SW8015C	02/9/2022 22:28/jp	PE 1_220209A : 19	R374604
Surr: Trifluorotoluene	80.0	%REC	1		70-130				SW8015C	02/9/2022 22:28/jp	PE 1_220209A : 19	R374604
- 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)	0.32	mg/L	1		0.30	0.14	0.037		SW8015C	02/9/2022 17:18/amn	GCFID-HP5-B_220209A : 6	163616
Diesel Range Organics (SGT-C10 to C24)	0.16	mg/L	1	J	0.30	0.11	0.027		SW8015C	02/10/2022 17:32/amn	GCFID-HP5-B_220209B : 6	163616
Oil Range Hydrocarbons (C24 to C40)	0.12	mg/L	1	J	0.30	0.14	0.084		SW8015C	02/9/2022 17:18/amn	GCFID-HP5-B_220209A : 6	163616
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.084		SW8015C	02/10/2022 17:32/amn	GCFID-HP5-B_220209B : 6	163616
Total Extractable Hydrocarbons	0.44	mg/L	1		0.30	0.14	0.072		SW8015C	02/9/2022 17:18/amn	GCFID-HP5-B_220209A : 6	163616
Total Extractable Hydrocarbons (SGT)	0.18	mg/L	1	J	0.30	0.11	0.034		SW8015C	02/10/2022 17:32/amn	GCFID-HP5-B_220209B : 6	163616
Surr: o-Terphenyl	94.0	%REC	1		56-125				SW8015C	02/9/2022 17:18/amn	GCFID-HP5-B_220209A : 6	163616
Surr: o-Terphenyl (SGT)	85.0	%REC	1		56-125				SW8015C	02/10/2022 17:32/amn	GCFID-HP5-B_220209B : 6	163616
Surr: n-Triacontane	102.0	%REC	1		50-150				SW8015C	02/9/2022 17:18/amn	GCFID-HP5-B_220209A : 6	163616
Surr: n-Triacontane (SGT)	93.0	%REC	1		50-150				SW8015C	02/10/2022 17:32/amn	GCFID-HP5-B_220209B : 6	163616
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.0020	mg/L	1		0.0020	0.0012	0.00070		SW8015M	02/9/2022 10:39/jdw	FID-HEADSPACE_220209A : 5	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-001

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2522 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.3		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.6	2.2		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.6	2.4		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.90		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
o-Cresol	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.6	4.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Surr: 2,4,6-Tribromophenol	84.0	%REC	1		43-140				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Surr: 2-Fluorobiphenyl	63.0	%REC	1		44-119				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Surr: 2-Fluorophenol	33.0	%REC	1		19-119				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Surr: Nitrobenzene-d5	66.0	%REC	1		44-120				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-001

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2522 (Sump Adit 3)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	29.0	%REC	1		10-65				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621
Surr: Terphenyl-d14	103.0	%REC	1		50-134				SW8270C	02/19/2022 17:10/dsm	SV5973N.I_220218A : 20	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-002

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2521 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Toluene	0.23	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-002

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2521 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Surr: Dibromofluoromethane	112.0	%REC	1		80-119				SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Surr: 1,2-Dichloroethane-d4	113.0	%REC	1		81-118				SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Surr: Toluene-d8	107.0	%REC	1		89-112				SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	02/9/2022 12:28/msc	VOA5975C.I_220209A : 13	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-003

Collection Date: 02/03/2022 15:20

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2521 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 12:45/jp	PE 1_220209A : 7	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 12:45/jp	PE 1_220209A : 7	R374604
Surr: Trifluorotoluene	84.0	%REC	1		70-130				SW8015C	02/9/2022 12:45/jp	PE 1_220209A : 7	R374604
- 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: ERH2521 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-004
Collection Date: 02/03/2022 15:20
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/11/2022 16:33/clt	GECD.I_220211A : 14	163636
Surr: 1,1,1,2-Tetrachloroethane	91.0	%REC	1		70-130				SW8011	02/11/2022 16:33/clt	GECD.I_220211A : 14	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2521 (Trip Blanks) 14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-005
Collection Date: 02/03/2022 15:20
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 10:50/jdw	FID-HEADSPACE_220209A : 7	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-006
Collection Date: 02/03/2022 13:40
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2514 (RHMW01R)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	0.036	ug/L	1	J	0.10	0.050	0.020		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
2-Methylnaphthalene	0.036	ug/L	1	J	0.10	0.050	0.017		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.050	0.031		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Acenaphthylene	0.069	ug/L	1	J	0.10	0.050	0.025		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Anthracene	0.032	ug/L	1	J	0.10	0.050	0.028		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.050	0.034		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.022		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.050	0.026		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Chrysene	ND	ug/L	1	U	0.10	0.050	0.045		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.050	0.036		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Fluorene	0.073	ug/L	1	J	0.10	0.050	0.022		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.050	0.049		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Naphthalene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Phenanthrene	0.036	ug/L	1	J	0.10	0.050	0.029		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
Pyrene	ND	ug/L	1	U	0.10	0.050	0.024		SW8270CSIM	02/11/2022 19:06/jph	SV5975.I_220211A : 9	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 1.5 to 1.7	1.6	mg/L	1		0.50	0.50	0.17		SW9060A	02/9/2022 19:56/eli-ca	SUB-C279590 : 7	C_R279590
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	02/14/2022 16:12/srh	ICPMS207-B_220214A : 47	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 16:18/srh	ICPMS207-B_220214A : 48	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-006

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2514 (RHMW01R)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Surr: Dibromofluoromethane	112.0	%REC	1		80-119				SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1		81-118				SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-006

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2514 (RHMW01R)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	105.0	%REC	1		89-112				SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	02/9/2022 08:50/msc	VOA5975C.I_220209A : 6	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/11/2022 16:53/clt	GECD.I_220211A : 15	163636
Surr: 1,1,1,2-Tetrachloroethane	97.0	%REC	1		70-130				SW8011	02/11/2022 16:53/clt	GECD.I_220211A : 15	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	UT	20	8.7	2.3		SW8015C	02/9/2022 23:37/jp	PE 1_220209A : 20	R374604
Total Purgeable Hydrocarbons	31	ug/L	1	T	20	10	3.6		SW8015C	02/9/2022 23:37/jp	PE 1_220209A : 20	R374604
Surr: Trifluorotoluene	82.0	%REC	1		70-130				SW8015C	02/9/2022 23:37/jp	PE 1_220209A : 20	R374604
- 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)	0.30	mg/L	1		0.30	0.15	0.038		SW8015C	02/9/2022 21:35/amn	GCFID-HP5-B_220209A : 11	163616
Diesel Range Organics (SGT-C10 to C24)	0.034	mg/L	1	J	0.30	0.12	0.027		SW8015C	02/11/2022 00:42/amn	GCFID-HP5-B_220209B : 13	163616
Oil Range Hydrocarbons (C24 to C40)	0.19	mg/L	1	J	0.30	0.15	0.085		SW8015C	02/9/2022 21:35/amn	GCFID-HP5-B_220209A : 11	163616
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.085		SW8015C	02/11/2022 00:42/amn	GCFID-HP5-B_220209B : 13	163616
Total Extractable Hydrocarbons	0.61	mg/L	1		0.30	0.15	0.073		SW8015C	02/9/2022 21:35/amn	GCFID-HP5-B_220209A : 11	163616
Total Extractable Hydrocarbons (SGT)	0.046	mg/L	1	J	0.30	0.12	0.035		SW8015C	02/11/2022 00:42/amn	GCFID-HP5-B_220209B : 13	163616
Surr: o-Terphenyl	91.0	%REC	1		56-125				SW8015C	02/9/2022 21:35/amn	GCFID-HP5-B_220209A : 11	163616
Surr: o-Terphenyl (SGT)	74.0	%REC	1		56-125				SW8015C	02/11/2022 00:42/amn	GCFID-HP5-B_220209B : 13	163616
Surr: n-Triacontane	97.0	%REC	1		50-150				SW8015C	02/9/2022 21:35/amn	GCFID-HP5-B_220209A : 11	163616
Surr: n-Triacontane (SGT)	80.0	%REC	1		50-150				SW8015C	02/11/2022 00:42/amn	GCFID-HP5-B_220209B : 13	163616
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.38	mg/L	78		0.16	0.090	0.055		SW8015M	02/9/2022 11:14/jdw	FID-HEADSPACE_220209A : 8	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.9	4.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-006

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2514 (RHMW01R)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.9	2.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.9	2.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
bis(2-ethylhexyl)Phthalate	3.2	ug/L	1	J	10	5.0	1.9		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.0	0.92		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	2.9		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.9	4.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Phenol	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Pyridine	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Surr: 2,4,6-Tribromophenol	71.0	%REC	1		43-140				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Surr: 2-Fluorobiphenyl	69.0	%REC	1		44-119				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Surr: 2-Fluorophenol	24.0	%REC	1		19-119				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Surr: Nitrobenzene-d5	62.0	%REC	1		44-120				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-006

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2514 (RHMW01R)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	28.0	%REC	1		10-65				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621
Surr: Terphenyl-d14	102.0	%REC	1		50-134				SW8270C	02/19/2022 17:42/dsm	SV5973N.I_220218A : 21	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-007

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2513 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Toluene	0.089	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-007

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2513 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Surr: Dibromofluoromethane	110.0	%REC	1		80-119				SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Surr: 1,2-Dichloroethane-d4	114.0	%REC	1		81-118				SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	02/9/2022 12:55/msc	VOA5975C.I_220209A : 14	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-008

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2513 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	4.3	ug/L	1	J	20	8.7	2.3		SW8015C	02/9/2022 13:20/jp	PE 1_220209A : 8	R374604
Total Purgeable Hydrocarbons	9.1	ug/L	1	J	20	10	3.6		SW8015C	02/9/2022 13:20/jp	PE 1_220209A : 8	R374604
Surr: Trifluorotoluene	85.0	%REC	1		70-130				SW8015C	02/9/2022 13:20/jp	PE 1_220209A : 8	R374604
- 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

Lab ID: B22020415-009

Collection Date: 02/03/2022 13:40

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2513 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/11/2022 17:13/clt	GECD.I_220211A : 16	163636
Surr: 1,1,1,2-Tetrachloroethane	103.0	%REC	1		70-130				SW8011	02/11/2022 17:13/clt	GECD.I_220211A : 16	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2513 (Trip Blanks)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-010
Collection Date: 02/03/2022 13:40
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 11:22/jdw	FID-HEADSPACE_220209A : 9	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-011
Collection Date: 02/02/2022 18:15
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2507 (OWDFMW07A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.025		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Fluorene	ND	ug/L	1	U	0.10	0.048	0.021		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
Pyrene	ND	ug/L	1	U	0.10	0.048	0.023		SW8270CSIM	02/11/2022 20:11/jph	SV5975.I_220211A : 11	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.3 to 0.3	0.29	mg/L	1	J	0.50	0.50	0.17		SW9060A	02/9/2022 20:38/eli-ca	SUB-C279590 : 8	C_R279590
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	02/14/2022 16:24/srh	ICPMS207-B_220214A : 49	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 16:31/srh	ICPMS207-B_220214A : 50	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-011

Collection Date: 02/02/2022 18:15

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2507 (OWDFMW07A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Surr: Dibromofluoromethane	110.0	%REC	1			80-119			SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1			81-118			SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-011
Collection Date: 02/02/2022 18:15
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2507 (OWDFMW07A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	105.0	%REC	1		89-112				SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	02/9/2022 09:17/msc	VOA5975C.I_220209A : 7	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/11/2022 17:33/clt	GECD.I_220211A : 17	163636
Surr: 1,1,1,2-Tetrachloroethane	95.0	%REC	1		70-130				SW8011	02/11/2022 17:33/clt	GECD.I_220211A : 17	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/10/2022 00:45/jp	PE 1_220209A : 21	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/10/2022 00:45/jp	PE 1_220209A : 21	R374604
Surr: Trifluorotoluene	83.0	%REC	1		70-130				SW8015C	02/10/2022 00:45/jp	PE 1_220209A : 21	R374604
- 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	02/9/2022 19:27/amn	GCFID-HP5-B_220209A : 8	163616
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.084		SW8015C	02/9/2022 19:27/amn	GCFID-HP5-B_220209A : 8	163616
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.14	0.071		SW8015C	02/9/2022 19:27/amn	GCFID-HP5-B_220209A : 8	163616
Surr: o-Terphenyl	96.0	%REC	1		56-125				SW8015C	02/9/2022 19:27/amn	GCFID-HP5-B_220209A : 8	163616
Surr: n-Triacontane	101.0	%REC	1		50-150				SW8015C	02/9/2022 19:27/amn	GCFID-HP5-B_220209A : 8	163616
- 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	02/9/2022 11:29/jdw	FID-HEADSPACE_220209A : 10	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.5	4.1		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.5	2.2		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-011

Collection Date: 02/02/2022 18:15

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2507 (OWDFMW07A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.5	2.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.89		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.8		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
o-Cresol	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.5	4.0		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: 2,4,6-Tribromophenol	74.0	%REC	1		43-140				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: 2-Fluorobiphenyl	59.0	%REC	1		44-119				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: 2-Fluorophenol	31.0	%REC	1		19-119				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: Nitrobenzene-d5	60.0	%REC	1		44-120				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: Phenol-d5	29.0	%REC	1		10-65				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621
Surr: Terphenyl-d14	100.0	%REC	1		50-134				SW8270C	02/19/2022 18:15/dsm	SV5973N.I_220218A : 22	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-012

Collection Date: 02/02/2022 18:15

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2506 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Toluene	0.19	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-012

Collection Date: 02/02/2022 18:15

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2506 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Surr: Dibromofluoromethane	110.0	%REC	1		80-119				SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Surr: 1,2-Dichloroethane-d4	113.0	%REC	1		81-118				SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631
Surr: p-Bromofluorobenzene	107.0	%REC	1		85-114				SW8260B	02/9/2022 13:23/msc	VOA5975C.I_220209A : 15	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2506 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-013
Collection Date: 02/02/2022 18:15
Date Received: 02/08/2022
Report Date: 03/04/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 13:54/jp	PE 1_220209A : 9	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 13:54/jp	PE 1_220209A : 9	R374604
Surr: Trifluorotoluene	86.0	%REC	1		70-130				SW8015C	02/9/2022 13:54/jp	PE 1_220209A : 9	R374604
- 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: ERH2506 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-014
Collection Date: 02/02/2022 18:15
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/11/2022 17:53/clt	GECD.I_220211A : 18	163636
Surr: 1,1,1,2-Tetrachloroethane	94.0	%REC	1		70-130				SW8011	02/11/2022 17:53/clt	GECD.I_220211A : 18	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2506 (Trip Blank)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-015
Collection Date: 02/02/2022 18:15
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 11:35/jdw	FID-HEADSPACE_220209A : 11	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-016

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2510 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Benzo(a)anthracene	0.035	ug/L	1	J	0.10	0.048	0.026		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.025		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Fluoranthene	0.15	ug/L	1		0.10	0.048	0.022		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Fluorene	ND	ug/L	1	U	0.10	0.048	0.021		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
Pyrene	0.14	ug/L	1		0.10	0.048	0.023		SW8270CSIM	02/11/2022 20:44/jph	SV5975.I_220211A : 12	163621
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Chloroform	0.19	ug/L	1	J	1.0	0.20	0.079		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-016

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2510 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Surr: Dibromofluoromethane	113.0	%REC	1		80-119				SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Surr: 1,2-Dichloroethane-d4	117.0	%REC	1		81-118				SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
Surr: p-Bromofluorobenzene	107.0	%REC	1		85-114				SW8260B	02/9/2022 09:44/msc	VOA5975C.I_220209A : 8	R374631
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/10/2022 01:54/jp	PE 1_220209A : 22	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/10/2022 01:54/jp	PE 1_220209A : 22	R374604
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	02/10/2022 01:54/jp	PE 1_220209A : 22	R374604

- 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

Lab ID: B22020415-016

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2510 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	0.076	mg/L	1	J	0.30	0.14	0.037		SW8015C	02/9/2022 20:09/amn	GCFID-HP5-B_220209A : 9	163616
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.11	0.026		SW8015C	02/10/2022 19:41/amn	GCFID-HP5-B_220209B : 8	163616
Oil Range Hydrocarbons (C24 to C40)	0.17	mg/L	1	J	0.30	0.14	0.083		SW8015C	02/9/2022 20:09/amn	GCFID-HP5-B_220209A : 9	163616
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/10/2022 19:41/amn	GCFID-HP5-B_220209B : 8	163616
Total Extractable Hydrocarbons	0.28	mg/L	1	J	0.30	0.14	0.071		SW8015C	02/9/2022 20:09/amn	GCFID-HP5-B_220209A : 9	163616
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.11	0.034		SW8015C	02/10/2022 19:41/amn	GCFID-HP5-B_220209B : 8	163616
Surr: o-Terphenyl	94.0	%REC	1		56-125				SW8015C	02/9/2022 20:09/amn	GCFID-HP5-B_220209A : 9	163616
Surr: o-Terphenyl (SGT)	89.0	%REC	1		56-125				SW8015C	02/10/2022 19:41/amn	GCFID-HP5-B_220209B : 8	163616
Surr: n-Triacontane	101.0	%REC	1		50-150				SW8015C	02/9/2022 20:09/amn	GCFID-HP5-B_220209A : 9	163616
Surr: n-Triacontane (SGT)	97.0	%REC	1		50-150				SW8015C	02/10/2022 19:41/amn	GCFID-HP5-B_220209B : 8	163616
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.5	4.1		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.5	2.2		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.5	2.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-016

Collection Date: 02/02/2022 15:05

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Client: AECOM - Honolulu
Client Sample ID: ERH2510 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.89		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.8		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
o-Cresol	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.5	4.0		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: 2,4,6-Tribromophenol	81.0	%REC	1		43-140				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: 2-Fluorobiphenyl	62.0	%REC	1		44-119				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: 2-Fluorophenol	26.0	%REC	1		19-119				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: Nitrobenzene-d5	56.0	%REC	1		44-120				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: Phenol-d5	26.0	%REC	1		10-65				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621
Surr: Terphenyl-d14	104.0	%REC	1		50-134				SW8270C	02/19/2022 18:47/dsm	SV5973N.I_220218A : 23	163621



LABORATORY ANALYTICAL REPORT

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Lab ID: B22020415-017
Collection Date: 02/02/2022 15:05
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Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2509 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	0.085	ug/L	1	J	0.10	0.048	0.020		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
2-Methylnaphthalene	0.099	ug/L	1	J	0.10	0.048	0.017		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Acenaphthene	0.11	ug/L	1		0.10	0.048	0.030		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Acenaphthylene	0.15	ug/L	1		0.10	0.048	0.024		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.025		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Fluoranthene	0.15	ug/L	1		0.10	0.048	0.022		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Fluorene	0.069	ug/L	1	J	0.10	0.048	0.021		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Naphthalene	0.069	ug/L	1	J	0.10	0.048	0.028		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
Pyrene	0.12	ug/L	1		0.10	0.048	0.023		SW8270CSIM	02/11/2022 21:16/jph	SV5975.I_220211A : 13	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.4 to 0.4	0.42	mg/L	1	J	0.50	0.50	0.17		SW9060A	02/9/2022 21:19/eli-ca	SUB-C279590 : 9	C_R279590
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	02/14/2022 16:37/srh	ICPMS207-B_220214A : 51	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 16:43/srh	ICPMS207-B_220214A : 52	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Chloroform	0.19	ug/L	1	J	1.0	0.20	0.079		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631



LABORATORY ANALYTICAL REPORT

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Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2509 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Surr: Dibromofluoromethane	111.0	%REC	1			80-119			SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Surr: 1,2-Dichloroethane-d4	114.0	%REC	1			81-118			SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631



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Client: AECOM - Honolulu
Client Sample ID: ERH2509 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	105.0	%REC	1		89-112				SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	02/9/2022 10:12/msc	VOA5975C.I_220209A : 9	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/11/2022 18:13/clt	GECD.I_220211A : 19	163636
Surr: 1,1,1,2-Tetrachloroethane	91.0	%REC	1		70-130				SW8011	02/11/2022 18:13/clt	GECD.I_220211A : 19	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/10/2022 03:02/jp	PE 1_220209A : 23	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/10/2022 03:02/jp	PE 1_220209A : 23	R374604
Surr: Trifluorotoluene	83.0	%REC	1		70-130				SW8015C	02/10/2022 03:02/jp	PE 1_220209A : 23	R374604
- 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	02/9/2022 20:53/amn	GCFID-HP5-B_220209A : 10	163616
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/9/2022 20:53/amn	GCFID-HP5-B_220209A : 10	163616
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.14	0.071		SW8015C	02/9/2022 20:53/amn	GCFID-HP5-B_220209A : 10	163616
Surr: o-Terphenyl	96.0	%REC	1		56-125				SW8015C	02/9/2022 20:53/amn	GCFID-HP5-B_220209A : 10	163616
Surr: n-Triacontane	102.0	%REC	1		50-150				SW8015C	02/9/2022 20:53/amn	GCFID-HP5-B_220209A : 10	163616
- 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	02/9/2022 11:41/jdw	FID-HEADSPACE_220209A : 12	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.5	4.1		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.8	3.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.5	2.2		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-017

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2509 (OWDFMW08A)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.5	2.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.89		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.8		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
o-Cresol	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.5	4.0		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: 2,4,6-Tribromophenol	78.0	%REC	1		43-140				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: 2-Fluorobiphenyl	64.0	%REC	1		44-119				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: 2-Fluorophenol	29.0	%REC	1		19-119				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: Nitrobenzene-d5	79.0	%REC	1		44-120				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: Phenol-d5	34.0	%REC	1		10-65				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621
Surr: Terphenyl-d14	94.0	%REC	1		50-134				SW8270C	02/19/2022 19:20/dsm	SV5973N.I_220218A : 24	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-018

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2508 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-018

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2508 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Surr: Dibromofluoromethane	112.0	%REC	1		80-119				SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Surr: 1,2-Dichloroethane-d4	114.0	%REC	1		81-118				SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631
Surr: p-Bromofluorobenzene	104.0	%REC	1		85-114				SW8260B	02/9/2022 13:50/msc	VOA5975C.I_220209A : 16	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2508 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-019
Collection Date: 02/02/2022 15:05
Date Received: 02/08/2022
Report Date: 03/04/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 14:28/jp	PE 1_220209A : 10	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 14:28/jp	PE 1_220209A : 10	R374604
Surr: Trifluorotoluene	84.0	%REC	1		70-130				SW8015C	02/9/2022 14:28/jp	PE 1_220209A : 10	R374604
- 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

Lab ID: B22020415-020

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2508 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	02/11/2022 18:32/clt	GECD.I_220211A : 20	163636
Surr: 1,1,1,2-Tetrachloroethane	98.0	%REC	1		70-130				SW8011	02/11/2022 18:32/clt	GECD.I_220211A : 20	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2508 (Trip Blank)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-021
Collection Date: 02/02/2022 15:05
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 11:49/jdw	FID-HEADSPACE_220209A : 13	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-022

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2512 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	0.050	0.021		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.050	0.018		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.050	0.032		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.050	0.025		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Anthracene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.050	0.035		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Chrysene	ND	ug/L	1	U	0.10	0.050	0.046		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.050	0.037		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.050	0.024		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Fluorene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.050	0.050		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Naphthalene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
Pyrene	ND	ug/L	1	U	0.10	0.050	0.024		SW8270CSIM	02/11/2022 21:48/jph	SV5975.I_220211A : 14	163621
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	02/9/2022 22:01/eli-ca	SUB-C279590 : 10	C_R279590
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	02/14/2022 16:49/srh	ICPMS207-B_220214A : 53	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 16:56/srh	ICPMS207-B_220214A : 54	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-022

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2512 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Surr: Dibromofluoromethane	113.0	%REC	1		80-119				SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Surr: 1,2-Dichloroethane-d4	116.0	%REC	1		81-118				SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-022
Collection Date: 02/02/2022 15:05
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2512 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	02/9/2022 10:39/msc	VOA5975C.I_220209A : 10	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	02/11/2022 20:51/clt	GECD.I_220211A : 25	163636
Surr: 1,1,1,2-Tetrachloroethane	93.0	%REC	1		70-130				SW8011	02/11/2022 20:51/clt	GECD.I_220211A : 25	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/10/2022 04:11/jp	PE 1_220209A : 24	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/10/2022 04:11/jp	PE 1_220209A : 24	R374604
Surr: Trifluorotoluene	82.0	%REC	1		70-130				SW8015C	02/10/2022 04:11/jp	PE 1_220209A : 24	R374604
- 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	02/10/2022 14:40/amn	GCFID-HP5-B_220209A : 21	163616
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.11	0.026		SW8015C	02/10/2022 21:06/amn	GCFID-HP5-B_220209B : 10	163616
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/10/2022 14:40/amn	GCFID-HP5-B_220209A : 21	163616
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/10/2022 21:06/amn	GCFID-HP5-B_220209B : 10	163616
Total Extractable Hydrocarbons	0.073	mg/L	1	J	0.30	0.14	0.071		SW8015C	02/10/2022 14:40/amn	GCFID-HP5-B_220209A : 21	163616
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.11	0.034		SW8015C	02/10/2022 21:06/amn	GCFID-HP5-B_220209B : 10	163616
Surr: o-Terphenyl	88.0	%REC	1		56-125				SW8015C	02/10/2022 14:40/amn	GCFID-HP5-B_220209A : 21	163616
Surr: o-Terphenyl (SGT)	64.0	%REC	1		56-125				SW8015C	02/10/2022 21:06/amn	GCFID-HP5-B_220209B : 10	163616
Surr: n-Triacontane	101.0	%REC	1		50-150				SW8015C	02/10/2022 14:40/amn	GCFID-HP5-B_220209A : 21	163616
Surr: n-Triacontane (SGT)	76.0	%REC	1		50-150				SW8015C	02/10/2022 21:06/amn	GCFID-HP5-B_220209B : 10	163616
- 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	02/9/2022 12:03/jdw	FID-HEADSPACE_220209A : 14	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.1		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-022

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2512 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.4		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
4-Nitrophenol	ND	ug/L	1	U	10	10	2.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
bis(2-ethylhexyl)Phthalate	3.6	ug/L	1	J	10	5.0	1.9		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.0	0.94		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.2		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Pentachlorophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Phenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Pyridine	ND	ug/L	1	U	10	5.0	3.3		SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Surr: 2,4,6-Tribromophenol	86.0	%REC	1		43-140				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Surr: 2-Fluorobiphenyl	77.0	%REC	1		44-119				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Surr: 2-Fluorophenol	33.0	%REC	1		19-119				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Surr: Nitrobenzene-d5	70.0	%REC	1		44-120				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-022

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2512 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	30.0	%REC	1		10-65				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621
Surr: Terphenyl-d14	111.0	%REC	1		50-134				SW8270C	02/19/2022 20:24/dsm	SV5973N.I_220218A : 26	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-023

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2511 (Trip Blank)-14653
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Toluene	0.22	ug/L	1	J	1.0	0.20	0.068		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-023

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2511 (Trip Blank)-14653
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Surr: Dibromofluoromethane	113.0	%REC	1		80-119				SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1		81-118				SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	02/9/2022 14:17/msc	VOA5975C.I_220209A : 17	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2511 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-024
Collection Date: 02/02/2022 15:05
Date Received: 02/08/2022
Report Date: 03/04/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 15:37/jp	PE 1_220209A : 11	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 15:37/jp	PE 1_220209A : 11	R374604
Surr: Trifluorotoluene	85.0	%REC	1		70-130				SW8015C	02/9/2022 15:37/jp	PE 1_220209A : 11	R374604
- 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

Lab ID: B22020415-025

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2511 (Trip Blank)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	02/11/2022 21:11/clt	GECD.I_220211A : 26	163636
Surr: 1,1,1,2-Tetrachloroethane	96.0	%REC	1		70-130				SW8011	02/11/2022 21:11/clt	GECD.I_220211A : 26	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-026

Collection Date: 02/02/2022 15:05

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2511 (Trip Blank)-14663
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 12:11/jdw	FID-HEADSPACE_220209A : 15	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-027
Collection Date: 02/03/2022 13:00
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2516 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	0.049	0.020		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.049	0.017		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.049	0.031		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.049	0.024		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Anthracene	ND	ug/L	1	U	0.10	0.049	0.027		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.049	0.026		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.049	0.034		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.049	0.022		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.049	0.026		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.049	0.029		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Chrysene	ND	ug/L	1	U	0.10	0.049	0.044		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.049	0.036		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.049	0.023		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Fluorene	ND	ug/L	1	U	0.10	0.049	0.022		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.049	0.048		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Naphthalene	ND	ug/L	1	U	0.10	0.049	0.028		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.049	0.029		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
Pyrene	ND	ug/L	1	U	0.10	0.049	0.023		SW8270CSIM	02/11/2022 22:21/jph	SV5975.I_220211A : 15	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.4 to 0.4	0.40	mg/L	1	J	0.50	0.50	0.17		SW9060A	02/9/2022 22:41/eli-ca	SUB-C279590 : 11	C_R279590
METALS, DISSOLVED												
Lead	0.00008	mg/L	1	J	0.001	0.0001	0.00006		SW6020	02/14/2022 17:02/srh	ICPMS207-B_220214A : 55	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 17:20/srh	ICPMS207-B_220214A : 58	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Chloroform	0.096	ug/L	1	J	1.0	0.20	0.079		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-027

Collection Date: 02/03/2022 13:00

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2516 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Surr: Dibromofluoromethane	109.0	%REC	1			80-119			SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Surr: 1,2-Dichloroethane-d4	113.0	%REC	1			81-118			SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-027
Collection Date: 02/03/2022 13:00
Date Received: 02/08/2022
Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2516 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	02/9/2022 11:06/msc	VOA5975C.I_220209A : 11	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/11/2022 21:31/clt	GECD.I_220211A : 27	163636
Surr: 1,1,1,2-Tetrachloroethane	97.0	%REC	1		70-130				SW8011	02/11/2022 21:31/clt	GECD.I_220211A : 27	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/10/2022 05:19/jp	PE 1_220209A : 25	R374604
Total Purgeable Hydrocarbons	11	ug/L	1	J	20	10	3.6		SW8015C	02/10/2022 05:19/jp	PE 1_220209A : 25	R374604
Surr: Trifluorotoluene	80.0	%REC	1		70-130				SW8015C	02/10/2022 05:19/jp	PE 1_220209A : 25	R374604
- 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)	0.19	mg/L	1	J	0.30	0.14	0.037		SW8015C	02/10/2022 03:21/amn	GCFID-HP5-B_220209A : 14	163616
Diesel Range Organics (SGT-C10 to C24)	0.13	mg/L	1	J	0.30	0.11	0.027		SW8015C	02/10/2022 20:23/amn	GCFID-HP5-B_220209B : 9	163616
Oil Range Hydrocarbons (C24 to C40)	0.13	mg/L	1	J	0.30	0.14	0.084		SW8015C	02/10/2022 03:21/amn	GCFID-HP5-B_220209A : 14	163616
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.084		SW8015C	02/10/2022 20:23/amn	GCFID-HP5-B_220209B : 9	163616
Total Extractable Hydrocarbons	0.35	mg/L	1		0.30	0.14	0.071		SW8015C	02/10/2022 03:21/amn	GCFID-HP5-B_220209A : 14	163616
Total Extractable Hydrocarbons (SGT)	0.14	mg/L	1	J	0.30	0.11	0.034		SW8015C	02/10/2022 20:23/amn	GCFID-HP5-B_220209B : 9	163616
Surr: o-Terphenyl	91.0	%REC	1		56-125				SW8015C	02/10/2022 03:21/amn	GCFID-HP5-B_220209A : 14	163616
Surr: o-Terphenyl (SGT)	80.0	%REC	1		56-125				SW8015C	02/10/2022 20:23/amn	GCFID-HP5-B_220209B : 9	163616
Surr: n-Triacontane	101.0	%REC	1		50-150				SW8015C	02/10/2022 03:21/amn	GCFID-HP5-B_220209A : 14	163616
Surr: n-Triacontane (SGT)	93.0	%REC	1		50-150				SW8015C	02/10/2022 20:23/amn	GCFID-HP5-B_220209B : 9	163616
- 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	02/9/2022 12:17/jdw	FID-HEADSPACE_220209A : 16	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.2		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.9	1.6		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.9	1.6		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.7	4.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.0		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-027

Collection Date: 02/03/2022 13:00

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Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2516 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	4.9	3.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.9	2.4		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.7	2.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.7	2.4		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Azobenzene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.9	2.5		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.9	0.90		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.9	2.9		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Hexachloroethane	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Isophorone	ND	ug/L	1	U	10	4.9	1.6		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
m+p-Cresols	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Nitrobenzene	ND	ug/L	1	U	10	4.9	2.2		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
o-Cresol	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.7	4.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Phenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Pyridine	ND	ug/L	1	U	10	4.9	3.1		SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Surr: 2,4,6-Tribromophenol	77.0	%REC	1		43-140				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Surr: 2-Fluorobiphenyl	57.0	%REC	1		44-119				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Surr: 2-Fluorophenol	24.0	%REC	1		19-119				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Surr: Nitrobenzene-d5	59.0	%REC	1		44-120				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-027

Collection Date: 02/03/2022 13:00

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2516 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	22.0	%REC	1		10-65				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621
Surr: Terphenyl-d14	101.0	%REC	1		50-134				SW8270C	02/19/2022 22:54/dsm	SV5973N.I_220218B : 4	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-028

Collection Date: 02/03/2022 13:00

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2515 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-028

Collection Date: 02/03/2022 13:00

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2515 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Surr: Dibromofluoromethane	110.0	%REC	1		80-119				SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1		81-118				SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	02/9/2022 14:45/msc	VOA5975C.I_220209A : 18	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-029

Collection Date: 02/03/2022 13:00

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2515 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 16:45/jp	PE 1_220209A : 12	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 16:45/jp	PE 1_220209A : 12	R374604
Surr: Trifluorotoluene	84.0	%REC	1		70-130				SW8015C	02/9/2022 16:45/jp	PE 1_220209A : 12	R374604
- 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: ERH2515 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-030
Collection Date: 02/03/2022 13:00
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/11/2022 21:50/clt	GECD.I_220211A : 28	163636
Surr: 1,1,1,2-Tetrachloroethane	94.0	%REC	1		70-130				SW8011	02/11/2022 21:50/clt	GECD.I_220211A : 28	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2515 (Trip Blanks)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-031
Collection Date: 02/03/2022 13:00
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 12:25/jdw	FID-HEADSPACE_220209A : 17	R374500



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-032

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2519 (RHMW2254-01 Low Flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	0.049	0.020		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.049	0.017		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Acenaphthene	ND	ug/L	1	U	0.10	0.049	0.031		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Acenaphthylene	ND	ug/L	1	U	0.10	0.049	0.024		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Anthracene	ND	ug/L	1	U	0.10	0.049	0.028		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.049	0.027		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.049	0.034		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.049	0.022		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.049	0.026		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.049	0.029		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Chrysene	ND	ug/L	1	U	0.10	0.049	0.045		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.049	0.036		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Fluoranthene	ND	ug/L	1	U	0.10	0.049	0.023		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Fluorene	ND	ug/L	1	U	0.10	0.049	0.022		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.049	0.048		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Naphthalene	ND	ug/L	1	U	0.10	0.049	0.028		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Phenanthrene	ND	ug/L	1	U	0.10	0.049	0.029		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
Pyrene	ND	ug/L	1	U	0.10	0.049	0.023		SW8270CSIM	02/11/2022 22:53/jph	SV5975.I_220211A : 16	163621
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.2 to 0.2	0.24	mg/L	1	J	0.50	0.50	0.17		SW9060A	02/9/2022 23:23/eli-ca	SUB-C279590 : 12	C_R279590
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	02/14/2022 17:27/srh	ICPMS207-B_220214A : 59	R374695
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	02/14/2022 17:33/srh	ICPMS207-B_220214A : 60	163617
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-032

