



ANALYTICAL SUMMARY REPORT

B22011446-006	ERH2456 (RHMW13 zone 01/19/22 14:05 5)	01/19/22 14:05	01/22/2022	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
B22011446-007	ERH2455 (Trip Blank) 14694	01/19/22 14:05	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011446-008	ERH2455 (Trip Blank) 14733	01/19/22 14:05	01/22/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011446-009	ERH2455 (Trip Blank) 14733	01/19/22 14:05	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-010	ERH2455 (Trip Blank) 14709	01/19/22 14:05	01/22/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22011446-011	ERH2435 (RHMW2254-01 Bailer)	01/20/22 13:15	01/22/2022	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



ANALYTICAL SUMMARY REPORT

B22011446-012	ERH2437 (RHMW2254-01 Bailer)	01/20/22 13:15	01/22/2022	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
B22011446-013	ERH2434 (Trip Blank) 14733	01/20/22 13:15	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011446-014	ERH2434 (Trip Blank) 14694	01/20/22 13:15	01/22/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011446-015	ERH2434 (Trip Blank) 14694	01/20/22 13:15	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-016	ERH2434 (Trip Blank) 14732	01/20/22 13:15	01/22/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22011446-017	ERH2439 (RHMW2254-01 LF)	01/20/22 14:05	01/22/2022	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
B22011446-018	ERH2438 (Trip Blank) 14694	01/20/22 14:05	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011446-019	ERH2438 (Trip Blank) 14733	01/20/22 14:05	01/22/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011446-020	ERH2438 (Trip Blank) 14733	01/20/22 14:05	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-021	ERH2438 (Trip Blank) 14709	01/20/22 14:05	01/22/2022	Trip Blank	Headspace Gas Analysis SW8015M



ANALYTICAL SUMMARY REPORT

B22011446-022	ERH2442 (Sump Adit3)	01/20/22 15:30	01/22/2022	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
B22011446-023	ERH2441 (Trip Blank) 14733	01/20/22 15:30	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011446-024	ERH2441 (Trip Blank) 14694	01/20/22 15:30	01/22/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011446-025	ERH2441 (Trip Blank) 14694	01/20/22 15:30	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-026	ERH2441 (Trip Blank) 14709	01/20/22 15:30	01/22/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22011446-027	ERH2452 (OWDFMW07A)	01/20/22 13:15	01/22/2022	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
B22011446-028	ERH2451 (Trip Blank)- 14694	01/20/22 13:15	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B Gasoline Range Organics SW8015C



ANALYTICAL SUMMARY REPORT

B22011446-030	ERH2451 (Trip Blank)-14733	01/20/22 13:15	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-031	ERH2451 (Trip Blank)-14709	01/20/22 13:15	01/22/2022	Trip Blank	Headspace Gas Analysis SW8015M
B22011446-032	ERH2462 (RHMW11-05)	01/20/22 13:00	01/22/2022	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
B22011446-033	ERH2461 (Trip Blank) 14733	01/20/22 13:00	01/22/2022	Trip Blank	8260-Volatile Organic Compounds-Short List SW8260B
B22011446-034	ERH2461 (Trip Blank) 14694	01/20/22 13:00	01/22/2022	Trip Blank	Gasoline Range Organics SW8015C
B22011446-035	ERH2461 (Trip Blank) 14694	01/20/22 13:00	01/22/2022	Trip Blank	EDB in Water by ECD SW8011 SW8011 Microextraction
B22011446-036	ERH2461 (Trip Blank) 14709	01/20/22 13:00	01/22/2022	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: B22011446

Report Date: 3/3/2022

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).

CK5-163202 by EPA 8011: The continuing calibration verification sample was determined to have concentrated in the vial during analysis. The CCV injected immediately prior to sample CK5-163202 met method control limits.



Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-75NOI Page 1 of 1

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46 01		
Sampler Name	Kyan Shlamito	Sampler Phone	808-393-6607
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 - Soils/Solids
- V - Vegetation
- B - Bioassay
- O - Other
- 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 8270D/SIM*	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)	8260 VOC's (Full Suite) + DCA* [40ml VOA w/HCL]	8015 TPH-g [40ml VOA w/HCL]	RSK175 Methane [40ml VOA w/H2SO4]	8011 EDB [40ml VOA w/HCL]	SVOCs (full suite+Nap, 1-2-Methylnap) by 8270D/SIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 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	RUSH TAT	ELI LAB ID, Laboratory Use Only
	Date	Time														
1 ERH2470 (RHMW19)	1/19/22	0900	19	GW	X	X	X	X	X	X	X	X	X	X	✓	322011446-00
2 ERH2469 (Trip Blank)	1/19/22	0845	8	WQ	X	X	X	X							✓	
3																
4 Trip Blank - 14694 (8260)			2													-002
5 Trip Blank - 14733 (620)			1													-003
6 Trip Blank - 14733 (8015) du	1/20/22		1													-009
7 Trip Blank - 14709 (Methane)			2													-005
8 Trip Blank - 14705			2													-037A
9																
10																

Custody Record MUST be signed	Relinquished by (print) Tanzhon Mo	Date/Time 1/20/22 15:00	Signature <i>[Signature]</i>	Received by (print) Andy Rohrer	Date/Time 1/23/22 11:25	Signature <i>[Signature]</i>			
LABORATORY-USE ONLY									
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp 0.4 °C	Temp Blank N	On Ice N	Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)



Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-78NOI Page 1 of 1

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc	CV18F0126, 60571032.02.46.01
Sampler Name	CB, CS, TN, NL
Sampler Phone	808-382-8654
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 - Soils/ Solids
- V - Vegetation
- B - Bioassay
- O - Other
- 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 8270DSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] (field Filtered)
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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-Methylnap) by 8270DSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] (field Filtered)			
1 ERH2456 (RHMW13 zone 5)	01/19/22	10 05	19	GW	X	X	X	X	X	X	X	X	X			B22011446-006
2 ERH2455 (Trip Blank)	01/19/22	09 50	8	WQ	X	X	X	X								
3																
4 TB 8260 -14694	2															-007
5 TB 620 -14733	1															-008
6 TB 8011 -14733	1															-009
7 TB Methane -14709	2	1/20/22														-010
8 TB -14705	2															-038
9 TB 1/24/22																
10																

Custody Record MUST be signed	Relinquished by (print) Franzhen Ne	Date/Time 1/20/22 15:00	Signature <i>[Signature]</i>	Received by (print)	Date/Time	Signature
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time 1/25/22	Signature <i>[Signature]</i>

Shipped By FedEx Sat	Cooling D(s) 2	Custody Seals N C B	Intact Y N	Receipt Temp 3.4 °C	Temp Blank N	On Ice Y N	Payment Type CC Cash Check	Amount \$	Receipt Number (date/check only)
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Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-63NOI Page 1 of 2

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01		
Sampler Name	KL CS, HE, JW	Sampler Phone	724-504-2836
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 - Other
- 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]	SVOc's (full suite+Nap, 1-2-Methylnap) by 8270DSIM*	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 Code 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]	SVOc's (full suite+Nap, 1-2-Methylnap) by 8270DSIM*	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	RUSH TAT	ELI LAB ID Laboratory Use Only
	Date	Time														
1 ERH2435 (RHMW2254-01 Bailer)	01/20/22	0915	19	GW	X	X	X	X	X	X	X	X	X		✓	B22011446-01
2 ERH2434 (Trip Blank)		0910	8	WQ	X	X	X	X							✓	-
3 ERH2437 (RHMW2254-01 Bailer)		0915	6	GW	X	X									✓	-012
4 TB 8010 14733			2													-013
5 TB GRO 14694																-014
6 TB 8011 14694																-015
7 TB Methane 14709 (extra)			1													-016
8 TB Methane (extra) 14735			1													-016
9 TB (extra) 14705			2													-043
10																

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
LABORATORY USE ONLY						
Shipped By	Cooling ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	Receipt
	5	Y N C B	Y N	0.6 °C	Y N	Y N
Payment Type			Amount		Receipt Number (cash/check only)	
CC Cash Check			\$			



Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-64NOI Page 2 of 2

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02 46.01		
Sampler Name	KL, CS, JW, AE	Sampler Phone	724-501-2836
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 - Other
- 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 8270PDSIM*	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]	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 8270PDSIM*	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]					
1 ERH2437 (RHMW2254-01 Bailer)	01/20/22	9:15	4	GW						X	X							✓ B2011446-018
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Custody Record MUST be signed	Relinquished by (print) <i>Franzhen Nire</i>	Date/Time 1/20/22 15:00	Signature <i>[Signature]</i>	Received by (print) <i>[Signature]</i>	Date/Time 1/22/22 11:25	Signature <i>[Signature]</i>
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Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	Can Top	Payment Type	Amount	Receipt Number (cash check only)
	4	Y N C B	Y N	0.3 °C	Y N	Y N	CC Cash Check	\$	



Chain of Custody & Analytical Request Record – DoD Project

www.energylab.com

COC#202201-65NOI Page 1 of 1

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc	CV18F0126, 60571032.02.46.01	
Sampler Name	Sampler Phone	
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.		
Analysts	Subcontract Lab	
TOC	Energy Laboratories Inc., Casper	

Matrix Codes

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

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]	SVOC's (full suite+Nap, 1-2-Methylnap) by 8270DSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] Field Filtered	See Attached
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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	
	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]	SVOC's (full suite+Nap, 1-2-Methylnap) by 8270DSIM*	EPA 3630/8015 TPH-d/o +SGC [1-L AG w/H2SO4]	EPA 9060 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss. Lead [250ml HDPE w/HNO3] Field Filtered				
1 ERH2439 (RHMW2254-01 LF)	01/24/22	1005	19	GW	X	X	X	X	X								✓
2 ERH2438 (Trip Blank)	1/20/22	0945	8	WQ	X	X	X	X									✓
3																	
4 TB (82100) - 14184		2															-018
5 TB (110) - 14733		1															-019
6 TB (8011) - 14733		1															-020
7 TB (Methane) - 14709		1															-021
8 TB - 14705		2															-040
9 TB - 14732		1															-041
10																	

Custody Record MUST be signed	Relinquished by (print) Tanzhan Nie	Date/Time 1/20/22 15:00	Signature <i>Tanzhan Nie</i>	Received by (print) Andy Rowe	Date/Time 1/24/22 11:25	Signature <i>Andy Rowe</i>
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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)
	5	Y N C B	Y N	1.2°C	Y N	Y N	CC Cash Check	\$	



Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-66NOI Page 1 of 1

Account Information (Billing Information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02 46 01		
Sampler Name	LC SJW, AF	Sampler Phone	729-3092836
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 - Soils/Solids
- V - Vegetation
- B - Bioassay
- O - Other
- 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]	SVOC's (full suite+Nap, 1-2-Methylnap) by 8270D SIM*	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
X	X	X	X	X	X	X	X	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-g [40ml VOA w/HCL]	RSK175 Methane [40ml VOA w/H2SO4]	8011 EDB [40ml VOA w/HCL]	SVOC's (full suite+Nap, 1-2-Methylnap) by 8270D SIM*	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 ERH2442 (Sump Adit3)	8/24/22	1130	19	GW	X	X	X	X	X	X	X	X	X	X	✓	38201440-022
2 ERH2441 (Trip Blank)	8/24/22	1115	8	WQ	X	X	X	X							✓	
3																
4 TB-14733 (820d)			2													-023
5 TB-14694 (GRD)			2													024
6 TB-14694 (SOL)			2													025
7 TB-14709 (Methane)			2													026
8 TB-14705			2													045
9																
10																

Custody Record MUST be signed	Relinquished by (print)	Date/Time	Signature	Received by (print)	Date/Time	Signature
	Tranzhen Nie	9/20/22 15:00	[Signature]	[Signature]	9/27/22 11:25	Andy Pohan
LABORATORY USE ONLY						
Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice
	8	(Y) N (O) B	(Y) N	22.2 °C	(Y) N	(Y) N
			Payment Type	Amount	Receipt Number (cash/check only)	
			CC Cash Check	\$		



Chain of Custody & Analytical Request Record – DoD Project

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COC#202201-80NOI Page 1 of 1

Account Information (Billing information)

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

Comments

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126, 60571032.02.46.01		
Sampler Name	Jorge Ramos	Sampler Phone	214-645-7832
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 - Other
- 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 3630/8015 TPH-d/o + SGC [1-L AG w/H2SO4]	EPA 9080 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss Lead [250ml HDPE w/HNO3] (field Filtered)
X	X	X	X	X	X	X	X	X
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	X					
X	X	X	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									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 3630/8015 TPH-d/o + SGC [1-L AG w/H2SO4]	EPA 9080 TOC [250ml AG w/H3PO4]	EPA 6020 Total Lead [250ml HDPE w/HNO3]	EPA 6020 Diss Lead [250ml HDPE w/HNO3] (field Filtered)			
1 ERH2452 (OWDFMW07A)	1/20/22	0915	19	GW	X	X	X	X	X	X	X	X	X	X	✓	B2201416-027
2 ERH2451 (Trip Blank)	1/20/22	0835	8	WQ	X	X	X	X							✓	
3																
4 Trip Blank - 14694 (8760)			2													-028
5 Trip Blank - 14733 (680)	1/20/22		1													-029
6 Trip Blank - 14733 (801) WQ			1													-036
7 Trip Blank - 14709 (Methane)			2													-051
8 Trip Blank - 14705 (extra)			2													-044
9																
10																

Custody Record MUST be signed	Relinquished by (print) Tranchem N. e	Date/Time 1/20/22 15:00	Signature <i>[Signature]</i>	Received by (print) Cindy Risher	Date/Time 1/22/22 11:25	Signature <i>[Signature]</i>
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Shipped By	Cooler ID(s)	Custody Seals	Intact	Receipt Temp	Temp Blank	On Ice	Payment Type	Amount	Receipt Number (cash/check only)
	7	Y N C B	Y N	5.0 °C	Y N	Y N	CC Cash Check	\$	



Chain of Custody & Analytical Request Record

DoD Samples

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COC: 202142-NOI
202101-2NOI

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

Project Information

Project Name, PWSID, Permit, etc.	CV18F0126/60571032.02.20.01		
Sampler Name	GM, MY	Sampler Phone	808-393-6607
Sample Origin State	Hawaii	EPA/State Compliance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
URANIUM MINING CLIENTS MUST indicate sample type			
<input type="checkbox"/> Unprocessed Ore			
<input type="checkbox"/> Processed Ore (Ground or Refined) **CALL BEFORE SENDING			
<input type="checkbox"/> 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)			

Matrix Codes

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

Analysis Requested

Matrix	EPA 3630/8015 TPH-d/o	EPA 3630/8015 TPH-d/o w/ SGC	8260 VOCs (Full Suite) + DCA*	8015 TPH-g	8270D SVOC (Full Suite)* PAH 8270D SIM*	8011 EDB	EPA 9060 TOC	EPA 6020 Total Lead + P usso lead lead	RSK175 Methane	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			EPA 3630/8015 TPH-d/o	EPA 3630/8015 TPH-d/o w/ SGC	8260 VOCs (Full Suite) + DCA*	8015 TPH-g	8270D SVOC (Full Suite)* PAH 8270D SIM*	8011 EDB	EPA 9060 TOC	EPA 6020 Total Lead + P usso lead lead	RSK175 Methane					
1 PHH ERH2462 (HAMW11-05)	1/20/22	0900	19	AW	X	X	X	X	X	X	X	X	X	X	X	X	X	B22011446-034
2 ERH2461 (Tnp Blank)	1/20/22	0840	8	WR	X	X	X	X	X	X	X	X	X	X	X	X	X	-033A
3																		-033 -034 TB
4 TB 14733 (A260)			2															-034 -035A TB
5 TB 14694 (GR0)			1															-034 -035A TB
6 TB 14694 (9011)	1/20/22		1															-035 -036A TB
7 TB 14709 (Mechanite)	1/20/22		2															-036A TB
8 TB 14705			2															
9 TB #74122																		

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			
	Relinquished by (print)	Date/Time	Signature	Received by Laboratory (print)	Date/Time	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)
	0	Y N C B	Y N	0.4 °C	0 N	0 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

B22011446

Login completed by: Tabitha Edwards
Reviewed by: BL2000\gmccartney
Reviewed Date: 1/25/2022

Date Received: 1/22/2022
Received by: car
Carrier name: FedEx

- Shipping container/cooler in good condition? Yes [x] No [] Not Present []
Custody seals intact on all shipping container(s)/cooler(s)? Yes [x] No [] Not Present []
Custody seals intact on all sample bottles? Yes [] No [x] Not Present []
Chain of custody present? Yes [x] No []
Chain of custody signed when relinquished and received? Yes [x] No []
Chain of custody agrees with sample labels? Yes [] No [x]
Samples in proper container/bottle? Yes [x] No []
Sample containers intact? Yes [x] No []
Sufficient sample volume for indicated test? Yes [x] No []
All samples received within holding time? Yes [x] No []
Temp Blank received in all shipping container(s)/cooler(s)? Yes [] No [x] Not Applicable []
Container/Temp Blank temperature: °C On Ice
Water - VOA vials have zero headspace? Yes [x] No [] Not Applicable []
Water - pH acceptable upon receipt? Yes [] No [x] Not Applicable []

Standard Reporting Procedures:

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

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

Contact and Corrective Action Comments:

The Temperature Blank temperature for shipping container 1 was 0.4°C, shipping container 2 was 3.4°C, shipping container 3 was 0.6°C, shipping container 4 was 0.3°C and shipping container 6 was 0.4°C. The temperature of the sample(s) for shipping container 5 was 1.2°C, shipping container 7 was 3.0°C and shipping container 8 was 2.2°C.