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2519 (RHMW2254-01 Low Flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Surr: Dibromofluoromethane	112.0	%REC	1			80-119			SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Surr: 1,2-Dichloroethane-d4	117.0	%REC	1			81-118			SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631



LABORATORY ANALYTICAL REPORT

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Lab ID: B22020415-032

Collection Date: 02/03/2022 13:55

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Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2519 (RHMW2254-01 Low Flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
Surr: p-Bromofluorobenzene	107.0	%REC	1		85-114				SW8260B	02/9/2022 11:33/msc	VOA5975C.I_220209A : 12	R374631
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	02/11/2022 22:10/clt	GECD.I_220211A : 29	163636
Surr: 1,1,1,2-Tetrachloroethane	99.0	%REC	1		70-130				SW8011	02/11/2022 22:10/clt	GECD.I_220211A : 29	163636
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 11:36/jp	PE 1_220209A : 6	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 11:36/jp	PE 1_220209A : 6	R374604
Surr: Trifluorotoluene	84.0	%REC	1		70-130				SW8015C	02/9/2022 11:36/jp	PE 1_220209A : 6	R374604
- 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	02/10/2022 13:57/amn	GCFID-HP5-B_220209A : 20	163616
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.083		SW8015C	02/10/2022 13:57/amn	GCFID-HP5-B_220209A : 20	163616
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.14	0.071		SW8015C	02/10/2022 13:57/amn	GCFID-HP5-B_220209A : 20	163616
Surr: o-Terphenyl	92.0	%REC	1		56-125				SW8015C	02/10/2022 13:57/amn	GCFID-HP5-B_220209A : 20	163616
Surr: n-Triacontane	98.0	%REC	1		50-150				SW8015C	02/10/2022 13:57/amn	GCFID-HP5-B_220209A : 20	163616
- 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	02/9/2022 12:32/jdw	FID-HEADSPACE_220209A : 18	R374500
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.2		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.0		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2,6-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2-Chloronaphthalene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2-Chlorophenol	ND	ug/L	1	U	10	4.9	2.4		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
2-Nitrophenol	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.8	2.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-032

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2519 (RHMW2254-01 Low Flow)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

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	4.9	1.7		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
4-Chlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
4-Nitrophenol	ND	ug/L	1	U	10	9.8	2.4		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Azobenzene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.9	2.5		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Butylbenzylphthalate	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.9	0.91		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Diethyl phthalate	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Dimethyl phthalate	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Hexachlorobenzene	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Hexachlorobutadiene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.9	2.9		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Hexachloroethane	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Isophorone	ND	ug/L	1	U	10	4.9	1.6		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
m+p-Cresols	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Nitrobenzene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
o-Cresol	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Pentachlorophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Phenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Pyridine	ND	ug/L	1	U	10	4.9	3.2		SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: 2,4,6-Tribromophenol	77.0	%REC	1		43-140				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: 2-Fluorobiphenyl	67.0	%REC	1		44-119				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: 2-Fluorophenol	27.0	%REC	1		19-119				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: Nitrobenzene-d5	57.0	%REC	1		44-120				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: Phenol-d5	24.0	%REC	1		10-65				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621
Surr: Terphenyl-d14	97.0	%REC	1		50-134				SW8270C	02/19/2022 23:27/dsm	SV5973N.I_220218B : 5	163621



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-033

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2518 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

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	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22020415-033

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2518 (Trip Blanks)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Surr: Dibromofluoromethane	111.0	%REC	1		80-119				SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Surr: 1,2-Dichloroethane-d4	115.0	%REC	1		81-118				SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Surr: Toluene-d8	106.0	%REC	1		89-112				SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631
Surr: p-Bromofluorobenzene	107.0	%REC	1		85-114				SW8260B	02/9/2022 15:12/msc	VOA5975C.I_220209A : 19	R374631



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2518 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-034
Collection Date: 02/03/2022 13:55
Date Received: 02/08/2022
Report Date: 03/04/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	02/9/2022 11:02/jp	PE 1_220209A : 5	R374604
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	02/9/2022 11:02/jp	PE 1_220209A : 5	R374604
Surr: Trifluorotoluene	83.0	%REC	1		70-130				SW8015C	02/9/2022 11:02/jp	PE 1_220209A : 5	R374604
- 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

Lab ID: B22020415-035

Collection Date: 02/03/2022 13:55

Date Received: 02/08/2022

Report Date: 03/04/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2518 (Trip Blanks)-14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0050	0.0026		SW8011	02/11/2022 22:30/clt	GECD.I_220211A : 30	163636
Surr: 1,1,1,2-Tetrachloroethane	96.0	%REC	1		70-130				SW8011	02/11/2022 22:30/clt	GECD.I_220211A : 30	163636



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2518 (Trip Blanks)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22020415-036
Collection Date: 02/03/2022 13:55
Date Received: 02/08/2022
Report Date: 03/04/2022

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	02/9/2022 12:38/jdw	FID-HEADSPACE_220209A : 19	R374500



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 4 **SampType:** Method Blank **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 16:23 **Prep Date:** 02/09/2022 08:18
Lab ID: MB-163621 **Units:** ug/L **Prep Method:** SW3510C

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

Associated Samples: **B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C**

Run ID: Run Order: SV5975.I_220211A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 16:56 **Prep Date:** 02/09/2022 08:19
Lab ID: LLCS-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.8	0.10	5.0		56.0	41	115				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 5 **SampType:** Laboratory Control Sample **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 16:56 **Prep Date:** 02/09/2022 08:19
Lab ID: LLCS-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	2.9	0.10	5.0		58.0	39	114				
Acenaphthene	3.7	0.10	5.0		73.0	48	114				
Acenaphthylene	3.4	0.10	5.0		68.0	35	121				
Anthracene	4.4	0.10	5.0		88.0	53	119				
Benzo(a)anthracene	4.6	0.10	5.0		92.0	59	120				
Benzo(a)pyrene	4.1	0.10	5.0		83.0	53	120				
Benzo(b)fluoranthene	4.4	0.10	5.0		88.0	53	126				
Benzo(g,h,i)perylene	4.6	0.10	5.0		92.0	44	128				
Benzo(k)fluoranthene	4.2	0.10	5.0		84.0	54	125				
Chrysene	4.4	0.10	5.0		87.0	57	120				
Dibenzo(a,h)anthracene	4.5	0.10	5.0		90.0	44	141				
Fluoranthene	4.5	0.10	5.0		91.0	58	120				
Fluorene	3.6	0.10	5.0		73.0	50	118				
Indeno(1,2,3-cd)pyrene	4.3	0.10	5.0		86.0	48	130				
Naphthalene	2.7	0.10	5.0		55.0	43	114				
Phenanthrene	4.1	0.10	5.0		83.0	53	115				
Pyrene	4.1	0.10	5.0		83.0	53	121				

Associated Samples: **B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C**

Run ID: Run Order: SV5975.I_220211A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 17:28 **Prep Date:** 02/09/2022 08:19
Lab ID: LLCSD-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	2.7	0.10	5.0		54.0	41	115	2.8	4.3	40.0	
2-Methylnaphthalene	2.8	0.10	5.0		56.0	39	114	2.9	3.2	40.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 6 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 17:28 **Prep Date:** 02/09/2022 08:19
Lab ID: LLCSD-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthene	3.5	0.10	5.0		70.0	48	114	3.7	3.8	40.0	
Acenaphthylene	3.3	0.10	5.0		65.0	35	121	3.4	3.7	40.0	
Anthracene	4.3	0.10	5.0		86.0	53	119	4.4	2.1	40.0	
Benzo(a)anthracene	5.1	0.10	5.0		101.0	59	120	4.6	9.8	40.0	
Benzo(a)pyrene	4.4	0.10	5.0		88.0	53	120	4.1	6.1	40.0	
Benzo(b)fluoranthene	4.6	0.10	5.0		92.0	53	126	4.4	4.6	40.0	
Benzo(g,h,i)perylene	4.8	0.10	5.0		97.0	44	128	4.6	5.1	40.0	
Benzo(k)fluoranthene	4.3	0.10	5.0		86.0	54	125	4.2	2.1	40.0	
Chrysene	4.7	0.10	5.0		94.0	57	120	4.4	7.6	40.0	
Dibenzo(a,h)anthracene	4.6	0.10	5.0		93.0	44	141	4.5	3.2	40.0	
Fluoranthene	4.4	0.10	5.0		89.0	58	120	4.5	2.4	40.0	
Fluorene	3.5	0.10	5.0		71.0	50	118	3.6	3.0	40.0	
Indeno(1,2,3-cd)pyrene	4.6	0.10	5.0		92.0	48	130	4.3	5.9	40.0	
Naphthalene	2.6	0.10	5.0		52.0	43	114	2.7	4.5	40.0	
Phenanthrene	4.1	0.10	5.0		82.0	53	115	4.1	1.7	40.0	
Pyrene	4.5	0.10	5.0		89.0	53	121	4.1	7.2	40.0	

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C

Run ID: Run Order: SV5975.I_220211A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 18:34 **Prep Date:** 02/09/2022 08:19
Lab ID: B22020415-001CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.1	0.10	4.8	0.0	65.0	18	117				
2-Methylnaphthalene	3.7	0.10	4.8	0.0	77.0	17	118				
Acenaphthene	4.3	0.10	4.8	0.0	90.0	40	92				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 8 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270CSIM **Analysis Date:** 02/11/2022 18:34 **Prep Date:** 02/09/2022 08:19
Lab ID: B22020415-001CLMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Acenaphthylene	3.9	0.10	4.8	0.0	81.0	37	96				
Anthracene	4.3	0.10	4.8	0.0	89.0	46	108				
Benzo(a)anthracene	4.6	0.10	4.8	0.0	97.0	41	105				
Benzo(a)pyrene	4.1	0.10	4.8	0.0	86.0	42	110				
Benzo(b)fluoranthene	4.4	0.10	4.8	0.0	91.0	27	121				
Benzo(g,h,i)perylene	4.5	0.10	4.8	0.0	93.0	44	108				
Benzo(k)fluoranthene	4.2	0.10	4.8	0.0	87.0	44	111				
Chrysene	4.3	0.10	4.8	0.0	89.0	50	106				
Dibenzo(a,h)anthracene	4.5	0.10	4.8	0.0	93.0	47	111				
Fluoranthene	4.3	0.10	4.8	0.0	89.0	44	111				
Fluorene	4.1	0.10	4.8	0.0	85.0	42	99				
Indeno(1,2,3-cd)pyrene	4.3	0.10	4.8	0.0	90.0	33	112				
Naphthalene	3.2	0.10	4.8	0.0	67.0	22	108				
Phenanthrene	4.0	0.10	4.8	0.0	84.0	43	106				
Pyrene	4.3	0.10	4.8	0.0	89.0	41	106				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 10
Method: SW8270CSIM
Lab ID: B22020415-006CLMS

SampType: Sample Matrix Spike
Analysis Date: 02/11/2022 19:39
Units: ug/L

Batch ID: 163621
Prep Date: 02/09/2022 08:19
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	0.036	56.0	18	117				
2-Methylnaphthalene	3.1	0.10	5.0	0.036	63.0	17	118				
Acenaphthene	3.8	0.10	5.0	0.0	77.0	40	92				
Acenaphthylene	3.4	0.10	5.0	0.069	68.0	37	96				
Anthracene	4.0	0.10	5.0	0.032	80.0	46	108				
Benzo(a)anthracene	4.8	0.10	5.0	0.0	97.0	41	105				
Benzo(a)pyrene	3.9	0.10	5.0	0.0	79.0	42	110				
Benzo(b)fluoranthene	4.4	0.10	5.0	0.0	88.0	27	121				
Benzo(g,h,i)perylene	4.4	0.10	5.0	0.0	89.0	44	108				
Benzo(k)fluoranthene	4.1	0.10	5.0	0.0	83.0	44	111				
Chrysene	4.4	0.10	5.0	0.0	90.0	50	106				
Dibenzo(a,h)anthracene	4.5	0.10	5.0	0.0	91.0	47	111				
Fluoranthene	4.4	0.10	5.0	0.0	90.0	44	111				
Fluorene	3.8	0.10	5.0	0.073	75.0	42	99				
Indeno(1,2,3-cd)pyrene	4.2	0.10	5.0	0.0	85.0	33	112				
Naphthalene	2.7	0.10	5.0	0.0	55.0	22	108				
Phenanthrene	3.7	0.10	5.0	0.036	75.0	43	106				
Pyrene	4.4	0.10	5.0	0.0	88.0	41	106				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374633
Method: SW8270CSIM **Analysis Date:** 02/11/2022 15:17 **Prep Date:**
Lab ID: 11-Feb-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	1.9	0.10	2.0		96.0	80	120				
2-Methylnaphthalene	1.8	0.10	2.0		90.0	80	120				
Acenaphthene	1.9	0.10	2.0		96.0	80	120				
Acenaphthylene	2.0	0.10	2.0		102.0	80	120				
Anthracene	2.0	0.10	2.0		99.0	80	120				
Benzo(a)anthracene	2.2	0.10	2.0		110.0	80	120				
Benzo(a)pyrene	2.0	0.10	2.0		99.0	80	120				
Benzo(b)fluoranthene	2.0	0.10	2.0		100.0	80	120				
Benzo(g,h,i)perylene	2.0	0.10	2.0		102.0	80	120				
Benzo(k)fluoranthene	1.9	0.10	2.0		97.0	80	120				
Chrysene	2.0	0.10	2.0		101.0	80	120				
Dibenzo(a,h)anthracene	2.0	0.10	2.0		101.0	80	120				
Fluoranthene	2.0	0.10	2.0		99.0	80	120				
Fluorene	2.0	0.10	2.0		102.0	80	120				
Indeno(1,2,3-cd)pyrene	2.0	0.10	2.0		98.0	80	120				
Naphthalene	1.9	0.10	2.0		93.0	80	120				
Phenanthrene	1.9	0.10	2.0		96.0	80	120				
Pyrene	2.0	0.10	2.0		100.0	80	120				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C

Run ID: Run Order: SV5975.I_220211A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374633
Method: SW8270CSIM **Analysis Date:** 02/14/2022 11:04 **Prep Date:**
Lab ID: 11-Feb-22_CCV_20 **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: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5975.I_220211A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374633
Method: SW8270CSIM **Analysis Date:** 02/14/2022 11:04 **Prep Date:**
Lab ID: 11-Feb-22_CCV_20 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2-Methylnaphthalene	1.9	0.10	2.0		94.0	50	150				
Acenaphthene	1.9	0.10	2.0		93.0	50	150				
Acenaphthylene	1.9	0.10	2.0		94.0	50	150				
Anthracene	2.0	0.10	2.0		102.0	50	150				
Benzo(a)anthracene	2.1	0.10	2.0		106.0	50	150				
Benzo(a)pyrene	1.9	0.10	2.0		93.0	50	150				
Benzo(b)fluoranthene	1.9	0.10	2.0		95.0	50	150				
Benzo(g,h,i)perylene	1.9	0.10	2.0		97.0	50	150				
Benzo(k)fluoranthene	1.8	0.10	2.0		91.0	50	150				
Chrysene	1.9	0.10	2.0		96.0	50	150				
Dibenzo(a,h)anthracene	2.0	0.10	2.0		99.0	50	150				
Fluoranthene	2.1	0.10	2.0		104.0	50	150				
Fluorene	2.1	0.10	2.0		103.0	50	150				
Indeno(1,2,3-cd)pyrene	2.0	0.10	2.0		98.0	50	150				
Naphthalene	1.8	0.10	2.0		90.0	50	150				
Phenanthrene	2.0	0.10	2.0		100.0	50	150				
Pyrene	2.1	0.10	2.0		106.0	50	150				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SUB-C279590: 2 **SampType:** Method Blank **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/09/2022 16:29 **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: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 0.0 to 0.1

Run ID: Run Order: SUB-C279590: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/09/2022 15:49 **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		100.0	91	111				

Associated Samples: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 4.9 to 5.1

Run ID: Run Order: SUB-C279590: 5 **SampType:** Sample Matrix Spike **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/09/2022 18:30 **Prep Date:**
Lab ID: B22020415-001E **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.5	0.50	5.0	0.68	96.0	91	111				

Associated Samples: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 5.4 to 5.5



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SUB-C279590: 6 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/09/2022 19:13 **Prep Date:**
Lab ID: B22020415-001E **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.5	0.50	5.0	0.68	96.0	91	111	5.5	0.1	10.0	

Associated Samples: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 5.4 to 5.5

Run ID: Run Order: SUB-C279590: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/09/2022 17:08 **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		96.0	90	110				

Associated Samples: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 4.8 to 4.8

Run ID: Run Order: SUB-C279590: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279590
Method: SW9060A **Analysis Date:** 02/10/2022 00:03 **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		96.0	90	110				

Associated Samples: B22020415-001E, B22020415-006E, B22020415-011E, B22020415-017E, B22020415-022E, B22020415-027E, B22020415-032E

- TOC Range is 4.8 to 4.8



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: ICPMS207-B_220214A: 24 **SampType:** Method Blank **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 13:48 **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: B22020415-001A, B22020415-006A, B22020415-011A, B22020415-017A, B22020415-022A, B22020415-027A, B22020415-032A

Run ID: Run Order: ICPMS207-B_220214A: 25 **SampType:** Laboratory Fortified Blank **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 13:55 **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	0.051	0.001	0.050		102.0	88	115				

Associated Samples: B22020415-001A, B22020415-006A, B22020415-011A, B22020415-017A, B22020415-022A, B22020415-027A, B22020415-032A

Run ID: Run Order: ICPMS207-B_220214A: 36 **SampType:** Sample Matrix Spike **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 15:03 **Prep Date:**
Lab ID: B22020415-001AMS **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	99.0	88	115				

Associated Samples: B22020415-001A, B22020415-006A, B22020415-011A, B22020415-017A, B22020415-022A, B22020415-027A, B22020415-032A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: ICPMS207-B_220214A: 37 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 15:09 **Prep Date:**
Lab ID: B22020415-001AMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.048	0.001	0.050	0	96.0	88	115	0.050	3.1	20.0	

Associated Samples: B22020415-001A, B22020415-006A, B22020415-011A, B22020415-017A, B22020415-022A, B22020415-027A, B22020415-032A

Run ID: Run Order: ICPMS207-B_220214A: 35 **SampType:** Serial Dilution **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 14:57 **Prep Date:**
Lab ID: B22020415-001ADIL **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	N

Associated Samples: B22020415-001A, B22020415-006A, B22020415-011A, B22020415-017A, B22020415-022A, B22020415-027A, B22020415-032A

Run ID: Run Order: ICPMS207-B_220214A: 32 **SampType:** Method Blank **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 14:38 **Prep Date:** 02/08/2022 15:24
Lab ID: MB-163617 **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: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: ICPMS207-B_220214A: 33 **SampType:** Laboratory Control Sample **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 14:45 **Prep Date:** 02/08/2022 15:24
Lab ID: LCS4-163617 **Units:** mg/L **Prep Method:** SW3010A

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

Associated Samples: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 42 **SampType:** Sample Matrix Spike **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 15:41 **Prep Date:** 02/08/2022 15:31
Lab ID: B22020415-001BMS4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.100	0.001	0.100	0	100.0	88	115				

Associated Samples: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 45 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 15:59 **Prep Date:** 02/08/2022 15:31
Lab ID: B22020415-001BMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.101	0.001	0.100	0	101.0	88	115	0.100	0.7	20.0	

Associated Samples: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: ICPMS207-B_220214A: 41 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 15:34 **Prep Date:** 02/08/2022 15:31
Lab ID: B22020415-001BPDS1 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.049	0.001	0.052	0	95.0	80	120				

Associated Samples: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 40 **SampType:** Serial Dilution **Batch ID:** 163617
Method: SW6020 **Analysis Date:** 02/14/2022 15:28 **Prep Date:** 02/08/2022 15:31
Lab ID: B22020415-001BDIL **Units:** mg/L **Prep Method:** SW3010A

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

Associated Samples: B22020415-001B, B22020415-006B, B22020415-011B, B22020415-017B, B22020415-022B, B22020415-027B, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 30 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 14:26 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.051	0.001	0.050		103.0	90	110				

Associated Samples: B22020415-001A, B22020415-001B, B22020415-006A, B22020415-006B, B22020415-011A, B22020415-011B, B22020415-017A, B22020415-017B, B22020415-022A, B22020415-022B, B22020415-027A, B22020415-027B, B22020415-032A, B22020415-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: ICPMS207-B_220214A: 43 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 15:47 **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		101.0	90	110				

Associated Samples: B22020415-001A, B22020415-001B, B22020415-006A, B22020415-006B, B22020415-011A, B22020415-011B, B22020415-017A, B22020415-017B, B22020415-022A, B22020415-022B, B22020415-027A, B22020415-027B, B22020415-032A, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 56 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 17:08 **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: B22020415-001A, B22020415-001B, B22020415-006A, B22020415-006B, B22020415-011A, B22020415-011B, B22020415-017A, B22020415-017B, B22020415-022A, B22020415-022B, B22020415-027A, B22020415-027B, B22020415-032A, B22020415-032B

Run ID: Run Order: ICPMS207-B_220214A: 61 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374695
Method: SW6020 **Analysis Date:** 02/14/2022 17:39 **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: B22020415-001A, B22020415-001B, B22020415-006A, B22020415-006B, B22020415-011A, B22020415-011B, B22020415-017A, B22020415-017B, B22020415-022A, B22020415-022B, B22020415-027A, B22020415-027B, B22020415-032A, B22020415-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 4
Method: SW8260B
Lab ID: MBLK020922_

SampType: Method Blank
Analysis Date: 02/09/2022 07:55
Units: ug/L

Batch ID: R374631
Prep Date:
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: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 4 **SampType:** Method Blank **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 07:55 **Prep Date:**
Lab ID: MBLK020922_ **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		112.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		111.0	80	119				
Surr: p-Bromofluorobenzene	11	0.50	10		107.0	85	114				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 4 **SampType:** Method Blank **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 07:55 **Prep Date:**
Lab ID: MBLK020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	11	0.50	10		106.0	89	112				

Associated Samples: B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A

Run ID: Run Order: VOA5975C.I_220209A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 07:01 **Prep Date:**
Lab ID: LCS020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0		100.0	79	120				
Bromobenzene	5.0	0.50	5.0		100.0	80	120				
Bromochloromethane	4.9	0.50	5.0		97.0	78	123				
Bromodichloromethane	5.0	0.50	5.0		99.0	79	125				
Bromoform	5.1	0.50	5.0		102.0	66	130				
Carbon tetrachloride	4.8	0.50	5.0		96.0	72	136				
Chlorobenzene	5.1	0.50	5.0		101.0	82	118				
Chlorodibromomethane	5.0	0.50	5.0		99.0	74	126				
Chloroethane	4.8	0.50	5.0		96.0	60	138				
Chloroform	4.7	0.50	5.0		93.0	79	124				
Chloromethane	4.8	0.50	5.0		96.0	50	139				
1,2-Dibromoethane	5.0	0.50	5.0		100.0	78	122				
2-Chlorotoluene	5.0	0.50	5.0		99.0	79	122				
Dibromomethane	4.9	0.50	5.0		99.0	79	123				
1,2-Dichlorobenzene	5.0	0.50	5.0		100.0	80	119				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 07:01 **Prep Date:**
Lab ID: LCS020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.1	0.50	5.0		103.0	78	122				
1,3-Dichlorobenzene	5.0	0.50	5.0		101.0	80	119				
1,4-Dichlorobenzene	4.9	0.50	5.0		99.0	79	118				
Dichlorodifluoromethane	4.8	0.50	5.0		97.0	32	152				
1,1-Dichloroethane	5.1	0.50	5.0		102.0	77	125				
1,2-Dichloroethane	4.8	0.50	5.0		96.0	73	128				
1,1-Dichloroethene	4.9	0.50	5.0		98.0	71	131				
cis-1,2-Dichloroethene	5.0	0.50	5.0		99.0	78	123				
trans-1,2-Dichloroethene	4.9	0.50	5.0		98.0	75	124				
1,2-Dichloropropane	4.9	0.50	5.0		99.0	78	122				
1,3-Dichloropropane	4.9	0.50	5.0		98.0	80	119				
2,2-Dichloropropane	5.2	0.50	5.0		103.0	60	139				
1,1-Dichloropropene	4.9	0.50	5.0		98.0	79	125				
cis-1,3-Dichloropropene	4.7	0.50	5.0		95.0	75	124				
trans-1,3-Dichloropropene	5.1	0.50	5.0		103.0	73	127				
Ethylbenzene	4.9	0.50	5.0		98.0	79	121				
Methyl tert-butyl ether (MTBE)	5.1	0.50	5.0		102.0	71	124				
Methyl ethyl ketone	50	10	50		100.0	56	143				
Methylene chloride	4.9	0.50	5.0		98.0	74	124				
Styrene	5.0	0.50	5.0		100.0	78	123				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		97.0	78	124				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0		101.0	71	121				
Tetrachloroethene	4.9	0.50	5.0		99.0	74	129				
Toluene	5.1	0.50	5.0		102.0	80	121				
1,1,1-Trichloroethane	5.0	0.50	5.0		101.0	74	131				
1,1,2-Trichloroethane	4.9	0.50	5.0		98.0	80	119				
Trichloroethene	4.9	0.50	5.0		98.0	79	123				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 07:01 **Prep Date:**
Lab ID: LCS020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.6	0.50	5.0		92.0	65	141				
1,2,3-Trichloropropane	4.9	0.50	5.0		98.0	73	125				
Vinyl chloride	4.9	0.50	5.0		98.0	58	137				
m+p-Xylenes	9.7	0.50	10		97.0	80	121				
o-Xylene	4.9	0.50	5.0		99.0	78	122				
Xylenes, Total	15	0.50	15		98.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		111.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		107.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		102.0	85	114				
Surr: Toluene-d8	11	0.50	10		110.0	89	112				

Associated Samples: B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A

Run ID: Run Order: VOA5975C.I_220209A: 21 **SampType:** Sample Matrix Spike **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 15:40 **Prep Date:**
Lab ID: B22020415-006FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0	0.0	100.0	79	120				
Bromobenzene	5.2	0.50	5.0	0.0	104.0	80	120				
Bromochloromethane	4.8	0.50	5.0	0.0	97.0	78	123				
Bromodichloromethane	5.2	0.50	5.0	0.0	104.0	79	125				
Bromoform	5.1	0.50	5.0	0.0	101.0	66	130				
Carbon tetrachloride	4.9	0.50	5.0	0.0	99.0	72	136				
Chlorobenzene	5.2	0.50	5.0	0.0	103.0	82	118				
Chlorodibromomethane	4.9	0.50	5.0	0.0	97.0	74	126				
Chloroethane	5.2	0.50	5.0	0.0	104.0	60	138				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 21 **SampType:** Sample Matrix Spike **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 15:40 **Prep Date:**
Lab ID: B22020415-006FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroform	4.7	0.50	5.0	0.0	94.0	79	124				
Chloromethane	4.7	0.50	5.0	0.0	95.0	50	139				
1,2-Dibromoethane	4.9	0.50	5.0	0.0	99.0	78	122				
2-Chlorotoluene	5.2	0.50	5.0	0.0	104.0	79	122				
Dibromomethane	5.1	0.50	5.0	0.0	102.0	79	123				
1,2-Dichlorobenzene	5.4	0.50	5.0	0.0	107.0	80	119				
4-Chlorotoluene	5.4	0.50	5.0	0.0	107.0	78	122				
1,3-Dichlorobenzene	5.3	0.50	5.0	0.0	105.0	80	119				
1,4-Dichlorobenzene	5.2	0.50	5.0	0.0	105.0	79	118				
Dichlorodifluoromethane	4.9	0.50	5.0	0.0	99.0	32	152				
1,1-Dichloroethane	5.2	0.50	5.0	0.0	104.0	77	125				
1,2-Dichloroethane	4.7	0.50	5.0	0.0	94.0	73	128				
1,1-Dichloroethene	5.0	0.50	5.0	0.0	101.0	71	131				
cis-1,2-Dichloroethene	4.9	0.50	5.0	0.0	98.0	78	123				
trans-1,2-Dichloroethene	5.0	0.50	5.0	0.0	100.0	75	124				
1,2-Dichloropropane	5.0	0.50	5.0	0.0	101.0	78	122				
1,3-Dichloropropane	4.8	0.50	5.0	0.0	97.0	80	119				
2,2-Dichloropropane	4.9	0.50	5.0	0.0	97.0	60	139				
1,1-Dichloropropene	4.8	0.50	5.0	0.0	97.0	79	125				
cis-1,3-Dichloropropene	4.6	0.50	5.0	0.0	93.0	75	124				
trans-1,3-Dichloropropene	5.1	0.50	5.0	0.0	102.0	73	127				
Ethylbenzene	5.1	0.50	5.0	0.0	102.0	79	121				
Methyl tert-butyl ether (MTBE)	4.8	0.50	5.0	0.0	97.0	71	124				
Methyl ethyl ketone	50	10	50	0.0	100.0	56	143				
Methylene chloride	4.8	0.50	5.0	0.0	96.0	74	124				
Styrene	5.1	0.50	5.0	0.0	101.0	78	123				
1,1,1,2-Tetrachloroethane	5.0	0.50	5.0	0.0	99.0	78	124				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 21 **SampType:** Sample Matrix Spike **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 15:40 **Prep Date:**
Lab ID: B22020415-006FMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0	0.0	101.0	71	121				
Tetrachloroethene	5.0	0.50	5.0	0.0	100.0	74	129				
Toluene	5.2	0.50	5.0	0.0	104.0	80	121				
1,1,1-Trichloroethane	4.9	0.50	5.0	0.0	99.0	74	131				
1,1,2-Trichloroethane	5.2	0.50	5.0	0.0	104.0	80	119				
Trichloroethene	5.2	0.50	5.0	0.0	103.0	79	123				
Trichlorofluoromethane	4.6	0.50	5.0	0.0	93.0	65	141				
1,2,3-Trichloropropane	4.9	0.50	5.0	0.0	98.0	73	125				
Vinyl chloride	4.8	0.50	5.0	0.0	96.0	58	137				
m+p-Xylenes	10	0.50	10	0.0	100.0	80	121				
o-Xylene	5.1	0.50	5.0	0.0	101.0	78	122				
Xylenes, Total	15	0.50	15	0.081	100.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	110.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10	0.0	106.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	105.0	85	114				
Surr: Toluene-d8	11	0.50	10	0.0	111.0	89	112				

Associated Samples: B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A

Run ID: Run Order: VOA5975C.I_220209A: 22 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 16:07 **Prep Date:**
Lab ID: B22020415-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.1	0.50	5.0	0.0	101.0	79	120	5.0	1.7	20.0	
Bromobenzene	5.1	0.50	5.0	0.0	102.0	80	120	5.2	2.5	20.0	
Bromochloromethane	4.8	0.50	5.0	0.0	96.0	78	123	4.8	0.7	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 22 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 16:07 **Prep Date:**
Lab ID: B22020415-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromodichloromethane	5.0	0.50	5.0	0.0	100.0	79	125	5.2	3.7	20.0	
Bromoform	4.9	0.50	5.0	0.0	98.0	66	130	5.1	3.3	20.0	
Carbon tetrachloride	4.9	0.50	5.0	0.0	98.0	72	136	4.9	0.7	20.0	
Chlorobenzene	5.1	0.50	5.0	0.0	103.0	82	118	5.2	0.1	20.0	
Chlorodibromomethane	5.1	0.50	5.0	0.0	101.0	74	126	4.9	3.6	20.0	
Chloroethane	5.1	0.50	5.0	0.0	101.0	60	138	5.2	2.8	20.0	
Chloroform	4.6	0.50	5.0	0.0	92.0	79	124	4.7	2.5	20.0	
Chloromethane	4.6	0.50	5.0	0.0	92.0	50	139	4.7	2.8	20.0	
1,2-Dibromoethane	5.1	0.50	5.0	0.0	102.0	78	122	4.9	3.0	20.0	
2-Chlorotoluene	5.3	0.50	5.0	0.0	105.0	79	122	5.2	1.4	20.0	
Dibromomethane	4.9	0.50	5.0	0.0	98.0	79	123	5.1	4.5	20.0	
1,2-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	80	119	5.4	5.2	20.0	
4-Chlorotoluene	5.2	0.50	5.0	0.0	104.0	78	122	5.4	2.8	20.0	
1,3-Dichlorobenzene	5.1	0.50	5.0	0.0	103.0	80	119	5.3	2.2	20.0	
1,4-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	79	118	5.2	2.5	20.0	
Dichlorodifluoromethane	4.7	0.50	5.0	0.0	95.0	32	152	4.9	3.8	20.0	
1,1-Dichloroethane	5.1	0.50	5.0	0.0	101.0	77	125	5.2	2.3	20.0	
1,2-Dichloroethane	4.9	0.50	5.0	0.0	97.0	73	128	4.7	3.2	20.0	
1,1-Dichloroethene	5.1	0.50	5.0	0.0	101.0	71	131	5.0	0.2	20.0	
cis-1,2-Dichloroethene	5.0	0.50	5.0	0.0	101.0	78	123	4.9	2.6	20.0	
trans-1,2-Dichloroethene	4.9	0.50	5.0	0.0	99.0	75	124	5.0	1.1	20.0	
1,2-Dichloropropane	5.0	0.50	5.0	0.0	100.0	78	122	5.0	0.9	20.0	
1,3-Dichloropropane	4.9	0.50	5.0	0.0	98.0	80	119	4.8	1.4	20.0	
2,2-Dichloropropane	4.8	0.50	5.0	0.0	96.0	60	139	4.9	1.7	20.0	
1,1-Dichloropropene	4.8	0.50	5.0	0.0	97.0	79	125	4.8	0.2	20.0	
cis-1,3-Dichloropropene	4.6	0.50	5.0	0.0	93.0	75	124	4.6	0.0	20.0	
trans-1,3-Dichloropropene	5.0	0.50	5.0	0.0	101.0	73	127	5.1	1.3	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 22 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 16:07 **Prep Date:**
Lab ID: B22020415-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Ethylbenzene	5.0	0.50	5.0	0.0	101.0	79	121	5.1	1.1	20.0	
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0	0.0	95.0	71	124	4.8	2.0	20.0	
Methyl ethyl ketone	50	10	50	0.0	100.0	56	143	50	0.8	20.0	
Methylene chloride	4.8	0.50	5.0	0.0	97.0	74	124	4.8	1.1	20.0	
Styrene	5.1	0.50	5.0	0.0	102.0	78	123	5.1	0.9	20.0	
1,1,1,2-Tetrachloroethane	4.9	0.50	5.0	0.0	97.0	78	124	5.0	2.1	20.0	
1,1,2,2-Tetrachloroethane	4.9	0.50	5.0	0.0	98.0	71	121	5.1	3.2	20.0	
Tetrachloroethene	5.0	0.50	5.0	0.0	100.0	74	129	5.0	0.2	20.0	
Toluene	5.2	0.50	5.0	0.0	103.0	80	121	5.2	0.4	20.0	
1,1,1-Trichloroethane	5.0	0.50	5.0	0.0	100.0	74	131	4.9	1.3	20.0	
1,1,2-Trichloroethane	5.0	0.50	5.0	0.0	100.0	80	119	5.2	3.4	20.0	
Trichloroethene	5.0	0.50	5.0	0.0	101.0	79	123	5.2	2.6	20.0	
Trichlorofluoromethane	4.7	0.50	5.0	0.0	94.0	65	141	4.6	1.2	20.0	
1,2,3-Trichloropropane	4.6	0.50	5.0	0.0	93.0	73	125	4.9	5.6	20.0	
Vinyl chloride	4.8	0.50	5.0	0.0	95.0	58	137	4.8	1.1	20.0	
m+p-Xylenes	9.9	0.50	10	0.0	99.0	80	121	10	0.2	20.0	
o-Xylene	5.1	0.50	5.0	0.0	103.0	78	122	5.1	1.6	20.0	
Xylenes, Total	15	0.50	15	0.081	100.0	79	121	15	0.4	20.0	
Surr: 1,2-Dichloroethane-d4	11	0.50	10	0.0	112.0	81	118	0.0			
Surr: Dibromofluoromethane	11	0.50	10	0.0	105.0	80	119	0.0			
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	102.0	85	114	0.0			
Surr: Toluene-d8	11	0.50	10	0.0	110.0	89	112	0.0			

Associated Samples: B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 06:25 **Prep Date:**
Lab ID: CCV020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.1	0.50	5.0		102.0	80	120				
Bromobenzene	5.0	0.50	5.0		100.0	80	120				
Bromochloromethane	5.1	0.50	5.0		102.0	80	120				
Bromodichloromethane	5.1	0.50	5.0		102.0	80	120				
Bromoform	4.9	0.50	5.0		98.0	80	120				
Carbon tetrachloride	4.9	0.50	5.0		98.0	80	120				
Chlorobenzene	5.1	0.50	5.0		101.0	80	120				
Chlorodibromomethane	5.1	0.50	5.0		102.0	80	120				
Chloroethane	5.1	0.50	5.0		101.0	80	120				
Chloroform	4.9	0.50	5.0		97.0	80	120				
Chloromethane	4.9	0.50	5.0		98.0	80	120				
1,2-Dibromoethane	5.2	0.50	5.0		103.0	80	120				
2-Chlorotoluene	5.0	0.50	5.0		100.0	80	120				
Dibromomethane	5.4	0.50	5.0		108.0	80	120				
1,2-Dichlorobenzene	5.0	0.50	5.0		99.0	80	120				
4-Chlorotoluene	5.2	0.50	5.0		104.0	80	120				
1,3-Dichlorobenzene	4.8	0.50	5.0		97.0	80	120				
1,4-Dichlorobenzene	4.9	0.50	5.0		99.0	80	120				
Dichlorodifluoromethane	4.7	0.50	5.0		95.0	80	120				
1,1-Dichloroethane	5.1	0.50	5.0		101.0	80	120				
1,2-Dichloroethane	5.2	0.50	5.0		104.0	80	120				
1,1-Dichloroethene	5.0	0.50	5.0		99.0	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		98.0	80	120				
1,2-Dichloropropane	5.1	0.50	5.0		102.0	80	120				
1,3-Dichloropropane	5.3	0.50	5.0		106.0	80	120				
2,2-Dichloropropane	5.2	0.50	5.0		104.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 06:25 **Prep Date:**
Lab ID: CCV020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	5.2	0.50	5.0		103.0	80	120				
cis-1,3-Dichloropropene	4.9	0.50	5.0		98.0	80	120				
trans-1,3-Dichloropropene	5.3	0.50	5.0		106.0	80	120				
Ethylbenzene	5.0	0.50	5.0		100.0	80	120				
Methyl tert-butyl ether (MTBE)	4.9	0.50	5.0		98.0	80	120				
Methyl ethyl ketone	50	10	50		99.0	80	120				
Methylene chloride	5.0	0.50	5.0		100.0	80	120				
Styrene	5.2	0.50	5.0		103.0	80	120				
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0		101.0	80	120				
1,1,2,2-Tetrachloroethane	5.1	0.50	5.0		103.0	80	120				
Tetrachloroethene	4.9	0.50	5.0		98.0	80	120				
Toluene	5.2	0.50	5.0		104.0	80	120				
1,1,1-Trichloroethane	5.0	0.50	5.0		101.0	80	120				
1,1,2-Trichloroethane	5.2	0.50	5.0		105.0	80	120				
Trichloroethene	5.0	0.50	5.0		101.0	80	120				
Trichlorofluoromethane	4.8	0.50	5.0		96.0	80	120				
1,2,3-Trichloropropane	5.1	0.50	5.0		102.0	80	120				
Vinyl chloride	4.7	0.50	5.0		95.0	80	120				
m+p-Xylenes	10	0.50	10		100.0	80	120				
o-Xylene	5.0	0.50	5.0		100.0	80	120				
Xylenes, Total	15	0.50	15		100.0	80	120				
Surr: 1,2-Dichloroethane-d4	12	0.50	10		116.0	80	120				
Surr: Dibromofluoromethane	11	0.50	10		109.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 06:25 **Prep Date:**
Lab ID: CCV020922_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	11	0.50	10		110.0	80	120				

Associated Samples: B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A

Run ID: Run Order: VOA5975C.I_220209A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 17:02 **Prep Date:**
Lab ID: CCV_CLOSING_020922 **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	4.9	0.50	5.0		98.0	50	150				
Bromochloromethane	4.7	0.50	5.0		93.0	50	150				
Bromodichloromethane	4.6	0.50	5.0		93.0	50	150				
Bromoform	4.6	0.50	5.0		92.0	50	150				
Carbon tetrachloride	4.8	0.50	5.0		96.0	50	150				
Chlorobenzene	4.9	0.50	5.0		97.0	50	150				
Chlorodibromomethane	4.8	0.50	5.0		96.0	50	150				
Chloroethane	5.2	0.50	5.0		104.0	50	150				
Chloroform	4.7	0.50	5.0		95.0	50	150				
Chloromethane	4.9	0.50	5.0		99.0	50	150				
1,2-Dibromoethane	4.7	0.50	5.0		95.0	50	150				
2-Chlorotoluene	5.0	0.50	5.0		100.0	50	150				
Dibromomethane	4.7	0.50	5.0		93.0	50	150				
1,2-Dichlorobenzene	4.8	0.50	5.0		97.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 17:02 **Prep Date:**
Lab ID: CCV_CLOSING_020922 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.0	0.50	5.0		101.0	50	150				
1,3-Dichlorobenzene	4.8	0.50	5.0		97.0	50	150				
1,4-Dichlorobenzene	4.8	0.50	5.0		97.0	50	150				
Dichlorodifluoromethane	4.8	0.50	5.0		96.0	50	150				
1,1-Dichloroethane	4.8	0.50	5.0		97.0	50	150				
1,2-Dichloroethane	4.7	0.50	5.0		95.0	50	150				
1,1-Dichloroethene	4.7	0.50	5.0		95.0	50	150				
cis-1,2-Dichloroethene	4.6	0.50	5.0		93.0	50	150				
trans-1,2-Dichloroethene	4.7	0.50	5.0		94.0	50	150				
1,2-Dichloropropane	4.8	0.50	5.0		96.0	50	150				
1,3-Dichloropropane	4.7	0.50	5.0		94.0	50	150				
2,2-Dichloropropane	4.6	0.50	5.0		93.0	50	150				
1,1-Dichloropropene	4.7	0.50	5.0		95.0	50	150				
cis-1,3-Dichloropropene	4.6	0.50	5.0		92.0	50	150				
trans-1,3-Dichloropropene	4.6	0.50	5.0		93.0	50	150				
Ethylbenzene	4.8	0.50	5.0		96.0	50	150				
Methyl tert-butyl ether (MTBE)	4.6	0.50	5.0		91.0	50	150				
Methyl ethyl ketone	46	10	50		91.0	50	150				
Methylene chloride	4.7	0.50	5.0		93.0	50	150				
Styrene	4.8	0.50	5.0		96.0	50	150				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		96.0	50	150				
1,1,2,2-Tetrachloroethane	4.7	0.50	5.0		93.0	50	150				
Tetrachloroethene	4.8	0.50	5.0		95.0	50	150				
Toluene	4.9	0.50	5.0		97.0	50	150				
1,1,1-Trichloroethane	4.8	0.50	5.0		95.0	50	150				
1,1,2-Trichloroethane	4.8	0.50	5.0		96.0	50	150				
Trichloroethene	4.8	0.50	5.0		97.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: VOA5975C.I_220209A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374631
Method: SW8260B **Analysis Date:** 02/09/2022 17:02 **Prep Date:**
Lab ID: CCV_CLOSING_020922 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	5.0	0.50	5.0		100.0	50	150				
1,2,3-Trichloropropane	4.7	0.50	5.0		93.0	50	150				
Vinyl chloride	4.8	0.50	5.0		95.0	50	150				
m+p-Xylenes	9.7	0.50	10		97.0	50	150				
o-Xylene	4.7	0.50	5.0		94.0	50	150				
Xylenes, Total	14	0.50	15		96.0	50	150				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		111.0	50	150				
Surr: Dibromofluoromethane	11	0.50	10		108.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		105.0	50	150				
Surr: Toluene-d8	11	0.50	10		109.0	50	150				

Associated Samples: **B22020415-001F, B22020415-002A, B22020415-006F, B22020415-007A, B22020415-011F, B22020415-012A, B22020415-016C, B22020415-017F, B22020415-018A, B22020415-022F, B22020415-023A, B22020415-027F, B22020415-028A, B22020415-032F, B22020415-033A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GECD.I_220211A: 10 **SampType:** Method Blank **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 14:54 **Prep Date:** 02/09/2022 09:54
Lab ID: MB-163636 **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	0.092	0.020	0.10		92.0	70	130				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A

Run ID: Run Order: GECD.I_220211A: 11 **SampType:** Laboratory Control Sample **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 15:14 **Prep Date:** 02/09/2022 09:54
Lab ID: LCS-163636 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25		92.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.095	0.020	0.10		95.0	70	130				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A

Run ID: Run Order: GECD.I_220211A: 12 **SampType:** Laboratory Control Sample **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 15:34 **Prep Date:** 02/09/2022 09:55
Lab ID: LCS1-163636 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.096	0.010	0.10		96.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.095	0.020	0.10		95.0	70	130				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GECD.I_220211A: 22 **SampType:** Sample Matrix Spike **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 19:12 **Prep Date:** 02/09/2022 09:56
Lab ID: B22020415-001HMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25	0.0	93.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.097	0.020	0.099	0.0	98.0	70	130				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A

Run ID: Run Order: GECD.I_220211A: 23 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 19:32 **Prep Date:** 02/09/2022 09:56
Lab ID: B22020415-001HMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.23	0.010	0.25	0.0	92.0	60	140	0.23	1.3	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.096	0.020	0.099	0.0	97.0	70	130	0.0			

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A

Run ID: Run Order: GECD.I_220211A: 9 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 14:34 **Prep Date:** 02/09/2022 09:55
Lab ID: CAL3-163636 **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		108.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.10	0.020	0.10		100.0	80	120				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GECD.I_220211A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 20:12 **Prep Date:** 02/09/2022 09:55
Lab ID: CAL5-163636 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.40	0.010	0.40		100.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.44	0.020	0.40		110.0	80	120				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A

Run ID: Run Order: GECD.I_220211A: 31 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163636
Method: SW8011 **Analysis Date:** 02/11/2022 23:10 **Prep Date:** 02/09/2022 09:55
Lab ID: CAL3-163636 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.10		103.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.10	0.020	0.10		100.0	80	120				

Associated Samples: B22020415-001H, B22020415-004A, B22020415-006H, B22020415-009A, B22020415-011H, B22020415-014A, B22020415-017H, B22020415-020A, B22020415-022H, B22020415-025A, B22020415-027H, B22020415-030A, B22020415-032H, B22020415-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 5 **SampType:** Method Blank **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/09/2022 16:35 **Prep Date:** 02/08/2022 15:24
Lab ID: MB-163616 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.18	0.0020	0.20		88.0	56	125				
Surr: n-Triacontane	0.093	0.0020	0.10		93.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 5 **SampType:** Method Blank **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 16:48 **Prep Date:** 02/08/2022 15:24
Lab ID: MB-163616 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons (SGT)	ND	0.15									
Surr: o-Terphenyl (SGT)	0.16	0.0020	0.20		79.0	56	125				
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10		88.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/09/2022 15:10 **Prep Date:** 02/08/2022 15:24
Lab ID: LCS-163616 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	12	0.30	15		77.0	36	132				
Total Extractable Hydrocarbons	12	0.30	15		83.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.20		91.0	56	125				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/09/2022 15:52 **Prep Date:** 02/08/2022 15:24
Lab ID: LCSD-163616 **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)	11	0.30	15		76.0	36	132	12	2.1	20.0	
Total Extractable Hydrocarbons	12	0.30	15		81.0	60	132	12	2.4	20.0	
Surr: o-Terphenyl	0.18	0.0020	0.20		90.0	56	125	0.0			

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 16 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 08:58 **Prep Date:** 02/08/2022 15:24
Lab ID: LCSD-163616-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.7	0.30	5.0		95.0	41	113				
Surr: n-Triacontane	0.095	0.0020	0.10		95.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 17 **SampType:** Laboratory Control Sample **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 09:41 **Prep Date:** 02/08/2022 15:24
Lab ID: LCS-163616-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.8	0.30	5.0		95.0	41	113	4.7	0.9		
Surr: n-Triacontane	0.095	0.0020	0.10		95.0	50	150	0.0			

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 15:23 **Prep Date:** 02/08/2022 15:24
Lab ID: LCS-163616 **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)	8.9	0.30	15		59.0	36	132				
Total Extractable Hydrocarbons (SGT)	9.5	0.30	15		64.0	60	132				
Surr: o-Terphenyl (SGT)	0.15	0.0020	0.20		73.0	56	125				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 16:06 **Prep Date:** 02/08/2022 15:24
Lab ID: LCSD-163616 **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		74.0	36	132	8.9	22.0	20.0	R
Total Extractable Hydrocarbons (SGT)	12	0.30	15		79.0	60	132	9.5	22.0	20.0	R
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		90.0	56	125	0.0			

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

- The sample RPD limit is within the QSM 5.3 defined limit of 30%.



Analytical QC Summary Report

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Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209B: 15 **SampType:** Laboratory Control Sample **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/11/2022 08:25 **Prep Date:** 02/08/2022 15:24
Lab ID: LCS-163616-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)	4.4	0.30	5.0		89.0	41	113				
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10		88.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 16 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/11/2022 09:08 **Prep Date:** 02/08/2022 15:24
Lab ID: LCSD-163616-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)	3.9	0.30	5.0		78.0	41	113	4.4	13.0	20.0	
Surr: n-Triacontane (SGT)	0.073	0.0020	0.10		73.0	50	150	0.0			

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 7 **SampType:** Sample Matrix Spike **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/09/2022 18:01 **Prep Date:** 02/08/2022 15:24
Lab ID: B22020415-001D-MS **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	0.32	78.0	36	132				
Total Extractable Hydrocarbons	12	0.30	14	0.44	83.0	60	132				
Surr: o-Terphenyl	0.17	0.0020	0.19	0.0	91.0	56	125				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 15 **SampType:** Sample Matrix Spike **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 04:04 **Prep Date:** 02/08/2022 15:24
Lab ID: B22020415-022D-MS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0	0.0	99.0	41	113				
Surr: n-Triacontane	0.097	0.0020	0.10	0.0	96.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 7 **SampType:** Sample Matrix Spike **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/10/2022 18:15 **Prep Date:** 02/08/2022 15:24
Lab ID: B22020415-001D-MS **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	0.16	78.0	36	132				
Total Extractable Hydrocarbons (SGT)	12	0.30	14	0.18	83.0	60	132				
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.19	0.0	92.0	56	125				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 14 **SampType:** Sample Matrix Spike **Batch ID:** 163616
Method: SW8015C **Analysis Date:** 02/11/2022 01:25 **Prep Date:** 02/08/2022 15:24
Lab ID: B22020415-022D-MS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.8	0.30	5.0	0.0049	95.0	41	113				
Surr: n-Triacontane (SGT)	0.096	0.0020	0.10	0.0	95.0	50	150				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: PE 1_220209A: 4 **SampType:** Method Blank **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 10:28 **Prep Date:**
Lab ID: MBLK_0209PE106r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	21	1.0	25		85.0	70	130				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A

Run ID: Run Order: PE 1_220209A: 18 **SampType:** Method Blank **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 21:54 **Prep Date:**
Lab ID: MBLK_0209PE126r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	21	1.0	25		84.0	70	130				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: PE 1_220209A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 09:54 **Prep Date:**
Lab ID: LCS_0209PE105r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	163	20	170		96.0	78	122				
Total Purgeable Hydrocarbons	201	20	200		100.0	70	130				
Surr: Trifluorotoluene	23	1.0	25		93.0	70	130				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A

Run ID: Run Order: PE 1_220209A: 17 **SampType:** Laboratory Control Sample **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 21:20 **Prep Date:**
Lab ID: LCS_0209PE125r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	159	20	170		94.0	78	122				
Total Purgeable Hydrocarbons	196	20	200		98.0	70	130				
Surr: Trifluorotoluene	23	1.0	25		90.0	70	130				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: PE 1_220209A: 13 **SampType:** Sample Matrix Spike **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 19:03 **Prep Date:**
Lab ID: B22020415-032GMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	161	20	170	0.0	95.0	78	122				
Total Purgeable Hydrocarbons	199	20	200	0.0	99.0	70	130				
Surr: Trifluorotoluene	22	1.0	25	0.0	89.0	70	130				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A

Run ID: Run Order: PE 1_220209A: 14 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 19:37 **Prep Date:**
Lab ID: B22020415-032GMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	164	20	170	0.0	97.0	78	122	161	2.2	20.0	
Total Purgeable Hydrocarbons	204	20	200	0.0	102.0	70	130	199	2.5	20.0	
Surr: Trifluorotoluene	23	1.0	25	0.0	93.0	70	130	0.0			

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A

Run ID: Run Order: GCFID-HP5-B_220209A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/09/2022 12:19 **Prep Date:**
Lab ID: CCV_0209HP504r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		102.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		95.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/09/2022 13:01 **Prep Date:**
Lab ID: CCV_0209HP505r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		99.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		103.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		104.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 12 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/09/2022 23:01 **Prep Date:**
Lab ID: CCV_0209HP519r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.9	0.30	5.0		98.0	80	120				
Surr: n-Triacontane	0.18	0.0020	0.20		91.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/09/2022 23:45 **Prep Date:**
Lab ID: CCV_0209HP520r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	15	0.30	15		99.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		102.0	80	120				
Surr: o-Terphenyl	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 18 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/10/2022 11:06 **Prep Date:**
Lab ID: CCV_0209HP535r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.2	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		95.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 19 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/10/2022 11:49 **Prep Date:**
Lab ID: CCV_0209HP536r **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		107.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		107.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		108.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209A: 22 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/10/2022 22:33 **Prep Date:**
Lab ID: CCV_0209HP551r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		96.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374488
Method: SW8015C **Analysis Date:** 02/10/2022 23:16 **Prep Date:**
Lab ID: CCV_0209HP552r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	16	0.30	15		104.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		108.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		109.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-011D, B22020415-016B, B22020415-017D, B22020415-022D, B22020415-027D, B22020415-032D

Run ID: Run Order: GCFID-HP5-B_220209B: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/10/2022 11:06 **Prep Date:**
Lab ID: CCV_0209HP535r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.2	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		95.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D

Run ID: Run Order: GCFID-HP5-B_220209B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/10/2022 11:49 **Prep Date:**
Lab ID: CCV_0209HP536r **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		107.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		107.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		108.0	80	120				

Associated Samples: B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D



Analytical QC Summary Report

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Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209B: 11 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/10/2022 22:33 **Prep Date:**
Lab ID: CCV_0209HP551r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		96.0	80	120				

Associated Samples: **B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D**

Run ID: Run Order: GCFID-HP5-B_220209B: 12 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/10/2022 23:16 **Prep Date:**
Lab ID: CCV_0209HP552r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	16	0.30	15		104.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		108.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		109.0	80	120				

Associated Samples: **B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D**

Run ID: Run Order: GCFID-HP5-B_220209B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/11/2022 10:33 **Prep Date:**
Lab ID: CCV_0209HP568r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.1	0.30	5.0		103.0	80	120				
Surr: n-Triacontane	0.19	0.0020	0.20		95.0	80	120				

Associated Samples: **B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: GCFID-HP5-B_220209B: 18 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374563
Method: SW8015C **Analysis Date:** 02/11/2022 11:16 **Prep Date:**
Lab ID: CCV_0209HP569r **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		105.0	80	120				
Total Extractable Hydrocarbons	16	0.30	15		108.0	80	120				
Surr: o-Terphenyl	0.22	0.0020	0.20		110.0	80	120				

Associated Samples: **B22020415-001D, B22020415-006D, B22020415-016B, B22020415-022D, B22020415-027D**

Run ID: Run Order: PE 1_220209A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 09:19 **Prep Date:**
Lab ID: CCV_0209PE104r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	169	20	168		101.0	80	120				
Total Purgeable Hydrocarbons	207	20	200		103.0	80	120				
Surr: Trifluorotoluene	24	1.0	25		96.0	80	120				

Associated Samples: **B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: PE 1_220209A: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/09/2022 20:45 **Prep Date:**
Lab ID: CCV_0209PE124r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	165	20	168		98.0	80	120				
Total Purgeable Hydrocarbons	203	20	200		101.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		90.0	80	120				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A

Run ID: Run Order: PE 1_220209A: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374604
Method: SW8015C **Analysis Date:** 02/10/2022 07:02 **Prep Date:**
Lab ID: CCV_0209PE142r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	161	20	168		96.0	80	120				
Total Purgeable Hydrocarbons	198	20	200		99.0	80	120				
Surr: Trifluorotoluene	23	1.0	25		92.0	80	120				

Associated Samples: B22020415-001G, B22020415-003A, B22020415-006G, B22020415-008A, B22020415-011G, B22020415-013A, B22020415-016D, B22020415-017G, B22020415-019A, B22020415-022G, B22020415-024A, B22020415-027G, B22020415-029A, B22020415-032G, B22020415-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: FID-HEADSPACE_220209A: 4 **SampType:** Method Blank **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 10:30 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

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

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A

Run ID: Run Order: FID-HEADSPACE_220209A: 2 **SampType:** Laboratory Control Sample **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 09:19 **Prep Date:**
Lab ID: LCS **Units:** ppm **Prep Method:**

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

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A

Run ID: Run Order: FID-HEADSPACE_220209A: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 09:23 **Prep Date:**
Lab ID: LCSD **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	99	2.0	100		99.0	85	115	97	2.3	20.0	

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: FID-HEADSPACE_220209A: 6 **SampType:** Sample Duplicate **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 10:45 **Prep Date:**
Lab ID: B22020415-001IDUP **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	0.0021	0.0020			0.0			0.0020	2.8	20.0	

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A

Run ID: Run Order: FID-HEADSPACE_220209A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 09:14 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

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

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A

Run ID: Run Order: FID-HEADSPACE_220209A: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374500
Method: SW8015M **Analysis Date:** 02/09/2022 12:47 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	100	2.0	100		100.0	85	115				

Associated Samples: B22020415-001I, B22020415-005A, B22020415-006I, B22020415-010A, B22020415-011I, B22020415-015A, B22020415-017I, B22020415-021A, B22020415-022I, B22020415-026A, B22020415-027I, B22020415-031A, B22020415-032I, B22020415-036A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 14 **SampType:** Method Blank **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 13:56 **Prep Date:** 02/09/2022 08:18
Lab ID: MB-163621 **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: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 14 **SampType:** Method Blank **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 13:56 **Prep Date:** 02/09/2022 08:18
Lab ID: MB-163621 **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	157	5.0	200		79.0	43	140				
Surr: 2-Fluorobiphenyl	62	5.0	100		62.0	44	119				
Surr: 2-Fluorophenol	68	5.0	200		34.0	19	119				
Surr: Nitrobenzene-d5	62	5.0	100		62.0	44	120				
Surr: Phenol-d5	67	5.0	200		33.0	10	65				
Surr: Terphenyl-d14	102	5.0	100		102.0	50	134				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 15 **SampType:** Laboratory Control Sample **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 14:28 **Prep Date:** 02/09/2022 08:18
Lab ID: LCS-163621 **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	72	10	100		72.0	29	116				
1,2-Dichlorobenzene	68	10	100		68.0	32	111				
1,3-Dichlorobenzene	69	10	100		69.0	28	110				
1,4-Dichlorobenzene	67	10	100		67.0	29	112				
2,4,5-Trichlorophenol	85	10	100		85.0	53	123				
2,4,6-Trichlorophenol	91	10	100		91.0	50	125				
2,4-Dichlorophenol	77	10	100		77.0	47	121				
2,4-Dimethylphenol	80	10	100		80.0	31	124				
2,4-Dinitrophenol	93	10	100		93.0	23	142				
2,4-Dinitrotoluene	89	10	100		89.0	57	128				
2,6-Dinitrotoluene	80	10	100		80.0	50	118				
2-Chloronaphthalene	86	10	100		86.0	40	116				
2-Chlorophenol	69	10	100		69.0	38	117				
2-Nitrophenol	85	10	100		85.0	47	123				
3,3'-Dichlorobenzidine	72	10	100		72.0	27	129				
4,6-Dinitro-2-methylphenol	85	10	100		85.0	44	137				
4-Bromophenyl phenyl ether	89	10	100		89.0	55	124				
4-Chloro-3-methylphenol	82	10	100		82.0	52	119				
4-Chlorophenol	70	10	100		70.0	41	81				
4-Chlorophenyl phenyl ether	96	10	100		96.0	53	121				
4-Nitrophenol	41	10	100		41.0	15	36				S
Azobenzene	80	10	100		80.0	61	116				
bis(-2-chloroethoxy)Methane	81	10	100		81.0	48	120				
bis(-2-chloroethyl)Ether	75	10	100		75.0	43	118				
bis(2-chloroisopropyl)Ether	67	10	100		67.0	37	130				
bis(2-ethylhexyl)Phthalate	96	10	100		96.0	55	135				
Butylbenzylphthalate	95	10	100		95.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 15 **SampType:** Laboratory Control Sample **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 14:28 **Prep Date:** 02/09/2022 08:18
Lab ID: LCS-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	91	10	100		91.0	56	125				
Dimethyl phthalate	96	10	100		96.0	45	127				
Di-n-butyl phthalate	95	10	100		95.0	59	127				
Di-n-octyl phthalate	91	10	100		91.0	51	140				
Hexachlorobenzene	85	10	100		85.0	53	125				
Hexachlorobutadiene	75	10	100		75.0	22	124				
Hexachlorocyclopentadiene	79	10	100		79.0	39	91				
Hexachloroethane	66	10	100		66.0	21	115				
Isophorone	78	10	100		78.0	42	124				
m+p-Cresols	80	10	100		80.0	29	110				
Nitrobenzene	89	10	100		89.0	45	121				
n-Nitrosodimethylamine	50	10	100		50.0	20	45				S
n-Nitroso-di-n-propylamine	95	10	100		95.0	49	119				
n-Nitrosodiphenylamine	87	10	100		87.0	51	123				
o-Cresol	77	10	100		77.0	30	117				
Pentachlorophenol	96	10	100		96.0	35	138				
Phenol	49	10	100		49.0	37	75				
Pyridine	36	10	100		36.0	16	45				
Surr: 2,4,6-Tribromophenol	174	10	200		87.0	43	140				
Surr: 2-Fluorobiphenyl	73	10	100		73.0	44	119				
Surr: 2-Fluorophenol	79	10	200		40.0	19	119				
Surr: Nitrobenzene-d5	78	10	100		78.0	44	120				
Surr: Phenol-d5	83	10	200		42.0	10	65				
Surr: Terphenyl-d14	94	10	100		94.0	50	134				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 16 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 15:01 **Prep Date:** 02/09/2022 08:19
Lab ID: LCSD-163621 **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	72	10	100		72.0	29	116	72	0.5	20.0	
1,2-Dichlorobenzene	65	10	100		65.0	32	111	68	3.6	20.0	
1,3-Dichlorobenzene	66	10	100		66.0	28	110	69	3.8	20.0	
1,4-Dichlorobenzene	66	10	100		66.0	29	112	67	1.4	20.0	
2,4,5-Trichlorophenol	78	10	100		78.0	53	123	85	8.3	20.0	
2,4,6-Trichlorophenol	85	10	100		85.0	50	125	91	6.6	20.0	
2,4-Dichlorophenol	75	10	100		75.0	47	121	77	2.9	20.0	
2,4-Dimethylphenol	81	10	100		81.0	31	124	80	1.8	20.0	
2,4-Dinitrophenol	80	10	100		80.0	23	142	93	15.0	20.0	
2,4-Dinitrotoluene	91	10	100		91.0	57	128	89	1.9	20.0	
2,6-Dinitrotoluene	84	10	100		84.0	50	118	80	4.3	20.0	
2-Chloronaphthalene	87	10	100		87.0	40	116	86	1.5	20.0	
2-Chlorophenol	69	10	100		69.0	38	117	69	0.0	20.0	
2-Nitrophenol	81	10	100		81.0	47	123	85	5.7	20.0	
3,3'-Dichlorobenzidine	76	10	100		76.0	27	129	72	6.3	20.0	
4,6-Dinitro-2-methylphenol	93	10	100		93.0	44	137	85	7.9	20.0	
4-Bromophenyl phenyl ether	96	10	100		96.0	55	124	89	7.6	20.0	
4-Chloro-3-methylphenol	85	10	100		85.0	52	119	82	4.1	20.0	
4-Chlorophenol	67	10	100		67.0	41	81	70	5.1	20.0	
4-Chlorophenyl phenyl ether	95	10	100		95.0	53	121	96	1.2	20.0	
4-Nitrophenol	38	10	100		38.0	15	36	41	7.2	20.0	S
Azobenzene	87	10	100		87.0	61	116	80	8.9	20.0	
bis(-2-chloroethoxy)Methane	81	10	100		81.0	48	120	81	0.3	20.0	
bis(-2-chloroethyl)Ether	77	10	100		77.0	43	118	75	3.2	20.0	
bis(2-chloroisopropyl)Ether	69	10	100		69.0	37	130	67	1.8	20.0	
bis(2-ethylhexyl)Phthalate	98	10	100		98.0	55	135	96	1.5	20.0	
Butylbenzylphthalate	96	10	100		96.0	53	134	95	0.4	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 16 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 15:01 **Prep Date:** 02/09/2022 08:19
Lab ID: LCSD-163621 **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	90	10	100		90.0	56	125	91	0.5	20.0	
Dimethyl phthalate	97	10	100		97.0	45	127	96	0.8	20.0	
Di-n-butyl phthalate	103	10	100		103.0	59	127	95	8.5	20.0	
Di-n-octyl phthalate	98	10	100		98.0	51	140	91	6.8	20.0	
Hexachlorobenzene	96	10	100		96.0	53	125	85	13.0	20.0	
Hexachlorobutadiene	73	10	100		73.0	22	124	75	1.9	20.0	
Hexachlorocyclopentadiene	79	10	100		79.0	39	91	79	0.2	20.0	
Hexachloroethane	64	10	100		64.0	21	115	66	2.6	20.0	
Isophorone	79	10	100		79.0	42	124	78	1.3	20.0	
m+p-Cresols	79	10	100		79.0	29	110	80	1.3	20.0	
Nitrobenzene	90	10	100		90.0	45	121	89	1.9	20.0	
n-Nitrosodimethylamine	52	10	100		52.0	20	45	50	4.5	20.0	S
n-Nitroso-di-n-propylamine	100	10	100		100.0	49	119	95	4.6	20.0	
n-Nitrosodiphenylamine	99	10	100		99.0	51	123	87	13.0	20.0	
o-Cresol	76	10	100		76.0	30	117	77	1.0	20.0	
Pentachlorophenol	103	10	100		103.0	35	138	96	6.9	20.0	
Phenol	51	10	100		51.0	37	75	49	3.5	20.0	
Pyridine	37	10	100		37.0	16	45	36	3.6	20.0	
Surr: 2,4,6-Tribromophenol	183	10	200		91.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	69	10	100		69.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	79	10	200		39.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	77	10	100		77.0	44	120	0.0	0.0		
Surr: Phenol-d5	86	10	200		43.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	101	10	100		101.0	50	134	0.0	0.0		