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

The Custody Seal was not present on the 250mL Plastic Filtered Nitric preserved container and three of the nine 40mL Clear Glass Hydrochloric preserved VOA vials for sample ERH2439 (RHMW2254-01 LF). All other containers had a Custody Seal intact.

One of the two containers for sample ERH2442 (Sump Adit3) submitted for Total Organic Carbon analysis was received at pH >2. Phosphoric acid (2 mL) was added in the laboratory to preserve to pH <2.

An email was sent to Margie Pascua and Alethea Ramos on 01/24/2022 for the following items:

The analysis marked on the Chain of Custody for sample ERH2439 (RHMW2254-01 LF) is SW8260B [Volatile Organic Compounds], SW8015C [GRO], SW8015M [Methane], SW8011 [EDB] and SW8270C [Semi-Volatile Organic Compounds. The containers were received for all analysis with additional containers for the analysis not marked on the Chain of Custody: SW8015C [DRO], SW9060A [Total Organic Carbon] and SW6020 [Total and Dissolved Lead]. Proceeded with all analyses, including the analysis not marked, unless further instructions are provided.

The project indicated on the Chain of Custody for sample ERH2462 (RHMW11-05) is CV18F0126, 60571032.02.20.01 and the project indicated on all other Chain of Custodies is CV18F0126, 60571032.02.46.01. Only one project name can be applied for this Sample Delivery Group. Proceeded with the project CV18F0126, 60571032.02.46.01 indicated unless further instructions are provided.

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: B22011446-001
Collection Date: 01/19/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2470 (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	0.051	0.021		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.051	0.018		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.051	0.032		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.051	0.026		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Anthracene	ND	ug/L	1	U	0.10	0.051	0.029		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.051	0.028		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.051	0.035		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.051	0.023		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.051	0.027		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.051	0.030		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Chrysene	ND	ug/L	1	U	0.10	0.051	0.047		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.051	0.037		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.051	0.024		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Fluorene	ND	ug/L	1	U	0.10	0.051	0.023		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.051	0.050		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Naphthalene	ND	ug/L	1	U	0.10	0.051	0.030		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.051	0.030		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
Pyrene	ND	ug/L	1	U	0.10	0.051	0.024		SW8270CSIM	01/31/2022 22:13/jph	SV5975.I_220131B : 13	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.4 to 0.5	0.46	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/27/2022 21:42/eli-ca	SUB-C279130 : 11	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 16:22/srh	ICPMS207-B_220131A : 39	R373996
METALS, TOTAL												
Lead	0.00010	mg/L	1	J	0.001	0.0001	0.00008		SW6020	01/31/2022 17:06/srh	ICPMS207-B_220131A : 46	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-001

Collection Date: 01/19/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2470 (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	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Surr: Dibromofluoromethane	107.0	%REC	1			80-119			SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Surr: 1,2-Dichloroethane-d4	112.0	%REC	1			81-118			SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-001
Collection Date: 01/19/2022 13:00
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Client: AECOM - Honolulu
Client Sample ID: ERH2470 (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	101.0	%REC	1		89-112				SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	01/25/2022 12:08/msc	VOA5975C.I_220125A : 5	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0048	0.0025		SW8011	01/26/2022 14:49/clt	GECD.I_220126A : 13	163202
Surr: 1,1,1,2-Tetrachloroethane	95.0	%REC	1		70-130				SW8011	01/26/2022 14:49/clt	GECD.I_220126A : 13	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/25/2022 11:16/jp	PE 1_220125A : 5	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 11:16/jp	PE 1_220125A : 5	R373803
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	01/25/2022 11:16/jp	PE 1_220125A : 5	R373803
- 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)	0.048	mg/L	1	J	0.30	0.15	0.039		SW8015C	01/26/2022 11:48/amn	GCFID-HP5-B_220124C : 14	163190
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.12	0.039		SW8015C	01/27/2022 16:21/amn	GCFID-HP5-B_220127A : 8	163190
Oil Range Hydrocarbons (C24 to C40)	0.17	mg/L	1	J	0.30	0.15	0.087		SW8015C	01/26/2022 11:48/amn	GCFID-HP5-B_220124C : 14	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.087		SW8015C	01/27/2022 16:21/amn	GCFID-HP5-B_220127A : 8	163190
Total Extractable Hydrocarbons	0.23	mg/L	1	J	0.30	0.15	0.074		SW8015C	01/26/2022 11:48/amn	GCFID-HP5-B_220124C : 14	163190
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.12	0.033		SW8015C	01/27/2022 16:21/amn	GCFID-HP5-B_220127A : 8	163190
Surr: o-Terphenyl	84.0	%REC	1		56-125				SW8015C	01/26/2022 11:48/amn	GCFID-HP5-B_220124C : 14	163190
Surr: o-Terphenyl (SGT)	86.0	%REC	1		56-125				SW8015C	01/27/2022 16:21/amn	GCFID-HP5-B_220127A : 8	163190
Surr: n-Triacontane	87.0	%REC	1		50-150				SW8015C	01/26/2022 11:48/amn	GCFID-HP5-B_220124C : 14	163190
Surr: n-Triacontane (SGT)	86.0	%REC	1		50-150				SW8015C	01/27/2022 16:21/amn	GCFID-HP5-B_220127A : 8	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 10:28/jdw	FID-HEADSPACE_220125A : 5	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.1	1.9		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.1	2.0		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.1	2.2		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.1	2.1		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.1	2.3		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.1	2.7		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.1	1.7		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.1	1.7		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.1	3.1		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-001

Collection Date: 01/19/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2470 (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	5.1	3.3		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.1	2.2		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.1	2.5		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.1	2.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.1	2.2		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.1	1.8		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.1	1.5		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.1	2.7		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.1	2.1		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Azobenzene	ND	ug/L	1	U	10	5.1	1.1		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.1	1.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.1	2.6		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.1	1.5		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.1	1.9		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.1	1.6		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.1	0.95		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.1	1.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.1	2.2		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.1	1.8		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.1	1.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.1	2.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.1	3.0		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Hexachloroethane	ND	ug/L	1	U	10	5.1	1.8		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Isophorone	ND	ug/L	1	U	10	5.1	1.7		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
m+p-Cresols	ND	ug/L	1	U	10	5.1	1.8		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.1	1.6		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.1	1.6		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.1	1.2		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Nitrobenzene	ND	ug/L	1	U	10	5.1	2.4		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
o-Cresol	ND	ug/L	1	U	10	5.1	1.9		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Phenol	ND	ug/L	1	U	10	5.1	1.5		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Pyridine	ND	ug/L	1	U	10	5.1	3.3		SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Surr: 2,4,6-Tribromophenol	98.0	%REC	1		43-140				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Surr: 2-Fluorobiphenyl	60.0	%REC	1		44-119				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Surr: 2-Fluorophenol	29.0	%REC	1		19-119				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Surr: Nitrobenzene-d5	62.0	%REC	1		44-120				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2470 (RHMW19)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011446-001
Collection Date: 01/19/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	30.0	%REC	1		10-65				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174
Surr: Terphenyl-d14	101.0	%REC	1		50-134				SW8270C	02/2/2022 15:41/dsm	SV5973N.I_220201B : 19	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-002

Collection Date: 01/19/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2469 (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
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-002

Collection Date: 01/19/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2469 (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
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Surr: 1,2-Dichloroethane-d4	108.0	%REC	1		81-118				SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/25/2022 16:41/msc	VOA5975C.I_220125A : 15	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-003

Collection Date: 01/19/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2469 (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
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/25/2022 12:25/jp	PE 1_220125A : 6	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 12:25/jp	PE 1_220125A : 6	R373803
Surr: Trifluorotoluene	82.0	%REC	1		70-130				SW8015C	01/25/2022 12:25/jp	PE 1_220125A : 6	R373803
- 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: ERH2469 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-004
Collection Date: 01/19/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/26/2022 12:30/ct	GECD.I_220126A : 6	163202
Surr: 1,1,1,2-Tetrachloroethane	92.0	%REC	1		70-130				SW8011	01/26/2022 12:30/ct	GECD.I_220126A : 6	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2469 (Trip Blank)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-005
Collection Date: 01/19/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 10:33/jdw	FID-HEADSPACE_220125A : 6	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-006
Collection Date: 01/19/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2456 (RHMW13 zone 5)
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	0.052	0.021		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.052	0.018		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.052	0.033		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.052	0.026		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Anthracene	ND	ug/L	1	U	0.10	0.052	0.029		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.052	0.036		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.023		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Chrysene	ND	ug/L	1	U	0.10	0.052	0.047		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.052	0.038		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.052	0.024		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Fluorene	ND	ug/L	1	U	0.10	0.052	0.023		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.052	0.051		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Naphthalene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
Pyrene	ND	ug/L	1	U	0.10	0.052	0.025		SW8270CSIM	01/31/2022 22:45/jph	SV5975.I_220131B : 14	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.4 to 0.4	0.38	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/27/2022 22:21/eli-ca	SUB-C279130 : 12	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 17:43/srh	ICPMS207-B_220131A : 52	R373996
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/31/2022 17:49/srh	ICPMS207-B_220131A : 53	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Chloroform	0.65	ug/L	1	JT	1.0	0.20	0.079		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-006

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2456 (RHMW13 zone 5)
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	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Surr: Dibromofluoromethane	108.0	%REC	1			80-119			SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Surr: 1,2-Dichloroethane-d4	110.0	%REC	1			81-118			SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-006
Collection Date: 01/19/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2456 (RHMW13 zone 5)
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	102.0	%REC	1		89-112				SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	01/25/2022 12:35/msc	VOA5975C.I_220125A : 6	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 12:50/clt	GECD.I_220126A : 7	163202
Surr: 1,1,1,2-Tetrachloroethane	94.0	%REC	1		70-130				SW8011	01/26/2022 12:50/clt	GECD.I_220126A : 7	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/26/2022 11:58/jp	PE 1_220125A : 17	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/26/2022 11:58/jp	PE 1_220125A : 17	R373803
Surr: Trifluorotoluene	71.0	%REC	1		70-130				SW8015C	01/26/2022 11:58/jp	PE 1_220125A : 17	R373803
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene. - Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	ND	mg/L	1	U	0.30	0.15	0.039		SW8015C	01/26/2022 01:48/amn	GCFID-HP5-B_220124C : 6	163190
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.12	0.039		SW8015C	01/27/2022 15:39/amn	GCFID-HP5-B_220127A : 7	163190
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.089		SW8015C	01/26/2022 01:48/amn	GCFID-HP5-B_220124C : 6	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.089		SW8015C	01/27/2022 15:39/amn	GCFID-HP5-B_220127A : 7	163190
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.15	0.076		SW8015C	01/26/2022 01:48/amn	GCFID-HP5-B_220124C : 6	163190
Total Extractable Hydrocarbons (SGT)	ND	mg/L	1	U	0.30	0.12	0.033		SW8015C	01/27/2022 15:39/amn	GCFID-HP5-B_220127A : 7	163190
Surr: o-Terphenyl	90.0	%REC	1		56-125				SW8015C	01/26/2022 01:48/amn	GCFID-HP5-B_220124C : 6	163190
Surr: o-Terphenyl (SGT)	87.0	%REC	1		56-125				SW8015C	01/27/2022 15:39/amn	GCFID-HP5-B_220127A : 7	163190
Surr: n-Triacontane	91.0	%REC	1		50-150				SW8015C	01/26/2022 01:48/amn	GCFID-HP5-B_220124C : 6	163190
Surr: n-Triacontane (SGT)	86.0	%REC	1		50-150				SW8015C	01/27/2022 15:39/amn	GCFID-HP5-B_220127A : 7	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 10:39/jdw	FID-HEADSPACE_220125A : 7	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.3		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-006

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2456 (RHMW13 zone 5)
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	5.2	3.3		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.2	2.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Azobenzene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.2	2.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.2	0.96		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Hexachloroethane	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Isophorone	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
m+p-Cresols	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.2	1.2		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Nitrobenzene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
o-Cresol	ND	ug/L	1	U	10	5.2	1.9		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Phenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Pyridine	ND	ug/L	1	U	10	5.2	3.3		SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Surr: 2,4,6-Tribromophenol	92.0	%REC	1		43-140				SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Surr: 2-Fluorobiphenyl	59.0	%REC	1		44-119				SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Surr: 2-Fluorophenol	30.0	%REC	1		19-119				SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Surr: Nitrobenzene-d5	59.0	%REC	1		44-120				SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-006

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2456 (RHMW13 zone 5)
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	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174
Surr: Terphenyl-d14	96.0	%REC	1		50-134				SW8270C	02/2/2022 16:13/dsm	SV5973N.I_220201B : 20	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-007

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2455 (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
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Chloroform	1.6	ug/L	1		1.0	0.20	0.079		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Toluene	0.069	ug/L	1	J	1.0	0.20	0.068		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-007

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2455 (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
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Surr: Dibromofluoromethane	109.0	%REC	1		80-119				SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Surr: 1,2-Dichloroethane-d4	113.0	%REC	1		81-118				SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	01/25/2022 17:08/msc	VOA5975C.I_220125A : 16	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-008

Collection Date: 01/19/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2455 (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
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/25/2022 12:59/jp	PE 1_220125A : 7	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 12:59/jp	PE 1_220125A : 7	R373803
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	01/25/2022 12:59/jp	PE 1_220125A : 7	R373803
- 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: ERH2455 (Trip Blank) 14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-009
Collection Date: 01/19/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/26/2022 13:10/ct	GECD.I_220126A : 8	163202
Surr: 1,1,1,2-Tetrachloroethane	85.0	%REC	1		70-130				SW8011	01/26/2022 13:10/ct	GECD.I_220126A : 8	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2455 (Trip Blank) 14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-010
Collection Date: 01/19/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 10:45/jdw	FID-HEADSPACE_220125A : 8	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-011
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2435 (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	0.050	0.021		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.050	0.018		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.050	0.032		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.050	0.025		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Anthracene	ND	ug/L	1	U	0.10	0.050	0.028		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.050	0.035		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Chrysene	ND	ug/L	1	U	0.10	0.050	0.046		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.050	0.037		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Fluorene	ND	ug/L	1	U	0.10	0.050	0.022		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.050	0.049		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Naphthalene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
Pyrene	ND	ug/L	1	U	0.10	0.050	0.024		SW8270CSIM	01/31/2022 23:18/jph	SV5975.I_220131B : 15	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 1.5 to 1.6	1.5	mg/L	1		0.50	0.50	0.17		SW9060A	01/27/2022 23:01/eli-ca	SUB-C279130 : 13	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 17:56/srh	ICPMS207-B_220131A : 54	R373996
METALS, TOTAL												
Lead	0.00033	mg/L	1	J	0.001	0.0001	0.00008		SW6020	01/31/2022 18:02/srh	ICPMS207-B_220131A : 55	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-011

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2435 (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	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Surr: Dibromofluoromethane	103.0	%REC	1			80-119			SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Surr: 1,2-Dichloroethane-d4	106.0	%REC	1			81-118			SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-011
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2435 (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	99.0	%REC	1		89-112				SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/25/2022 13:03/msc	VOA5975C.I_220125A : 7	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 13:30/clt	GECD.I_220126A : 9	163202
Surr: 1,1,1,2-Tetrachloroethane	103.0	%REC	1		70-130				SW8011	01/26/2022 13:30/clt	GECD.I_220126A : 9	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/26/2022 13:07/jp	PE 1_220125A : 18	R373803
Total Purgeable Hydrocarbons	24	ug/L	1		20	10	3.6		SW8015C	01/26/2022 13:07/jp	PE 1_220125A : 18	R373803
Surr: Trifluorotoluene	73.0	%REC	1		70-130				SW8015C	01/26/2022 13:07/jp	PE 1_220125A : 18	R373803
- 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)	0.31	mg/L	1		0.30	0.15	0.039		SW8015C	01/26/2022 06:05/amn	GCFID-HP5-B_220124C : 10	163190
Diesel Range Organics (SGT-C10 to C24)	0.074	mg/L	1	J	0.30	0.12	0.039		SW8015C	01/27/2022 19:55/amn	GCFID-HP5-B_220127A : 12	163190
Oil Range Hydrocarbons (C24 to C40)	0.24	mg/L	1	J	0.30	0.15	0.087		SW8015C	01/26/2022 06:05/amn	GCFID-HP5-B_220124C : 10	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.087		SW8015C	01/27/2022 19:55/amn	GCFID-HP5-B_220127A : 12	163190
Total Extractable Hydrocarbons	0.58	mg/L	1		0.30	0.15	0.074		SW8015C	01/26/2022 06:05/amn	GCFID-HP5-B_220124C : 10	163190
Total Extractable Hydrocarbons (SGT)	0.15	mg/L	1	J	0.30	0.12	0.033		SW8015C	01/27/2022 19:55/amn	GCFID-HP5-B_220127A : 12	163190
Surr: o-Terphenyl	61.0	%REC	1		56-125				SW8015C	01/26/2022 06:05/amn	GCFID-HP5-B_220124C : 10	163190
Surr: o-Terphenyl (SGT)	67.0	%REC	1		56-125				SW8015C	01/27/2022 19:55/amn	GCFID-HP5-B_220127A : 12	163190
Surr: n-Triacontane	93.0	%REC	1		50-150				SW8015C	01/26/2022 06:05/amn	GCFID-HP5-B_220124C : 10	163190
Surr: n-Triacontane (SGT)	99.0	%REC	1		50-150				SW8015C	01/27/2022 19:55/amn	GCFID-HP5-B_220127A : 12	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.0020	mg/L	1	J	0.0020	0.0012	0.00070		SW8015M	01/25/2022 10:50/jdw	FID-HEADSPACE_220125A : 9	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-011