Associated Samples: **B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C**

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 19:52 **Prep Date:** 02/09/2022 08:20
Lab ID: B22020415-017CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	64	10	95	0.0	67.0	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	53	10	95	0.0	56.0	29	112				
2,4,5-Trichlorophenol	78	10	95	0.0	82.0	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	67	10	95	0.0	70.0	31	124				
2,4-Dinitrophenol	90	10	95	0.0	94.0	23	142				
2,4-Dinitrotoluene	93	10	95	0.0	97.0	57	128				
2,6-Dinitrotoluene	80	10	95	0.0	84.0	50	118				
2-Chloronaphthalene	79	10	95	0.0	83.0	40	116				
2-Chlorophenol	57	10	95	0.0	60.0	38	117				
2-Nitrophenol	77	10	95	0.0	81.0	47	123				
3,3'-Dichlorobenzidine	73	10	95	0.0	76.0	27	129				
4,6-Dinitro-2-methylphenol	87	10	95	0.0	91.0	44	137				
4-Bromophenyl phenyl ether	86	10	95	0.0	91.0	55	124				
4-Chloro-3-methylphenol	80	10	95	0.0	84.0	52	119				
4-Chlorophenol	60	10	95	0.0	63.0	41	81				
4-Chlorophenyl phenyl ether	93	10	95	0.0	98.0	53	121				
4-Nitrophenol	40	10	95	0.0	42.0	15	36				S
Azobenzene	75	10	95	0.0	79.0	61	116				
bis(-2-chloroethoxy)Methane	70	10	95	0.0	74.0	48	120				
bis(-2-chloroethyl)Ether	64	10	95	0.0	68.0	43	118				
bis(2-chloroisopropyl)Ether	59	10	95	0.0	62.0	37	130				
bis(2-ethylhexyl)Phthalate	103	10	95	0.0	108.0	55	135				
Butylbenzylphthalate	99	10	95	0.0	104.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 25 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 19:52 **Prep Date:** 02/09/2022 08:20
Lab ID: B22020415-017CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	93	10	95	0.0	98.0	56	125				
Dimethyl phthalate	97	10	95	0.0	102.0	45	127				
Di-n-butyl phthalate	97	10	95	0.0	102.0	59	127				
Di-n-octyl phthalate	96	10	95	0.0	101.0	51	140				
Hexachlorobenzene	82	10	95	0.0	87.0	53	125				
Hexachlorobutadiene	60	10	95	0.0	63.0	22	124				
Hexachlorocyclopentadiene	59	10	95	0.0	62.0	39	91				
Hexachloroethane	52	10	95	0.0	54.0	21	115				
Isophorone	74	10	95	0.0	77.0	42	124				
m+p-Cresols	61	10	95	0.0	64.0	29	110				
Nitrobenzene	65	10	95	0.0	69.0	45	121				
n-Nitrosodimethylamine	39	10	95	0.0	41.0	20	45				
n-Nitroso-di-n-propylamine	83	10	95	0.0	87.0	49	119				
n-Nitrosodiphenylamine	89	10	95	0.0	94.0	51	123				
o-Cresol	64	10	95	0.0	67.0	30	117				
Pentachlorophenol	97	10	95	0.0	102.0	35	138				
Phenol	38	10	95	0.0	40.0	37	75				
Pyridine	19	10	95	0.0	20.0	16	45				
Surr: 2,4,6-Tribromophenol	172	10	190	0.0	90.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	95	0.0	75.0	44	119				
Surr: 2-Fluorophenol	62	10	190	0.0	33.0	19	119				
Surr: Nitrobenzene-d5	64	10	95	0.0	67.0	44	120				
Surr: Phenol-d5	72	10	190	0.0	38.0	10	65				
Surr: Terphenyl-d14	94	10	95	0.0	99.0	50	134				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 6 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 23:59 **Prep Date:** 02/09/2022 08:20
Lab ID: B22020415-032CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	70	10	97	0.0	72.0	29	116				
1,2-Dichlorobenzene	62	10	97	0.0	64.0	32	111				
1,3-Dichlorobenzene	57	10	97	0.0	59.0	28	110				
1,4-Dichlorobenzene	58	10	97	0.0	59.0	29	112				
2,4,5-Trichlorophenol	77	10	97	0.0	79.0	53	123				
2,4,6-Trichlorophenol	81	10	97	0.0	84.0	50	125				
2,4-Dichlorophenol	73	10	97	0.0	75.0	47	121				
2,4-Dimethylphenol	68	10	97	0.0	70.0	31	124				
2,4-Dinitrophenol	85	10	97	0.0	88.0	23	142				
2,4-Dinitrotoluene	86	10	97	0.0	88.0	57	128				
2,6-Dinitrotoluene	77	10	97	0.0	79.0	50	118				
2-Chloronaphthalene	82	10	97	0.0	84.0	40	116				
2-Chlorophenol	63	10	97	0.0	65.0	38	117				
2-Nitrophenol	75	10	97	0.0	77.0	47	123				
3,3'-Dichlorobenzidine	71	10	97	0.0	73.0	27	129				
4,6-Dinitro-2-methylphenol	89	10	97	0.0	91.0	44	137				
4-Bromophenyl phenyl ether	81	10	97	0.0	84.0	55	124				
4-Chloro-3-methylphenol	79	10	97	0.0	81.0	52	119				
4-Chlorophenol	66	10	97	0.0	68.0	41	81				
4-Chlorophenyl phenyl ether	81	10	97	0.0	83.0	53	121				
4-Nitrophenol	36	10	97	0.0	37.0	15	36				S
Azobenzene	78	10	97	0.0	80.0	61	116				
bis(-2-chloroethoxy)Methane	75	10	97	0.0	77.0	48	120				
bis(-2-chloroethyl)Ether	66	10	97	0.0	68.0	43	118				
bis(2-chloroisopropyl)Ether	62	10	97	0.0	64.0	37	130				
bis(2-ethylhexyl)Phthalate	94	10	97	0.0	96.0	55	135				
Butylbenzylphthalate	91	10	97	0.0	94.0	53	134				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 6 **SampType:** Sample Matrix Spike **Batch ID:** 163621
Method: SW8270C **Analysis Date:** 02/19/2022 23:59 **Prep Date:** 02/09/2022 08:20
Lab ID: B22020415-032CMS **Units:** ug/L **Prep Method:** SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	96	10	97	0.0	99.0	56	125				
Dimethyl phthalate	94	10	97	0.0	97.0	45	127				
Di-n-butyl phthalate	92	10	97	0.0	95.0	59	127				
Di-n-octyl phthalate	91	10	97	0.0	93.0	51	140				
Hexachlorobenzene	81	10	97	0.0	84.0	53	125				
Hexachlorobutadiene	65	10	97	0.0	67.0	22	124				
Hexachlorocyclopentadiene	63	10	97	0.0	65.0	39	91				
Hexachloroethane	55	10	97	0.0	57.0	21	115				
Isophorone	79	10	97	0.0	81.0	42	124				
m+p-Cresols	64	10	97	0.0	66.0	29	110				
Nitrobenzene	67	10	97	0.0	69.0	45	121				
n-Nitrosodimethylamine	49	10	97	0.0	50.0	20	45				S
n-Nitroso-di-n-propylamine	82	10	97	0.0	84.0	49	119				
n-Nitrosodiphenylamine	83	10	97	0.0	86.0	51	123				
o-Cresol	67	10	97	0.0	69.0	30	117				
Pentachlorophenol	95	10	97	0.0	98.0	35	138				
Phenol	38	10	97	0.0	40.0	37	75				
Pyridine	30	10	97	0.0	31.0	16	45				
Surr: 2,4,6-Tribromophenol	168	10	194	0.0	86.0	43	140				
Surr: 2-Fluorobiphenyl	68	10	97	0.0	70.0	44	119				
Surr: 2-Fluorophenol	68	10	194	0.0	35.0	19	119				
Surr: Nitrobenzene-d5	68	10	97	0.0	70.0	44	120				
Surr: Phenol-d5	71	10	194	0.0	37.0	10	65				
Surr: Terphenyl-d14	90	10	97	0.0	93.0	50	134				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C, B22020415-027C, B22020415-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 10 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374941
Method: SW8270C **Analysis Date:** 02/19/2022 12:20 **Prep Date:**
Lab ID: 18-Feb-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	80	10	75		107.0	80	120				
1,2-Dichlorobenzene	82	10	75		109.0	80	120				
1,3-Dichlorobenzene	82	10	75		109.0	80	120				
1,4-Dichlorobenzene	81	10	75		108.0	80	120				
2,4,5-Trichlorophenol	73	10	75		97.0	80	120				
2,4,6-Trichlorophenol	72	10	75		97.0	80	120				
2,4-Dichlorophenol	78	10	75		104.0	80	120				
2,4-Dimethylphenol	78	10	75		103.0	80	120				
2,4-Dinitrophenol	73	10	75		98.0	80	120				
2,4-Dinitrotoluene	79	10	75		106.0	80	120				
2,6-Dinitrotoluene	74	10	75		99.0	80	120				
2-Chloronaphthalene	82	10	75		110.0	80	120				
2-Chlorophenol	81	10	75		109.0	80	120				
2-Nitrophenol	79	10	75		105.0	80	120				
3,3'-Dichlorobenzidine	68	10	75		90.0	80	120				
4,6-Dinitro-2-methylphenol	70	10	75		93.0	80	120				
4-Bromophenyl phenyl ether	76	10	75		101.0	80	120				
4-Chloro-3-methylphenol	80	10	75		107.0	80	120				
4-Chlorophenol	80	10	75		107.0	80	120				
4-Chlorophenyl phenyl ether	73	10	75		98.0	80	120				
4-Nitrophenol	77	10	75		103.0	80	120				
Azobenzene	77	10	75		103.0	80	120				
bis(-2-chloroethoxy)Methane	72	10	75		95.0	80	120				
bis(-2-chloroethyl)Ether	81	10	75		109.0	80	120				
bis(2-chloroisopropyl)Ether	67	10	75		89.0	80	120				
bis(2-ethylhexyl)Phthalate	78	10	75		104.0	80	120				
Butylbenzylphthalate	81	10	75		107.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 10 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374941
Method: SW8270C **Analysis Date:** 02/19/2022 12:20 **Prep Date:**
Lab ID: 18-Feb-22_CCV_9 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	82	10	75		109.0	80	120				
Dimethyl phthalate	84	10	75		112.0	80	120				
Di-n-butyl phthalate	79	10	75		105.0	80	120				
Di-n-octyl phthalate	79	10	75		105.0	80	120				
Hexachlorobenzene	75	10	75		100.0	80	120				
Hexachlorobutadiene	79	10	75		105.0	80	120				
Hexachlorocyclopentadiene	73	10	75		98.0	80	120				
Hexachloroethane	77	10	75		103.0	80	120				
Isophorone	73	10	75		97.0	80	120				
m+p-Cresols	78	10	75		104.0	80	120				
Nitrobenzene	73	10	75		97.0	80	120				
n-Nitrosodimethylamine	85	10	75		113.0	80	120				
n-Nitroso-di-n-propylamine	83	10	75		111.0	80	120				
n-Nitrosodiphenylamine	82	10	75		110.0	80	120				
o-Cresol	80	10	75		107.0	80	120				
Pentachlorophenol	81	10	75		108.0	80	120				
Phenol	84	10	75		112.0	80	120				
Pyridine	85	10	75		114.0	80	120				
Surr: 2,4,6-Tribromophenol	74	10	75		99.0	80	120				
Surr: 2-Fluorobiphenyl	68	10	75		90.0	80	120				
Surr: 2-Fluorophenol	82	10	75		109.0	80	120				
Surr: Nitrobenzene-d5	72	10	75		95.0	80	120				
Surr: Phenol-d5	78	10	75		104.0	80	120				
Surr: Terphenyl-d14	72	10	75		97.0	80	120				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374941
Method: SW8270C **Analysis Date:** 02/19/2022 20:57 **Prep Date:**
Lab ID: 18-Feb-22_CCV_25 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	78	10	75		104.0	50	150				
1,2-Dichlorobenzene	79	10	75		105.0	50	150				
1,3-Dichlorobenzene	83	10	75		110.0	50	150				
1,4-Dichlorobenzene	85	10	75		114.0	50	150				
2,4,5-Trichlorophenol	82	10	75		109.0	50	150				
2,4,6-Trichlorophenol	84	10	75		112.0	50	150				
2,4-Dichlorophenol	80	10	75		107.0	50	150				
2,4-Dimethylphenol	78	10	75		103.0	50	150				
2,4-Dinitrophenol	85	10	75		113.0	50	150				
2,4-Dinitrotoluene	80	10	75		106.0	50	150				
2,6-Dinitrotoluene	75	10	75		100.0	50	150				
2-Chloronaphthalene	79	10	75		105.0	50	150				
2-Chlorophenol	83	10	75		110.0	50	150				
2-Nitrophenol	86	10	75		115.0	50	150				
3,3'-Dichlorobenzidine	79	10	75		105.0	50	150				
4,6-Dinitro-2-methylphenol	85	10	75		113.0	50	150				
4-Bromophenyl phenyl ether	84	10	75		112.0	50	150				
4-Chloro-3-methylphenol	83	10	75		110.0	50	150				
4-Chlorophenol	85	10	75		113.0	50	150				
4-Chlorophenyl phenyl ether	82	10	75		109.0	50	150				
4-Nitrophenol	80	10	75		107.0	50	150				
Azobenzene	78	10	75		104.0	50	150				
bis(-2-chloroethoxy)Methane	79	10	75		105.0	50	150				
bis(-2-chloroethyl)Ether	81	10	75		107.0	50	150				
bis(2-chloroisopropyl)Ether	82	10	75		109.0	50	150				
bis(2-ethylhexyl)Phthalate	86	10	75		115.0	50	150				
Butylbenzylphthalate	85	10	75		113.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218A: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374941
Method: SW8270C **Analysis Date:** 02/19/2022 20:57 **Prep Date:**
Lab ID: 18-Feb-22_CCV_25 **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	50	150				
Dimethyl phthalate	82	10	75		109.0	50	150				
Di-n-butyl phthalate	87	10	75		115.0	50	150				
Di-n-octyl phthalate	82	10	75		110.0	50	150				
Hexachlorobenzene	86	10	75		115.0	50	150				
Hexachlorobutadiene	83	10	75		110.0	50	150				
Hexachlorocyclopentadiene	78	10	75		104.0	50	150				
Hexachloroethane	79	10	75		105.0	50	150				
Isophorone	83	10	75		111.0	50	150				
m+p-Cresols	88	10	75		117.0	50	150				
Nitrobenzene	91	10	75		121.0	50	150				
n-Nitrosodimethylamine	77	10	75		103.0	50	150				
n-Nitroso-di-n-propylamine	89	10	75		119.0	50	150				
n-Nitrosodiphenylamine	82	10	75		110.0	50	150				
o-Cresol	79	10	75		106.0	50	150				
Pentachlorophenol	86	10	75		114.0	50	150				
Phenol	78	10	75		104.0	50	150				
Pyridine	74	10	75		98.0	50	150				
Surr: 2,4,6-Tribromophenol	84	10	75		112.0	50	150				
Surr: 2-Fluorobiphenyl	82	10	75		109.0	50	150				
Surr: 2-Fluorophenol	79	10	75		106.0	50	150				
Surr: Nitrobenzene-d5	80	10	75		107.0	50	150				
Surr: Phenol-d5	80	10	75		106.0	50	150				
Surr: Terphenyl-d14	79	10	75		105.0	50	150				

Associated Samples: B22020415-001C, B22020415-006C, B22020415-011C, B22020415-016A, B22020415-017C, B22020415-022C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374943
Method: SW8270C **Analysis Date:** 02/19/2022 21:50 **Prep Date:**
Lab ID: 18-Feb-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	80	10	75		107.0	70	130				
1,2-Dichlorobenzene	76	10	75		102.0	70	130				
1,3-Dichlorobenzene	80	10	75		106.0	70	130				
1,4-Dichlorobenzene	78	10	75		103.0	80	120				
2,4,5-Trichlorophenol	80	10	75		107.0	70	130				
2,4,6-Trichlorophenol	85	10	75		113.0	80	120				
2,4-Dichlorophenol	79	10	75		105.0	80	120				
2,4-Dimethylphenol	74	10	75		99.0	70	130				
2,4-Dinitrophenol	82	10	75		109.0	70	130				
2,4-Dinitrotoluene	80	10	75		107.0	70	130				
2,6-Dinitrotoluene	75	10	75		100.0	70	130				
2-Chloronaphthalene	78	10	75		105.0	70	130				
2-Chlorophenol	78	10	75		104.0	70	130				
2-Nitrophenol	83	10	75		111.0	80	120				
3,3'-Dichlorobenzidine	81	10	75		108.0	70	130				
4,6-Dinitro-2-methylphenol	84	10	75		112.0	70	130				
4-Bromophenyl phenyl ether	81	10	75		107.0	70	130				
4-Chloro-3-methylphenol	80	10	75		107.0	80	120				
4-Chlorophenol	81	10	75		108.0	70	130				
4-Chlorophenyl phenyl ether	83	10	75		111.0	70	130				
4-Nitrophenol	85	10	75		113.0	70	130				
Azobenzene	77	10	75		102.0	70	130				
bis(-2-chloroethoxy)Methane	75	10	75		100.0	70	130				
bis(-2-chloroethyl)Ether	80	10	75		107.0	70	130				
bis(2-chloroisopropyl)Ether	77	10	75		103.0	70	130				
bis(2-ethylhexyl)Phthalate	84	10	75		113.0	70	130				
Butylbenzylphthalate	82	10	75		110.0	70	130				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374943
Method: SW8270C **Analysis Date:** 02/19/2022 21:50 **Prep Date:**
Lab ID: 18-Feb-22_CCV_27 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	79	10	75		105.0	70	130				
Dimethyl phthalate	83	10	75		110.0	70	130				
Di-n-butyl phthalate	86	10	75		114.0	70	130				
Di-n-octyl phthalate	83	10	75		111.0	80	120				
Hexachlorobenzene	83	10	75		110.0	70	130				
Hexachlorobutadiene	83	10	75		111.0	80	120				
Hexachlorocyclopentadiene	84	10	75		112.0	70	130				
Hexachloroethane	77	10	75		103.0	70	130				
Isophorone	81	10	75		108.0	70	130				
m+p-Cresols	82	10	75		109.0	70	130				
Nitrobenzene	85	10	75		113.0	70	130				
n-Nitrosodimethylamine	89	10	75		118.0	70	130				
n-Nitroso-di-n-propylamine	88	10	75		117.0	70	130				
n-Nitrosodiphenylamine	79	10	75		105.0	80	120				
o-Cresol	77	10	75		102.0	70	130				
Pentachlorophenol	85	10	75		113.0	80	120				
Phenol	77	10	75		103.0	80	120				
Pyridine	80	10	75		107.0	70	130				
Surr: 2,4,6-Tribromophenol	84	10	75		112.0	70	130				
Surr: 2-Fluorobiphenyl	80	10	75		106.0	70	130				
Surr: 2-Fluorophenol	79	10	75		105.0	70	130				
Surr: Nitrobenzene-d5	79	10	75		106.0	70	130				
Surr: Phenol-d5	77	10	75		103.0	70	130				
Surr: Terphenyl-d14	78	10	75		105.0	70	130				

Associated Samples: **B22020415-027C, B22020415-032C**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374943
Method: SW8270C **Analysis Date:** 02/20/2022 05:53 **Prep Date:**
Lab ID: 18-Feb-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	83	10	75		111.0	50	150				
1,2-Dichlorobenzene	84	10	75		112.0	50	150				
1,3-Dichlorobenzene	78	10	75		104.0	50	150				
1,4-Dichlorobenzene	80	10	75		107.0	50	150				
2,4,5-Trichlorophenol	78	10	75		104.0	50	150				
2,4,6-Trichlorophenol	77	10	75		103.0	50	150				
2,4-Dichlorophenol	81	10	75		108.0	50	150				
2,4-Dimethylphenol	70	10	75		94.0	50	150				
2,4-Dinitrophenol	73	10	75		98.0	50	150				
2,4-Dinitrotoluene	84	10	75		112.0	50	150				
2,6-Dinitrotoluene	79	10	75		105.0	50	150				
2-Chloronaphthalene	84	10	75		111.0	50	150				
2-Chlorophenol	80	10	75		107.0	50	150				
2-Nitrophenol	76	10	75		102.0	50	150				
3,3'-Dichlorobenzidine	78	10	75		104.0	50	150				
4,6-Dinitro-2-methylphenol	75	10	75		100.0	50	150				
4-Bromophenyl phenyl ether	74	10	75		99.0	50	150				
4-Chloro-3-methylphenol	79	10	75		105.0	50	150				
4-Chlorophenol	83	10	75		111.0	50	150				
4-Chlorophenyl phenyl ether	74	10	75		99.0	50	150				
4-Nitrophenol	79	10	75		105.0	50	150				
Azobenzene	81	10	75		108.0	50	150				
bis(-2-chloroethoxy)Methane	77	10	75		102.0	50	150				
bis(-2-chloroethyl)Ether	79	10	75		105.0	50	150				
bis(2-chloroisopropyl)Ether	80	10	75		107.0	50	150				
bis(2-ethylhexyl)Phthalate	82	10	75		109.0	50	150				
Butylbenzylphthalate	81	10	75		109.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Run ID: Run Order: SV5973N.I_220218B: 17 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374943
Method: SW8270C **Analysis Date:** 02/20/2022 05:53 **Prep Date:**
Lab ID: 18-Feb-22_CCV_42 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	84	10	75		112.0	50	150				
Dimethyl phthalate	80	10	75		107.0	50	150				
Di-n-butyl phthalate	82	10	75		109.0	50	150				
Di-n-octyl phthalate	83	10	75		111.0	50	150				
Hexachlorobenzene	77	10	75		103.0	50	150				
Hexachlorobutadiene	79	10	75		106.0	50	150				
Hexachlorocyclopentadiene	78	10	75		104.0	50	150				
Hexachloroethane	78	10	75		103.0	50	150				
Isophorone	83	10	75		110.0	50	150				
m+p-Cresols	81	10	75		109.0	50	150				
Nitrobenzene	73	10	75		97.0	50	150				
n-Nitrosodimethylamine	75	10	75		99.0	50	150				
n-Nitroso-di-n-propylamine	79	10	75		105.0	50	150				
n-Nitrosodiphenylamine	81	10	75		108.0	50	150				
o-Cresol	77	10	75		102.0	50	150				
Pentachlorophenol	86	10	75		115.0	50	150				
Phenol	81	10	75		108.0	50	150				
Pyridine	75	10	75		101.0	50	150				
Surr: 2,4,6-Tribromophenol	80	10	75		106.0	50	150				
Surr: 2-Fluorobiphenyl	73	10	75		97.0	50	150				
Surr: 2-Fluorophenol	79	10	75		105.0	50	150				
Surr: Nitrobenzene-d5	79	10	75		105.0	50	150				
Surr: Phenol-d5	81	10	75		108.0	50	150				
Surr: Terphenyl-d14	77	10	75		103.0	50	150				

Associated Samples: **B22020415-027C, B22020415-032C**



Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22020415
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

Analysis Method	Analysis	Batch ID	Associated Samples	Sample Type	Lab ID	Analysis Date	Analysis Time	Analyte	%REC	Low Limit	High Limit	% RPD	RPD Limit	Qual	
SW6020	Metals by ICP-MS, Dissolved	R374695	001A, 006A, 011A, 017A, 022A, 027A, 032A	SD	B22020415-001ADIL	2/14/2022	14:57	Lead					10.0	N	
SW8015C	Diesel Range Organics	163616	001D, 006D, 011D, 016B, 017D, 022D, 027D, 032D	LCSD-DOD	LCSD-163616	2/10/2022	16:06	Diesel Range Organics (SGT-C10 to C24)	74.0	36	132	22	20.0	R	
								Total Extractable Hydrocarbons (SGT)	79.0	60	132	22	20.0	R	
SW8270C	Semi-Volatile Organic Compounds, Extended List	163621	001C, 006C, 011C, 016A, 017C, 022C, 027C, 032C	LCS-DOD	LCS-163621	2/19/2022	14:28	4-Nitrophenol	41.0	15	36			S	
				LCSD-DOD	LCSD-163621	2/19/2022	15:01	n-Nitrosodimethylamine	50.0	20	45				S
								4-Nitrophenol	38.0	15	36	7.2	20.0	S	
				MS-DOD	B22020415-017CMS	2/19/2022	19:52	n-Nitrosodimethylamine	52.0	20	45	4.5	20.0	S	
								4-Nitrophenol	42.0	15	36			S	
				MS-DOD	B22020415-032CMS	2/19/2022	23:59	4-Nitrophenol	37.0	15	36			S	
n-Nitrosodimethylamine	50.0	20	45							S					



Preparation and Analysis Dates Report

Work Order: B22020415

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/04/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2522 (Sump Adit 3)	02/03/2022 15:20	Ground Water	Metals by ICP-MS, Total		SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 15:22
001C	ERH2522 (Sump Adit 3)	02/03/2022 15:20	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 18:01
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 17:10
001D	ERH2522 (Sump Adit 3)	02/03/2022 15:20	Ground Water	Diesel Range Organics		SW3520C	02/08/2022 15:24	163616	SW8015C	02/09/2022 17:18
						SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 17:32
001H	ERH2522 (Sump Adit 3)	02/03/2022 15:20	Ground Water	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 18:52
004A	ERH2521 (Trip Blanks)-14733	02/03/2022 15:20	Trip Blank	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 16:33
006B	ERH2514 (RHMW01R)	02/03/2022 13:40	Ground Water	Metals by ICP-MS, Total		SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 16:18
006C	ERH2514 (RHMW01R)	02/03/2022 13:40	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 19:06
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 17:42
006D	ERH2514 (RHMW01R)	02/03/2022 13:40	Ground Water	Diesel Range Organics		SW3520C	02/08/2022 15:24	163616	SW8015C	02/09/2022 21:35
						SW3520C	02/08/2022 15:24	163616	SW8015C	02/11/2022 00:42
006H	ERH2514 (RHMW01R)	02/03/2022 13:40	Ground Water	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 16:53
009A	ERH2513 (Trip Blanks)-14733	02/03/2022 13:40	Trip Blank	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 17:13
011B	ERH2507 (OWDFMW07A)	02/02/2022 18:15	Ground Water	Metals by ICP-MS, Total		SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 16:31
011C	ERH2507 (OWDFMW07A)	02/02/2022 18:15	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 20:11
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 18:15
011D	ERH2507 (OWDFMW07A)	02/02/2022 18:15	Ground Water	Diesel Range Organics		SW3520C	02/08/2022 15:24	163616	SW8015C	02/09/2022 19:27
011H	ERH2507 (OWDFMW07A)	02/02/2022 18:15	Ground Water	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 17:33
014A	ERH2506 (Trip Blank)-14694	02/02/2022 18:15	Trip Blank	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 17:53
016A	ERH2510 (OWDFMW08A)	02/02/2022 15:05	Ground Water	Low Level PAH by 8270C SIM		SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 20:44
				Semi-Volatile Organic Compounds, Extended List		SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 18:47
016B	ERH2510 (OWDFMW08A)	02/02/2022 15:05	Ground Water	Diesel Range Organics		SW3520C	02/08/2022 15:24	163616	SW8015C	02/09/2022 20:09
						SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 19:41

Preparation and Analysis Dates Report

Work Order: B22020415

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/04/2022

017B	ERH2509 (OWDFMW08A)	02/02/2022 15:05	Ground Water	Metals by ICP-MS, Total	SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 16:43
017C	ERH2509 (OWDFMW08A)	02/02/2022 15:05	Ground Water	Low Level PAH by 8270C SIM	SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 21:16
				Semi-Volatile Organic Compounds, Extended List	SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 19:20
017D	ERH2509 (OWDFMW08A)	02/02/2022 15:05	Ground Water	Diesel Range Organics	SW3520C	02/08/2022 15:24	163616	SW8015C	02/09/2022 20:53
017H	ERH2509 (OWDFMW08A)	02/02/2022 15:05	Ground Water	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 18:13
020A	ERH2508 (Trip Blank)-14694	02/02/2022 15:05	Trip Blank	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 18:32
022B	ERH2512 (RHMW19)	02/02/2022 15:05	Ground Water	Metals by ICP-MS, Total	SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 16:56
022C	ERH2512 (RHMW19)	02/02/2022 15:05	Ground Water	Low Level PAH by 8270C SIM	SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 21:48
				Semi-Volatile Organic Compounds, Extended List	SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 20:24
022D	ERH2512 (RHMW19)	02/02/2022 15:05	Ground Water	Diesel Range Organics	SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 14:40
					SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 21:06
022H	ERH2512 (RHMW19)	02/02/2022 15:05	Ground Water	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 20:51
025A	ERH2511 (Trip Blank)-14694	02/02/2022 15:05	Trip Blank	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 21:11
027B	ERH2516 (RHMW2254-01 Bailer)	02/03/2022 13:00	Ground Water	Metals by ICP-MS, Total	SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 17:20
027C	ERH2516 (RHMW2254-01 Bailer)	02/03/2022 13:00	Ground Water	Low Level PAH by 8270C SIM	SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 22:21
				Semi-Volatile Organic Compounds, Extended List	SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 22:54
027D	ERH2516 (RHMW2254-01 Bailer)	02/03/2022 13:00	Ground Water	Diesel Range Organics	SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 03:21
					SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 20:23
027H	ERH2516 (RHMW2254-01 Bailer)	02/03/2022 13:00	Ground Water	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 21:31
030A	ERH2515 (Trip Blanks)-14733	02/03/2022 13:00	Trip Blank	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 21:50
032B	ERH2519 (RHMW2254-01 Low Flow)	02/03/2022 13:55	Ground Water	Metals by ICP-MS, Total	SW3010A	02/08/2022 15:31	163617	SW6020	02/14/2022 17:33
032C	ERH2519 (RHMW2254-01 Low Flow)	02/03/2022 13:55	Ground Water	Low Level PAH by 8270C SIM	SW3510C	02/09/2022 08:19	163621	SW8270CSIM	02/11/2022 22:53
				Semi-Volatile Organic Compounds, Extended List	SW3510C	02/09/2022 08:19	163621	SW8270C	02/19/2022 23:27
032D	ERH2519 (RHMW2254-01 Low Flow)	02/03/2022 13:55	Ground Water	Diesel Range Organics	SW3520C	02/08/2022 15:24	163616	SW8015C	02/10/2022 13:57
032H	ERH2519 (RHMW2254-01 Low Flow)	02/03/2022 13:55	Ground Water	EDB in Water by ECD	SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 22:10



Preparation and Analysis Dates Report

Work Order: B22020415

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/04/2022

035A	ERH2518 (Trip Blanks)- 14694	02/03/2022 13:55	Trip Blank	EDB in Water by ECD		SW8011	02/09/2022 09:56	163636	SW8011	02/11/2022 22:30
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Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu

Workorder: B22020415

Project: CV18F0126, 60571032.02.46.01

Report Date: 03/04/2022

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

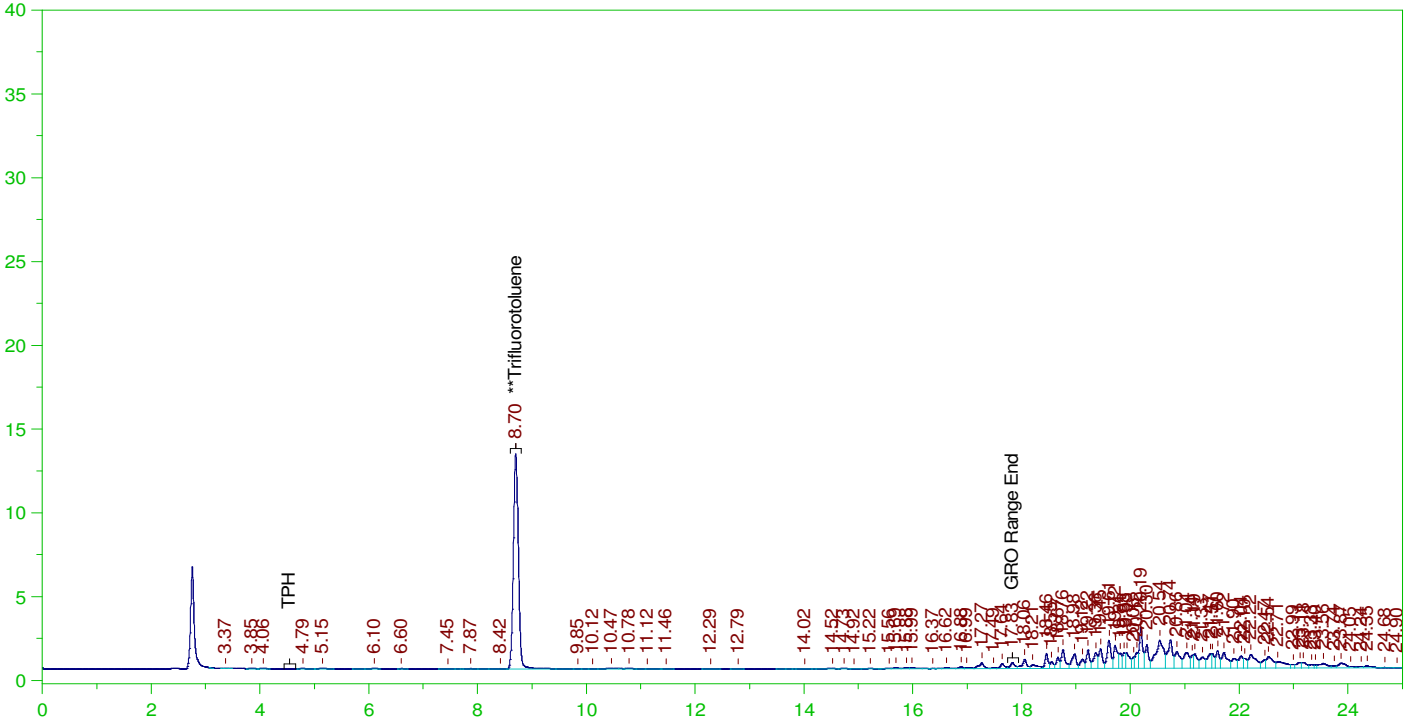
SEMI-VOLATILE ORGANIC COMPOUNDS

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

ERH2522 (Sump Adit 3)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0027.RAW

B22020415-001G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-001G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0027.RAW
Date & Time Acquired: 2/9/2022 10:28:43 PM
Method File: G:\Org\PE1\Methods\220203G415-1DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

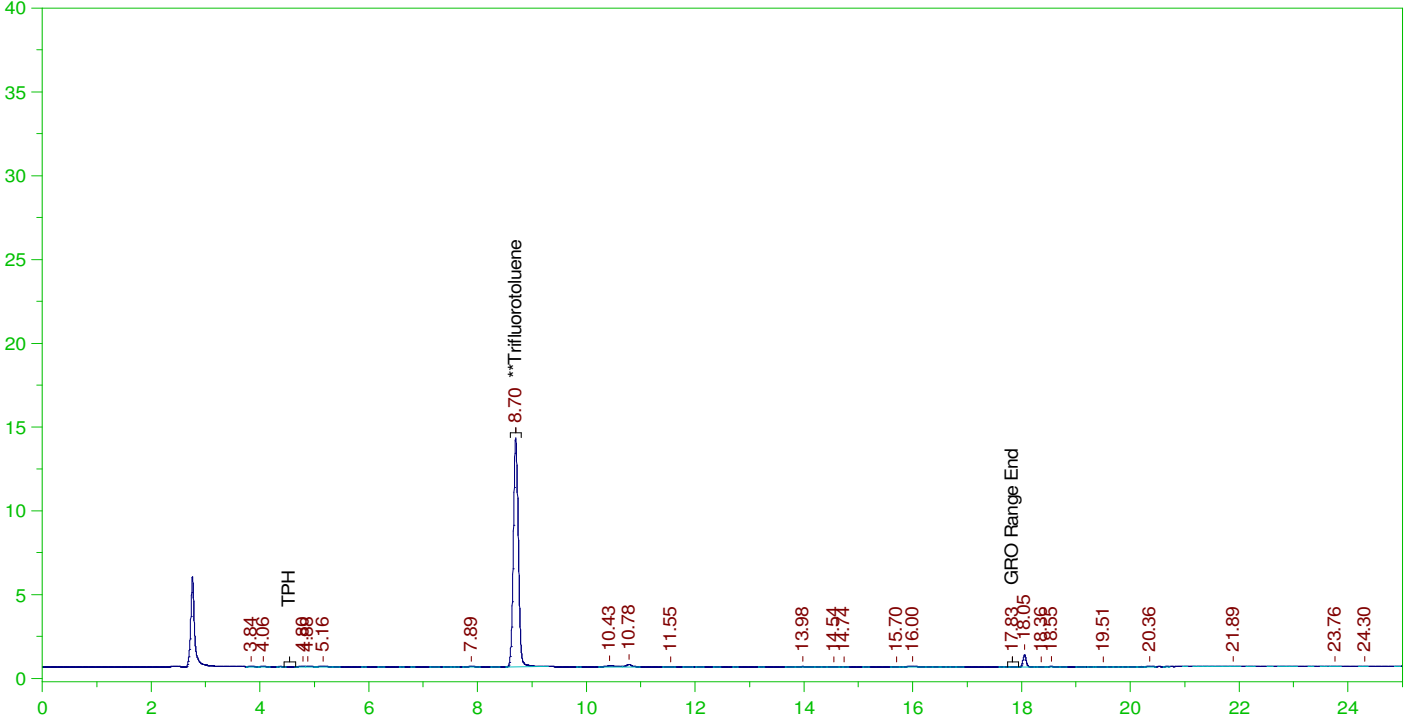
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.704	25.	19.889	79.56

C6 to C10 Area:14421.5 C6 to C10 Amount: 3.740707
TPH Area:227937.9 TPH Amount: 63.09756

ERH2521 (Trip Blanks)

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B22020415-003A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-003A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0010.RAW
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Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

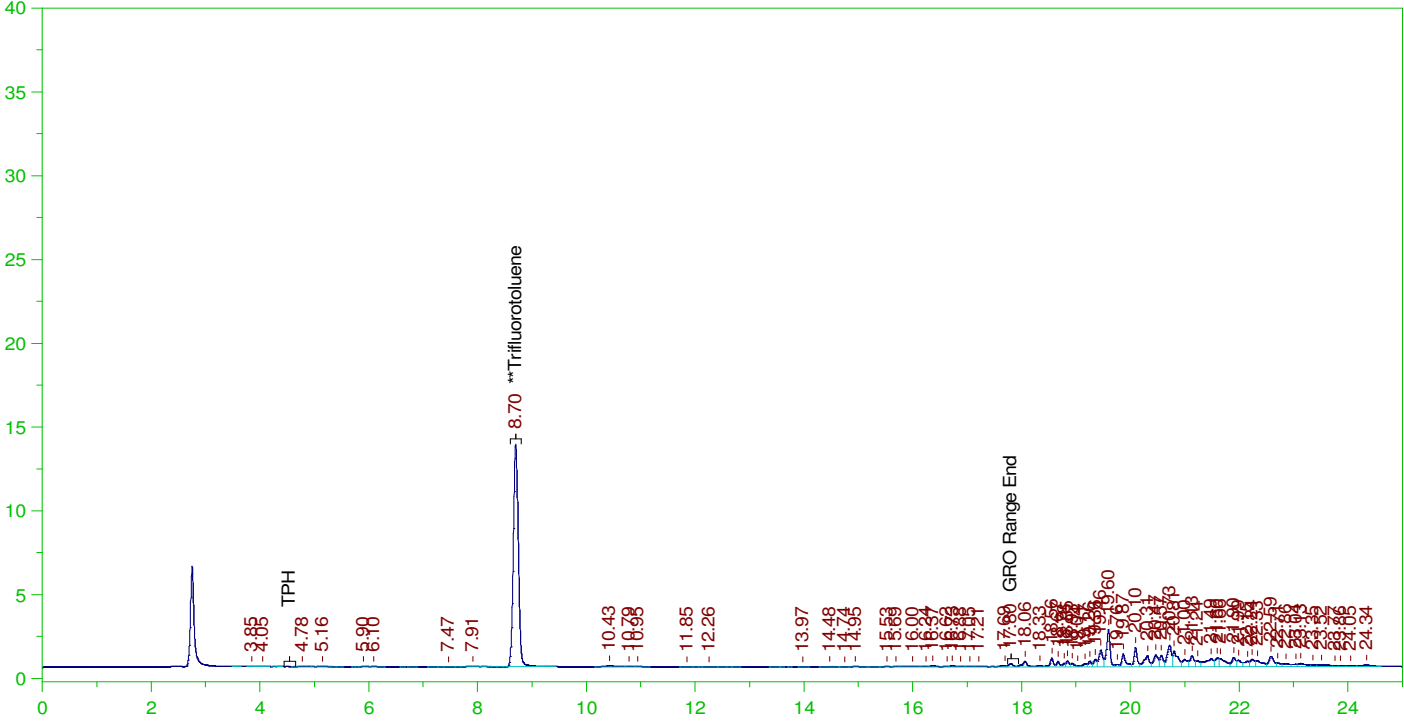
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.703	25.	20.948	83.79

C6 to C10 Area:4316.05 C6 to C10 Amount: 1.119515
TPH Area:8880.889 TPH Amount: 2.4584

ERH2514 (RHMW01R)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0029.RAW

B22020415-006G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-006G ;0209PE1 , \$HC-8015-GRO-W,
 Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0029.RAW
 Date & Time Acquired: 2/9/2022 11:37:21 PM
 Method File: G:\Org\PE1\Methods\220203G415-6DoDB%.MET
 Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
 Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
 Mean RF for TPH: 722.4935
 Rt range for Gasoline Range Organics: 4.45 to 17.94

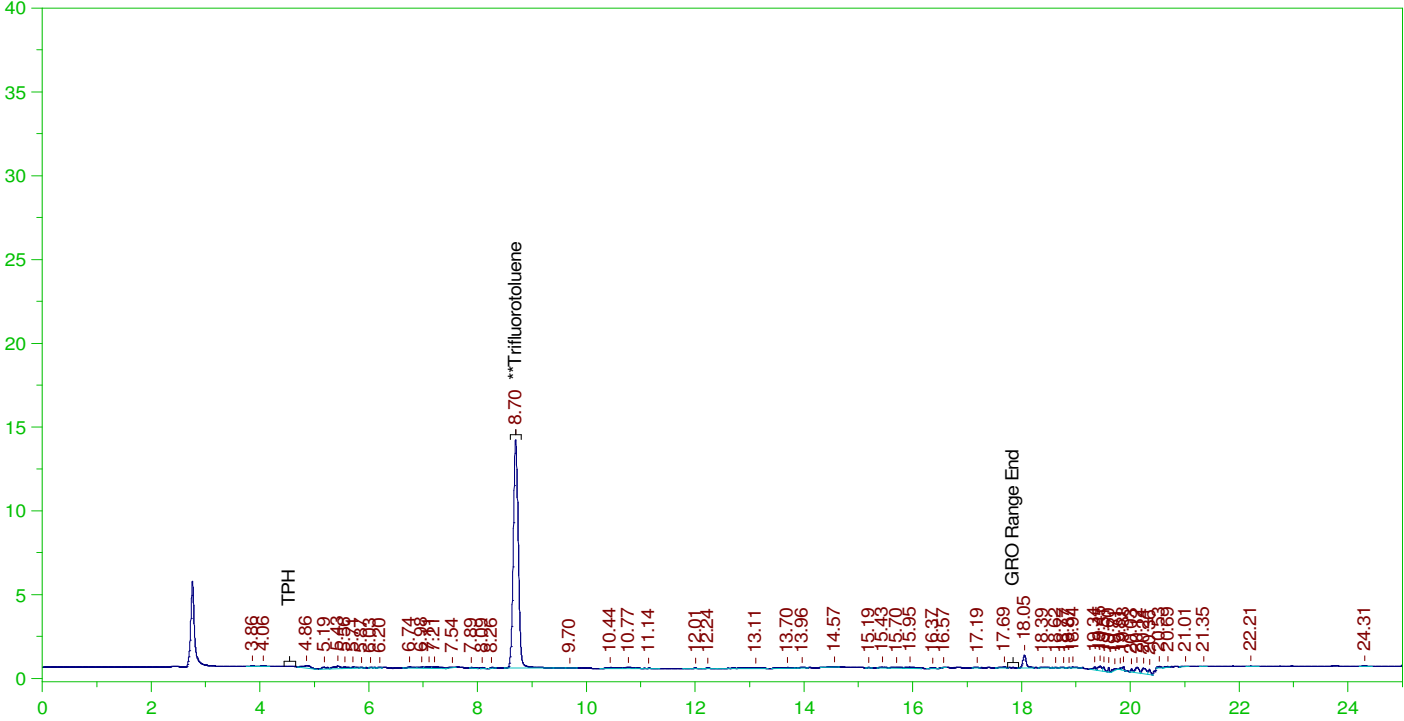
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.703	25.	20.455	81.82

C6 to C10 Area:7953.982 C6 to C10 Amount: 2.063137
 TPH Area:111258.9 TPH Amount: 30.79859

ERH2513 (Trip Blanks)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0011.RAW

B22020415-008A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-008A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0011.RAW
Date & Time Acquired: 2/9/2022 1:20:02 PM
Method File: G:\Org\PE1\Methods\220203G415-8DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

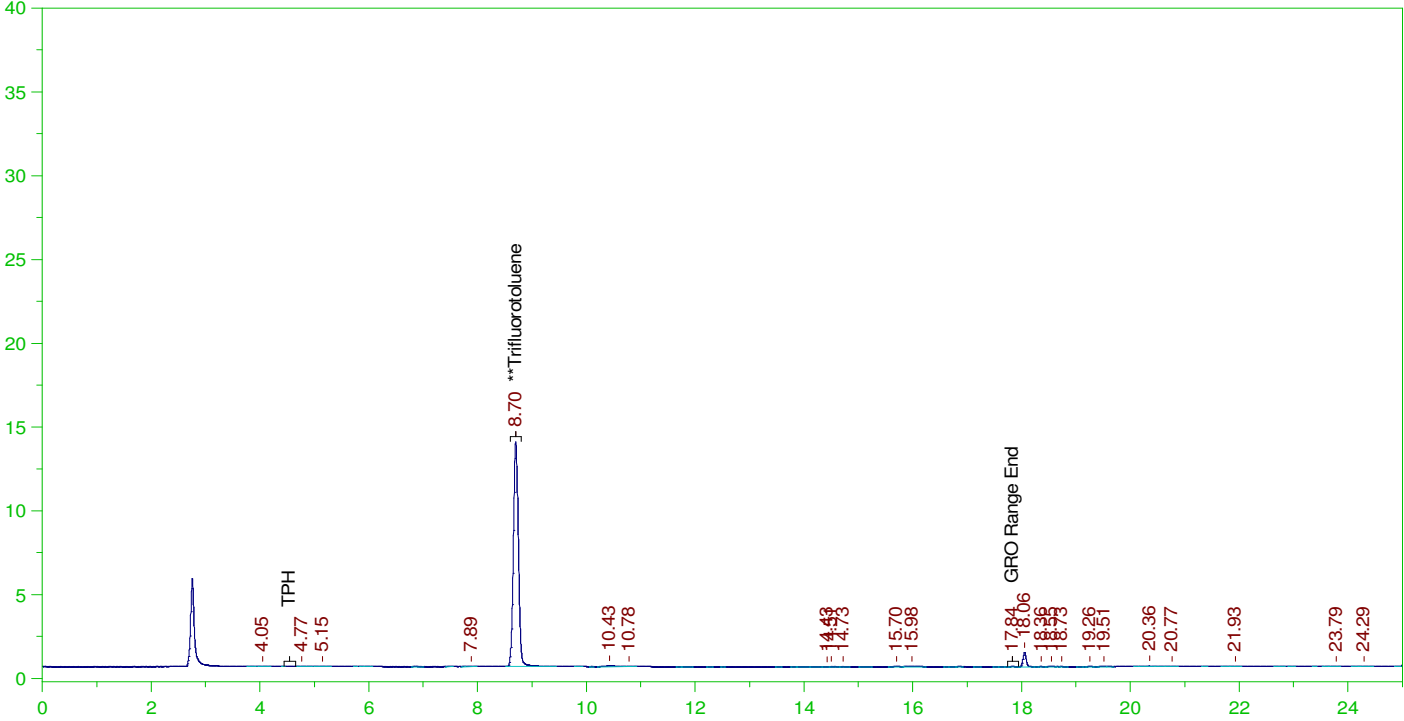
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.702	25.	21.211	84.84

C6 to C10 Area:16449.08 C6 to C10 Amount: 4.266631
TPH Area:32819.07 TPH Amount: 9.084947

ERH2507 (OWDFMW07A)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0031.RAW

B22020415-011G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-011G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0031.RAW
Date & Time Acquired: 2/10/2022 12:45:54 AM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

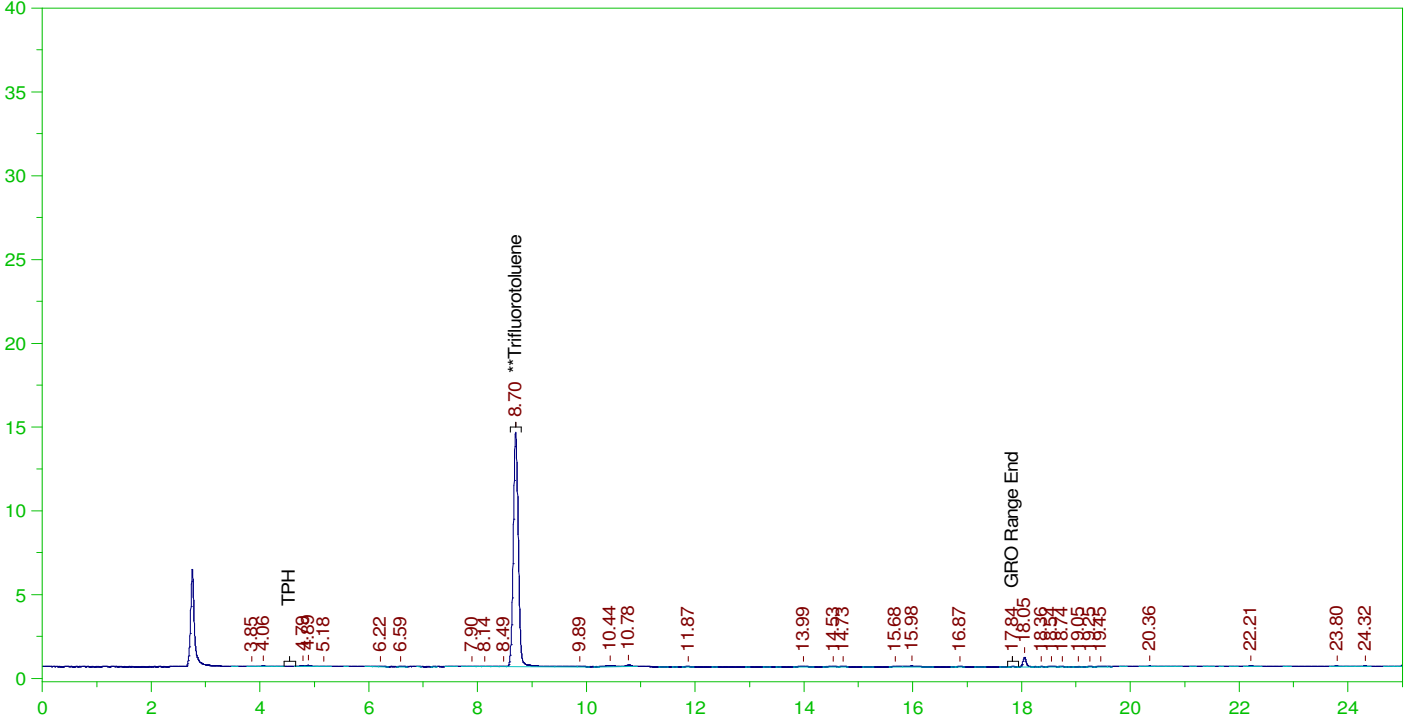
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.704	25.	20.649	82.6

C6 to C10 Area:2482.973 C6 to C10 Amount: 0.6440436
TPH Area:7445.45 TPH Amount: 2.061043

ERH2506 (Trip Blank)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0012.RAW

B22020415-013A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-013A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0012.RAW
Date & Time Acquired: 2/9/2022 1:54:17 PM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

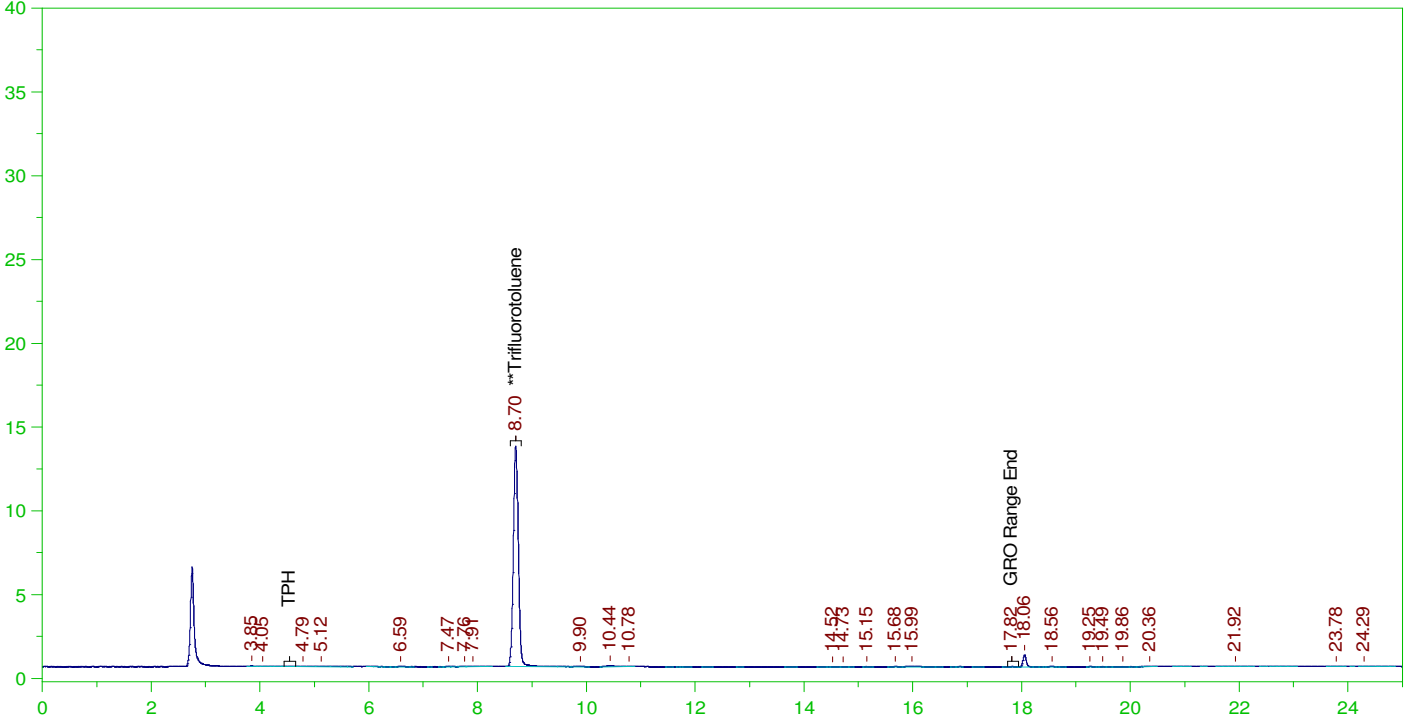
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.702	25.	21.579	86.32

C6 to C10 Area:4917.448 C6 to C10 Amount: 1.275508
TPH Area:9333.75 TPH Amount: 2.58376

ERH2510 (OWDFMW08A)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0033.RAW

B22020415-016D ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-016D ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0033.RAW
Date & Time Acquired: 2/10/2022 1:54:20 AM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

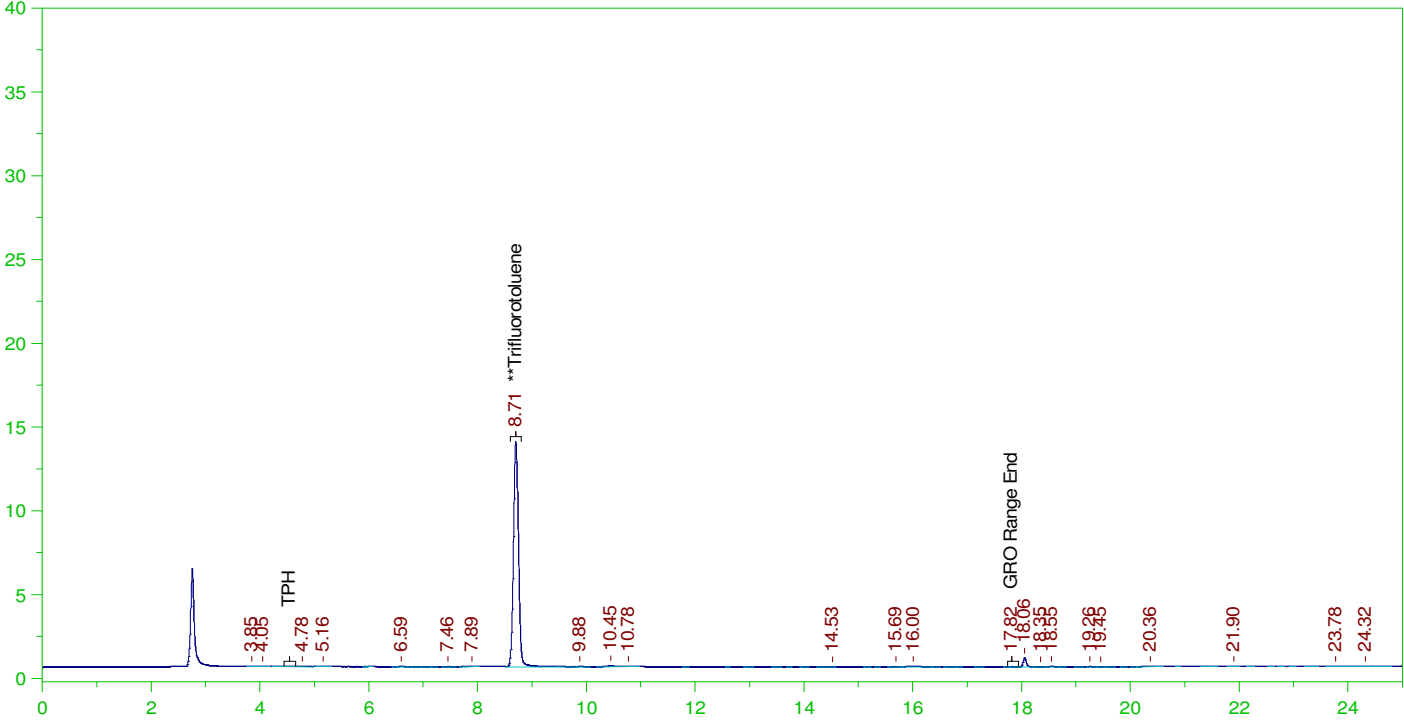
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.703	25.	20.342	81.37

C6 to C10 Area:3361.074 C6 to C10 Amount: 0.8718091
TPH Area:8000.52 TPH Amount: 2.214696

ERH2509 (OWDFMW08A)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0035.RAW

B22020415-017G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-017G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0035.RAW
Date & Time Acquired: 2/10/2022 3:02:50 AM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

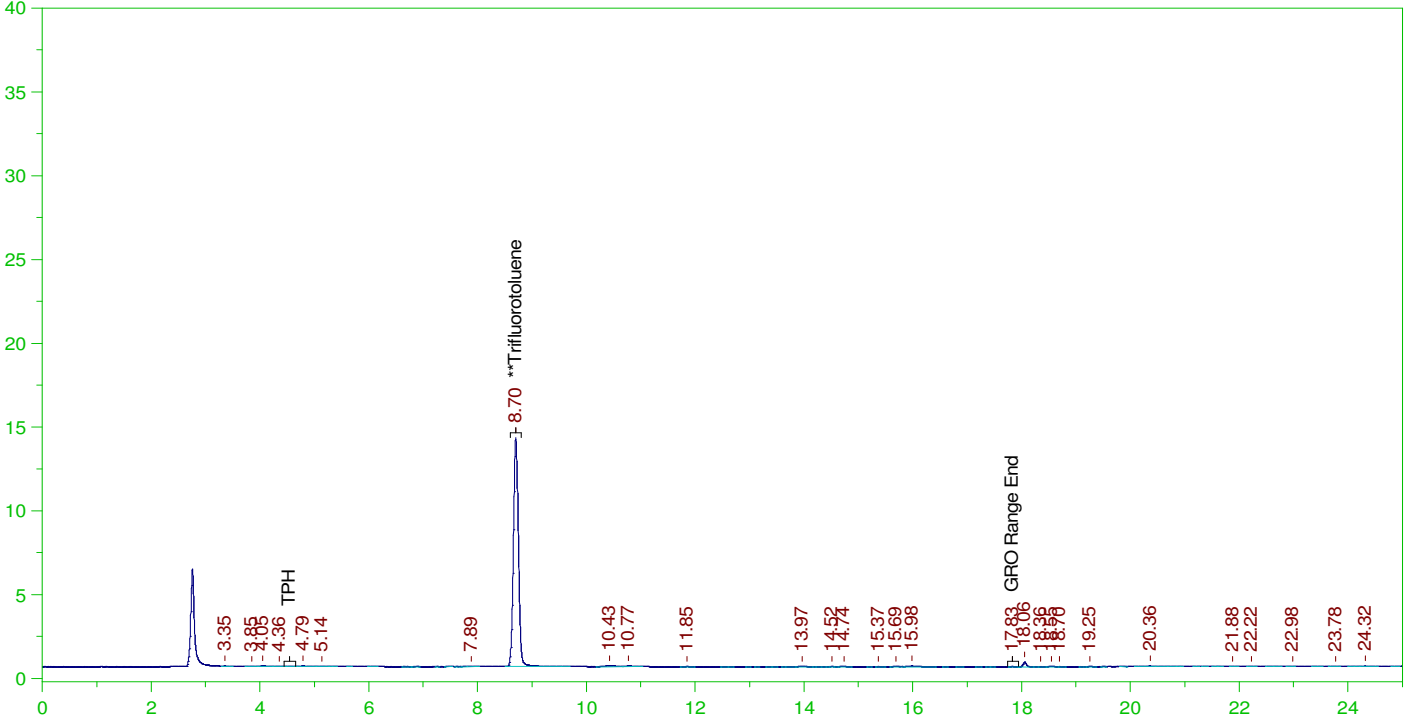
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.706	25.	20.712	82.85

C6 to C10 Area:2616.789 C6 to C10 Amount: 0.6787533
TPH Area:6382.077 TPH Amount: 1.766681

ERH2508 (Trip Blank)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0013.RAW

B22020415-019A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-019A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0013.RAW
Date & Time Acquired: 2/9/2022 2:28:35 PM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

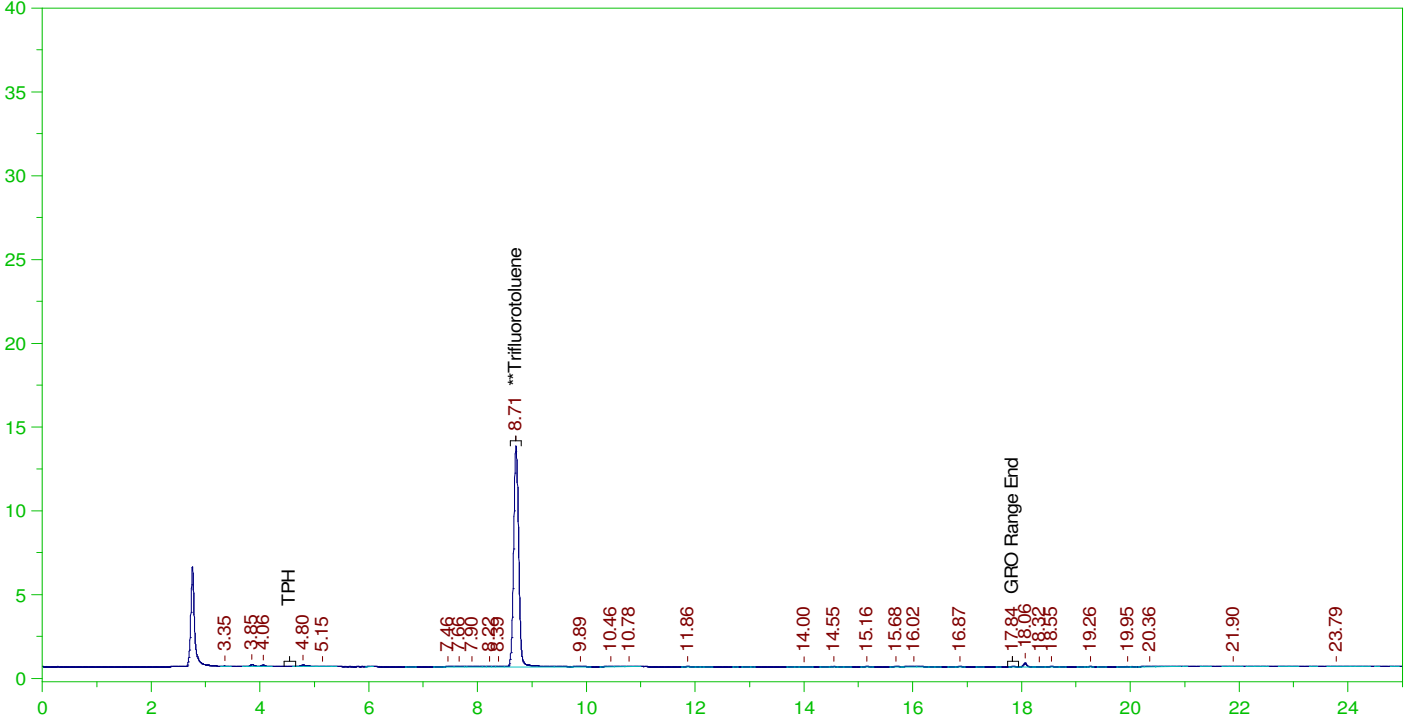
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.705	25.	20.937	83.75

C6 to C10 Area:3948.688 C6 to C10 Amount: 1.024227
TPH Area:7077.976 TPH Amount: 1.959319

ERH2512 (RHMW19)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0037.RAW

B22020415-022G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-022G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0037.RAW
Date & Time Acquired: 2/10/2022 4:11:20 AM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

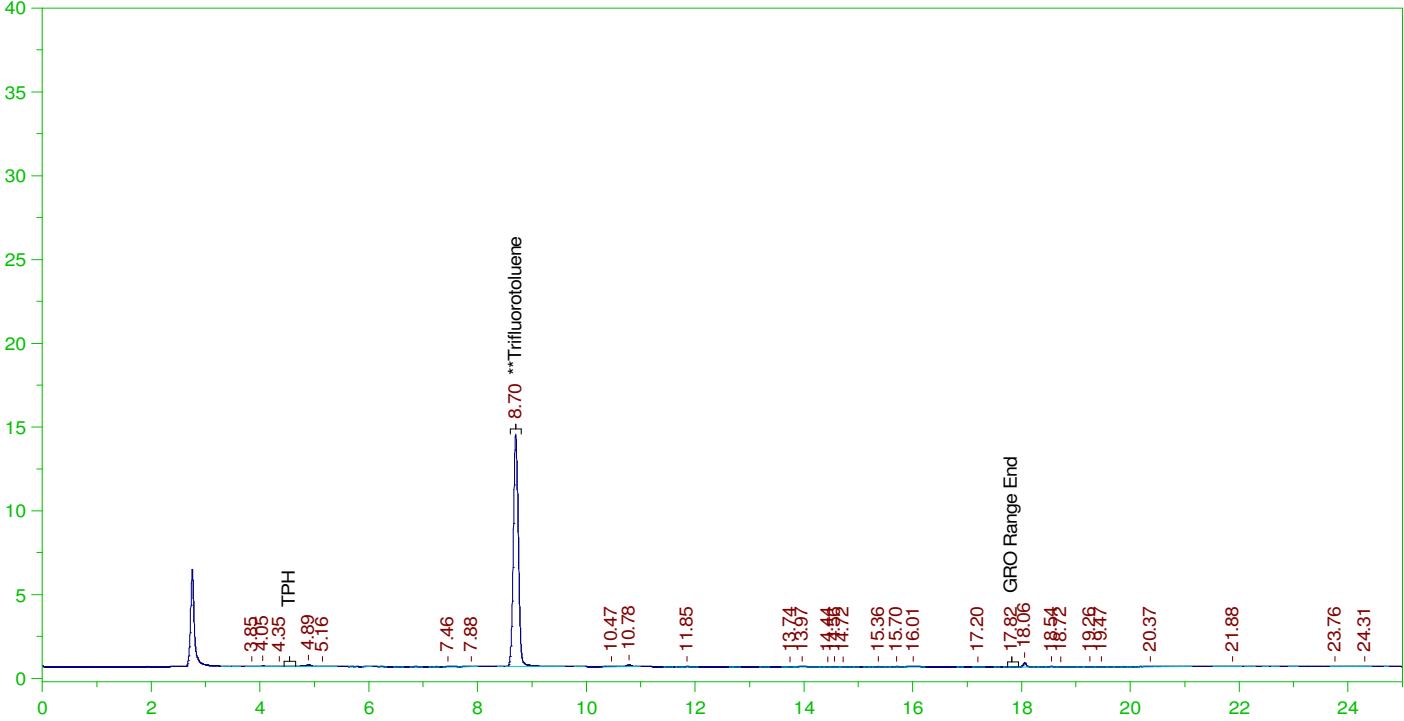
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.709	25.	20.4	81.6

C6 to C10 Area:3633.385 C6 to C10 Amount: 0.9424422
TPH Area:7034.321 TPH Amount: 1.947234

ERH2511 (Trip Blank)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0015.RAW

B22020415-024A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-024A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0015.RAW
Date & Time Acquired: 2/9/2022 3:37:09 PM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

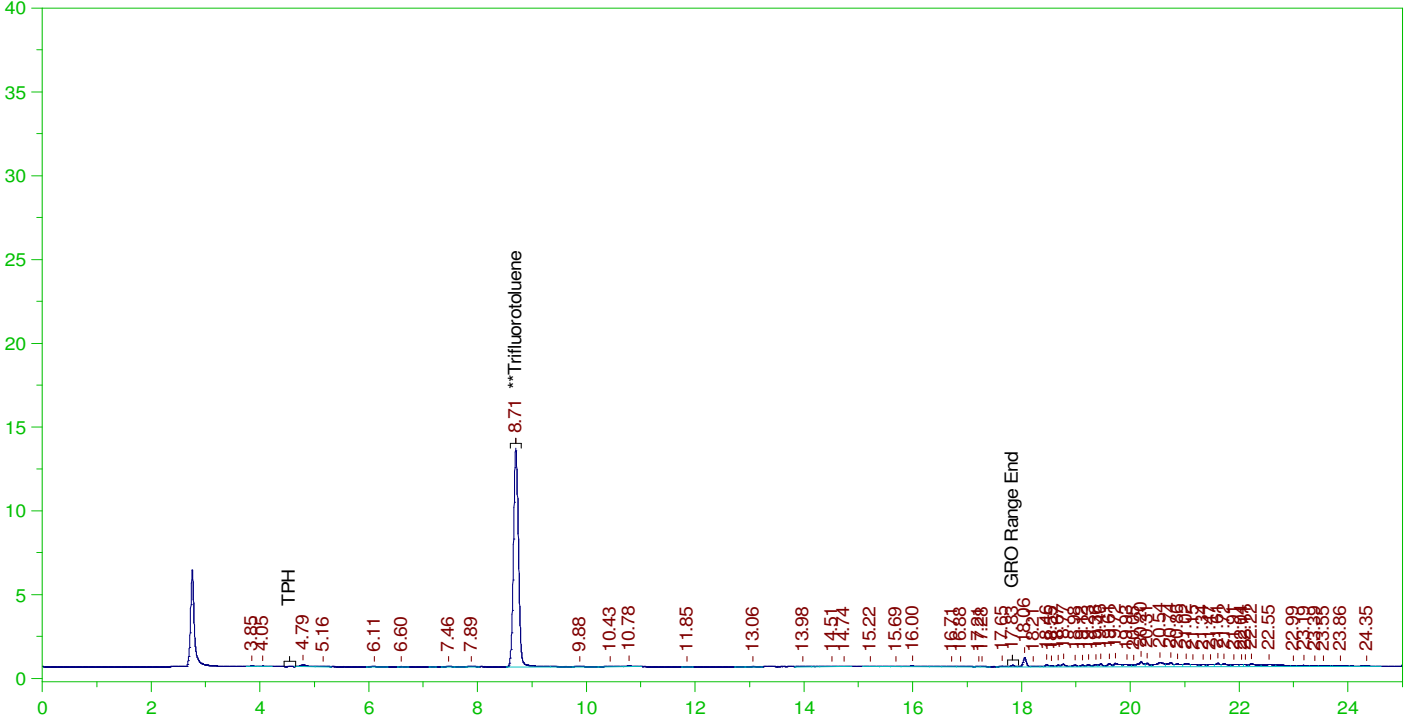
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.704	25.	21.359	85.43

C6 to C10 Area:4314.865 C6 to C10 Amount: 1.119207
TPH Area:7349.804 TPH Amount: 2.034566

ERH2516 (RHMW2254-01 Bailer)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0039.RAW