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2435 (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	5.0	3.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.4		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Di-n-butyl phthalate	2.9	ug/L	1	J	10	5.0	0.93		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Phenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Pyridine	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Surr: 2,4,6-Tribromophenol	65.0	%REC	1			43-140			SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Surr: 2-Fluorobiphenyl	62.0	%REC	1			44-119			SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Surr: 2-Fluorophenol	33.0	%REC	1			19-119			SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Surr: Nitrobenzene-d5	60.0	%REC	1			44-120			SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2435 (RHMW2254-01 Bailer)
Project: CV18F0126, 60571032.02.46.01
Matrix: Ground Water

Lab ID: B22011446-011
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
SEMI-VOLATILE ORGANIC COMPOUNDS												
Surr: Phenol-d5	36.0	%REC	1		10-65				SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174
Surr: Terphenyl-d14	88.0	%REC	1		50-134				SW8270C	02/2/2022 17:17/dsm	SV5973N.I_220201B : 22	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-012
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2437 (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	0.050	0.021		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.050	0.018		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.050	0.032		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.050	0.025		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Anthracene	ND	ug/L	1	U	0.10	0.050	0.028		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.050	0.035		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Chrysene	ND	ug/L	1	U	0.10	0.050	0.046		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.050	0.037		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Fluorene	ND	ug/L	1	U	0.10	0.050	0.022		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.050	0.049		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Naphthalene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
Pyrene	ND	ug/L	1	U	0.10	0.050	0.024		SW8270CSIM	02/1/2022 00:23/jph	SV5975.I_220131B : 17	163174
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-012

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2437 (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												
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Surr: Dibromofluoromethane	107.0	%REC	1		80-119				SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Surr: 1,2-Dichloroethane-d4	108.0	%REC	1		81-118				SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	01/25/2022 13:30/msc	VOA5975C.I_220125A : 8	R373812
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	2.6	ug/L	1	J	20	8.7	2.3		SW8015C	01/26/2022 14:49/jp	PE 1_220125A : 20	R373803
Total Purgeable Hydrocarbons	26	ug/L	1		20	10	3.6		SW8015C	01/26/2022 14:49/jp	PE 1_220125A : 20	R373803
Surr: Trifluorotoluene	75.0	%REC	1		70-130				SW8015C	01/26/2022 14:49/jp	PE 1_220125A : 20	R373803

- 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: B22011446-012

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2437 (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
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	0.37	mg/L	1		0.30	0.15	0.038		SW8015C	01/26/2022 05:22/amn	GCFID-HP5-B_220124C : 9	163190
Diesel Range Organics (SGT-C10 to C24)	0.074	mg/L	1	J	0.30	0.12	0.038		SW8015C	01/27/2022 19:12/amn	GCFID-HP5-B_220127A : 11	163190
Oil Range Hydrocarbons (C24 to C40)	0.34	mg/L	1		0.30	0.15	0.085		SW8015C	01/26/2022 05:22/amn	GCFID-HP5-B_220124C : 9	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	0.12	mg/L	1	J	0.30	0.15	0.085		SW8015C	01/27/2022 19:12/amn	GCFID-HP5-B_220127A : 11	163190
Total Extractable Hydrocarbons	0.70	mg/L	1		0.30	0.15	0.073		SW8015C	01/26/2022 05:22/amn	GCFID-HP5-B_220124C : 9	163190
Total Extractable Hydrocarbons (SGT)	0.20	mg/L	1	J	0.30	0.12	0.032		SW8015C	01/27/2022 19:12/amn	GCFID-HP5-B_220127A : 11	163190
Surr: o-Terphenyl	89.0	%REC	1		56-125				SW8015C	01/26/2022 05:22/amn	GCFID-HP5-B_220124C : 9	163190
Surr: o-Terphenyl (SGT)	87.0	%REC	1		56-125				SW8015C	01/27/2022 19:12/amn	GCFID-HP5-B_220127A : 11	163190
Surr: n-Triacontane	97.0	%REC	1		50-150				SW8015C	01/26/2022 05:22/amn	GCFID-HP5-B_220124C : 9	163190
Surr: n-Triacontane (SGT)	88.0	%REC	1		50-150				SW8015C	01/27/2022 19:12/amn	GCFID-HP5-B_220127A : 11	163190
- 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	5.0	1.9		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.4		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-012

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2437 (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												
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Di-n-butyl phthalate	3.1	ug/L	1	J	10	5.0	0.93		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Phenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Pyridine	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: 2,4,6-Tribromophenol	79.0	%REC	1		43-140				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: 2-Fluorobiphenyl	61.0	%REC	1		44-119				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: 2-Fluorophenol	31.0	%REC	1		19-119				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: Nitrobenzene-d5	60.0	%REC	1		44-120				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: Phenol-d5	33.0	%REC	1		10-65				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174
Surr: Terphenyl-d14	89.0	%REC	1		50-134				SW8270C	02/2/2022 17:49/dsm	SV5973N.I_220201B : 23	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-013

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2434 (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	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-013

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2434 (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	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Surr: Dibromofluoromethane	106.0	%REC	1		80-119				SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Surr: 1,2-Dichloroethane-d4	109.0	%REC	1		81-118				SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	01/25/2022 17:36/msc	VOA5975C.I_220125A : 17	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-014

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2434 (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
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/25/2022 13:34/jp	PE 1_220125A : 8	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 13:34/jp	PE 1_220125A : 8	R373803
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	01/25/2022 13:34/jp	PE 1_220125A : 8	R373803
- 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: B22011446-015
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2434 (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	0.0049	0.0025		SW8011	01/26/2022 13:50/clt	GECD.I_220126A : 10	163202
Surr: 1,1,1,2-Tetrachloroethane	95.0	%REC	1		70-130				SW8011	01/26/2022 13:50/clt	GECD.I_220126A : 10	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2434 (Trip Blank) 14732
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-016
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:04/jdw	FID-HEADSPACE_220125A : 11	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-017
Collection Date: 01/20/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2439 (RHMW2254-01 LF)
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	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.048	0.017		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.048	0.030		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.048	0.024		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Anthracene	ND	ug/L	1	U	0.10	0.048	0.027		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.048	0.026		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.048	0.033		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.048	0.025		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Chrysene	ND	ug/L	1	U	0.10	0.048	0.044		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.048	0.035		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.048	0.022		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Fluorene	ND	ug/L	1	U	0.10	0.048	0.021		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.048	0.047		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Naphthalene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.048	0.028		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
Pyrene	ND	ug/L	1	U	0.10	0.048	0.023		SW8270CSIM	02/1/2022 00:56/jph	SV5975.I_220131B : 18	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 1.1 to 1.1	1.1	mg/L	1		0.50	0.50	0.17		SW9060A	01/27/2022 23:43/eli-ca	SUB-C279130 : 14	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 18:08/srh	ICPMS207-B_220131A : 56	R373996
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/31/2022 18:27/srh	ICPMS207-B_220131A : 59	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-017

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2439 (RHMW2254-01 LF)
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	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Surr: Dibromofluoromethane	107.0	%REC	1			80-119			SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Surr: 1,2-Dichloroethane-d4	109.0	%REC	1			81-118			SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-017

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2439 (RHMW2254-01 LF)
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	102.0	%REC	1		89-112				SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
Surr: p-Bromofluorobenzene	106.0	%REC	1		85-114				SW8260B	01/25/2022 13:57/msc	VOA5975C.I_220125A : 9	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 14:10/clt	GECD.I_220126A : 11	163202
Surr: 1,1,1,2-Tetrachloroethane	101.0	%REC	1		70-130				SW8011	01/26/2022 14:10/clt	GECD.I_220126A : 11	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/26/2022 15:58/jp	PE 1_220125A : 21	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/26/2022 15:58/jp	PE 1_220125A : 21	R373803
Surr: Trifluorotoluene	74.0	%REC	1		70-130				SW8015C	01/26/2022 15:58/jp	PE 1_220125A : 21	R373803
- 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)	0.59	mg/L	1		0.30	0.15	0.038		SW8015C	01/26/2022 02:31/amn	GCFID-HP5-B_220124C : 7	163190
Diesel Range Organics (SGT-C10 to C24)	ND	mg/L	1	U	0.30	0.12	0.038		SW8015C	01/27/2022 17:04/amn	GCFID-HP5-B_220127A : 9	163190
Oil Range Hydrocarbons (C24 to C40)	0.44	mg/L	1		0.30	0.15	0.085		SW8015C	01/26/2022 02:31/amn	GCFID-HP5-B_220124C : 7	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.085		SW8015C	01/27/2022 17:04/amn	GCFID-HP5-B_220127A : 9	163190
Total Extractable Hydrocarbons	1.0	mg/L	1		0.30	0.15	0.073		SW8015C	01/26/2022 02:31/amn	GCFID-HP5-B_220124C : 7	163190
Total Extractable Hydrocarbons (SGT)	0.033	mg/L	1	J	0.30	0.12	0.032		SW8015C	01/27/2022 17:04/amn	GCFID-HP5-B_220127A : 9	163190
Surr: o-Terphenyl	89.0	%REC	1		56-125				SW8015C	01/26/2022 02:31/amn	GCFID-HP5-B_220124C : 7	163190
Surr: o-Terphenyl (SGT)	93.0	%REC	1		56-125				SW8015C	01/27/2022 17:04/amn	GCFID-HP5-B_220127A : 9	163190
Surr: n-Triacontane	94.0	%REC	1		50-150				SW8015C	01/26/2022 02:31/amn	GCFID-HP5-B_220124C : 7	163190
Surr: n-Triacontane (SGT)	89.0	%REC	1		50-150				SW8015C	01/27/2022 17:04/amn	GCFID-HP5-B_220127A : 9	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.0015	mg/L	1	J	0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:10/jdw	FID-HEADSPACE_220125A : 12	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.5	4.1		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.8	2.9		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-017

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2439 (RHMW2254-01 LF)
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	3.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2-Chlorophenol	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
2-Nitrophenol	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.8	2.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.5	2.2		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4-Chlorophenol	ND	ug/L	1	U	10	4.8	2.5		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.8	1.9		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
4-Nitrophenol	ND	ug/L	1	U	10	9.5	2.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Azobenzene	ND	ug/L	1	U	10	4.8	1.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.8	2.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.8	1.8		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.8	0.89		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Diethyl phthalate	ND	ug/L	1	U	10	4.8	2.1		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Dimethyl phthalate	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Hexachlorobenzene	ND	ug/L	1	U	10	4.8	1.3		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.8	2.8		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Hexachloroethane	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Isophorone	ND	ug/L	1	U	10	4.8	1.6		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
m+p-Cresols	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.8	1.5		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.8	1.1		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Nitrobenzene	ND	ug/L	1	U	10	4.8	2.2		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
o-Cresol	ND	ug/L	1	U	10	4.8	1.7		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Pentachlorophenol	ND	ug/L	1	U	10	9.5	4.0		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Phenol	ND	ug/L	1	U	10	4.8	1.4		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Pyridine	ND	ug/L	1	U	10	4.8	3.1		SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Surr: 2,4,6-Tribromophenol	91.0	%REC	1			43-140			SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Surr: 2-Fluorobiphenyl	58.0	%REC	1			44-119			SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Surr: 2-Fluorophenol	35.0	%REC	1			19-119			SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Surr: Nitrobenzene-d5	61.0	%REC	1			44-120			SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-017

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2439 (RHMW2254-01 LF)
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	34.0	%REC	1		10-65				SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174
Surr: Terphenyl-d14	94.0	%REC	1		50-134				SW8270C	02/3/2022 18:51/dsm	SV5973N.I_220203A : 4	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-018

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2438 (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
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-018

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2438 (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
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Surr: Dibromofluoromethane	106.0	%REC	1		80-119				SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Surr: 1,2-Dichloroethane-d4	106.0	%REC	1		81-118				SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Surr: Toluene-d8	104.0	%REC	1		89-112				SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812
Surr: p-Bromofluorobenzene	109.0	%REC	1		85-114				SW8260B	01/25/2022 18:03/msc	VOA5975C.I_220125A : 18	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2438 (Trip Blank) 14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-019
Collection Date: 01/20/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/25/2022 14:08/jp	PE 1_220125A : 9	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 14:08/jp	PE 1_220125A : 9	R373803
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	01/25/2022 14:08/jp	PE 1_220125A : 9	R373803
- 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: B22011446-020

Collection Date: 01/20/2022 14:05

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2438 (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
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 14:29/clt	GECD.I_220126A : 12	163202
Surr: 1,1,1,2-Tetrachloroethane	97.0	%REC	1		70-130				SW8011	01/26/2022 14:29/clt	GECD.I_220126A : 12	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2438 (Trip Blank) 14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-021
Collection Date: 01/20/2022 14:05
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:16/jdw	FID-HEADSPACE_220125A : 13	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-022
Collection Date: 01/20/2022 15:30
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2442 (Sump Adit3)
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	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.049	0.017		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.049	0.031		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.049	0.024		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Anthracene	ND	ug/L	1	U	0.10	0.049	0.028		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Benzo(a)anthracene	0.033	ug/L	1	J	0.10	0.049	0.027		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.049	0.034		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Benzo(b)fluoranthene	0.091	ug/L	1	J	0.10	0.049	0.022		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.049	0.026		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Benzo(k)fluoranthene	0.067	ug/L	1	J	0.10	0.049	0.029		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Chrysene	ND	ug/L	1	U	0.10	0.049	0.045		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.049	0.036		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Fluoranthene	0.067	ug/L	1	J	0.10	0.049	0.023		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Fluorene	ND	ug/L	1	U	0.10	0.049	0.022		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.049	0.048		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Naphthalene	ND	ug/L	1	U	0.10	0.049	0.028		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.049	0.029		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
Pyrene	0.069	ug/L	1	J	0.10	0.049	0.023		SW8270CSIM	02/1/2022 02:00/jph	SV5975.I_220131B : 20	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC)	2.8	mg/L	1		0.50	0.50	0.17		SW9060A	01/28/2022 00:25/eli-ca	SUB-C279130 : 15	C_R279130
- TOC Range is 2.7 to 2.8												
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 18:33/srh	ICPMS207-B_220131A : 60	R373996
METALS, TOTAL												
Lead	0.00042	mg/L	1	J	0.001	0.0001	0.00008		SW6020	01/31/2022 18:39/srh	ICPMS207-B_220131A : 61	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Bromodichloromethane	0.12	ug/L	1	J	1.0	0.25	0.12		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Bromoform	0.34	ug/L	1	J	1.0	0.25	0.12		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Chlorodibromomethane	0.16	ug/L	1	J	1.0	0.20	0.084		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Chloroform	1.2	ug/L	1		1.0	0.20	0.079		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-022

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2442 (Sump Adit3)
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	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Dibromomethane	0.20	ug/L	1	J	1.0	0.50	0.15		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Methyl ethyl ketone	4.2	ug/L	1	J	20	5.0	1.8		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Xylenes, Total	0.16	ug/L	1	J	1.0	0.20	0.060		SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Surr: 1,2-Dichloroethane-d4	107.0	%REC	1		81-118				SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812