B22020415-027G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-027G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0039.RAW
Date & Time Acquired: 2/10/2022 5:19:58 AM
Method File: G:\Org\PE1\Methods\220203G415-27DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.706	25.	20.065	80.26

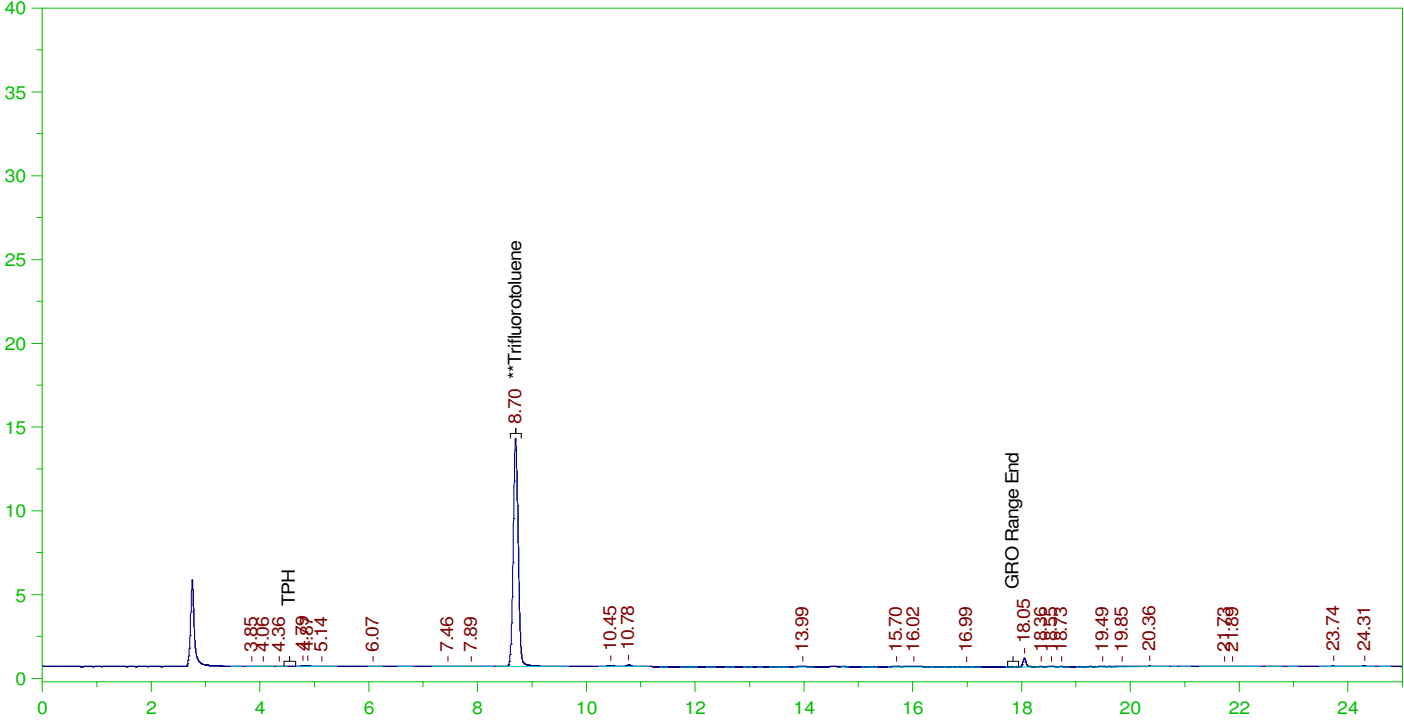
C6 to C10 Area:5436.918 C6 to C10 Amount: 1.41025
TPH Area:38849.62 TPH Amount: 10.75432



ERH2515 (Trip Blanks)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0017.RAW

B22020415-029A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-029A ;0209PE1 , \$HC-8015-GRO-W,
 Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0017.RAW
 Date & Time Acquired: 2/9/2022 4:45:46 PM
 Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
 Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
 Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
 Mean RF for TPH: 722.4935
 Rt range for Gasoline Range Organics: 4.45 to 17.94

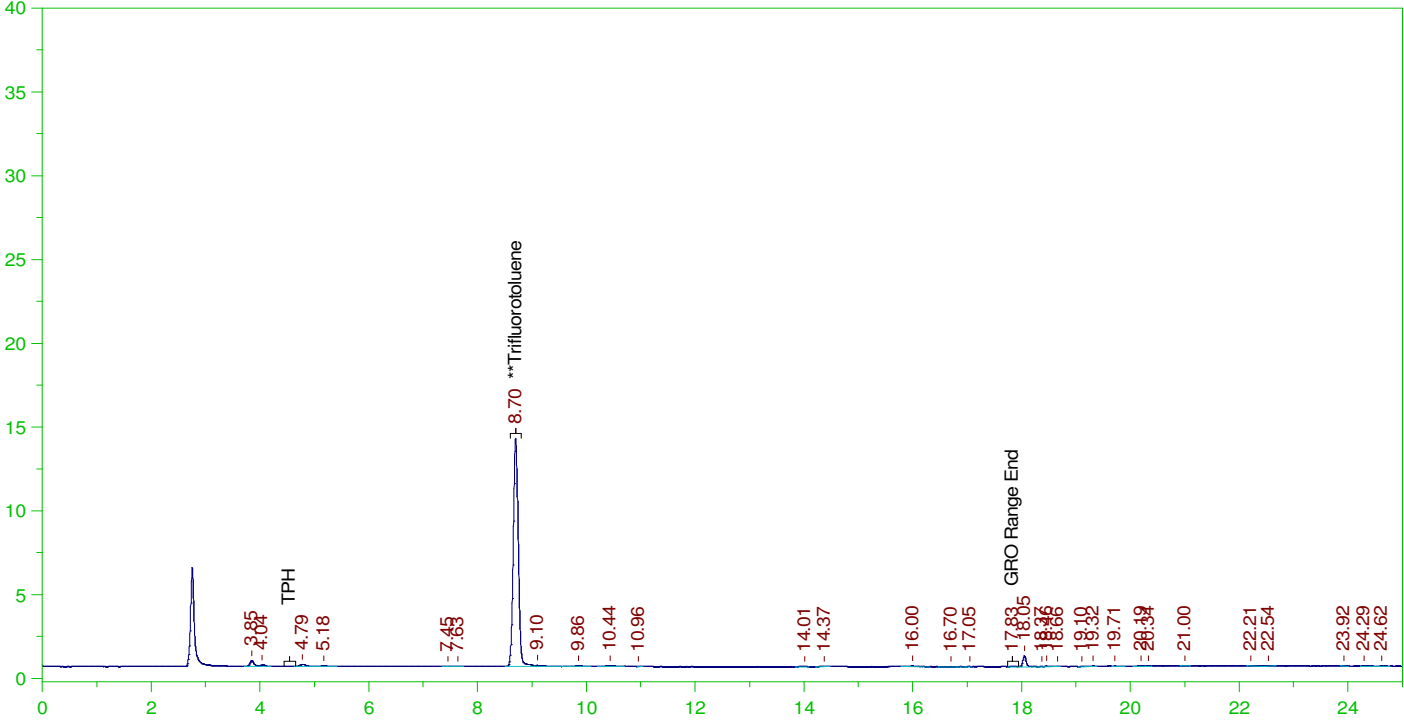
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.701	25.	20.955	83.82

C6 to C10 Area:3720.895 C6 to C10 Amount: 0.9651409
 TPH Area:7684.969 TPH Amount: 2.127346

ERH2519 (RHMW2254-01 Low Flow)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0008.RAW

B22020415-032G ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-032G ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0008.RAW
Date & Time Acquired: 2/9/2022 11:36:58 AM
Method File: G:\Org\PE1\Methods\220203G415-32DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

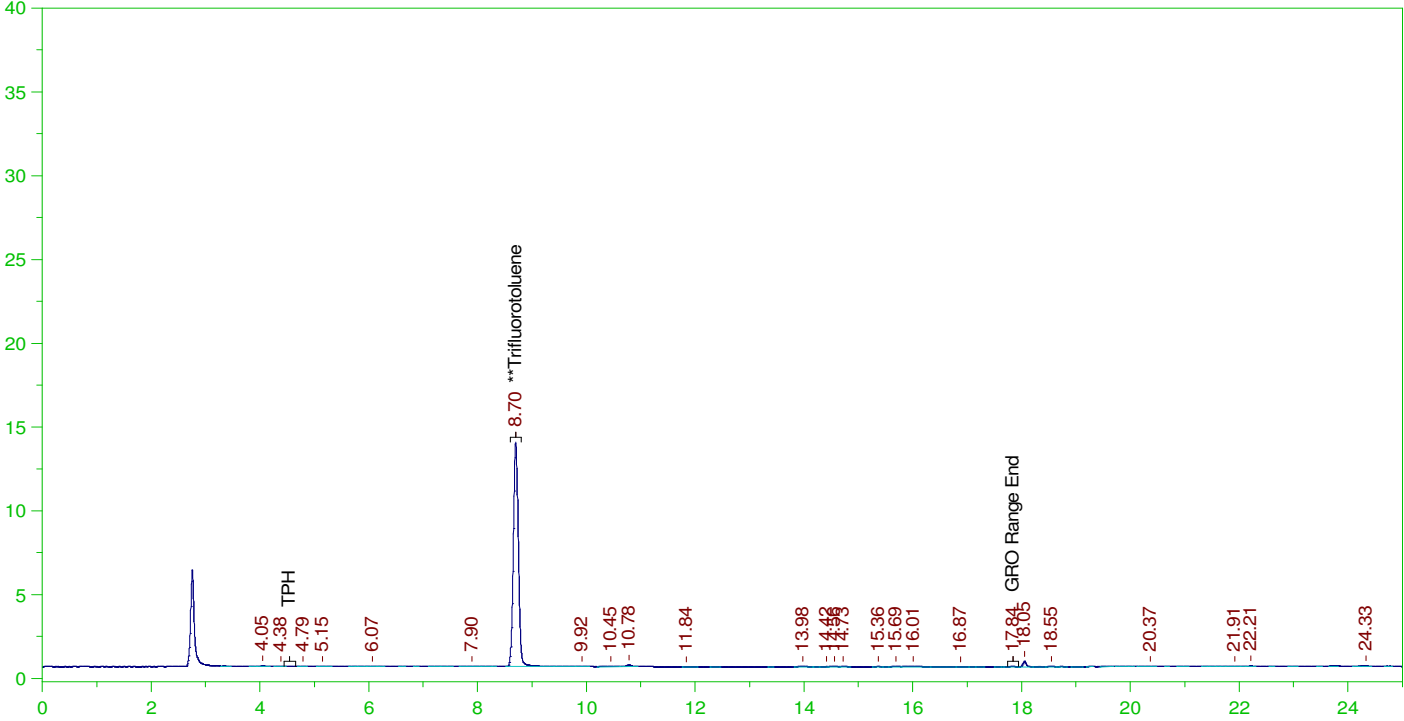
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.702	25.	20.955	83.82

C6 to C10 Area:5039.947 C6 to C10 Amount: 1.307282
TPH Area:12426.37 TPH Amount: 3.439857

ERH2518 (Trip Blanks)

G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0007.RAW

B22020415-034A ;0209PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-034A ;0209PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1020922_b\0209PE1B.0007.RAW
Date & Time Acquired: 2/9/2022 11:02:36 AM
Method File: G:\Org\PE1\Methods\220203GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\220131GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 771.0573
Mean RF for TPH: 722.4935
Rt range for Gasoline Range Organics: 4.45 to 17.94

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.703	25.	20.652	82.61

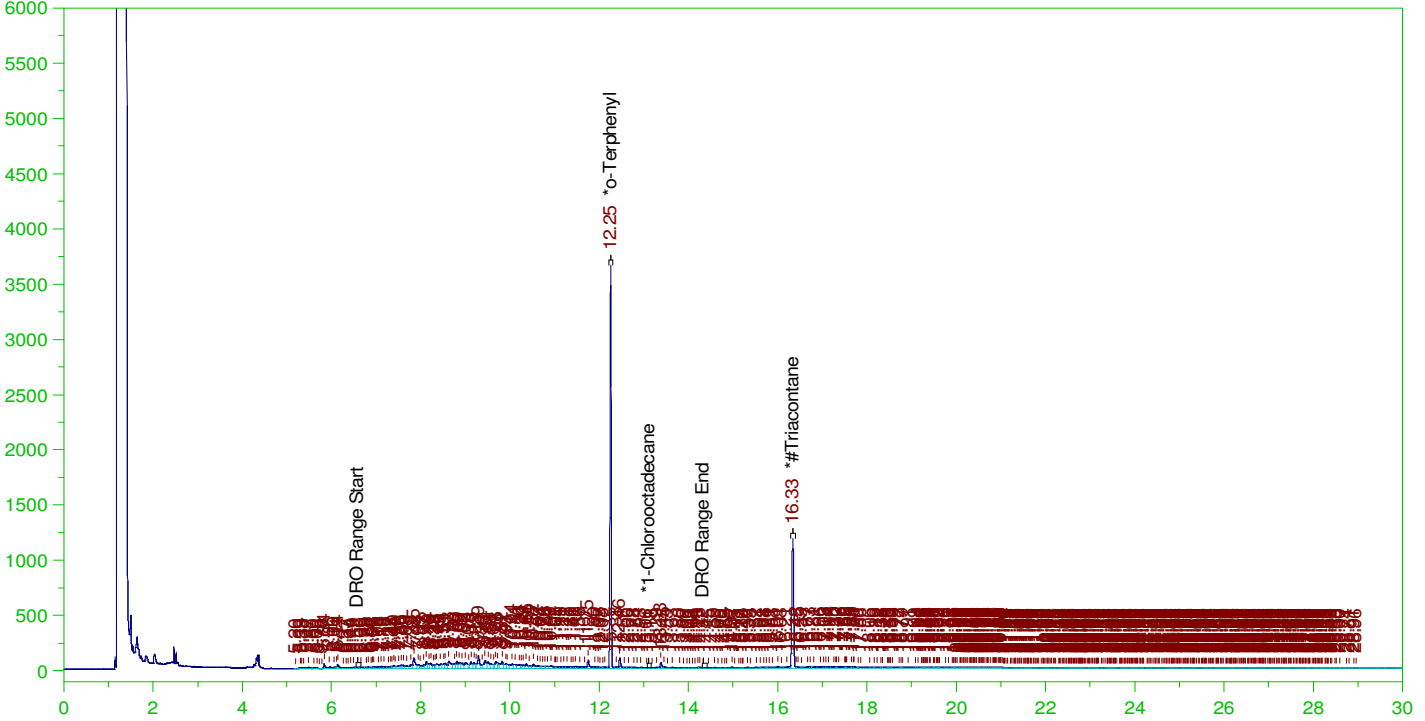
C6 to C10 Area:3146.417 C6 to C10 Amount: 0.8161306
TPH Area:5910.205 TPH Amount: 1.636057

ERH2522 (Sump Adit 3)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0011.RAW

B22020415-001D ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-001D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0011.RAW
Date & Time Acquired: 2/9/2022 5:18:29 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.255	.191	.182	95.01	-
*1-Chlorooctadecane	13.111	.191	.001	.27	-
*#Triacontane	16.334	.191	.101	52.63	-

DRO Area:1.083072E+07 DRO Amount: 0.3171909

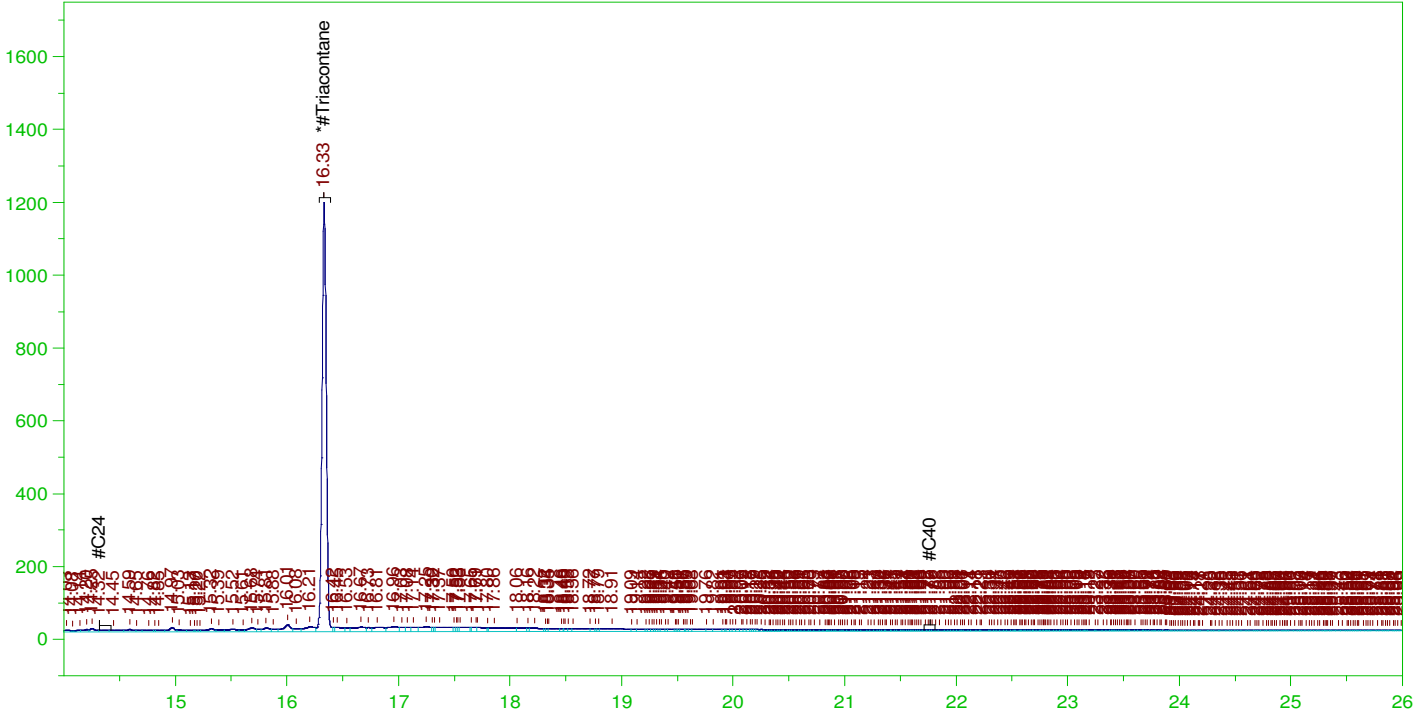
TEH Area:1.506676E+07 TEH Amount: 0.4412484

ERH2522 (Sump Adit 3)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0011.RAW

B22020415-001D ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-001D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0011.RAW
Date & Time Acquired: 2/9/2022 5:18:29 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BE-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_SAMP.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.334	.478	.101	21.09

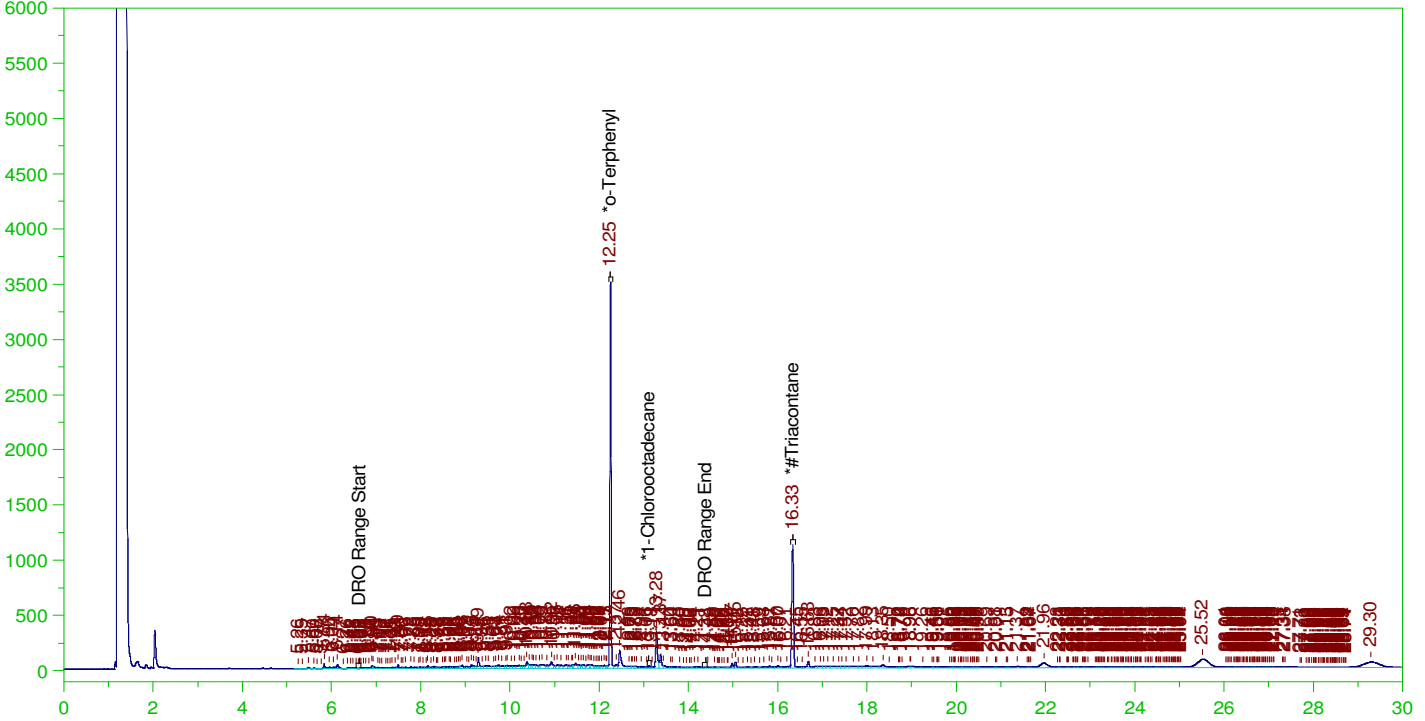
RRO Area:3242306 RRO AMOUNT: 0.1174167

ERH2514 (RHMW01R)

G:\org\HP5\DAT\HP5020922_b\0209HP5.0017.RAW

Batch ID: 163616

B22020415-006D ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-006D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0017.RAW
Date & Time Acquired: 2/9/2022 9:35:56 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.194	.181	93.15	-
*1-Chlorooctadecane	13.107	.194	.003	1.35	-
*#Triacontane	16.332	.194	.098	50.28	-

DRO Area:1.013063E+07 DRO Amount: 0.3010084

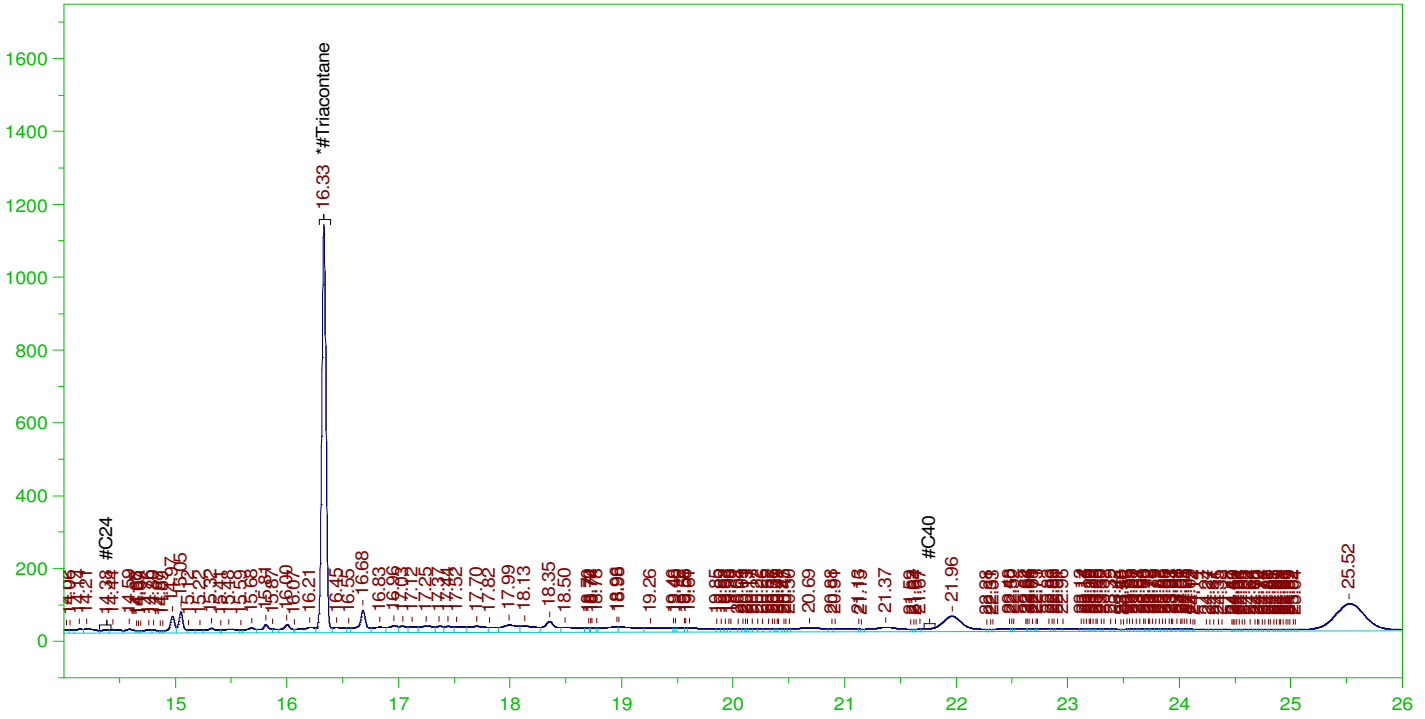
TEH Area:2.064761E+07 TEH Amount: 0.6134966

ERH2514 (RHMW01R)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0017.RAW

B22020415-006D ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-006D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0017.RAW
Date & Time Acquired: 2/9/2022 9:35:56 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BE-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.332	.485	.098	20.12

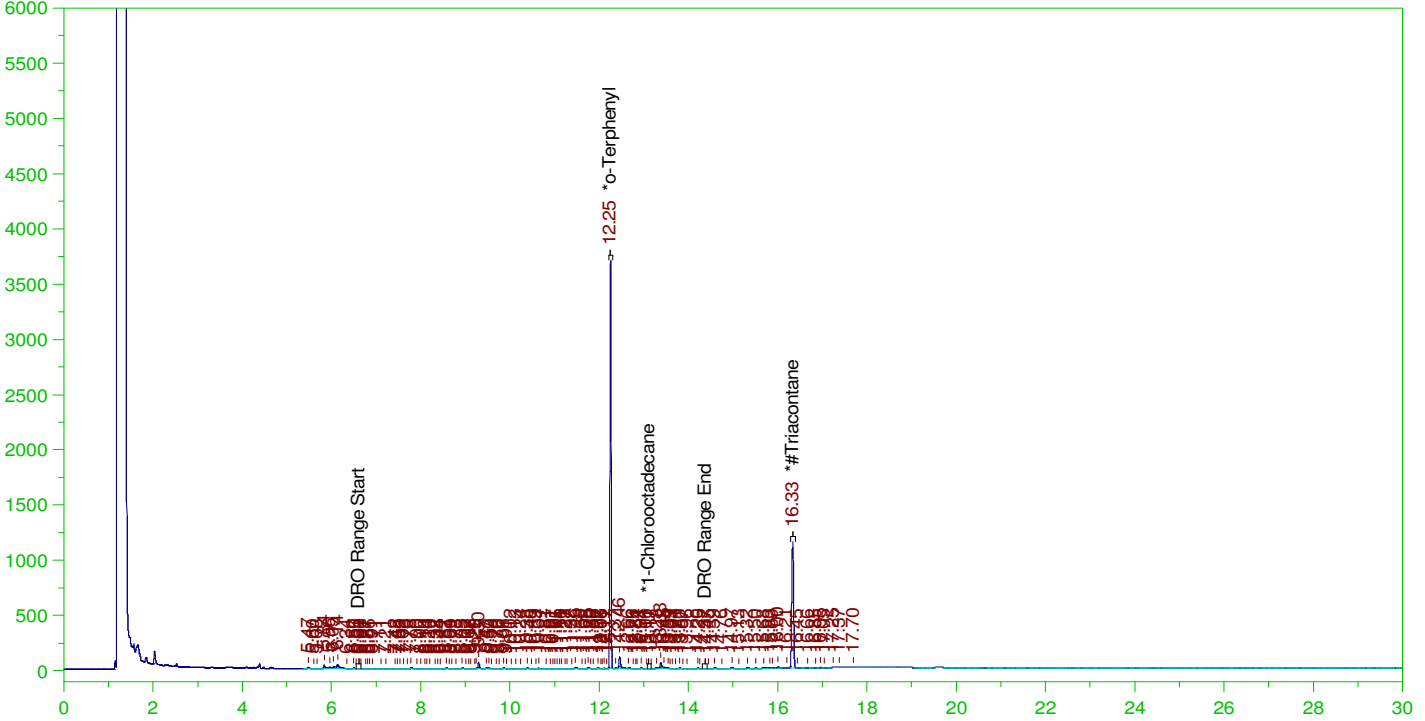
RRO Area:5277806 RRO AMOUNT: 0.1939137

ERH2507 (OWDFMW07A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0014.RAW

B22020415-011D ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-011D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0014.RAW
Date & Time Acquired: 2/9/2022 7:27:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.19	.182	95.74	-
*1-Chlorooctadecane	13.107	.19	.	.09	-
*#Triacontane	16.332	.19	.096	50.45	-

DRO Area:1086124
TEH Area:1733538

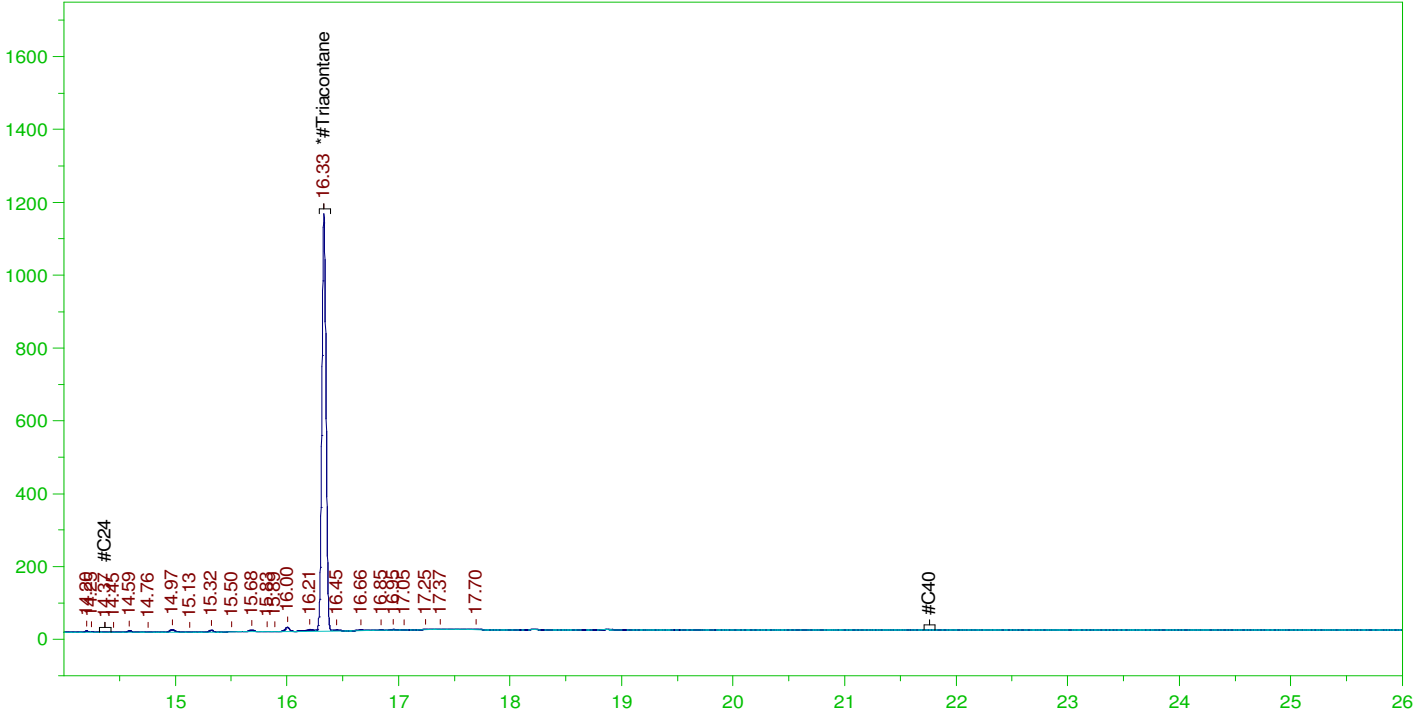
DRO Amount: 0.031657
TEH Amount: 5.052701E-02

ERH2507 (OWDFMW07A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0014.RAW

B22020415-011D ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-011D ;0209HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0014.RAW
 Date & Time Acquired: 2/9/2022 7:27:01 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.332	.476	.096	20.18

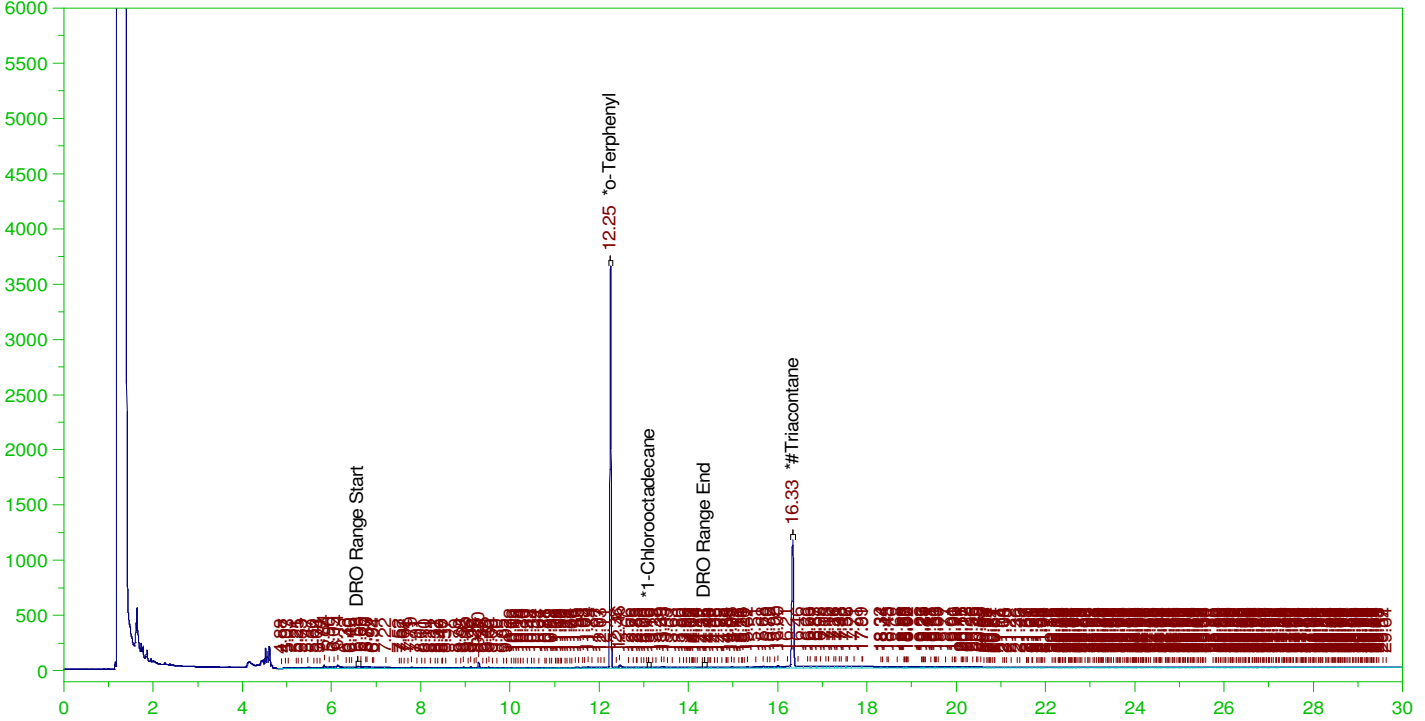
RRO Area:168512.7 RRO AMOUNT: 6.073453E-03