LABORATORY ANALYTICAL REPORT

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Lab ID: B22011446-022

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2442 (Sump Adit3)
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	98.0	%REC	1		89-112				SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
Surr: p-Bromofluorobenzene	96.0	%REC	1		85-114				SW8260B	01/25/2022 14:25/msc	VOA5975C.I_220125A : 10	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 16:48/clt	GECD.I_220126A : 17	163202
Surr: 1,1,1,2-Tetrachloroethane	106.0	%REC	1		70-130				SW8011	01/26/2022 16:48/clt	GECD.I_220126A : 17	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	16	ug/L	1	J	20	8.7	2.3		SW8015C	01/26/2022 17:06/jp	PE 1_220125A : 22	R373803
Total Purgeable Hydrocarbons	437	ug/L	1		20	10	3.6		SW8015C	01/26/2022 17:06/jp	PE 1_220125A : 22	R373803
Surr: Trifluorotoluene	76.0	%REC	1		70-130				SW8015C	01/26/2022 17:06/jp	PE 1_220125A : 22	R373803
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.												
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	1.0	mg/L	1		0.30	0.15	0.038		SW8015C	01/26/2022 04:39/amn	GCFID-HP5-B_220124C : 8	163190
Diesel Range Organics (SGT-C10 to C24)	0.66	mg/L	1		0.30	0.12	0.038		SW8015C	01/27/2022 18:29/amn	GCFID-HP5-B_220127A : 10	163190
Oil Range Hydrocarbons (C24 to C40)	0.38	mg/L	1		0.30	0.15	0.086		SW8015C	01/26/2022 04:39/amn	GCFID-HP5-B_220124C : 8	163190
Oil Range Hydrocarbons (SGT-C24 to C40)	0.13	mg/L	1	J	0.30	0.15	0.086		SW8015C	01/27/2022 18:29/amn	GCFID-HP5-B_220127A : 10	163190
Total Extractable Hydrocarbons	1.4	mg/L	1		0.30	0.15	0.073		SW8015C	01/26/2022 04:39/amn	GCFID-HP5-B_220124C : 8	163190
Total Extractable Hydrocarbons (SGT)	0.79	mg/L	1		0.30	0.12	0.032		SW8015C	01/27/2022 18:29/amn	GCFID-HP5-B_220127A : 10	163190
Surr: o-Terphenyl	87.0	%REC	1		56-125				SW8015C	01/26/2022 04:39/amn	GCFID-HP5-B_220124C : 8	163190
Surr: o-Terphenyl (SGT)	91.0	%REC	1		56-125				SW8015C	01/27/2022 18:29/amn	GCFID-HP5-B_220127A : 10	163190
Surr: n-Triacontane	90.0	%REC	1		50-150				SW8015C	01/26/2022 04:39/amn	GCFID-HP5-B_220124C : 8	163190
Surr: n-Triacontane (SGT)	89.0	%REC	1		50-150				SW8015C	01/27/2022 18:29/amn	GCFID-HP5-B_220127A : 10	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time.												
ORGANIC CHARACTERISTICS												
Methane	0.0055	mg/L	1		0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:21/jdw	FID-HEADSPACE_220125A : 14	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.2		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	4.9	3.0		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-022

Collection Date: 01/20/2022 15:30

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Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2442 (Sump Adit3)
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	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2-Chlorophenol	ND	ug/L	1	U	10	4.9	2.4		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
2-Nitrophenol	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	9.8	2.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4-Bromophenyl phenyl ether	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4-Chlorophenol	ND	ug/L	1	U	10	4.9	2.6		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	4.9	2.0		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
4-Nitrophenol	ND	ug/L	1	U	10	9.8	2.4		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Azobenzene	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	4.9	2.5		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	4.9	1.9		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	4.9	0.91		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Diethyl phthalate	ND	ug/L	1	U	10	4.9	2.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Dimethyl phthalate	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Hexachlorobenzene	ND	ug/L	1	U	10	4.9	1.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	4.9	2.9		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Hexachloroethane	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Isophorone	ND	ug/L	1	U	10	4.9	1.6		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
m+p-Cresols	ND	ug/L	1	U	10	4.9	1.7		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	4.9	1.5		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	4.9	1.1		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Nitrobenzene	ND	ug/L	1	U	10	4.9	2.3		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
o-Cresol	ND	ug/L	1	U	10	4.9	1.8		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Pentachlorophenol	ND	ug/L	1	U	10	9.8	4.2		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Phenol	ND	ug/L	1	U	10	4.9	1.4		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Pyridine	ND	ug/L	1	U	10	4.9	3.2		SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Surr: 2,4,6-Tribromophenol	84.0	%REC	1			43-140			SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Surr: 2-Fluorobiphenyl	77.0	%REC	1			44-119			SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Surr: 2-Fluorophenol	42.0	%REC	1			19-119			SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Surr: Nitrobenzene-d5	71.0	%REC	1			44-120			SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-022

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2442 (Sump Adit3)
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	43.0	%REC	1		10-65				SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174
Surr: Terphenyl-d14	98.0	%REC	1		50-134				SW8270C	02/3/2022 19:23/dsm	SV5973N.I_220203A : 5	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-023

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2441 (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	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Toluene	ND	ug/L	1	U	1.0	0.20	0.068		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-023
Collection Date: 01/20/2022 15:30
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2441 (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	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Surr: Dibromofluoromethane	109.0	%REC	1		80-119				SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Surr: 1,2-Dichloroethane-d4	108.0	%REC	1		81-118				SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Surr: Toluene-d8	103.0	%REC	1		89-112				SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812
Surr: p-Bromofluorobenzene	104.0	%REC	1		85-114				SW8260B	01/25/2022 18:30/msc	VOA5975C.I_220125A : 19	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2441 (Trip Blank) 14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-024
Collection Date: 01/20/2022 15:30
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/25/2022 14:42/jp	PE 1_220125A : 10	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/25/2022 14:42/jp	PE 1_220125A : 10	R373803
Surr: Trifluorotoluene	81.0	%REC	1		70-130				SW8015C	01/25/2022 14:42/jp	PE 1_220125A : 10	R373803
- 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: B22011446-025

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2441 (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	0.0049	0.0025		SW8011	01/26/2022 17:08/ct	GECD.I_220126A : 18	163202
Surr: 1,1,1,2-Tetrachloroethane	98.0	%REC	1		70-130				SW8011	01/26/2022 17:08/ct	GECD.I_220126A : 18	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-026

Collection Date: 01/20/2022 15:30

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2441 (Trip Blank) 14709
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	01/25/2022 11:34/jdw	FID-HEADSPACE_220125A : 16	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-027
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2452 (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	0.050	0.021		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.050	0.018		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.050	0.032		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.050	0.025		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Anthracene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.050	0.035		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.050	0.027		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.050	0.030		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Chrysene	ND	ug/L	1	U	0.10	0.050	0.046		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.050	0.037		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Fluoranthene	0.092	ug/L	1	J	0.10	0.050	0.024		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Fluorene	ND	ug/L	1	U	0.10	0.050	0.023		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.050	0.050		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Naphthalene	ND	ug/L	1	U	0.10	0.050	0.029		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Phenanthrene	0.042	ug/L	1	J	0.10	0.050	0.030		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
Pyrene	0.083	ug/L	1	J	0.10	0.050	0.024		SW8270CSIM	02/1/2022 02:33/jph	SV5975.I_220131B : 21	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.2 to 0.2	0.23	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/28/2022 01:09/eli-ca	SUB-C279130 : 16	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 18:46/srh	ICPMS207-B_220131A : 62	R373996
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/31/2022 18:52/srh	ICPMS207-B_220131A : 63	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-027

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2452 (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	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Surr: Dibromofluoromethane	103.0	%REC	1			80-119			SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Surr: 1,2-Dichloroethane-d4	103.0	%REC	1			81-118			SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-027

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2452 (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	99.0	%REC	1		89-112				SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
Surr: p-Bromofluorobenzene	102.0	%REC	1		85-114				SW8260B	01/25/2022 14:52/msc	VOA5975C.I_220125A : 11	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0048	0.0025		SW8011	01/26/2022 17:28/clt	GECD.I_220126A : 19	163202
Surr: 1,1,1,2-Tetrachloroethane	87.0	%REC	1		70-130				SW8011	01/26/2022 17:28/clt	GECD.I_220126A : 19	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/27/2022 10:33/jp	PE 1_220125A : 32	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/27/2022 10:33/jp	PE 1_220125A : 32	R373803
Surr: Trifluorotoluene	71.0	%REC	1		70-130				SW8015C	01/27/2022 10:33/jp	PE 1_220125A : 32	R373803
- 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	01/26/2022 12:30/amn	GCFID-HP5-B_220124C : 15	163190
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.14	0.085		SW8015C	01/26/2022 12:30/amn	GCFID-HP5-B_220124C : 15	163190
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.14	0.072		SW8015C	01/26/2022 12:30/amn	GCFID-HP5-B_220124C : 15	163190
Surr: o-Terphenyl	89.0	%REC	1		56-125				SW8015C	01/26/2022 12:30/amn	GCFID-HP5-B_220124C : 15	163190
Surr: n-Triacontane	89.0	%REC	1		50-150				SW8015C	01/26/2022 12:30/amn	GCFID-HP5-B_220124C : 15	163190
- Note: Total Extractable Hydrocarbons are defined as the total hydrocarbon responses regardless of elution time. - Since there were no detectable hydrocarbons, Silica Gel Treatment (SGT) results are equivalent to non-SGT results.												
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:48/jdw	FID-HEADSPACE_220125A : 17	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.0	2.0		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.1		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.0	3.2		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.0	2.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.0	2.4		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-027

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2452 (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	5.0	1.8		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.0	2.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.0	2.1		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Azobenzene	ND	ug/L	1	U	10	5.0	1.1		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.0	2.6		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.0	1.9		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.0	0.94		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.0	1.4		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.0	2.2		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.0	1.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.0	3.0		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Hexachloroethane	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Isophorone	ND	ug/L	1	U	10	5.0	1.7		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
m+p-Cresols	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.0	1.6		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.0	1.2		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Nitrobenzene	ND	ug/L	1	U	10	5.0	2.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
o-Cresol	ND	ug/L	1	U	10	5.0	1.8		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Phenol	ND	ug/L	1	U	10	5.0	1.5		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Pyridine	ND	ug/L	1	U	10	5.0	3.3		SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: 2,4,6-Tribromophenol	96.0	%REC	1		43-140				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: 2-Fluorobiphenyl	74.0	%REC	1		44-119				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: 2-Fluorophenol	40.0	%REC	1		19-119				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: Nitrobenzene-d5	67.0	%REC	1		44-120				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: Phenol-d5	40.0	%REC	1		10-65				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174
Surr: Terphenyl-d14	97.0	%REC	1		50-134				SW8270C	02/3/2022 19:55/dsm	SV5973N.I_220203A : 6	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-028

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2451 (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
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Toluene	0.19	ug/L	1	J	1.0	0.20	0.068		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-028

Collection Date: 01/20/2022 13:15

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2451 (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
VOLATILE ORGANIC COMPOUNDS												
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Surr: Dibromofluoromethane	104.0	%REC	1		80-119				SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Surr: 1,2-Dichloroethane-d4	106.0	%REC	1		81-118				SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
Surr: p-Bromofluorobenzene	108.0	%REC	1		85-114				SW8260B	01/25/2022 18:58/msc	VOA5975C.I_220125A : 20	R373812
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.0		SW8015C	01/30/2022 15:49/jp	VARIAN1_220130A : 5	R373955
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.1		SW8015C	01/30/2022 15:49/jp	VARIAN1_220130A : 5	R373955
Surr: Trifluorotoluene	74.0	%REC	1		70-130				SW8015C	01/30/2022 15:49/jp	VARIAN1_220130A : 5	R373955

- 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: ERH2451 (Trip Blank)-14733
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-030
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/26/2022 17:48/clt	GECD.I_220126A : 20	163202
Surr: 1,1,1,2-Tetrachloroethane	110.0	%REC	1		70-130				SW8011	01/26/2022 17:48/clt	GECD.I_220126A : 20	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2451 (Trip Blank)-14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-031
Collection Date: 01/20/2022 13:15
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:54/jdw	FID-HEADSPACE_220125A : 18	R373752



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-032
Collection Date: 01/20/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2462 (RHMW11-05)
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	0.052	0.021		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
2-Methylnaphthalene	ND	ug/L	1	U	0.10	0.052	0.018		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Acenaphthene	ND	ug/L	1	U	0.10	0.052	0.033		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Acenaphthylene	ND	ug/L	1	U	0.10	0.052	0.026		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Anthracene	ND	ug/L	1	U	0.10	0.052	0.029		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Benzo(a)anthracene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Benzo(a)pyrene	ND	ug/L	1	U	0.10	0.052	0.036		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Benzo(b)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.023		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Benzo(g,h,i)perylene	ND	ug/L	1	U	0.10	0.052	0.028		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Benzo(k)fluoranthene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Chrysene	ND	ug/L	1	U	0.10	0.052	0.047		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Dibenzo(a,h)anthracene	ND	ug/L	1	U	0.10	0.052	0.038		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Fluoranthene	ND	ug/L	1	U	0.10	0.052	0.024		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Fluorene	ND	ug/L	1	U	0.10	0.052	0.023		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Indeno(1,2,3-cd)pyrene	ND	ug/L	1	U	0.10	0.052	0.051		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Naphthalene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Phenanthrene	ND	ug/L	1	U	0.10	0.052	0.030		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
Pyrene	ND	ug/L	1	U	0.10	0.052	0.025		SW8270CSIM	02/1/2022 03:05/jph	SV5975.I_220131B : 22	163174
AGGREGATE ORGANICS												
Organic Carbon, Total (TOC) - TOC Range is 0.3 to 0.3	0.31	mg/L	1	J	0.50	0.50	0.17		SW9060A	01/28/2022 01:48/eli-ca	SUB-C279130 : 17	C_R279130
METALS, DISSOLVED												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00006		SW6020	01/31/2022 18:58/srh	ICPMS207-B_220131A : 64	R373996
METALS, TOTAL												
Lead	ND	mg/L	1	U	0.001	0.0001	0.00008		SW6020	01/31/2022 19:04/srh	ICPMS207-B_220131A : 65	163179
VOLATILE ORGANIC COMPOUNDS												
Benzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-032

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2462 (RHMW11-05)
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	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Styrene	0.12	ug/L	1	J	1.0	0.20	0.067		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Toluene	ND	ug/L	1	UT	1.0	0.20	0.068		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1,1-Trichloroethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Surr: Dibromofluoromethane	102.0	%REC	1			80-119			SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Surr: 1,2-Dichloroethane-d4	108.0	%REC	1			81-118			SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812



LABORATORY ANALYTICAL REPORT

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Lab ID: B22011446-032

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2462 (RHMW11-05)
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	101.0	%REC	1		89-112				SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/25/2022 15:19/msc	VOA5975C.I_220125A : 12	R373812
VOCS BY MICROEXTRACTION-ECD												
1,2-Dibromoethane	ND	ug/L	1	U	0.010	0.0049	0.0025		SW8011	01/26/2022 18:08/clt	GECD.I_220126A : 21	163202
Surr: 1,1,1,2-Tetrachloroethane	101.0	%REC	1		70-130				SW8011	01/26/2022 18:08/clt	GECD.I_220126A : 21	163202
PETROLEUM HYDROCARBONS-VOLATILE												
C6 to C10	ND	ug/L	1	U	20	8.7	2.3		SW8015C	01/26/2022 18:49/jp	PE 1_220125A : 23	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/26/2022 18:49/jp	PE 1_220125A : 23	R373803
Surr: Trifluorotoluene	74.0	%REC	1		70-130				SW8015C	01/26/2022 18:49/jp	PE 1_220125A : 23	R373803
- Note 1: C6 to C10 is defined as all hydrocarbons eluting between 2-Methylpentane and 1,2,4-Trimethylbenzene.												
- Note 2: Total Purgeable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.												
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (C10 to C24)	ND	mg/L	1	U	0.30	0.15	0.039		SW8015C	01/26/2022 07:30/amn	GCFID-HP5-B_220124C : 11	163190
Oil Range Hydrocarbons (C24 to C40)	ND	mg/L	1	U	0.30	0.15	0.089		SW8015C	01/26/2022 07:30/amn	GCFID-HP5-B_220124C : 11	163190
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.15	0.076		SW8015C	01/26/2022 07:30/amn	GCFID-HP5-B_220124C : 11	163190
Surr: o-Terphenyl	85.0	%REC	1		56-125				SW8015C	01/26/2022 07:30/amn	GCFID-HP5-B_220124C : 11	163190
Surr: n-Triacontane	87.0	%REC	1		50-150				SW8015C	01/26/2022 07:30/amn	GCFID-HP5-B_220124C : 11	163190
- 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	0.0023	mg/L	1		0.0020	0.0012	0.00070		SW8015M	01/25/2022 11:59/jdw	FID-HEADSPACE_220125A : 19	R373752
SEMI-VOLATILE ORGANIC COMPOUNDS												
1,2,4-Trichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
1,2-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
1,3-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
1,4-Dichlorobenzene	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4,5-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.3		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4,6-Trichlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4-Dichlorophenol	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4-Dimethylphenol	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4-Dinitrophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,4-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2,6-Dinitrotoluene	ND	ug/L	1	U	10	5.2	3.3		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2-Chloronaphthalene	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2-Chlorophenol	ND	ug/L	1	U	10	5.2	2.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
2-Nitrophenol	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
3,3'-Dichlorobenzidine	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
4,6-Dinitro-2-methylphenol	ND	ug/L	1	U	10	10	2.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-032