ERH2510 (OWDFMW08A)

G:\org\HP5\DAT\HP5020922_b\0209HP5.0015.RAW

Batch ID: 163616

B22020415-016B ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-016B ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0015.RAW
Date & Time Acquired: 2/9/2022 8:09:58 PM
Method File: G:\Org\HP5\Methods\D3_8015-020915-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.189	.179	95.08	-
*1-Chlorooctadecane	13.101	.189	.001	.49	-
*#Triacontane	16.332	.189	.1	52.96	-

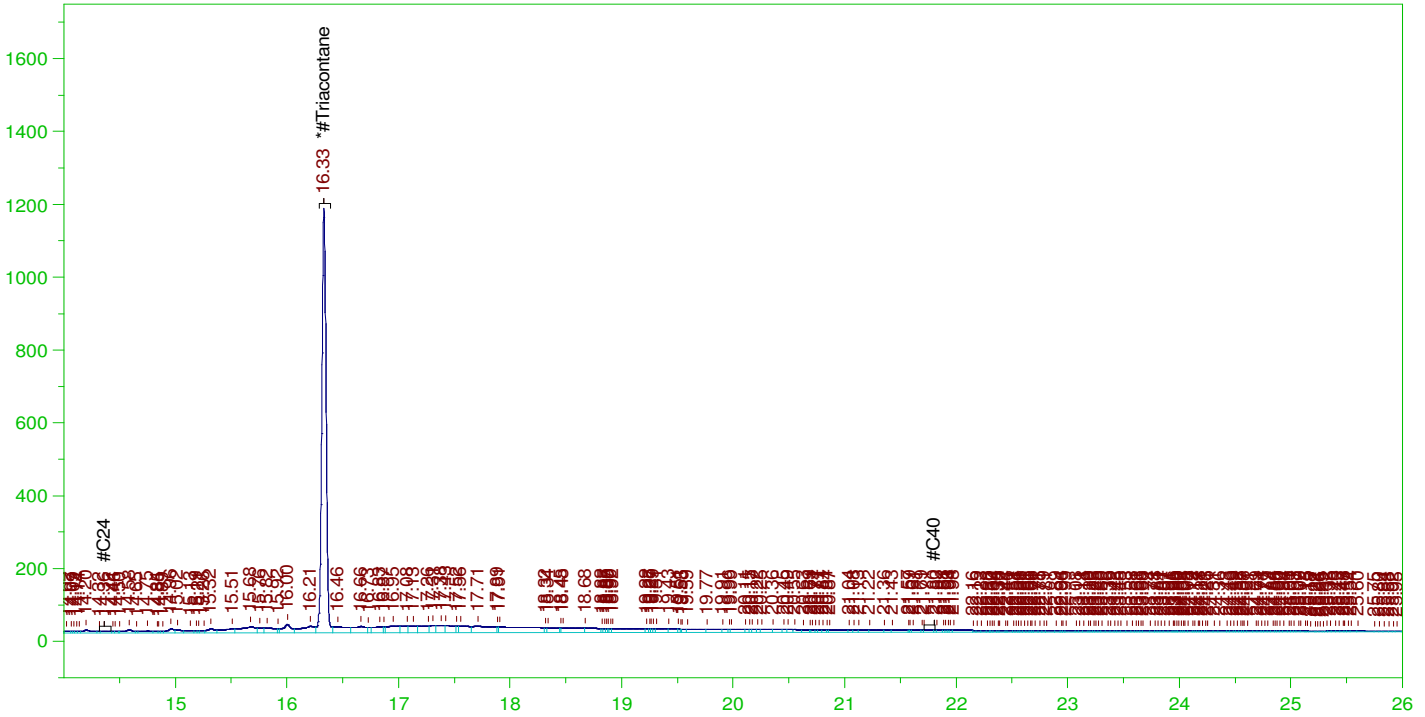
DRO Area:2616285 DRO Amount: 7.553684E-02
TEH Area:9591447 TEH Amount: 0.2769223

ERH2510 (OWDFMW08A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0015.RAW

B22020415-016B ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-016B ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0015.RAW
Date & Time Acquired: 2/9/2022 8:09:58 PM
Method File: G:\Org\HP5\Methods\D3_OROS-020915-BE-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.332	.472	.1	21.16 -

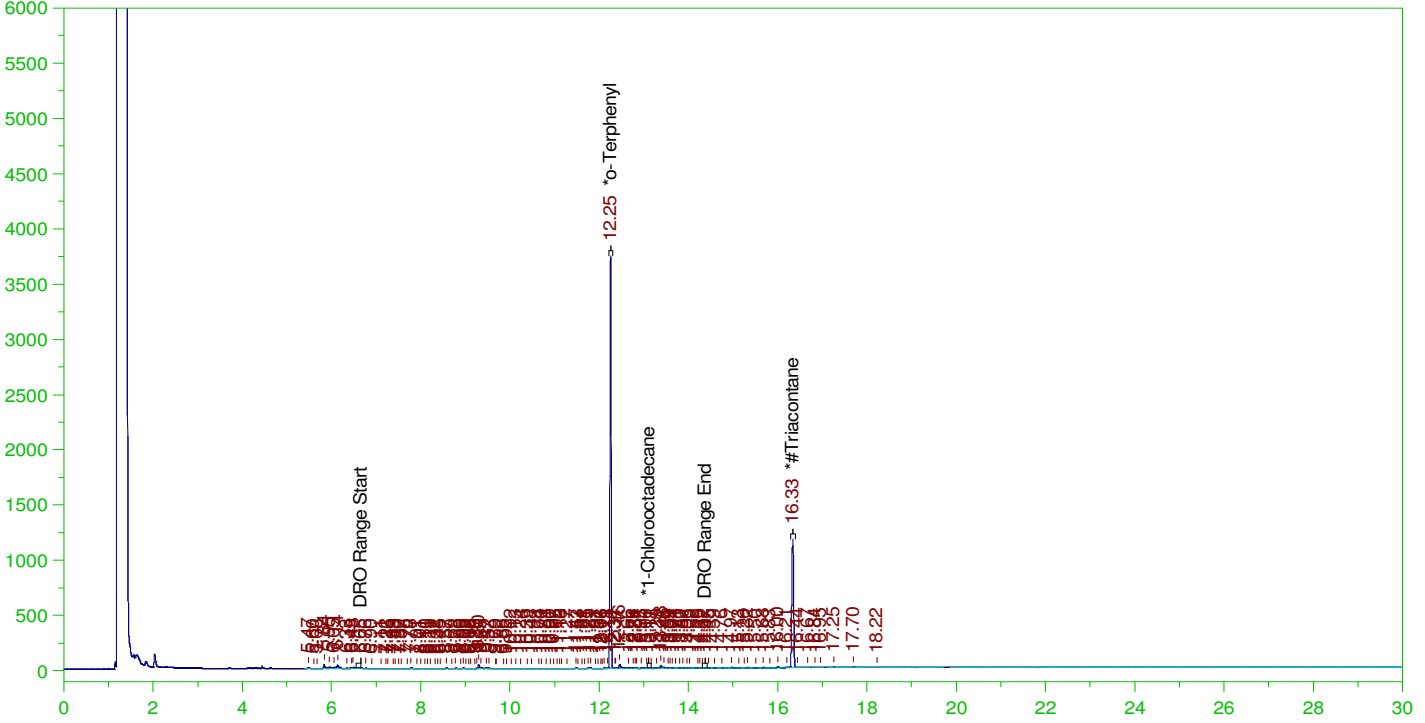
RRO Area:4812965 RRO AMOUNT: 0.1718301

ERH2509 (OWDFMW08A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0016.RAW

B22020415-017D ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-017D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0016.RAW
Date & Time Acquired: 2/9/2022 8:53:03 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.189	.182	96.23	-
*1-Chlorooctadecane	13.105	.189	.	.07	-
*#Triacontane	16.333	.189	.097	51.22	-

DRO Area:730882.8

DRO Amount: 0.0211019

TEH Area:1355878

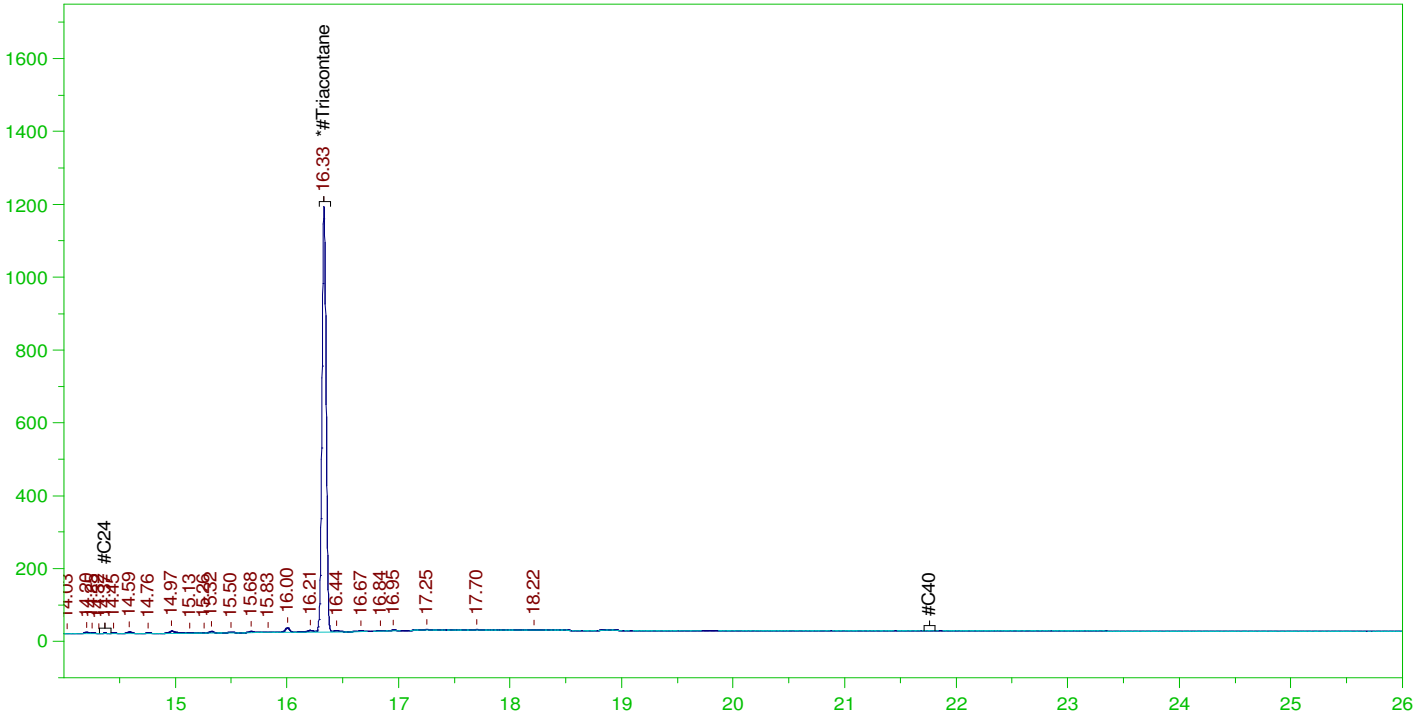
TEH Amount: 3.914663E-02

ERH2509 (OWDFMW08A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0016.RAW

B22020415-017D ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-017D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0016.RAW
Date & Time Acquired: 2/9/2022 8:53:03 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.333	.472	.097	20.49

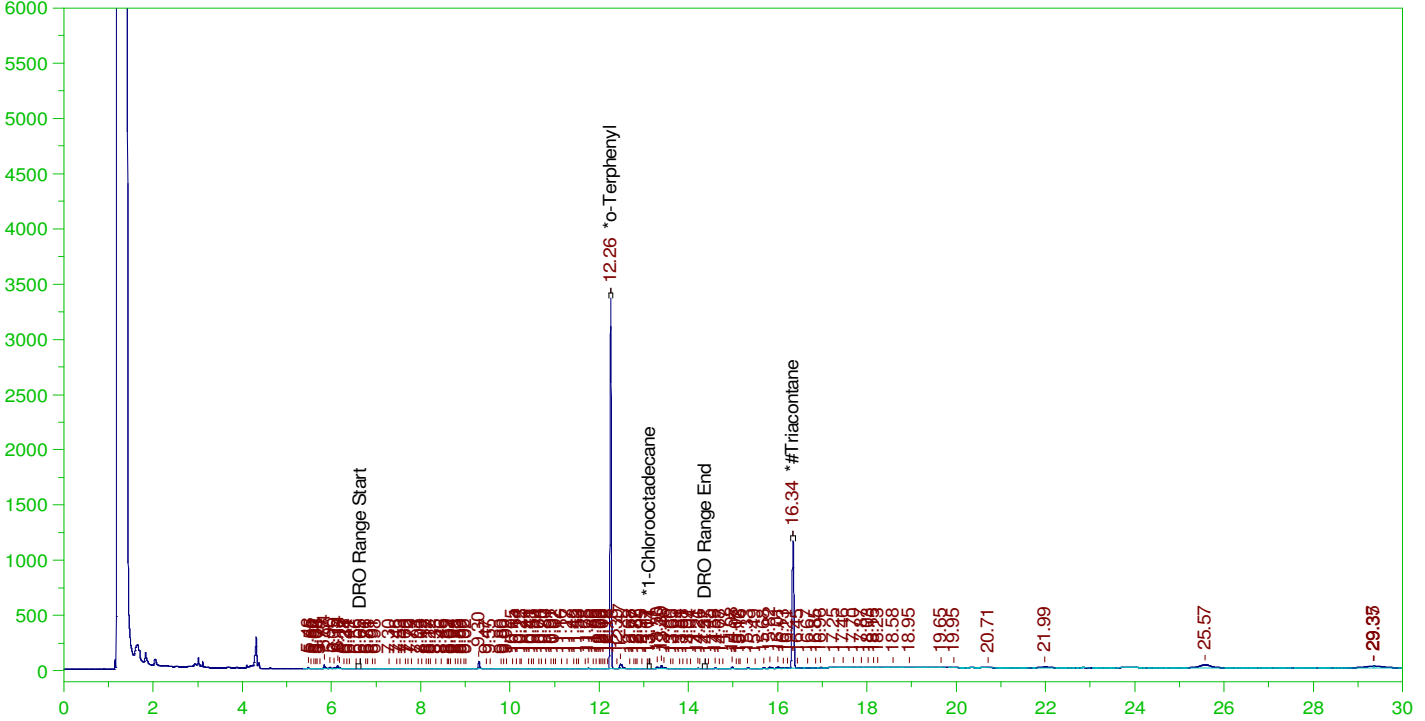
RRO Area:181631.5 RRO AMOUNT: 6.484517E-03

ERH2512 (RHMW19)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0040.RAW

B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0040.RAW
 Date & Time Acquired: 2/10/2022 2:40:33 PM
 Method File: G:\Org\HP5\Methods\DR_8015-020940-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.256	.189	.167	88.41	-
*1-Chlorooctadecane	13.113	.189	.	.02	-
*#Triacontane	16.339	.189	.096	50.93	-

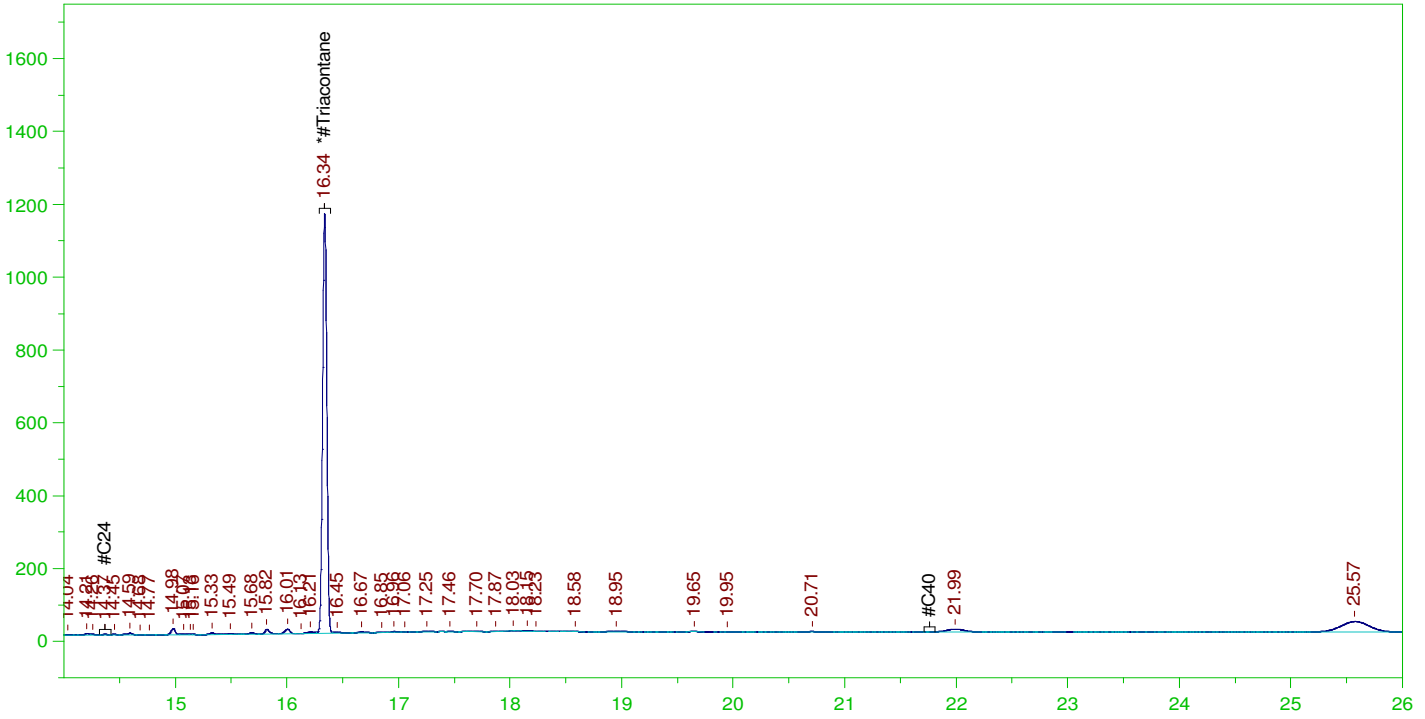
DRO Area:814494.2 DRO Amount: 2.351591E-02
 TEH Area:2526302 TEH Amount: 7.293886E-02

ERH2512 (RHMW19)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0040.RAW

B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, RR



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0040.RAW
 Date & Time Acquired: 2/10/2022 2:40:33 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.339	.472	.096	20.37

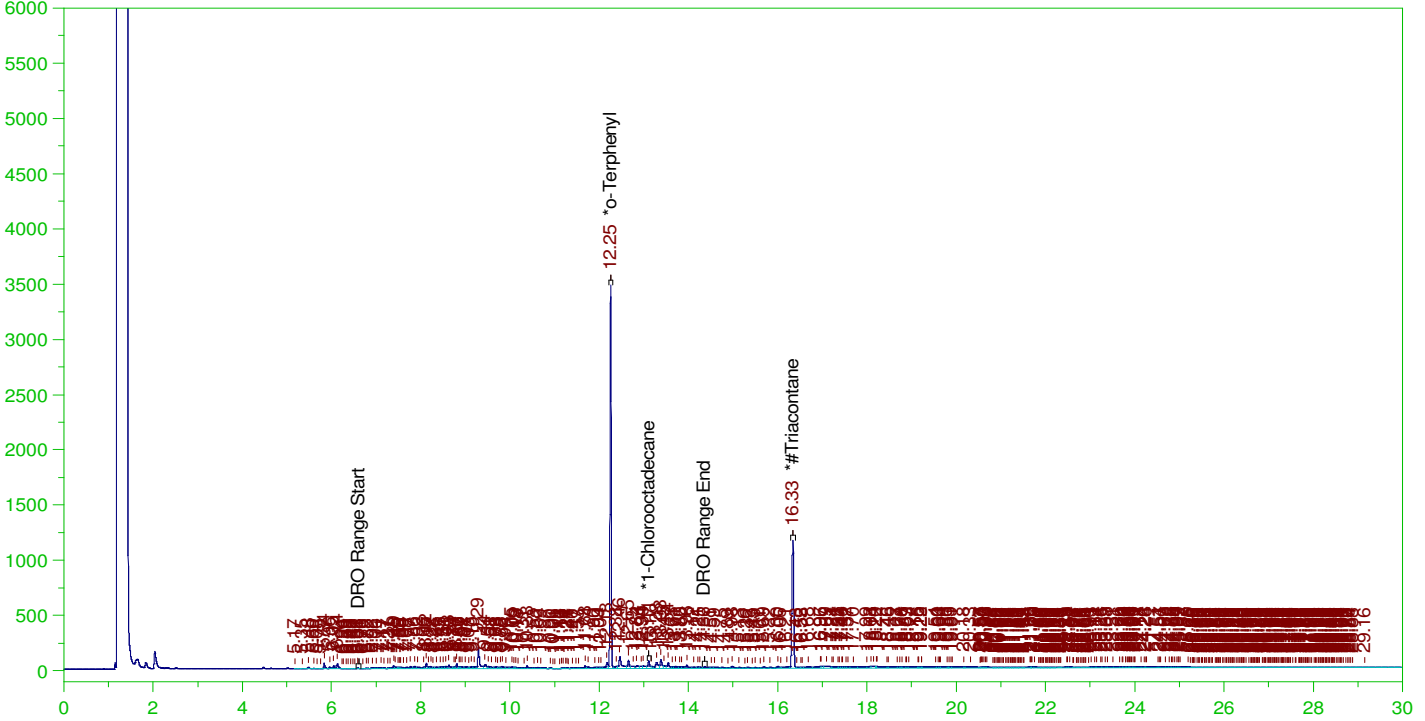
RRO Area:297873.4 RRO AMOUNT: 1.063453E-02

ERH2516 (RHMW2254-01 Bailer)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0025.RAW

B22020415-027D ;0209HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-027D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0025.RAW
Date & Time Acquired: 2/10/2022 3:21:11 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JE-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.254	.19	.176	92.48	-
*1-Chlorooctadecane	13.106	.19	.006	2.89	-
*#Triacontane	16.335	.19	.098	51.49	-

DRO Area:6420128 DRO Amount: 0.1871259

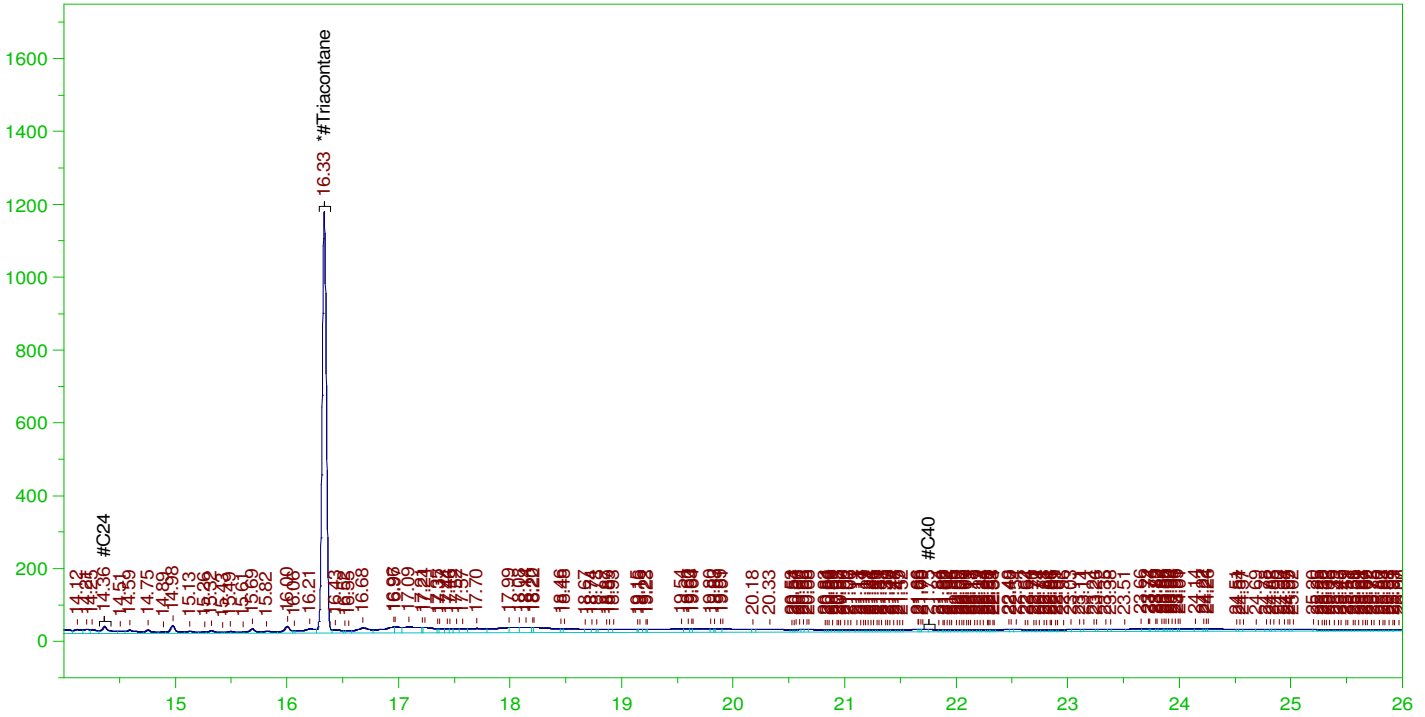
TEH Area:1.215804E+07 TEH Amount: 0.3543674

ERH2516 (RHMW2254-01 Bailer)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0025.RAW

B22020415-027D ;0209HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-027D ;0209HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0025.RAW
Date & Time Acquired: 2/10/2022 3:21:11 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BE-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.335	.476	.098	20.6

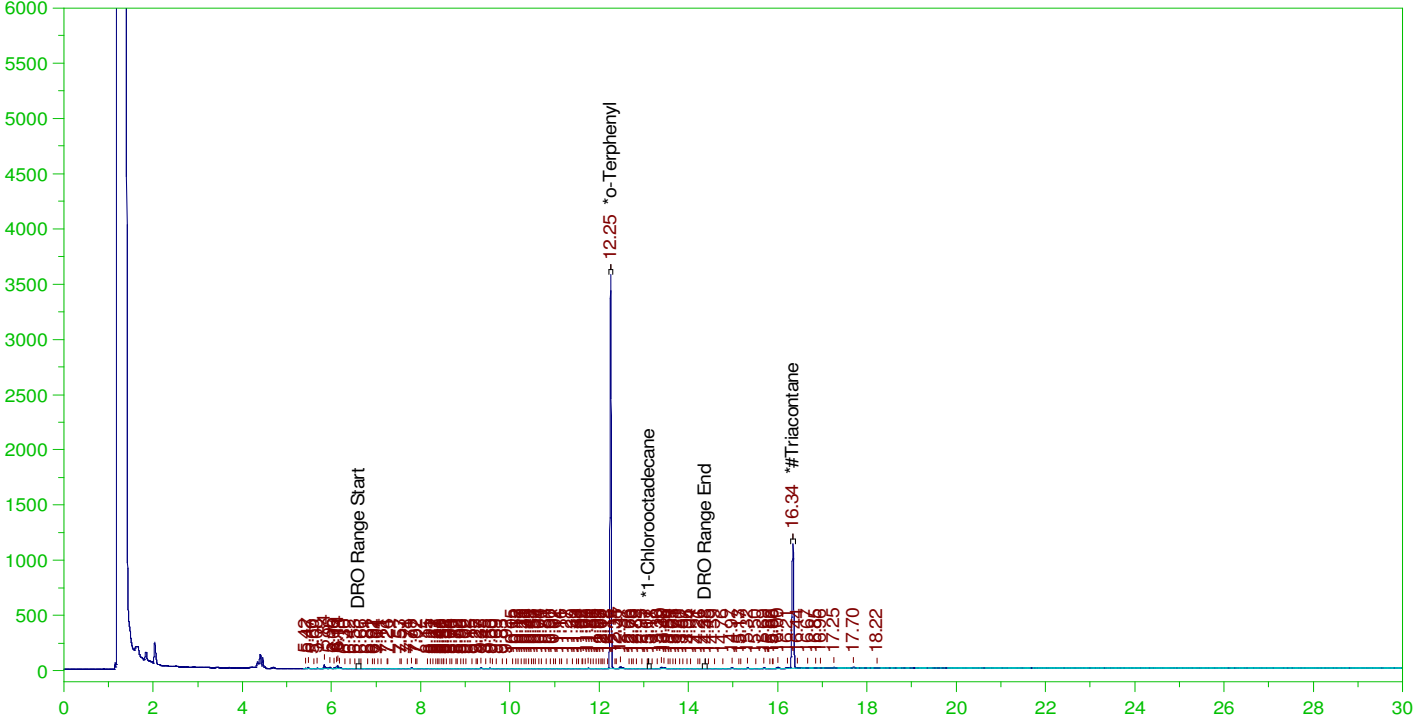
RRO Area:3715085 RRO AMOUNT: 0.1338973

ERH2519 (RHMW2254-01 Low Flow)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0039.RAW

B22020415-032D ;0209HP5 , \$HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-032D ;0209HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0039.RAW
 Date & Time Acquired: 2/10/2022 1:57:43 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1055 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.254	.19	.176	92.73	-
*1-Chlorooctadecane	13.108	.19	.	.06	-
*#Triacontane	16.335	.19	.094	49.59	-

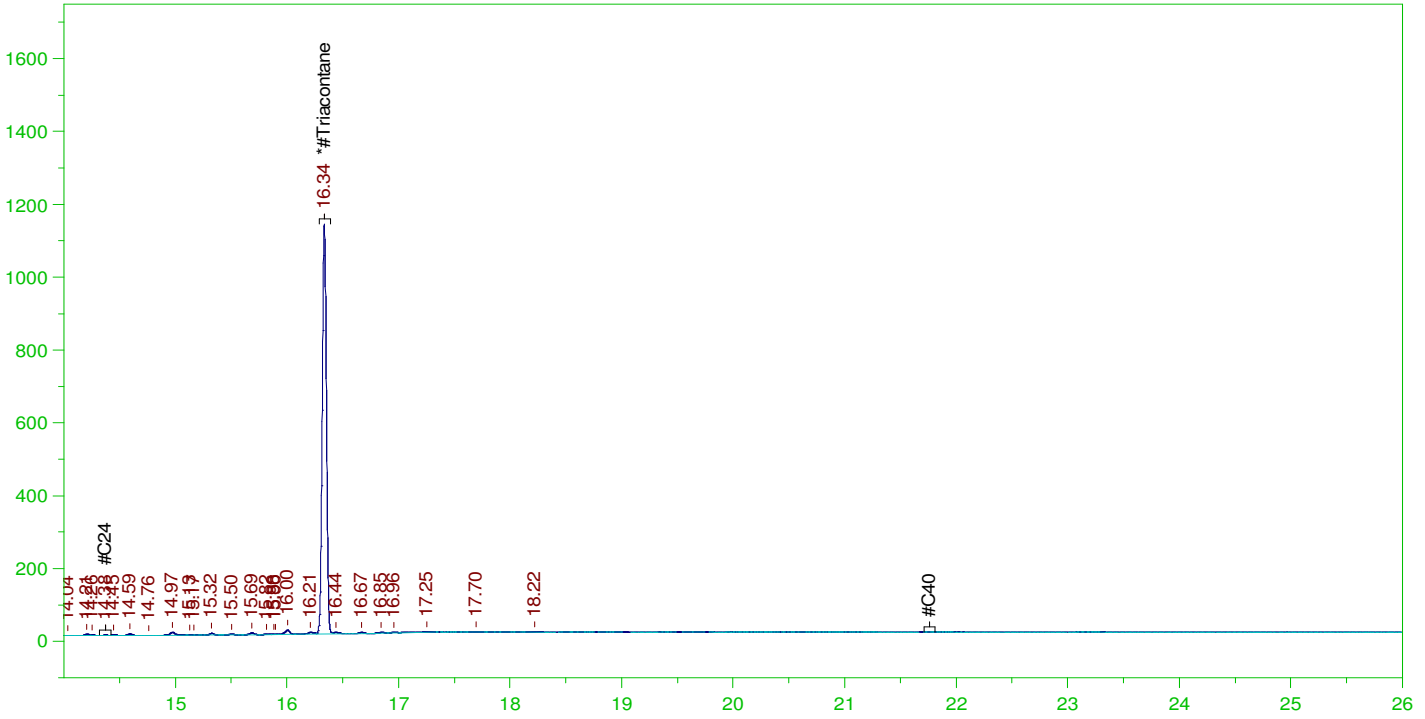
DRO Area:552482.5 DRO Amount: 1.602676E-02
 TEH Area:1099621 TEH Amount: 3.189849E-02

ERH2519 (RHMW2254-01 Low Flow)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0039.RAW

B22020415-032D ;0209HP5 , \$HC-8015-DRO-W, RR



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-032D ;0209HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0039.RAW
 Date & Time Acquired: 2/10/2022 1:57:43 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_SAMP.CAL
 Sample Weight: 1055 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.335	.474	.094	19.83

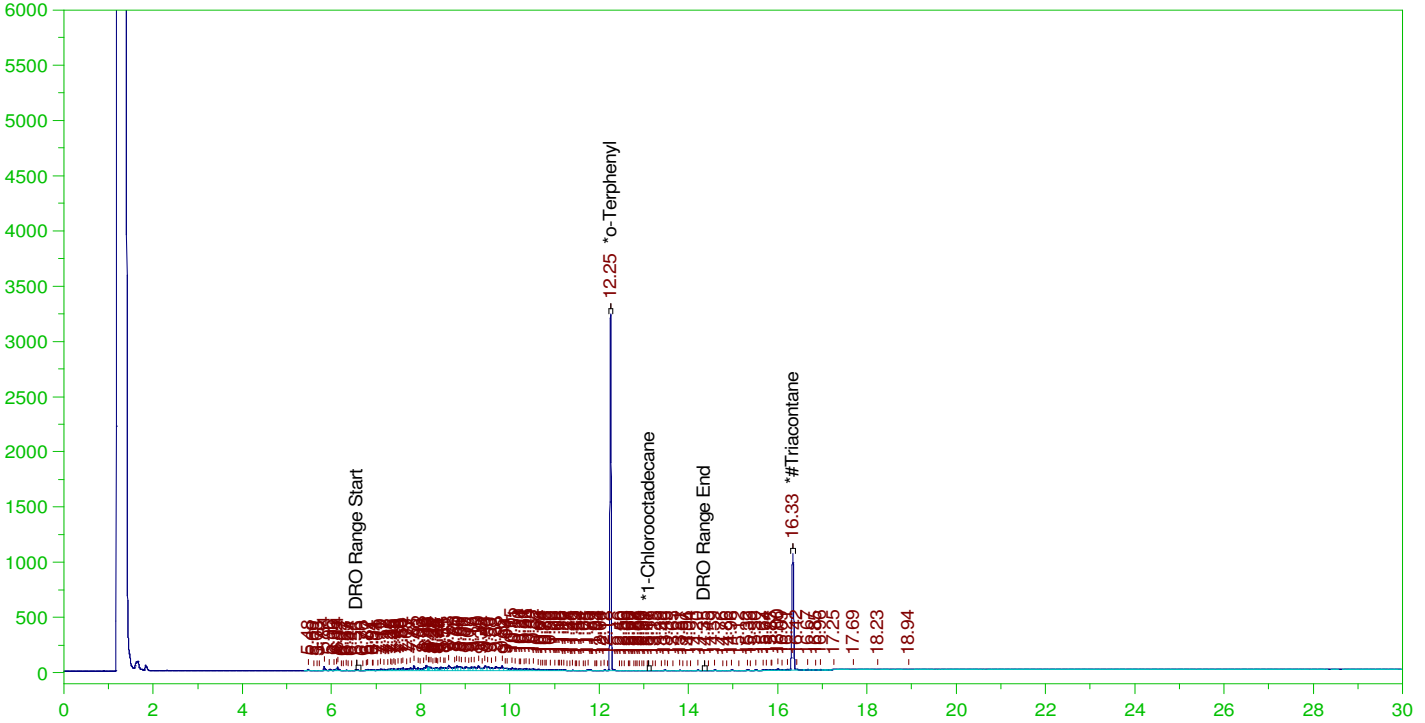
RRO Area:191151.8 RRO AMOUNT: 6.856748E-03

ERH2522 (Sump Adit 3)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0044.RAW

B22020415-001D ;0209HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-001D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0044.RAW
 Date & Time Acquired: 2/10/2022 5:32:05 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.191	.163	85.23	-
*1-Chlorooctadecane	13.112	.191	.	.07	-
*#Triacontane	16.334	.191	.089	46.72	-

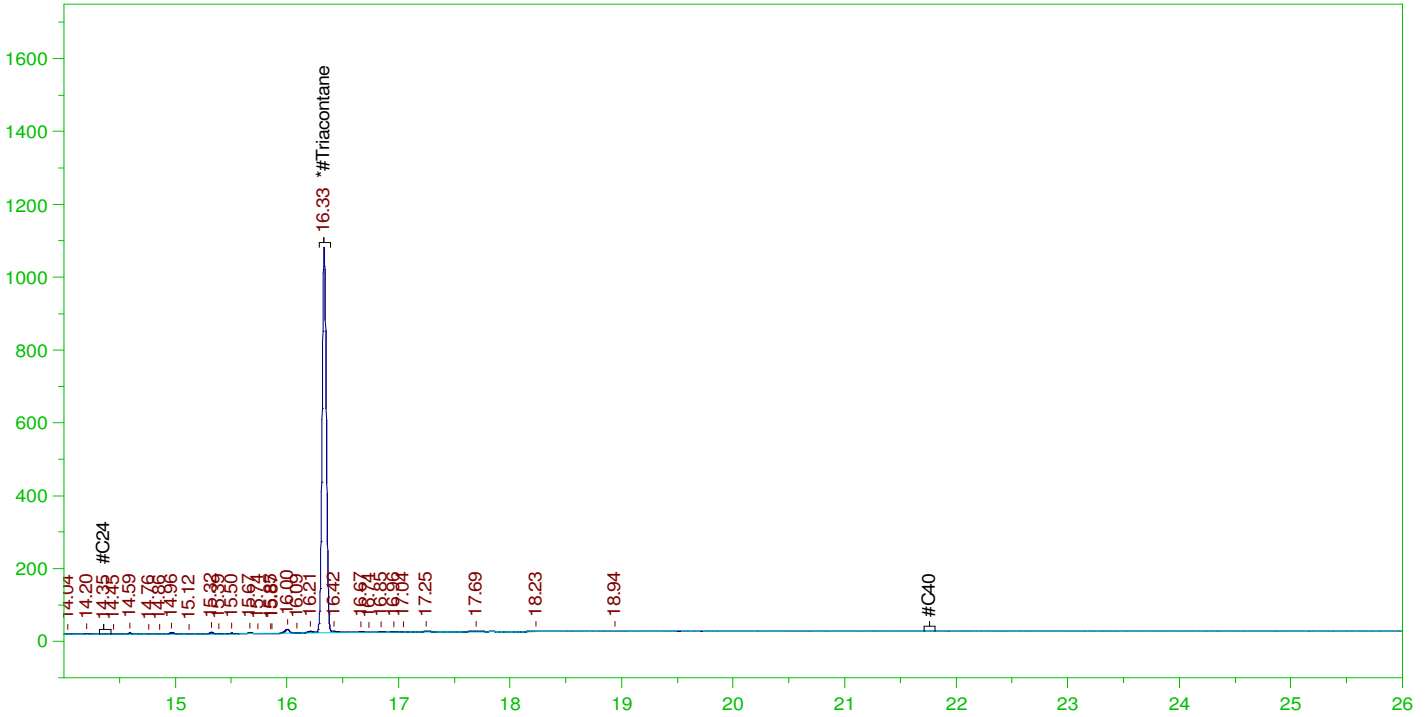
DRO Area:5587970 DRO Amount: 0.1636505
 TEH Area:6130092 TEH Amount: 0.1795272

ERH2522 (Sump Adit 3)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0044.RAW

B22020415-001D ;0209HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-001D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0044.RAW
 Date & Time Acquired: 2/10/2022 5:32:05 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_SAMP.CAL
 Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.334	.478	.089	18.69

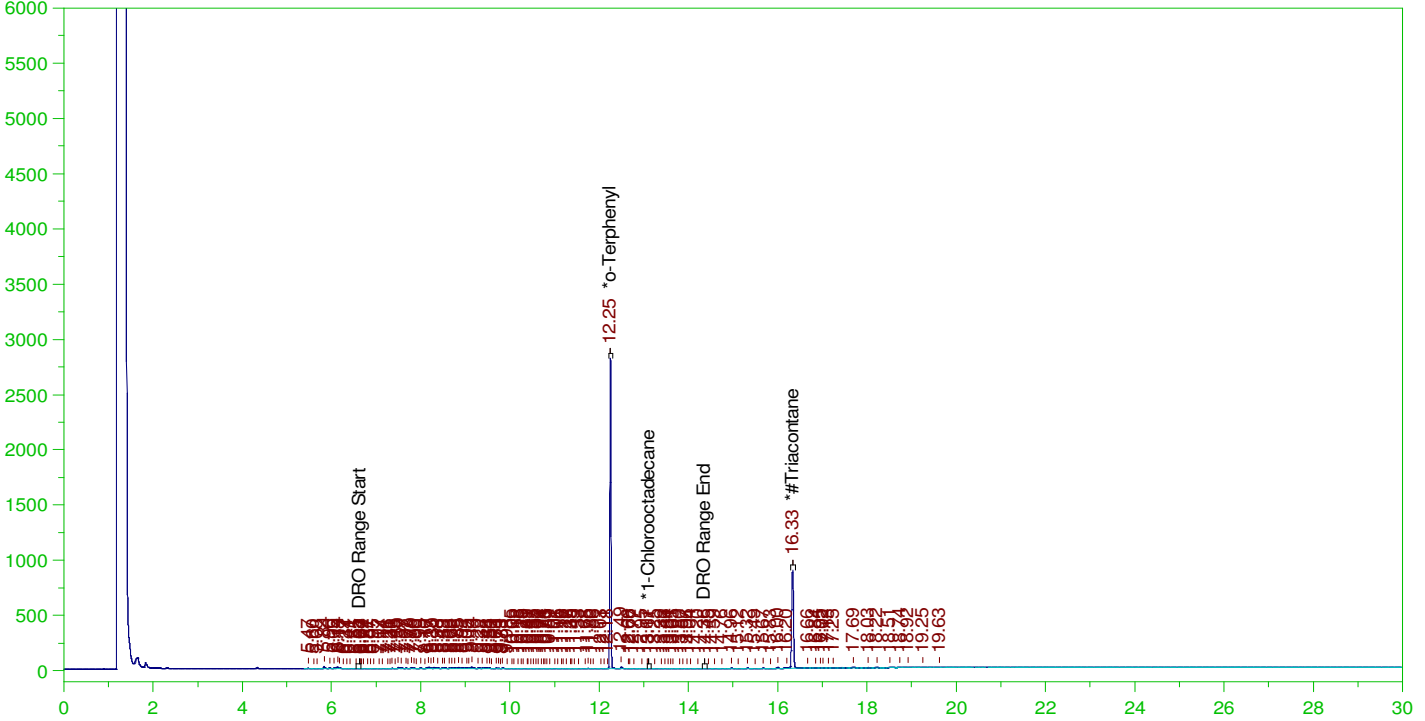
RRO Area:186885.1 RRO AMOUNT: 6.767849E-03

ERH2514 (RHMW01R)

G:\org\HP5\DAT\HP5020922_b\0209HP5.0054.RAW

Batch ID: 163616

B22020415-006D ;0209HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-006D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0054.RAW
 Date & Time Acquired: 2/11/2022 12:42:17 AM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.249	.194	.143	73.72	-
*1-Chlorooctadecane	13.105	.194	.	.03	-
*#Triacontane	16.33	.194	.078	40.16	-

DRO Area:1156980
 TEH Area:1549483

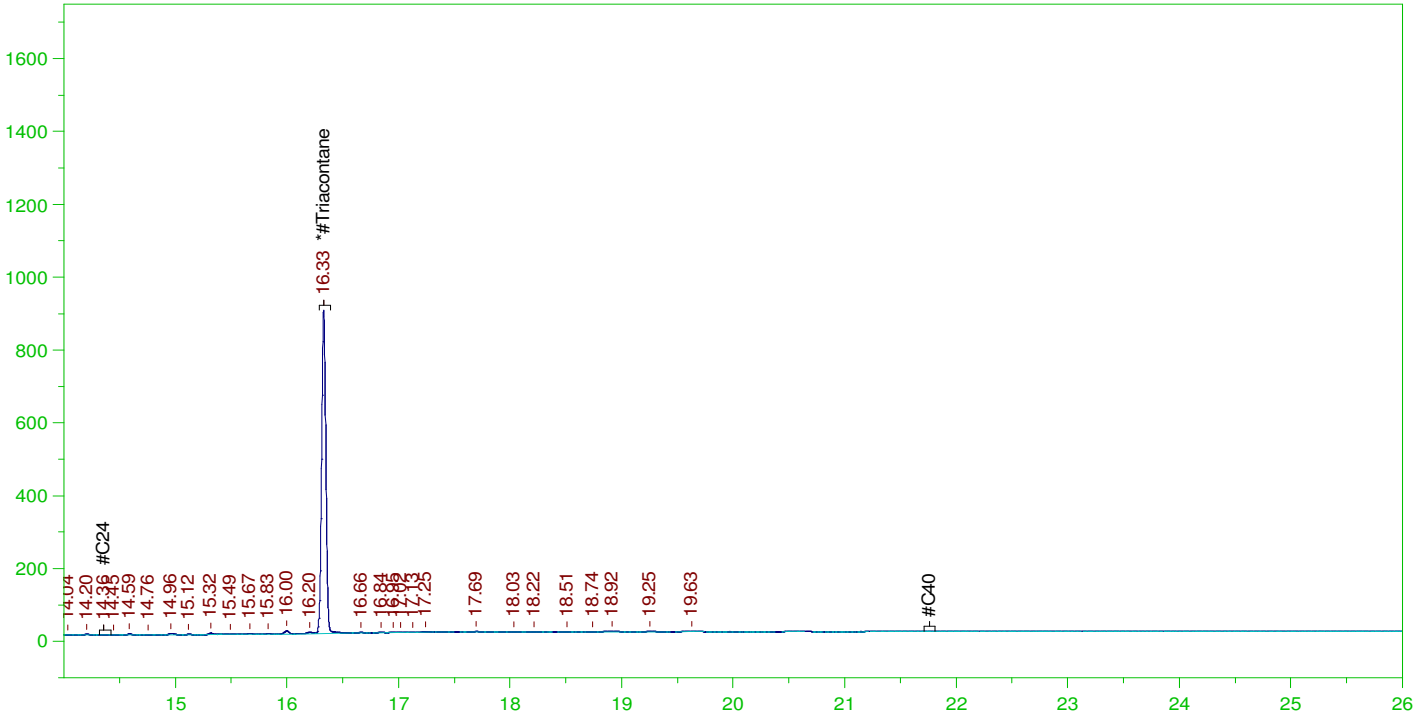
DRO Amount: 3.437703E-02
 TEH Amount: 4.603936E-02

ERH2514 (RHMW01R)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0054.RAW

B22020415-006D ;0209HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-006D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0054.RAW
 Date & Time Acquired: 2/11/2022 12:42:17 AM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_SAMP.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.33	.485	.078	16.06

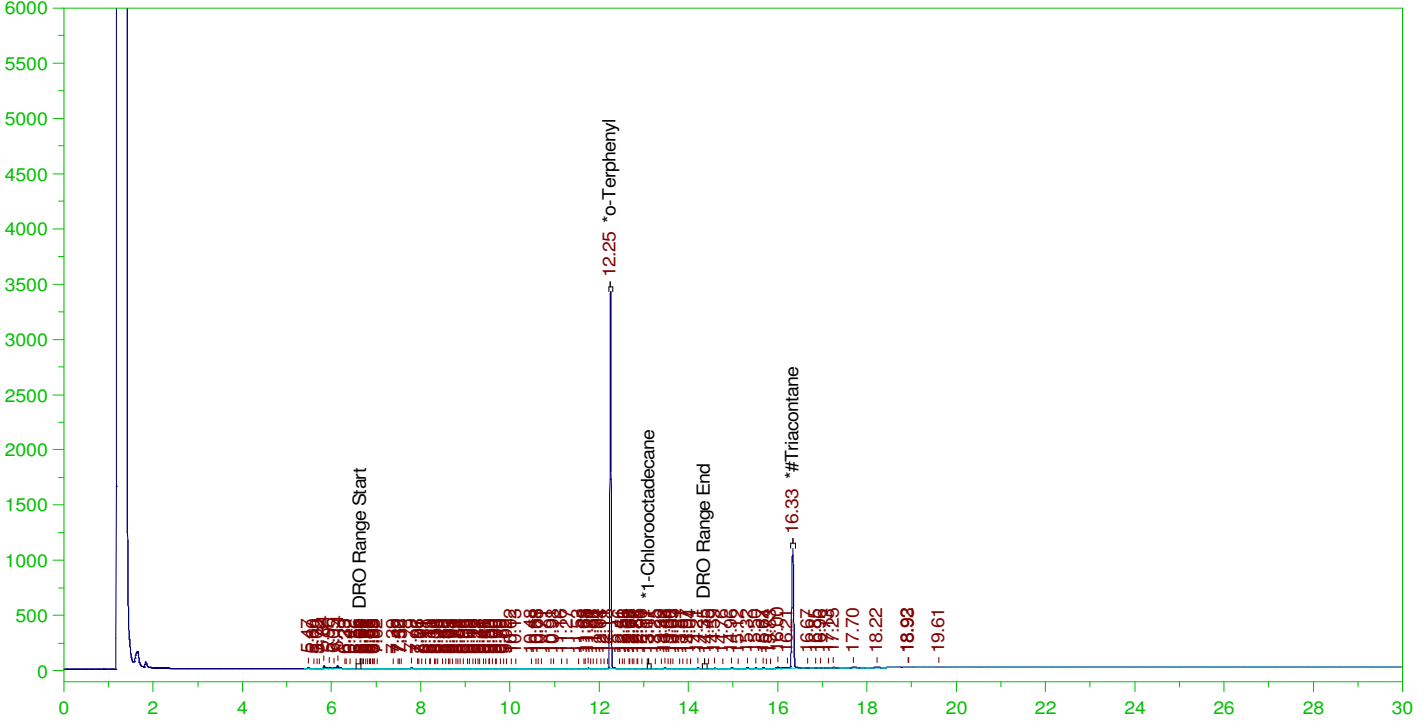
RRO Area:143879.6 RRO AMOUNT: 5.286332E-03

ERH2510 (OWDFMW08A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0047.RAW

B22020415-016B ;0209HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-016B ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0047.RAW
 Date & Time Acquired: 2/10/2022 7:41:09 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.251	.189	.168	88.92	-
*1-Chlorooctadecane	13.108	.189	.	.05	-
*#Triacontane	16.332	.189	.092	48.74	-

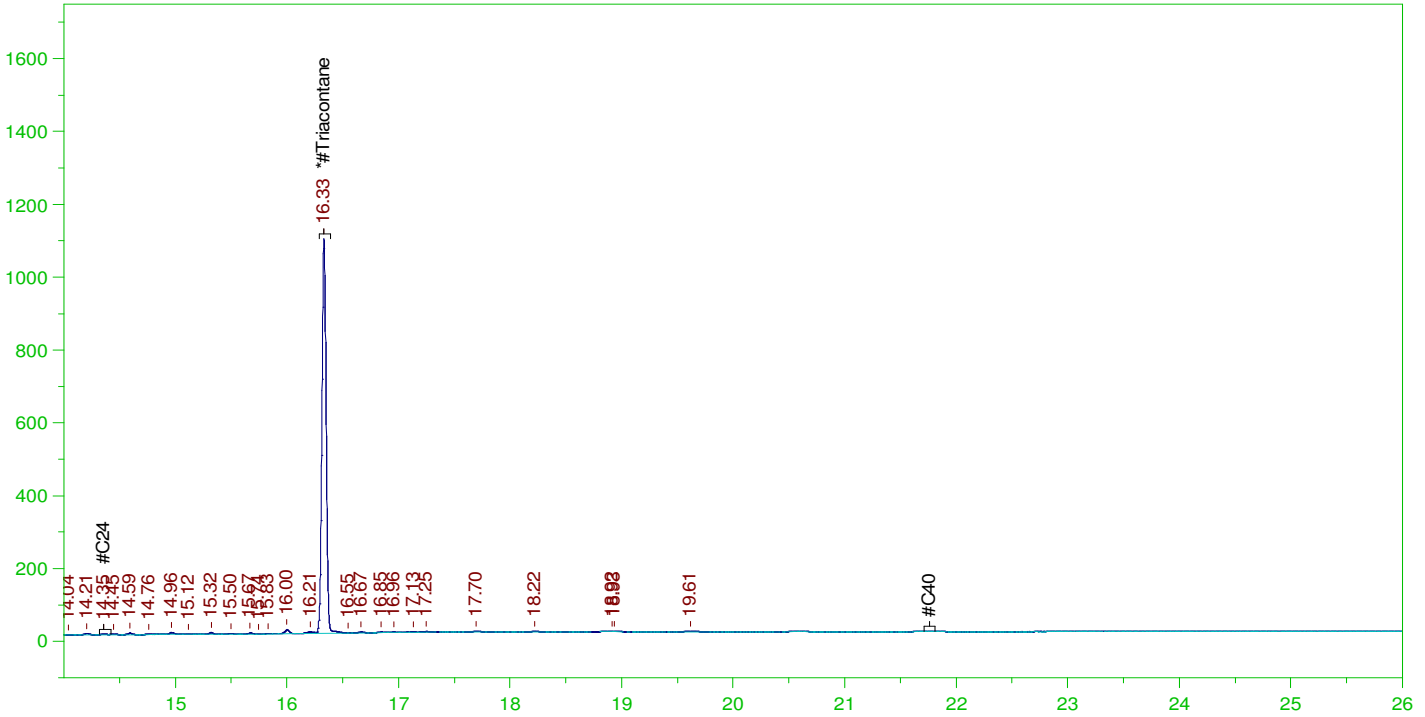
DRO Area:252327.7 DRO Amount: 7.285153E-03
 TEH Area:734472.4 TEH Amount: 2.120554E-02

ERH2510 (OWDFMW08A)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0047.RAW

B22020415-016B ;0209HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-016B ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0047.RAW
 Date & Time Acquired: 2/10/2022 7:41:09 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.332	.472	.092	19.51

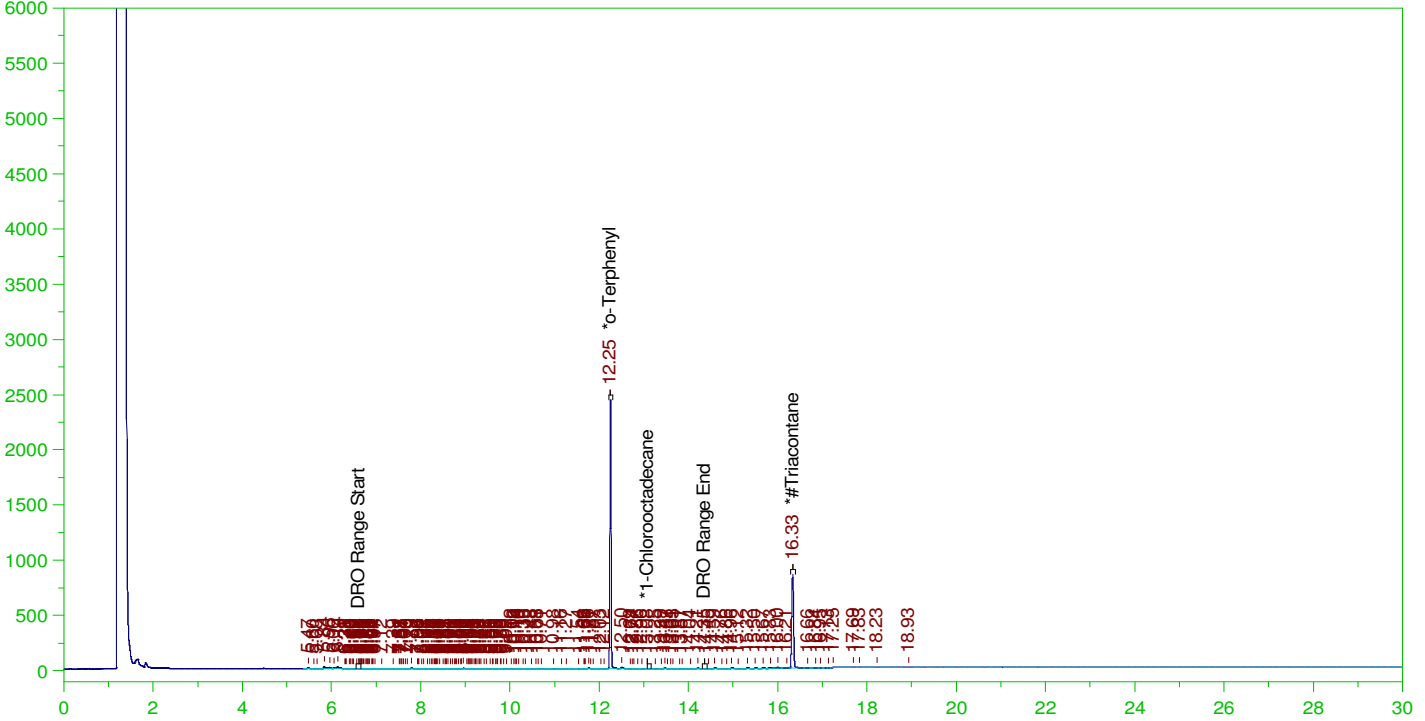
RRO Area:164043.6 RRO AMOUNT: 5.856604E-03

ERH2512 (RHMW19)

Batch ID: 163616

G:\Org\HP5\DAT\HP5020922_b\0209HP5.0049.RAW

B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\Org\HP5\DAT\HP5020922_b\0209HP5.0049.RAW
 Date & Time Acquired: 2/10/2022 9:06:58 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.251	.189	.122	64.51	-
*1-Chlorooctadecane	13.076	.189	.	.07	-
*#Triacontane	16.331	.189	.072	38.24	-

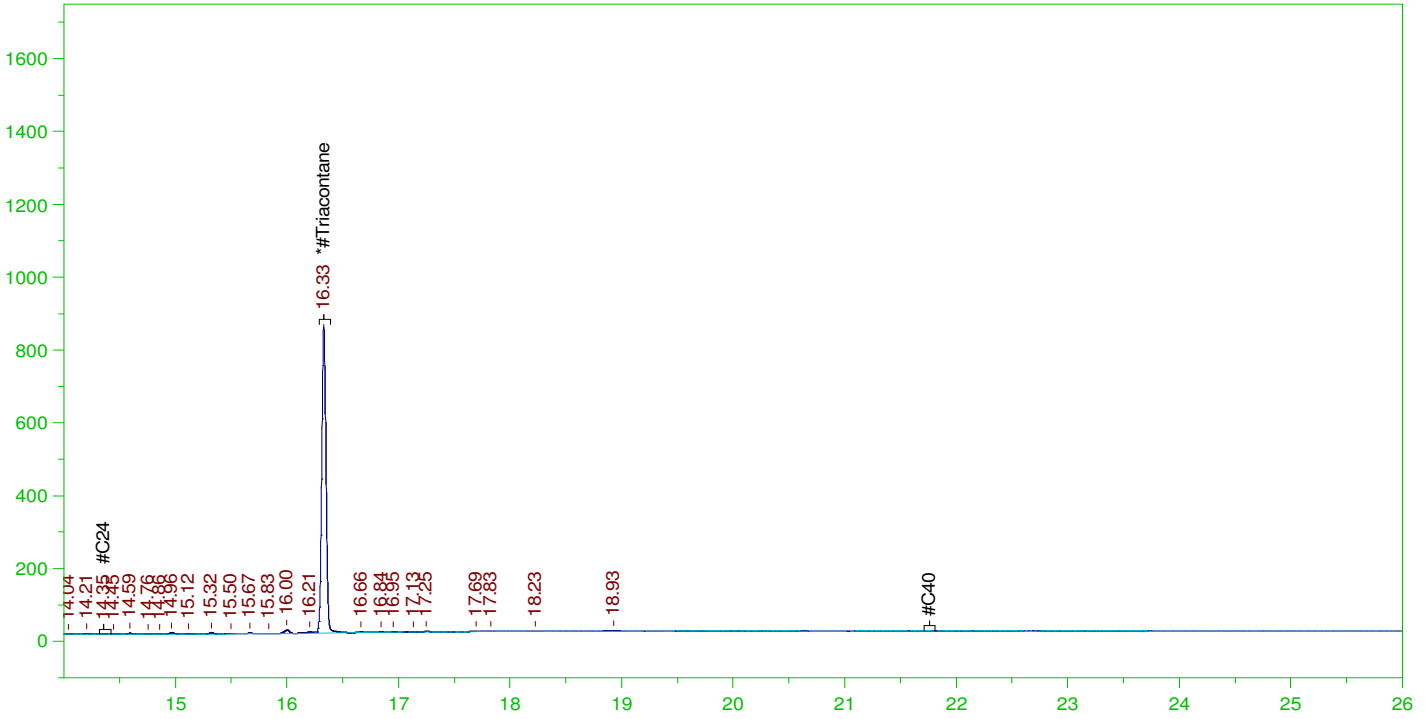
DRO Area:259482.6 DRO Amount: 7.491728E-03
 TEH Area:623251.3 TEH Amount: 1.799438E-02

ERH2512 (RHMW19)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0049.RAW

B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-022D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0049.RAW
 Date & Time Acquired: 2/10/2022 9:06:58 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.331	.472	.072	15.31

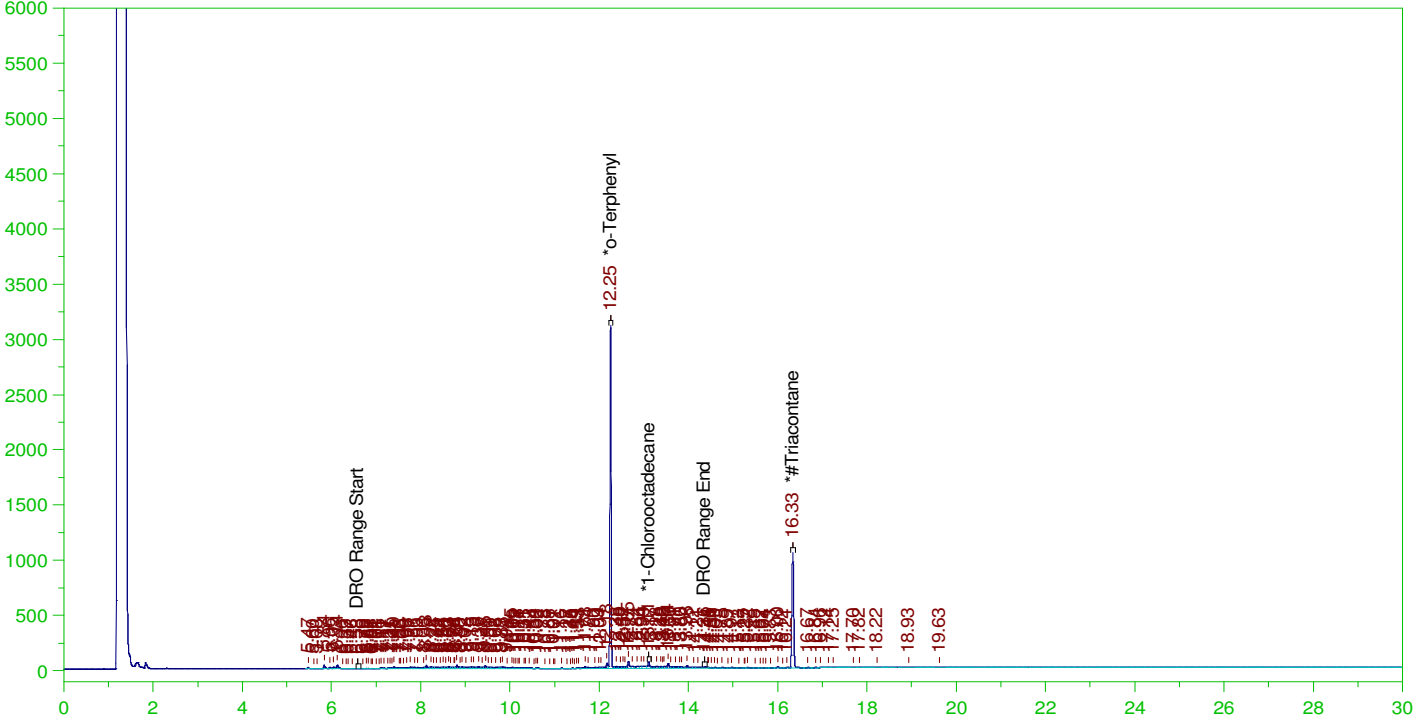
RRO Area:136575.2 RRO AMOUNT: 4.87594E-03

ERH2516 (RHMW2254-01 Bailer)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0048.RAW

B22020415-027D ;0209HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22020415-027D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0048.RAW
 Date & Time Acquired: 2/10/2022 8:23:55 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JE-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JE-C24-T.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.56 to 14.42

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	.19	.156	81.87	-
*1-Chlorooctadecane	13.105	.19	.005	2.62	-
*#Triacontane	16.334	.19	.089	46.98	-

DRO Area:4291110
 TEH Area:4934664

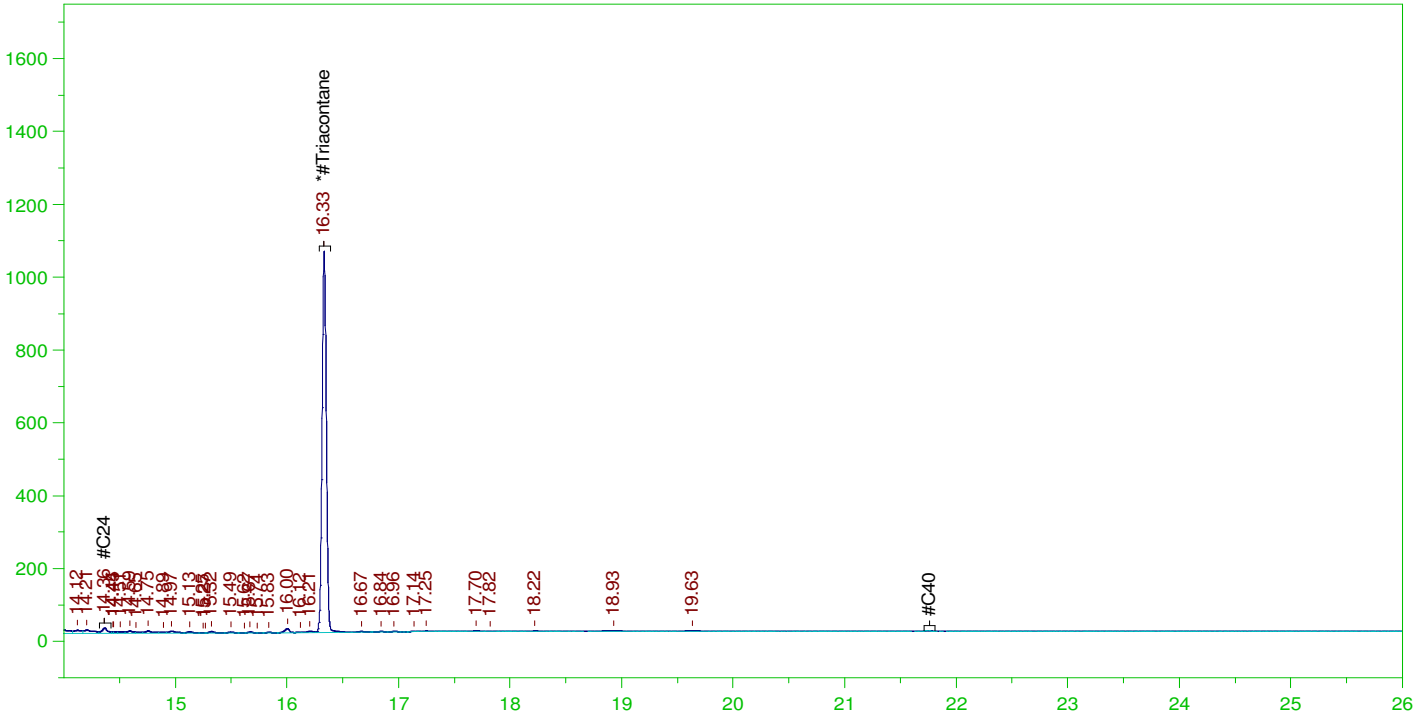
DRO Amount: 0.125072
 TEH Amount: 0.1438295

ERH2516 (RHMW2254-01 Bailer)

Batch ID: 163616

G:\org\HP5\DAT\HP5020922_b\0209HP5.0048.RAW

B22020415-027D ;0209HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22020415-027D ;0209HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5020922_b\0209HP5.0048.RAW
 Date & Time Acquired: 2/10/2022 8:23:55 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BE-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BE_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: 14.32 to 21.81

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.334	.476	.089	18.79

RRO Area:365926.6 RRO AMOUNT: 1.318855E-02

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

Categories: Must Attend

Hi Tabitha,

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

Thank you,

Alethea Ramos, CIH
Environmental Scientist, Environmental Health & Science, Environment
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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

This transmission may contain confidential information and is for the use of the intended recipient(s). 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.ramos@aecom.com>]

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

To: Shari Endy; billingsPM@energylab.com

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

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

Importance: High

Hi Shari and Billings PM,

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

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

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

Thank you,

Alethea Ramos, CIH

Environmental Scientist, Environmental Health & Science, Environment

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