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2462 (RHMW11-05)
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	5.2	1.8		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
4-Chloro-3-methylphenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
4-Chlorophenol	ND	ug/L	1	U	10	5.2	2.7		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
4-Chlorophenyl phenyl ether	ND	ug/L	1	U	10	5.2	2.1		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
4-Nitrophenol	ND	ug/L	1	U	10	10	2.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Azobenzene	ND	ug/L	1	U	10	5.2	1.1		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
bis(-2-chloroethoxy)Methane	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
bis(-2-chloroethyl)Ether	ND	ug/L	1	U	10	5.2	2.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
bis(2-chloroisopropyl)Ether	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
bis(2-ethylhexyl)Phthalate	ND	ug/L	1	U	10	5.2	2.0		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Butylbenzylphthalate	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Di-n-butyl phthalate	ND	ug/L	1	U	10	5.2	0.96		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Di-n-octyl phthalate	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Diethyl phthalate	ND	ug/L	1	U	10	5.2	2.2		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Dimethyl phthalate	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Hexachlorobenzene	ND	ug/L	1	U	10	5.2	1.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Hexachlorobutadiene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Hexachlorocyclopentadiene	ND	ug/L	1	U	10	5.2	3.1		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Hexachloroethane	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Isophorone	ND	ug/L	1	U	10	5.2	1.7		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
m+p-Cresols	ND	ug/L	1	U	10	5.2	1.8		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
n-Nitroso-di-n-propylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
n-Nitrosodimethylamine	ND	ug/L	1	U	10	5.2	1.6		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
n-Nitrosodiphenylamine	ND	ug/L	1	U	10	5.2	1.2		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Nitrobenzene	ND	ug/L	1	U	10	5.2	2.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
o-Cresol	ND	ug/L	1	U	10	5.2	1.9		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Pentachlorophenol	ND	ug/L	1	U	10	10	4.4		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Phenol	ND	ug/L	1	U	10	5.2	1.5		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Pyridine	ND	ug/L	1	U	10	5.2	3.3		SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: 2,4,6-Tribromophenol	78.0	%REC	1		43-140				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: 2-Fluorobiphenyl	63.0	%REC	1		44-119				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: 2-Fluorophenol	27.0	%REC	1		19-119				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: Nitrobenzene-d5	57.0	%REC	1		44-120				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: Phenol-d5	30.0	%REC	1		10-65				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174
Surr: Terphenyl-d14	94.0	%REC	1		50-134				SW8270C	02/3/2022 20:27/dsm	SV5973N.I_220203A : 7	163174



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-033

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2461 (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	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Bromobenzene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Bromochloromethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Bromodichloromethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Bromoform	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Carbon tetrachloride	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Chlorobenzene	ND	ug/L	1	U	1.0	0.20	0.091		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Chlorodibromomethane	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Chloroethane	ND	ug/L	1	U	1.0	0.50	0.17		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Chloroform	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Chloromethane	ND	ug/L	1	U	1.0	0.50	0.16		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,2-Dibromoethane	ND	ug/L	1	U	1.0	0.20	0.092		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
2-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.088		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
4-Chlorotoluene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Dibromomethane	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,2-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.075		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,3-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.080		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,4-Dichlorobenzene	ND	ug/L	1	U	1.0	0.20	0.086		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Dichlorodifluoromethane	ND	ug/L	1	U	1.0	0.50	0.18		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1-Dichloroethane	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,2-Dichloroethane	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1-Dichloroethene	ND	ug/L	1	U	1.0	0.50	0.14		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
cis-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
trans-1,2-Dichloroethene	ND	ug/L	1	U	1.0	0.25	0.12		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,2-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,3-Dichloropropane	ND	ug/L	1	U	1.0	0.20	0.079		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
2,2-Dichloropropane	ND	ug/L	1	U	1.0	0.50	0.19		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.083		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
cis-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.073		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
trans-1,3-Dichloropropene	ND	ug/L	1	U	1.0	0.20	0.085		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Ethylbenzene	ND	ug/L	1	U	1.0	0.20	0.084		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Methyl ethyl ketone	ND	ug/L	1	U	20	5.0	1.8		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Methyl tert-butyl ether (MTBE)	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Methylene chloride	ND	ug/L	1	U	1.0	0.50	0.34		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Styrene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1,1,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.25	0.10		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1,2,2-Tetrachloroethane	ND	ug/L	1	U	1.0	0.20	0.087		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Tetrachloroethene	ND	ug/L	1	U	1.0	0.20	0.067		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Toluene	0.070	ug/L	1	J	1.0	0.20	0.068		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Lab ID: B22011446-033

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2461 (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	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,1,2-Trichloroethane	ND	ug/L	1	U	1.0	0.25	0.11		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Trichloroethene	ND	ug/L	1	U	1.0	0.20	0.099		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Trichlorofluoromethane	ND	ug/L	1	U	1.0	0.50	0.13		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
1,2,3-Trichloropropane	ND	ug/L	1	U	1.0	0.50	0.24		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Vinyl chloride	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
m+p-Xylenes	ND	ug/L	1	U	1.0	0.50	0.15		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
o-Xylene	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Xylenes, Total	ND	ug/L	1	U	1.0	0.20	0.060		SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Surr: Dibromofluoromethane	108.0	%REC	1		80-119				SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Surr: 1,2-Dichloroethane-d4	112.0	%REC	1		81-118				SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Surr: Toluene-d8	102.0	%REC	1		89-112				SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812
Surr: p-Bromofluorobenzene	105.0	%REC	1		85-114				SW8260B	01/25/2022 19:25/msc	VOA5975C.I_220125A : 21	R373812



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2461 (Trip Blank) 14694
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-034
Collection Date: 01/20/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

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	01/26/2022 14:15/jp	PE 1_220125A : 19	R373803
Total Purgeable Hydrocarbons	ND	ug/L	1	U	20	10	3.6		SW8015C	01/26/2022 14:15/jp	PE 1_220125A : 19	R373803
Surr: Trifluorotoluene	73.0	%REC	1		70-130				SW8015C	01/26/2022 14:15/jp	PE 1_220125A : 19	R373803
- 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: B22011446-035

Collection Date: 01/20/2022 13:00

Date Received: 01/22/2022

Report Date: 03/03/2022

Client: AECOM - Honolulu
Client Sample ID: ERH2461 (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	0.0049	0.0025		SW8011	01/26/2022 18:28/clt	GECD.I_220126A : 22	163202
Surr: 1,1,1,2-Tetrachloroethane	97.0	%REC	1		70-130				SW8011	01/26/2022 18:28/clt	GECD.I_220126A : 22	163202



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Client Sample ID: ERH2461 (Trip Blank) 14709
Project: CV18F0126, 60571032.02.46.01
Matrix: Trip Blank

Lab ID: B22011446-036
Collection Date: 01/20/2022 13:00
Date Received: 01/22/2022
Report Date: 03/03/2022

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
ORGANIC CHARACTERISTICS												
Methane	ND	mg/L	1	U	0.0020	0.0012	0.00070		SW8015M	01/25/2022 12:10/jdw	FID-HEADSPACE_220125A : 20	R373752



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5975.I_220131B: 7 **SampType:** Method Blank **Batch ID:** 163174
Method: SW8270CSIM **Analysis Date:** 01/31/2022 18:57 **Prep Date:** 01/24/2022 11:48
Lab ID: MB-163174 **Units:** ug/L **Prep Method:** SW3510C

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

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

Associated Samples: **B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C**

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

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5975.I_220131B: 16
Method: SW8270CSIM
Lab ID: B22011446-011CLMS

SampType: Sample Matrix Spike
Analysis Date: 01/31/2022 23:51
Units: ug/L

Batch ID: 163174
Prep Date: 01/25/2022 08:25
Prep Method: SW3510C

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5975.I_220131B: 23
Method: SW8270CSIM
Lab ID: 31-Jan-22_CCV_30

SampType: Continuing Calibration Verification Standard
Analysis Date: 02/01/2022 03:38
Units: ug/L

Batch ID: R373993
Prep Date:
Prep Method:

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

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SUB-C279130: 2 **SampType:** Method Blank **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 16:50 **Prep Date:**
Lab ID: MBLK **Units:** mg/L **Prep Method:**

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

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 0.2 to 0.2

Run ID: Run Order: SUB-C279130: 1 **SampType:** Laboratory Control Sample **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 16:09 **Prep Date:**
Lab ID: LCS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0		102.0	91	111				

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 5.1 to 5.1

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

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

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 5.7 to 5.8



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

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

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 5.7 to 5.8

Run ID: Run Order: SUB-C279130: 3 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/27/2022 17:30 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.0	0.50	5.0		101.0	90	110				

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 5.0 to 5.1

Run ID: Run Order: SUB-C279130: 7 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/28/2022 02:28 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	4.9	0.50	5.0		99.0	90	110				

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E
- TOC Range is 4.8 to 5.0



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SUB-C279130: 8 **SampType:** Continuing Calibration Verification Standard **Batch ID:** C_R279130
Method: SW9060A **Analysis Date:** 01/28/2022 08:07 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	5.1	0.50	5.0		103.0	90	110				

Associated Samples: B22011446-001E, B22011446-006E, B22011446-011E, B22011446-017E, B22011446-022E, B22011446-027E, B22011446-032E

- TOC Range is 5.1 to 5.2



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 23 **SampType:** Method Blank **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 14:42 **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: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 24 **SampType:** Laboratory Fortified Blank **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 14:49 **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	0.048	0.001	0.050		95.0	88	115				

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 41 **SampType:** Sample Matrix Spike **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 16:35 **Prep Date:**
Lab ID: B22011446-001AMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.052	0.001	0.050	0.00	105.0	88	115				

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 42 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 16:41 **Prep Date:**
Lab ID: B22011446-001AMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.052	0.001	0.050	0.00	103.0	88	115	0.052	1.5	20.0	

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 79 **SampType:** Sample Matrix Spike **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 20:31 **Prep Date:**
Lab ID: B22011592-012AMS **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.049	0.001	0.050	0.00	97.0	88	115				

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 80 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 20:38 **Prep Date:**
Lab ID: B22011592-012AMSD **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.050	0.001	0.050	0.00	99.0	88	115	0.049	2.2	20.0	

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 40 **SampType:** Serial Dilution **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 16:28 **Prep Date:**
Lab ID: B22011446-001ADIL **Units:** mg/L **Prep Method:**

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

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 78 **SampType:** Serial Dilution **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 20:25 **Prep Date:**
Lab ID: B22011592-012ADIL **Units:** mg/L **Prep Method:**

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

Associated Samples: B22011446-001A, B22011446-006A, B22011446-011A, B22011446-017A, B22011446-022A, B22011446-027A, B22011446-032A

Run ID: Run Order: ICPMS207-B_220131A: 32 **SampType:** Method Blank **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 15:39 **Prep Date:** 01/24/2022 12:57
Lab ID: MB-163179 **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: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 36 **SampType:** Laboratory Control Sample **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 16:04 **Prep Date:** 01/24/2022 12:57
Lab ID: LCS4-163179 **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: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 49 **SampType:** Sample Matrix Spike **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 17:25 **Prep Date:** 01/24/2022 13:01
Lab ID: B22011446-001BMS4 **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				

Associated Samples: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 50 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 17:31 **Prep Date:** 01/24/2022 13:01
Lab ID: B22011446-001BMSD4 **Units:** mg/L **Prep Method:** SW3010A

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.103	0.001	0.100	0	103.0	88	115	0.101	2.0	20.0	

Associated Samples: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 48 **SampType:** Post Digestion/Distillation Spike **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 17:18 **Prep Date:** 01/24/2022 13:01
Lab ID: B22011446-001BPDS1 **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	96.0	80	120				

Associated Samples: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 47 **SampType:** Serial Dilution **Batch ID:** 163179
Method: SW6020 **Analysis Date:** 01/31/2022 17:12 **Prep Date:** 01/24/2022 13:01
Lab ID: B22011446-001BDIL **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: B22011446-001B, B22011446-006B, B22011446-011B, B22011446-017B, B22011446-022B, B22011446-027B, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 29 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 15:20 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

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

Associated Samples: B22011446-001A, B22011446-001B, B22011446-006A, B22011446-006B, B22011446-011A, B22011446-011B, B22011446-017A, B22011446-017B, B22011446-022A, B22011446-022B, B22011446-027A, B22011446-027B, B22011446-032A, B22011446-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: ICPMS207-B_220131A: 43 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 16:47 **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	0.053	0.001	0.050		106.0	90	110				

Associated Samples: B22011446-001A, B22011446-001B, B22011446-006A, B22011446-006B, B22011446-011A, B22011446-011B, B22011446-017A, B22011446-017B, B22011446-022A, B22011446-022B, B22011446-027A, B22011446-027B, B22011446-032A, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 57 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 18:14 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.052	0.001	0.050		105.0	90	110				

Associated Samples: B22011446-001A, B22011446-001B, B22011446-006A, B22011446-006B, B22011446-011A, B22011446-011B, B22011446-017A, B22011446-017B, B22011446-022A, B22011446-022B, B22011446-027A, B22011446-027B, B22011446-032A, B22011446-032B

Run ID: Run Order: ICPMS207-B_220131A: 69 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373996
Method: SW6020 **Analysis Date:** 01/31/2022 19:29 **Prep Date:**
Lab ID: CCV **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Lead	0.052	0.001	0.050		103.0	90	110				

Associated Samples: B22011446-001A, B22011446-001B, B22011446-006A, B22011446-006B, B22011446-011A, B22011446-011B, B22011446-017A, B22011446-017B, B22011446-022A, B22011446-022B, B22011446-027A, B22011446-027B, B22011446-032A, B22011446-032B



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 4 **SampType:** Method Blank **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 11:41 **Prep Date:**
Lab ID: MBLK012522_ **Units:** ug/L **Prep Method:**

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



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 4 **SampType:** Method Blank **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 11:41 **Prep Date:**
Lab ID: MBLK012522_ **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		109.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		107.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		104.0	85	114				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 4 **SampType:** Method Blank **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 11:41 **Prep Date:**
Lab ID: MBLK012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		102.0	89	112				

Associated Samples: B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A

Run ID: Run Order: VOA5975C.I_220125A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:46 **Prep Date:**
Lab ID: LCS012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0		104.0	79	120				
Bromobenzene	5.3	0.50	5.0		106.0	80	120				
Bromochloromethane	5.1	0.50	5.0		102.0	78	123				
Bromodichloromethane	5.2	0.50	5.0		105.0	79	125				
Bromoform	5.2	0.50	5.0		104.0	66	130				
Carbon tetrachloride	5.0	0.50	5.0		101.0	72	136				
Chlorobenzene	5.3	0.50	5.0		106.0	82	118				
Chlorodibromomethane	5.1	0.50	5.0		101.0	74	126				
Chloroethane	4.7	0.50	5.0		94.0	60	138				
Chloroform	4.9	0.50	5.0		98.0	79	124				
Chloromethane	4.8	0.50	5.0		96.0	50	139				
1,2-Dibromoethane	5.3	0.50	5.0		105.0	78	122				
2-Chlorotoluene	5.2	0.50	5.0		105.0	79	122				
Dibromomethane	5.3	0.50	5.0		105.0	79	123				
1,2-Dichlorobenzene	5.2	0.50	5.0		105.0	80	119				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:46 **Prep Date:**
Lab ID: LCS012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
4-Chlorotoluene	5.4	0.50	5.0		107.0	78	122				
1,3-Dichlorobenzene	5.4	0.50	5.0		107.0	80	119				
1,4-Dichlorobenzene	5.2	0.50	5.0		105.0	79	118				
Dichlorodifluoromethane	4.7	0.50	5.0		93.0	32	152				
1,1-Dichloroethane	5.5	0.50	5.0		109.0	77	125				
1,2-Dichloroethane	5.0	0.50	5.0		100.0	73	128				
1,1-Dichloroethene	5.3	0.50	5.0		106.0	71	131				
cis-1,2-Dichloroethene	5.3	0.50	5.0		106.0	78	123				
trans-1,2-Dichloroethene	5.1	0.50	5.0		103.0	75	124				
1,2-Dichloropropane	5.1	0.50	5.0		102.0	78	122				
1,3-Dichloropropane	5.1	0.50	5.0		101.0	80	119				
2,2-Dichloropropane	5.3	0.50	5.0		106.0	60	139				
1,1-Dichloropropene	5.0	0.50	5.0		100.0	79	125				
cis-1,3-Dichloropropene	5.0	0.50	5.0		99.0	75	124				
trans-1,3-Dichloropropene	5.4	0.50	5.0		107.0	73	127				
Ethylbenzene	5.1	0.50	5.0		102.0	79	121				
Methyl tert-butyl ether (MTBE)	5.3	0.50	5.0		105.0	71	124				
Methyl ethyl ketone	51	10	50		101.0	56	143				
Methylene chloride	5.0	0.50	5.0		100.0	74	124				
Styrene	5.3	0.50	5.0		106.0	78	123				
1,1,1,2-Tetrachloroethane	5.3	0.50	5.0		105.0	78	124				
1,1,2,2-Tetrachloroethane	5.4	0.50	5.0		108.0	71	121				
Tetrachloroethene	4.9	0.50	5.0		99.0	74	129				
Toluene	5.3	0.50	5.0		105.0	80	121				
1,1,1-Trichloroethane	5.2	0.50	5.0		104.0	74	131				
1,1,2-Trichloroethane	5.2	0.50	5.0		105.0	80	119				
Trichloroethene	5.0	0.50	5.0		100.0	79	123				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I._220125A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:46 **Prep Date:**
Lab ID: LCS012522_ **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		99.0	65	141				
1,2,3-Trichloropropane	5.1	0.50	5.0		102.0	73	125				
Vinyl chloride	5.1	0.50	5.0		103.0	58	137				
m+p-Xylenes	10	0.50	10		100.0	80	121				
o-Xylene	5.1	0.50	5.0		102.0	78	122				
Xylenes, Total	15	0.50	15		101.0	79	121				
Surr: 1,2-Dichloroethane-d4	11	0.50	10		108.0	81	118				
Surr: Dibromofluoromethane	11	0.50	10		107.0	80	119				
Surr: p-Bromofluorobenzene	10	0.50	10		104.0	85	114				
Surr: Toluene-d8	10	0.50	10		105.0	89	112				

Associated Samples: B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A

Run ID: Run Order: VOA5975C.I._220125A: 23 **SampType:** Sample Matrix Spike **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 19:53 **Prep Date:**
Lab ID: B22011446-006FMS **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	101.0	79	120				
Bromobenzene	5.0	0.50	5.0	0.0	101.0	80	120				
Bromochloromethane	4.7	0.50	5.0	0.0	94.0	78	123				
Bromodichloromethane	5.1	0.50	5.0	0.0	101.0	79	125				
Bromoform	4.8	0.50	5.0	0.0	96.0	66	130				
Carbon tetrachloride	5.0	0.50	5.0	0.0	100.0	72	136				
Chlorobenzene	5.1	0.50	5.0	0.0	103.0	82	118				
Chlorodibromomethane	4.9	0.50	5.0	0.0	99.0	74	126				
Chloroethane	4.5	0.50	5.0	0.0	91.0	60	138				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 23

SampType: Sample Matrix Spike

Batch ID: R373812

Method: SW8260B

Analysis Date: 01/25/2022 19:53

Prep Date:

Lab ID: B22011446-006FMS

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Chloroform	5.0	0.50	5.0	0.65	87.0	79	124				
Chloromethane	4.4	0.50	5.0	0.0	88.0	50	139				
1,2-Dibromoethane	5.1	0.50	5.0	0.0	101.0	78	122				
2-Chlorotoluene	5.1	0.50	5.0	0.0	103.0	79	122				
Dibromomethane	5.0	0.50	5.0	0.0	100.0	79	123				
1,2-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	80	119				
4-Chlorotoluene	5.3	0.50	5.0	0.0	106.0	78	122				
1,3-Dichlorobenzene	5.2	0.50	5.0	0.0	104.0	80	119				
1,4-Dichlorobenzene	5.1	0.50	5.0	0.0	102.0	79	118				
Dichlorodifluoromethane	4.3	0.50	5.0	0.0	87.0	32	152				
1,1-Dichloroethane	5.2	0.50	5.0	0.0	104.0	77	125				
1,2-Dichloroethane	4.8	0.50	5.0	0.0	97.0	73	128				
1,1-Dichloroethene	5.1	0.50	5.0	0.0	102.0	71	131				
cis-1,2-Dichloroethene	5.0	0.50	5.0	0.0	100.0	78	123				
trans-1,2-Dichloroethene	5.0	0.50	5.0	0.0	99.0	75	124				
1,2-Dichloropropane	5.2	0.50	5.0	0.0	104.0	78	122				
1,3-Dichloropropane	4.8	0.50	5.0	0.0	97.0	80	119				
2,2-Dichloropropane	4.7	0.50	5.0	0.0	93.0	60	139				
1,1-Dichloropropene	4.9	0.50	5.0	0.0	98.0	79	125				
cis-1,3-Dichloropropene	4.6	0.50	5.0	0.0	93.0	75	124				
trans-1,3-Dichloropropene	5.0	0.50	5.0	0.0	99.0	73	127				
Ethylbenzene	5.1	0.50	5.0	0.0	102.0	79	121				
Methyl tert-butyl ether (MTBE)	5.0	0.50	5.0	0.0	100.0	71	124				
Methyl ethyl ketone	49	10	50	0.0	97.0	56	143				
Methylene chloride	4.8	0.50	5.0	0.0	97.0	74	124				
Styrene	5.1	0.50	5.0	0.0	102.0	78	123				
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0	0.0	103.0	78	124				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 23 **SampType:** Sample Matrix Spike **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 19:53 **Prep Date:**
Lab ID: B22011446-006FMS **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	5.0	0.50	5.0	0.0	100.0	71	121				
Tetrachloroethene	5.0	0.50	5.0	0.0	100.0	74	129				
Toluene	5.2	0.50	5.0	0.0	104.0	80	121				
1,1,1-Trichloroethane	5.0	0.50	5.0	0.0	100.0	74	131				
1,1,2-Trichloroethane	5.1	0.50	5.0	0.0	102.0	80	119				
Trichloroethene	5.0	0.50	5.0	0.0	100.0	79	123				
Trichlorofluoromethane	4.8	0.50	5.0	0.0	96.0	65	141				
1,2,3-Trichloropropane	4.8	0.50	5.0	0.0	96.0	73	125				
Vinyl chloride	4.7	0.50	5.0	0.0	93.0	58	137				
m+p-Xylenes	9.9	0.50	10	0.0	99.0	80	121				
o-Xylene	5.0	0.50	5.0	0.0	100.0	78	122				
Xylenes, Total	15	0.50	15	0.0	99.0	79	121				
Surr: 1,2-Dichloroethane-d4	9.7	0.50	10	0.0	97.0	81	118				
Surr: Dibromofluoromethane	9.5	0.50	10	0.0	95.0	80	119				
Surr: p-Bromofluorobenzene	9.4	0.50	10	0.0	94.0	85	114				
Surr: Toluene-d8	9.8	0.50	10	0.0	98.0	89	112				

Associated Samples: B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A

Run ID: Run Order: VOA5975C.I_220125A: 24 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 20:20 **Prep Date:**
Lab ID: B22011446-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.2	0.50	5.0	0.0	104.0	79	120	5.0	2.9	20.0	
Bromobenzene	5.4	0.50	5.0	0.0	108.0	80	120	5.0	7.5	20.0	
Bromochloromethane	5.0	0.50	5.0	0.0	99.0	78	123	4.7	5.4	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 24 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 20:20 **Prep Date:**
Lab ID: B22011446-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Bromodichloromethane	5.3	0.50	5.0	0.0	106.0	79	125	5.1	4.8	20.0	
Bromoform	5.2	0.50	5.0	0.0	105.0	66	130	4.8	9.0	20.0	
Carbon tetrachloride	5.3	0.50	5.0	0.0	105.0	72	136	5.0	5.2	20.0	
Chlorobenzene	5.4	0.50	5.0	0.0	107.0	82	118	5.1	4.2	20.0	
Chlorodibromomethane	5.1	0.50	5.0	0.0	103.0	74	126	4.9	3.9	20.0	
Chloroethane	4.7	0.50	5.0	0.0	95.0	60	138	4.5	4.2	20.0	
Chloroform	5.1	0.50	5.0	0.65	89.0	79	124	5.0	1.6	20.0	
Chloromethane	4.7	0.50	5.0	0.0	93.0	50	139	4.4	6.3	20.0	
1,2-Dibromoethane	5.2	0.50	5.0	0.0	104.0	78	122	5.1	2.9	20.0	
2-Chlorotoluene	5.6	0.50	5.0	0.0	111.0	79	122	5.1	8.0	20.0	
Dibromomethane	5.1	0.50	5.0	0.0	103.0	79	123	5.0	3.0	20.0	
1,2-Dichlorobenzene	5.4	0.50	5.0	0.0	108.0	80	119	5.1	5.6	20.0	
4-Chlorotoluene	5.6	0.50	5.0	0.0	112.0	78	122	5.3	6.3	20.0	
1,3-Dichlorobenzene	5.5	0.50	5.0	0.0	110.0	80	119	5.2	5.6	20.0	
1,4-Dichlorobenzene	5.3	0.50	5.0	0.0	106.0	79	118	5.1	3.2	20.0	
Dichlorodifluoromethane	4.6	0.50	5.0	0.0	93.0	32	152	4.3	7.2	20.0	
1,1-Dichloroethane	5.4	0.50	5.0	0.0	107.0	77	125	5.2	3.1	20.0	
1,2-Dichloroethane	5.0	0.50	5.0	0.0	100.0	73	128	4.8	3.0	20.0	
1,1-Dichloroethene	5.3	0.50	5.0	0.0	107.0	71	131	5.1	4.7	20.0	
cis-1,2-Dichloroethene	5.2	0.50	5.0	0.0	105.0	78	123	5.0	4.5	20.0	
trans-1,2-Dichloroethene	5.3	0.50	5.0	0.0	106.0	75	124	5.0	6.9	20.0	
1,2-Dichloropropane	5.2	0.50	5.0	0.0	103.0	78	122	5.2	0.3	20.0	
1,3-Dichloropropane	5.0	0.50	5.0	0.0	101.0	80	119	4.8	3.8	20.0	
2,2-Dichloropropane	4.9	0.50	5.0	0.0	98.0	60	139	4.7	4.9	20.0	
1,1-Dichloropropene	5.0	0.50	5.0	0.0	101.0	79	125	4.9	2.8	20.0	
cis-1,3-Dichloropropene	4.9	0.50	5.0	0.0	97.0	75	124	4.6	4.8	20.0	
trans-1,3-Dichloropropene	5.2	0.50	5.0	0.0	104.0	73	127	5.0	4.9	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 24 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 20:20 **Prep Date:**
Lab ID: B22011446-006FMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Ethylbenzene	5.3	0.50	5.0	0.0	105.0	79	121	5.1	3.2	20.0	
Methyl tert-butyl ether (MTBE)	5.3	0.50	5.0	0.0	106.0	71	124	5.0	6.0	20.0	
Methyl ethyl ketone	51	10	50	0.0	102.0	56	143	49	4.7	20.0	
Methylene chloride	5.0	0.50	5.0	0.0	99.0	74	124	4.8	2.5	20.0	
Styrene	5.2	0.50	5.0	0.0	104.0	78	123	5.1	2.1	20.0	
1,1,1,2-Tetrachloroethane	5.1	0.50	5.0	0.0	103.0	78	124	5.1	0.2	20.0	
1,1,2,2-Tetrachloroethane	5.3	0.50	5.0	0.0	106.0	71	121	5.0	5.7	20.0	
Tetrachloroethene	5.2	0.50	5.0	0.0	104.0	74	129	5.0	4.2	20.0	
Toluene	5.4	0.50	5.0	0.0	108.0	80	121	5.2	3.4	20.0	
1,1,1-Trichloroethane	5.2	0.50	5.0	0.0	105.0	74	131	5.0	4.6	20.0	
1,1,2-Trichloroethane	5.2	0.50	5.0	0.0	104.0	80	119	5.1	2.2	20.0	
Trichloroethene	5.3	0.50	5.0	0.0	105.0	79	123	5.0	4.4	20.0	
Trichlorofluoromethane	5.3	0.50	5.0	0.0	107.0	65	141	4.8	11.0	20.0	
1,2,3-Trichloropropane	5.2	0.50	5.0	0.0	103.0	73	125	4.8	7.3	20.0	
Vinyl chloride	5.0	0.50	5.0	0.0	100.0	58	137	4.7	6.5	20.0	
m+p-Xylenes	10	0.50	10	0.0	103.0	80	121	9.9	4.2	20.0	
o-Xylene	5.3	0.50	5.0	0.0	105.0	78	122	5.0	5.2	20.0	
Xylenes, Total	16	0.50	15	0.0	104.0	79	121	15	4.5	20.0	
Surr: 1,2-Dichloroethane-d4	10	0.50	10	0.0	103.0	81	118	0.0			
Surr: Dibromofluoromethane	10	0.50	10	0.0	101.0	80	119	0.0			
Surr: p-Bromofluorobenzene	10	0.50	10	0.0	104.0	85	114	0.0			
Surr: Toluene-d8	11	0.50	10	0.0	105.0	89	112	0.0			

Associated Samples: B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:09 **Prep Date:**
Lab ID: CCV012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	5.0	0.50	5.0		99.0	80	120				
Bromobenzene	4.9	0.50	5.0		97.0	80	120				
Bromochloromethane	5.0	0.50	5.0		99.0	80	120				
Bromodichloromethane	4.8	0.50	5.0		97.0	80	120				
Bromoform	4.8	0.50	5.0		97.0	80	120				
Carbon tetrachloride	4.8	0.50	5.0		97.0	80	120				
Chlorobenzene	4.9	0.50	5.0		99.0	80	120				
Chlorodibromomethane	5.1	0.50	5.0		102.0	80	120				
Chloroethane	4.7	0.50	5.0		94.0	80	120				
Chloroform	4.8	0.50	5.0		96.0	80	120				
Chloromethane	4.8	0.50	5.0		97.0	80	120				
1,2-Dibromoethane	5.0	0.50	5.0		101.0	80	120				
2-Chlorotoluene	5.0	0.50	5.0		99.0	80	120				
Dibromomethane	5.1	0.50	5.0		102.0	80	120				
1,2-Dichlorobenzene	4.8	0.50	5.0		96.0	80	120				
4-Chlorotoluene	5.1	0.50	5.0		101.0	80	120				
1,3-Dichlorobenzene	4.9	0.50	5.0		97.0	80	120				
1,4-Dichlorobenzene	4.9	0.50	5.0		98.0	80	120				
Dichlorodifluoromethane	4.6	0.50	5.0		92.0	80	120				
1,1-Dichloroethane	4.9	0.50	5.0		98.0	80	120				
1,2-Dichloroethane	4.5	0.50	5.0		90.0	80	120				
1,1-Dichloroethene	4.8	0.50	5.0		96.0	80	120				
cis-1,2-Dichloroethene	4.9	0.50	5.0		98.0	80	120				
trans-1,2-Dichloroethene	4.8	0.50	5.0		96.0	80	120				
1,2-Dichloropropane	5.0	0.50	5.0		100.0	80	120				
1,3-Dichloropropane	4.9	0.50	5.0		99.0	80	120				
2,2-Dichloropropane	5.1	0.50	5.0		101.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:09 **Prep Date:**
Lab ID: CCV012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1-Dichloropropene	4.9	0.50	5.0		98.0	80	120				
cis-1,3-Dichloropropene	5.0	0.50	5.0		100.0	80	120				
trans-1,3-Dichloropropene	5.0	0.50	5.0		101.0	80	120				
Ethylbenzene	4.9	0.50	5.0		99.0	80	120				
Methyl tert-butyl ether (MTBE)	4.7	0.50	5.0		94.0	80	120				
Methyl ethyl ketone	46	10	50		93.0	80	120				
Methylene chloride	4.7	0.50	5.0		94.0	80	120				
Styrene	5.0	0.50	5.0		100.0	80	120				
1,1,1,2-Tetrachloroethane	4.9	0.50	5.0		97.0	80	120				
1,1,2,2-Tetrachloroethane	5.0	0.50	5.0		100.0	80	120				
Tetrachloroethene	4.8	0.50	5.0		97.0	80	120				
Toluene	5.0	0.50	5.0		100.0	80	120				
1,1,1-Trichloroethane	4.8	0.50	5.0		96.0	80	120				
1,1,2-Trichloroethane	5.0	0.50	5.0		101.0	80	120				
Trichloroethene	5.0	0.50	5.0		99.0	80	120				
Trichlorofluoromethane	4.8	0.50	5.0		96.0	80	120				
1,2,3-Trichloropropane	4.8	0.50	5.0		96.0	80	120				
Vinyl chloride	4.8	0.50	5.0		97.0	80	120				
m+p-Xylenes	9.8	0.50	10		98.0	80	120				
o-Xylene	5.0	0.50	5.0		99.0	80	120				
Xylenes, Total	15	0.50	15		99.0	80	120				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		103.0	80	120				
Surr: Dibromofluoromethane	10	0.50	10		103.0	80	120				
Surr: p-Bromofluorobenzene	10	0.50	10		101.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 10:09 **Prep Date:**
Lab ID: CCV012522_ **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10	0.50	10		104.0	80	120				

Associated Samples: B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A

Run ID: Run Order: VOA5975C.I_220125A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 21:15 **Prep Date:**
Lab ID: CCV012522_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	4.9	0.50	5.0		99.0	50	150				
Bromobenzene	4.9	0.50	5.0		98.0	50	150				
Bromochloromethane	4.7	0.50	5.0		94.0	50	150				
Bromodichloromethane	5.0	0.50	5.0		100.0	50	150				
Bromoform	4.6	0.50	5.0		91.0	50	150				
Carbon tetrachloride	5.2	0.50	5.0		104.0	50	150				
Chlorobenzene	5.0	0.50	5.0		100.0	50	150				
Chlorodibromomethane	4.8	0.50	5.0		96.0	50	150				
Chloroethane	4.3	0.50	5.0		87.0	50	150				
Chloroform	4.8	0.50	5.0		96.0	50	150				
Chloromethane	4.8	0.50	5.0		97.0	50	150				
1,2-Dibromoethane	4.8	0.50	5.0		97.0	50	150				
2-Chlorotoluene	5.0	0.50	5.0		100.0	50	150				
Dibromomethane	4.7	0.50	5.0		94.0	50	150				
1,2-Dichlorobenzene	5.0	0.50	5.0		99.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 21:15 **Prep Date:**
Lab ID: CCV012522_Closing **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		102.0	50	150				
1,3-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
1,4-Dichlorobenzene	4.9	0.50	5.0		98.0	50	150				
Dichlorodifluoromethane	4.8	0.50	5.0		96.0	50	150				
1,1-Dichloroethane	5.0	0.50	5.0		100.0	50	150				
1,2-Dichloroethane	4.8	0.50	5.0		96.0	50	150				
1,1-Dichloroethene	4.9	0.50	5.0		97.0	50	150				
cis-1,2-Dichloroethene	4.9	0.50	5.0		99.0	50	150				
trans-1,2-Dichloroethene	4.9	0.50	5.0		99.0	50	150				
1,2-Dichloropropane	4.9	0.50	5.0		98.0	50	150				
1,3-Dichloropropane	4.8	0.50	5.0		96.0	50	150				
2,2-Dichloropropane	4.6	0.50	5.0		91.0	50	150				
1,1-Dichloropropene	5.0	0.50	5.0		101.0	50	150				
cis-1,3-Dichloropropene	4.8	0.50	5.0		96.0	50	150				
trans-1,3-Dichloropropene	4.9	0.50	5.0		98.0	50	150				
Ethylbenzene	5.0	0.50	5.0		100.0	50	150				
Methyl tert-butyl ether (MTBE)	4.4	0.50	5.0		88.0	50	150				
Methyl ethyl ketone	44	10	50		87.0	50	150				
Methylene chloride	4.7	0.50	5.0		94.0	50	150				
Styrene	5.0	0.50	5.0		100.0	50	150				
1,1,1,2-Tetrachloroethane	4.8	0.50	5.0		97.0	50	150				
1,1,2,2-Tetrachloroethane	4.9	0.50	5.0		97.0	50	150				
Tetrachloroethene	5.1	0.50	5.0		101.0	50	150				
Toluene	5.1	0.50	5.0		102.0	50	150				
1,1,1-Trichloroethane	5.0	0.50	5.0		101.0	50	150				
1,1,2-Trichloroethane	4.7	0.50	5.0		94.0	50	150				
Trichloroethene	5.1	0.50	5.0		102.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VOA5975C.I_220125A: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373812
Method: SW8260B **Analysis Date:** 01/25/2022 21:15 **Prep Date:**
Lab ID: CCV012522_Closing **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Trichlorofluoromethane	4.9	0.50	5.0		99.0	50	150				
1,2,3-Trichloropropane	5.0	0.50	5.0		100.0	50	150				
Vinyl chloride	4.9	0.50	5.0		98.0	50	150				
m+p-Xylenes	10	0.50	10		100.0	50	150				
o-Xylene	5.0	0.50	5.0		99.0	50	150				
Xylenes, Total	15	0.50	15		100.0	50	150				
Surr: 1,2-Dichloroethane-d4	10	0.50	10		103.0	50	150				
Surr: Dibromofluoromethane	10	0.50	10		102.0	50	150				
Surr: p-Bromofluorobenzene	10	0.50	10		103.0	50	150				
Surr: Toluene-d8	11	0.50	10		106.0	50	150				

Associated Samples: **B22011446-001F, B22011446-002A, B22011446-006F, B22011446-007A, B22011446-011F, B22011446-012C, B22011446-013A, B22011446-017F, B22011446-018A, B22011446-022F, B22011446-023A, B22011446-027F, B22011446-028A, B22011446-032F, B22011446-033A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GECD.I_220126A: 2 **SampType:** Method Blank **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 10:51 **Prep Date:** 01/25/2022 09:06
Lab ID: MB-163202 **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	0.090	0.020	0.10		90.0	70	130				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 11:11 **Prep Date:** 01/25/2022 09:06
Lab ID: LCS-163202 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.26	0.010	0.25		103.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.096	0.020	0.10		96.0	70	130				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 4 **SampType:** Laboratory Control Sample **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 11:31 **Prep Date:** 01/25/2022 09:06
Lab ID: LCS1-163202 **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		104.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.095	0.020	0.10		95.0	70	130				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GECD.I_220126A: 14 **SampType:** Sample Matrix Spike **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 15:09 **Prep Date:** 01/25/2022 09:07
Lab ID: B22011446-001HMS **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.24	0.010	0.24	0.0	100.0	60	140				
Surr: 1,1,1,2-Tetrachloroethane	0.090	0.020	0.097	0.0	93.0	70	130				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 15 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 15:29 **Prep Date:** 01/25/2022 09:07
Lab ID: B22011446-001HMSD **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.24	0.010	0.24	0.0	98.0	60	140	0.24	0.5	20.0	
Surr: 1,1,1,2-Tetrachloroethane	0.090	0.020	0.098	0.0	92.0	70	130	0.0			

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 10:31 **Prep Date:** 01/25/2022 09:07
Lab ID: CK3-163202 **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		110.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.094	0.020	0.10		94.0	80	120				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GECD.I_220126A: 16 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163129
Method: SW8011 **Analysis Date:** 01/26/2022 16:09 **Prep Date:** 01/21/2022 07:48
Lab ID: CK5-163129 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.42	0.010	0.40		106.0	80	120				
Surr: 1,1,1,2-Tetrachloroethane	0.44	0.020	0.40		109.0	80	120				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 23 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 19:07 **Prep Date:** 01/25/2022 09:07
Lab ID: CK3-163202 **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	0.094	0.020	0.10		94.0	80	120				

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A

Run ID: Run Order: GECD.I_220126A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** 163202
Method: SW8011 **Analysis Date:** 01/26/2022 19:27 **Prep Date:** 01/25/2022 09:07
Lab ID: CK5-163202 **Units:** ug/L **Prep Method:** SW8011

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.55	0.010	0.40		138.0	80	120				S
Surr: 1,1,1,2-Tetrachloroethane	0.59	0.020	0.40		148.0	80	120				S

Associated Samples: B22011446-001H, B22011446-004A, B22011446-006H, B22011446-009A, B22011446-011H, B22011446-015A, B22011446-017H, B22011446-020A, B22011446-022H, B22011446-025A, B22011446-027H, B22011446-030A, B22011446-032H, B22011446-035A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 5 **SampType:** Method Blank **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 01:05 **Prep Date:** 01/24/2022 15:16
Lab ID: MB-163190 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	ND	0.15									
Oil Range Hydrocarbons (C24 to C40)	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.19	0.0020	0.20		95.0	56	125				
Surr: n-Triacontane	0.096	0.0020	0.10		96.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 6 **SampType:** Method Blank **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/27/2022 14:56 **Prep Date:** 01/24/2022 15:16
Lab ID: MB-163190 **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)	0.18	0.0020	0.20		91.0	56	125				
Surr: n-Triacontane (SGT)	0.088	0.0020	0.10		88.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 3 **SampType:** Laboratory Control Sample **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/25/2022 23:40 **Prep Date:** 01/24/2022 15:16
Lab ID: LCS-163190 **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		82.0	60	132				
Surr: o-Terphenyl	0.18	0.0020	0.20		88.0	56	125				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 4 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 00:23 **Prep Date:** 01/24/2022 15:16
Lab ID: LCSD-163190 **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	1.2	20.0	
Total Extractable Hydrocarbons	12	0.30	15		81.0	60	132	12	1.1	20.0	
Surr: o-Terphenyl	0.18	0.0020	0.20		88.0	56	125	0.0			

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 18 **SampType:** Laboratory Control Sample **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 15:21 **Prep Date:** 01/24/2022 15:16
Lab ID: LCS-163190-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	5.0	0.30	5.0		100.0	41	113				
Surr: n-Triacontane	0.096	0.0020	0.10		96.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 19 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 16:46 **Prep Date:** 01/24/2022 15:16
Lab ID: LCSD-163190-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.9	0.30	5.0		99.0	41	113	5.0	1.6	20.0	
Surr: n-Triacontane	0.093	0.0020	0.10		93.0	50	150	0.0			

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 4 **SampType:** Laboratory Control Sample **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/27/2022 13:31 **Prep Date:** 01/24/2022 15:16
Lab ID: LCS-163190 **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				
Total Extractable Hydrocarbons (SGT)	12	0.30	15		78.0	60	132				
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		88.0	56	125				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 5 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/27/2022 14:14 **Prep Date:** 01/24/2022 15:16
Lab ID: LCSD-163190 **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		73.0	36	132	11	1.5	20.0	
Total Extractable Hydrocarbons (SGT)	12	0.30	15		77.0	60	132	12	1.8	20.0	
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20		90.0	56	125	0.0			

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220127A: 17 **SampType:** Laboratory Control Sample **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/28/2022 02:19 **Prep Date:** 01/24/2022 15:16
Lab ID: LCS-163190-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	5.0	0.30	5.0		100.0	41	113				
Surr: n-Triacontane (SGT)	0.094	0.0020	0.10		94.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 18 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/28/2022 03:44 **Prep Date:** 01/24/2022 15:16
Lab ID: LCSD-163190-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.9	0.30	5.0		98.0	41	113	5.0	2.2	20.0	
Surr: n-Triacontane (SGT)	0.091	0.0020	0.10		91.0	50	150	0.0			

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 16 **SampType:** Sample Matrix Spike **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 13:13 **Prep Date:** 01/24/2022 15:16
Lab ID: B22011446-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	13	0.30	15	0.048	87.0	36	132				
Total Extractable Hydrocarbons	14	0.30	15	0.23	94.0	60	132				
Surr: o-Terphenyl	0.19	0.0020	0.20	0.0	96.0	56	125				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 17 **SampType:** Sample Matrix Spike **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/26/2022 13:56 **Prep Date:** 01/24/2022 15:17
Lab ID: B22011446-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.8	0.30	4.7	0.0	101.0	41	113				
Surr: n-Triacontane	0.090	0.0020	0.094	0.0	95.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 15 **SampType:** Sample Matrix Spike **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/28/2022 00:11 **Prep Date:** 01/24/2022 15:16
Lab ID: B22011446-001DMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (SGT-C10 to C24)	12	0.30	15	0.0	77.0	36	132				
Total Extractable Hydrocarbons (SGT)	13	0.30	15	0.0	83.0	60	132				
Surr: o-Terphenyl (SGT)	0.18	0.0020	0.20	0.0	90.0	56	125				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220127A: 16 **SampType:** Sample Matrix Spike **Batch ID:** 163190
Method: SW8015C **Analysis Date:** 01/28/2022 00:54 **Prep Date:** 01/24/2022 15:17
Lab ID: B22011446-006DMS-RRO **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH (SGT-Oil Range)	4.3	0.30	4.7	0.0	92.0	41	113				
Surr: n-Triacontane (SGT)	0.078	0.0020	0.094	0.0	83.0	50	150				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 4 **SampType:** Method Blank **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/25/2022 10:42 **Prep Date:**
Lab ID: MBLK_0125PE106r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	21	1.0	25		82.0	70	130				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 16 **SampType:** Method Blank **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 11:24 **Prep Date:**
Lab ID: MBLK_0125PE125r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	19	1.0	25		76.0	70	130				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 31 **SampType:** Method Blank **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/27/2022 09:59 **Prep Date:**
Lab ID: MBLK_0125PE149r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	19	1.0	25		78.0	70	130				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/25/2022 10:07 **Prep Date:**
Lab ID: LCS_0125PE105r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	150	20	170		88.0	78	122				
Total Purgeable Hydrocarbons	176	20	200		88.0	70	130				
Surr: Trifluorotoluene	22	1.0	25		87.0	70	130				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 15 **SampType:** Laboratory Control Sample **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 10:49 **Prep Date:**
Lab ID: LCS_0125PE124r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	143	20	170		84.0	78	122				
Total Purgeable Hydrocarbons	167	20	200		84.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		84.0	70	130				

Associated Samples: **B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A**

Run ID: Run Order: PE 1_220125A: 30 **SampType:** Laboratory Control Sample **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/27/2022 09:25 **Prep Date:**
Lab ID: LCS_0125PE148r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	144	20	170		85.0	78	122				
Total Purgeable Hydrocarbons	169	20	200		84.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		82.0	70	130				

Associated Samples: **B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 24 **SampType:** Sample Matrix Spike **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 19:58 **Prep Date:**
Lab ID: B22011446-001GMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	140	20	170	0.0	82.0	78	122				
Total Purgeable Hydrocarbons	165	20	200	0.0	83.0	70	130				
Surr: Trifluorotoluene	20	1.0	25	0.0	82.0	70	130				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 25 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 20:32 **Prep Date:**
Lab ID: B22011446-001GMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	141	20	170	0.0	83.0	78	122	140	0.8	20.0	
Total Purgeable Hydrocarbons	167	20	200	0.0	83.0	70	130	165	0.9	20.0	
Surr: Trifluorotoluene	21	1.0	25	0.0	84.0	70	130	0.0			

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VARIAN1_220130A: 4 **SampType:** Method Blank **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/30/2022 14:07 **Prep Date:**
Lab ID: MBLK_0130VAR08r **Units:** ug/L **Prep Method:**

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

Associated Samples: **B22011446-028A**

Run ID: Run Order: VARIAN1_220130A: 19 **SampType:** Method Blank **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/31/2022 00:22 **Prep Date:**
Lab ID: MBLK_0130VAR26r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	19	1.0	25		75.0	70	130				

Associated Samples: **B22011446-028A**

Run ID: Run Order: VARIAN1_220130A: 31 **SampType:** Method Blank **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/31/2022 11:45 **Prep Date:**
Lab ID: MBLK_0130VAR46r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	ND	10									
Total Purgeable Hydrocarbons	ND	10									
Surr: Trifluorotoluene	19	1.0	25		76.0	70	130				

Associated Samples: **B22011446-028A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VARIAN1_220130A: 3 **SampType:** Laboratory Control Sample **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/30/2022 13:33 **Prep Date:**
Lab ID: LCS_0130VAR07r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	145	20	170		85.0	78	122				
Total Purgeable Hydrocarbons	170	20	200		85.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		85.0	70	130				

Associated Samples: **B22011446-028A**

Run ID: Run Order: VARIAN1_220130A: 18 **SampType:** Laboratory Control Sample **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/30/2022 23:48 **Prep Date:**
Lab ID: LCS_0130VAR25r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	140	20	170		83.0	78	122				
Total Purgeable Hydrocarbons	163	20	200		82.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		84.0	70	130				

Associated Samples: **B22011446-028A**

Run ID: Run Order: VARIAN1_220130A: 30 **SampType:** Laboratory Control Sample **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/31/2022 11:11 **Prep Date:**
Lab ID: LCS_0130VAR45r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	142	20	170		83.0	78	122				
Total Purgeable Hydrocarbons	167	20	200		83.0	70	130				
Surr: Trifluorotoluene	21	1.0	25		85.0	70	130				

Associated Samples: **B22011446-028A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VARIAN1_220130A: 26 **SampType:** Sample Matrix Spike **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/31/2022 08:20 **Prep Date:**
Lab ID: B22011592-001GMS **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	142	20	170	0.0	83.0	78	122				
Total Purgeable Hydrocarbons	170	20	200	3.2	83.0	70	130				
Surr: Trifluorotoluene	21	1.0	25	0.0	85.0	70	130				

Associated Samples: **B22011446-028A**

Run ID: Run Order: VARIAN1_220130A: 27 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/31/2022 08:54 **Prep Date:**
Lab ID: B22011592-001GMSD **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	148	20	170	0.0	87.0	78	122	142	4.4	20.0	
Total Purgeable Hydrocarbons	178	20	200	3.2	87.0	70	130	170	4.6	20.0	
Surr: Trifluorotoluene	21	1.0	25	0.0	86.0	70	130	0.0			

Associated Samples: **B22011446-028A**

Run ID: Run Order: GCFID-HP5-B_220124C: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/25/2022 21:31 **Prep Date:**
Lab ID: CCV_0124HP553r-W **Units:** mg/L **Prep Method:**

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

Associated Samples: **B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/25/2022 22:14 **Prep Date:**
Lab ID: CCV_0124HP554r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	13	0.30	15		88.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		91.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		90.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 12 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/26/2022 08:56 **Prep Date:**
Lab ID: CCV_0124HP569r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		91.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		102.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/26/2022 09:39 **Prep Date:**
Lab ID: CCV_0124HP570r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	13	0.30	15		87.0	80	120				
Total Extractable Hydrocarbons	13	0.30	15		90.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		89.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220124C: 20 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/26/2022 18:12 **Prep Date:**
Lab ID: CCV_0124HP583r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		93.0	80	120				
Surr: n-Triacontane	0.20	0.0020	0.20		101.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: GCFID-HP5-B_220124C: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373715
Method: SW8015C **Analysis Date:** 01/26/2022 18:55 **Prep Date:**
Lab ID: CCV_0124HP584r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		90.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		93.0	80	120				
Surr: o-Terphenyl	0.19	0.0020	0.20		93.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D, B22011446-027D, B22011446-032D

Run ID: Run Order: PE 1_220125A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/25/2022 09:33 **Prep Date:**
Lab ID: CCV_0125PE104r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	175	20	168		104.0	80	120				
Total Purgeable Hydrocarbons	210	20	200		105.0	80	120				
Surr: Trifluorotoluene	23	1.0	25		94.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 11 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/25/2022 17:32 **Prep Date:**
Lab ID: CCV_0125PE17r **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	198	20	200		99.0	80	120				
Surr: Trifluorotoluene	21	1.0	25		84.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 10:15 **Prep Date:**
Lab ID: CCV_0125PE123r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	171	20	168		102.0	80	120				
Total Purgeable Hydrocarbons	205	20	200		102.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 21:41 **Prep Date:**
Lab ID: CCV_0125PE143r **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	199	20	200		99.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 27 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/26/2022 21:41 **Prep Date:**
Lab ID: CCV_0125PE143r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Trifluorotoluene	21	1.0	25		86.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: PE 1_220125A: 29 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/27/2022 08:50 **Prep Date:**
Lab ID: CCV_0125PE147r **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	168		98.0	80	120				
Total Purgeable Hydrocarbons	196	20	200		98.0	80	120				
Surr: Trifluorotoluene	21	1.0	25		85.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: PE 1_220125A: 34 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373803
Method: SW8015C **Analysis Date:** 01/27/2022 12:16 **Prep Date:**
Lab ID: CCV_0125PE153r **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	168		97.0	80	120				
Total Purgeable Hydrocarbons	195	20	200		97.0	80	120				
Surr: Trifluorotoluene	21	1.0	25		85.0	80	120				

Associated Samples: B22011446-001G, B22011446-003A, B22011446-006G, B22011446-008A, B22011446-011G, B22011446-012D, B22011446-014A, B22011446-017G, B22011446-019A, B22011446-022G, B22011446-024A, B22011446-027G, B22011446-032G, B22011446-034A

Run ID: Run Order: GCFID-HP5-B_220127A: 1 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373844
Method: SW8015C **Analysis Date:** 01/27/2022 10:41 **Prep Date:**
Lab ID: CCV_0127HP504r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		91.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		103.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D

Run ID: Run Order: GCFID-HP5-B_220127A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373844
Method: SW8015C **Analysis Date:** 01/27/2022 11:24 **Prep Date:**
Lab ID: CCV_0127HP505r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	13	0.30	15		89.0	80	120				
Total Extractable Hydrocarbons	14	0.30	15		92.0	80	120				
Surr: o-Terphenyl	0.18	0.0020	0.20		92.0	80	120				

Associated Samples: B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: GCFID-HP5-B_220127A: 13 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373844
Method: SW8015C **Analysis Date:** 01/27/2022 21:20 **Prep Date:**
Lab ID: CCV_0127HP519r-W **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
TEH(Oil Range)	4.6	0.30	5.0		92.0	80	120				
Surr: n-Triacontane	0.21	0.0020	0.20		106.0	80	120				

Associated Samples: **B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D**

Run ID: Run Order: GCFID-HP5-B_220127A: 14 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373844
Method: SW8015C **Analysis Date:** 01/27/2022 22:03 **Prep Date:**
Lab ID: CCV_0127HP520r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (C10 to C24)	14	0.30	15		94.0	80	120				
Total Extractable Hydrocarbons	15	0.30	15		97.0	80	120				
Surr: o-Terphenyl	0.19	0.0020	0.20		97.0	80	120				

Associated Samples: **B22011446-001D, B22011446-006D, B22011446-011D, B22011446-012B, B22011446-017D, B22011446-022D**

Run ID: Run Order: VARIAN1_220130A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373955
Method: SW8015C **Analysis Date:** 01/30/2022 12:59 **Prep Date:**
Lab ID: CCV_0130VAR06r **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	177	20	168		106.0	80	120				
Total Purgeable Hydrocarbons	211	20	200		105.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		89.0	80	120				

Associated Samples: **B22011446-028A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: VARIAN1_220130A: 17
Method: SW8015C
Lab ID: CCV_0130VAR24r

SampType: Continuing Calibration Verification Standard
Analysis Date: 01/30/2022 23:14
Units: ug/L

Batch ID: R373955
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C6 to C10	175	20	168		104.0	80	120				
Total Purgeable Hydrocarbons	210	20	200		105.0	80	120				
Surr: Trifluorotoluene	22	1.0	25		88.0	80	120				

Associated Samples: **B22011446-028A**



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: FID-HEADSPACE_220125A: 4 **SampType:** Method Blank **Batch ID:** R373752
Method: SW8015M **Analysis Date:** 01/25/2022 10:22 **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: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A

Run ID: Run Order: FID-HEADSPACE_220125A: 2 **SampType:** Laboratory Control Sample **Batch ID:** R373752
Method: SW8015M **Analysis Date:** 01/25/2022 08:58 **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	100	2.0	100		101.0	85	115				

Associated Samples: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A

Run ID: Run Order: FID-HEADSPACE_220125A: 3 **SampType:** Laboratory Control Sample Duplicate **Batch ID:** R373752
Method: SW8015M **Analysis Date:** 01/25/2022 09:02 **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	100	2.0	100		100.0	85	115	100	1.3	20.0	

Associated Samples: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: FID-HEADSPACE_220125A: 10
Method: SW8015M
Lab ID: B22011446-011IDUP
SampType: Sample Duplicate
Analysis Date: 01/25/2022 10:57
Units: mg/L

Batch ID: R373752
Prep Date:
Prep Method:

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

Associated Samples: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A

Run ID: Run Order: FID-HEADSPACE_220125A: 15
Method: SW8015M
Lab ID: B22011446-022IDUP
SampType: Sample Duplicate
Analysis Date: 01/25/2022 11:27
Units: mg/L

Batch ID: R373752
Prep Date:
Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Methane	0.0057	0.0020			0.0			0.0055	2.7	20.0	

Associated Samples: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A

Run ID: Run Order: FID-HEADSPACE_220125A: 1
Method: SW8015M
Lab ID: CCV
SampType: Continuing Calibration Verification Standard
Analysis Date: 01/25/2022 08:53
Units: ppm

Batch ID: R373752
Prep Date:
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: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: FID-HEADSPACE_220125A: 21 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R373752
Method: SW8015M **Analysis Date:** 01/25/2022 12:15 **Prep Date:**
Lab ID: CCV **Units:** ppm **Prep Method:**

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

Associated Samples: B22011446-001I, B22011446-005A, B22011446-006I, B22011446-010A, B22011446-011I, B22011446-016A, B22011446-017I, B22011446-021A, B22011446-022I, B22011446-026A, B22011446-027I, B22011446-031A, B22011446-032I, B22011446-036A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 12

SampType: Method Blank

Batch ID: 163174

Method: SW8270C

Analysis Date: 02/02/2022 11:56

Prep Date: 01/24/2022 11:48

Lab ID: MB-163174

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2'-Oxybis(1-Chloropropane)	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-Nitroaniline	ND	5.0									
2-Nitrophenol	ND	5.0									
3,3'-Dichlorobenzidine	ND	10									
3-Nitroaniline	ND	5.0									
4,6-Dinitro-2-methylphenol	ND	10									
4-Bromophenyl phenyl ether	ND	5.0									
4-Chloro-2-methylphenol	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenol	ND	5.0									
4-Chlorophenyl phenyl ether	ND	5.0									
4-Nitroaniline	ND	5.0									
4-Nitrophenol	ND	10									
Aniline	ND	5.0									



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 12
Method: SW8270C
Lab ID: MB-163174

SampType: Method Blank
Analysis Date: 02/02/2022 11:56
Units: ug/L

Batch ID: 163174
Prep Date: 01/24/2022 11:48
Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Azobenzene	ND	5.0									
Benzoic acid	ND	5.0									
Benzyl alcohol	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									
Carbazole	ND	5.0									
Dibenzofuran	ND	5.0									
Diethyl phthalate	ND	5.0									
Dimethyl phthalate	ND	5.0									
Di-n-butyl phthalate	ND	5.0									
Di-n-octyl phthalate	ND	5.0									
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									
p-Chloroaniline	ND	5.0									
Pentachlorophenol	ND	10									



Analytical QC Summary Report

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Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenol	ND	5.0									
Pyridine	ND	5.0									
Triallate	ND	5.0									
Surr: 2,4,6-Tribromophenol	185	5.0	200		93.0	43	140				
Surr: 2-Fluorobiphenyl	54	5.0	100		54.0	44	119				
Surr: 2-Fluorophenol	76	5.0	200		38.0	19	119				
Surr: Nitrobenzene-d5	66	5.0	100		66.0	44	120				
Surr: Phenol-d5	74	5.0	200		37.0	10	65				
Surr: Terphenyl-d14	91	5.0	100		91.0	50	134				

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	64	10	100		64.0	29	116				
1,2-Dichlorobenzene	60	10	100		60.0	32	111				
1,3-Dichlorobenzene	58	10	100		58.0	28	110				
1,4-Dichlorobenzene	57	10	100		57.0	29	112				
2,2'-Oxybis(1-Chloropropane)	57	10	100		57.0	37	130				
2,4,5-Trichlorophenol	84	10	100		84.0	53	123				
2,4,6-Trichlorophenol	87	10	100		87.0	50	125				
2,4-Dichlorophenol	73	10	100		73.0	47	121				
2,4-Dimethylphenol	58	10	100		58.0	31	124				
2,4-Dinitrophenol	62	10	100		62.0	23	142				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	83	10	100		83.0	57	128				
2,6-Dinitrotoluene	93	10	100		93.0	50	118				
2-Chloronaphthalene	85	10	100		85.0	40	116				
2-Chlorophenol	62	10	100		62.0	38	117				
2-Nitroaniline	82	10	100		82.0	55	127				
2-Nitrophenol	75	10	100		75.0	47	123				
3,3'-Dichlorobenzidine	76	10	100		76.0	27	129				
3-Nitroaniline	80	10	100		80.0	41	128				
4,6-Dinitro-2-methylphenol	70	10	100		70.0	44	137				
4-Bromophenyl phenyl ether	80	10	100		80.0	55	124				
4-Chloro-2-methylphenol	74	10	100		74.0	49	89				
4-Chloro-3-methylphenol	85	10	100		85.0	52	119				
4-Chlorophenol	64	10	100		64.0	41	81				
4-Chlorophenyl phenyl ether	89	10	100		89.0	53	121				
4-Nitroaniline	77	10	100		77.0	57	101				
4-Nitrophenol	40	10	100		40.0	15	36				S
Aniline	40	10	100		40.0	24	60				
Azobenzene	76	10	100		76.0	61	116				
Benzoic acid	21	10	100		21.0	10	30				
Benzyl alcohol	58	10	100		58.0	31	112				
bis(-2-chloroethoxy)Methane	85	10	100		85.0	48	120				
bis(-2-chloroethyl)Ether	73	10	100		73.0	43	118				
bis(2-chloroisopropyl)Ether	57	10	100		57.0	37	130				
bis(2-ethylhexyl)Phthalate	92	10	100		92.0	55	135				
Butylbenzylphthalate	91	10	100		91.0	53	134				
Carbazole	92	10	100		92.0	60	122				
Dibenzofuran	84	10	100		84.0	53	118				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	100	10	100		100.0	56	125				
Dimethyl phthalate	89	10	100		89.0	45	127				
Di-n-butyl phthalate	97	10	100		97.0	59	127				
Di-n-octyl phthalate	89	10	100		89.0	51	140				
Hexachlorobenzene	78	10	100		78.0	53	125				
Hexachlorobutadiene	63	10	100		63.0	22	124				
Hexachlorocyclopentadiene	61	10	100		61.0	39	91				
Hexachloroethane	57	10	100		57.0	21	115				
Isophorone	73	10	100		73.0	42	124				
m+p-Cresols	69	10	100		69.0	29	110				
Nitrobenzene	74	10	100		74.0	45	121				
n-Nitrosodimethylamine	49	10	100		49.0	20	45				S
n-Nitroso-di-n-propylamine	83	10	100		83.0	49	119				
n-Nitrosodiphenylamine	79	10	100		79.0	51	123				
o-Cresol	69	10	100		69.0	30	117				
p-Chloroaniline	66	10	100		66.0	33	117				
Pentachlorophenol	94	10	100		94.0	35	138				
Phenol	45	10	100		45.0	37	75				
Pyridine	32	10	100		32.0	16	45				
Triallate	84	10	100		84.0	59	105				
Surr: 2,4,6-Tribromophenol	200	10	200		100.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	100		71.0	44	119				
Surr: 2-Fluorophenol	74	10	200		37.0	19	119				
Surr: Nitrobenzene-d5	71	10	100		71.0	44	120				
Surr: Phenol-d5	82	10	200		41.0	10	65				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	88	10	100		88.0	50	134				

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	74	10	100		74.0	29	116	64	14.0	20.0	
1,2-Dichlorobenzene	72	10	100		72.0	32	111	60	18.0	20.0	
1,3-Dichlorobenzene	70	10	100		70.0	28	110	58	18.0	20.0	
1,4-Dichlorobenzene	69	10	100		69.0	29	112	57	18.0	20.0	
2,2'-Oxybis(1-Chloropropane)	70	10	100		70.0	37	130	57	21.0	20.0	R
2,4,5-Trichlorophenol	102	10	100		102.0	53	123	84	20.0	20.0	
2,4,6-Trichlorophenol	105	10	100		105.0	50	125	87	19.0	20.0	
2,4-Dichlorophenol	83	10	100		83.0	47	121	73	13.0	20.0	
2,4-Dimethylphenol	67	10	100		67.0	31	124	58	14.0	20.0	
2,4-Dinitrophenol	73	10	100		73.0	23	142	62	17.0	20.0	
2,4-Dinitrotoluene	104	10	100		104.0	57	128	83	23.0	20.0	R
2,6-Dinitrotoluene	105	10	100		105.0	50	118	93	13.0	20.0	
2-Chloronaphthalene	98	10	100		98.0	40	116	85	14.0	20.0	
2-Chlorophenol	79	10	100		79.0	38	117	62	24.0	20.0	R
2-Nitroaniline	102	10	100		102.0	55	127	82	21.0	20.0	R
2-Nitrophenol	87	10	100		87.0	47	123	75	14.0	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3'-Dichlorobenzidine	86	10	100		86.0	27	129	76	12.0	20.0	
3-Nitroaniline	98	10	100		98.0	41	128	80	20.0	20.0	R
4,6-Dinitro-2-methylphenol	79	10	100		79.0	44	137	70	11.0	20.0	
4-Bromophenyl phenyl ether	93	10	100		93.0	55	124	80	15.0	20.0	
4-Chloro-2-methylphenol	83	10	100		83.0	49	89	74	11.0	20.0	
4-Chloro-3-methylphenol	98	10	100		98.0	52	119	85	14.0	20.0	
4-Chlorophenol	77	10	100		77.0	41	81	64	19.0	20.0	
4-Chlorophenyl phenyl ether	104	10	100		104.0	53	121	89	15.0	20.0	
4-Nitroaniline	103	10	100		103.0	57	101	77	29.0	20.0	SR
4-Nitrophenol	47	10	100		47.0	15	36	40	15.0	20.0	S
Aniline	46	10	100		46.0	24	60	40	13.0	20.0	
Azobenzene	89	10	100		89.0	61	116	76	16.0	20.0	
Benzoic acid	25	10	100		25.0	10	30	21	18.0	20.0	
Benzyl alcohol	73	10	100		73.0	31	112	58	23.0	20.0	R
bis(-2-chloroethoxy)Methane	92	10	100		92.0	48	120	85	7.6	20.0	
bis(-2-chloroethyl)Ether	88	10	100		88.0	43	118	73	18.0	20.0	
bis(2-chloroisopropyl)Ether	70	10	100		70.0	37	130	57	21.0	20.0	R
bis(2-ethylhexyl)Phthalate	103	10	100		103.0	55	135	92	12.0	20.0	
Butylbenzylphthalate	107	10	100		107.0	53	134	91	15.0	20.0	
Carbazole	102	10	100		102.0	60	122	92	10.0	20.0	
Dibenzofuran	102	10	100		102.0	53	118	84	19.0	20.0	
Diethyl phthalate	114	10	100		114.0	56	125	100	13.0	20.0	
Dimethyl phthalate	106	10	100		106.0	45	127	89	17.0	20.0	
Di-n-butyl phthalate	110	10	100		110.0	59	127	97	13.0	20.0	
Di-n-octyl phthalate	102	10	100		102.0	51	140	89	14.0	20.0	
Hexachlorobenzene	98	10	100		98.0	53	125	78	23.0	20.0	R
Hexachlorobutadiene	66	10	100		66.0	22	124	63	4.7	20.0	



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Hexachlorocyclopentadiene	73	10	100		73.0	39	91	61	18.0	20.0	
Hexachloroethane	67	10	100		67.0	21	115	57	17.0	20.0	
Isophorone	86	10	100		86.0	42	124	73	16.0	20.0	
m+p-Cresols	83	10	100		83.0	29	110	69	19.0	20.0	
Nitrobenzene	87	10	100		87.0	45	121	74	17.0	20.0	
n-Nitrosodimethylamine	56	10	100		56.0	20	45	49	14.0	20.0	S
n-Nitroso-di-n-propylamine	102	10	100		102.0	49	119	83	21.0	20.0	R
n-Nitrosodiphenylamine	95	10	100		95.0	51	123	79	18.0	20.0	
o-Cresol	83	10	100		83.0	30	117	69	18.0	20.0	
p-Chloroaniline	71	10	100		71.0	33	117	66	7.4	20.0	
Pentachlorophenol	119	10	100		119.0	35	138	94	23.0	20.0	R
Phenol	51	10	100		51.0	37	75	45	14.0	20.0	
Pyridine	37	10	100		37.0	16	45	32	15.0	20.0	
Triallate	94	10	100		94.0	59	105	84	11.0	20.0	
Surr: 2,4,6-Tribromophenol	239	10	200		120.0	43	140	0.0	0.0		
Surr: 2-Fluorobiphenyl	85	10	100		85.0	44	119	0.0	0.0		
Surr: 2-Fluorophenol	91	10	200		45.0	19	119	0.0	0.0		
Surr: Nitrobenzene-d5	82	10	100		82.0	44	120	0.0	0.0		
Surr: Phenol-d5	96	10	200		48.0	10	65	0.0	0.0		
Surr: Terphenyl-d14	102	10	100		102.0	50	134	0.0	0.0		

Associated Samples: **B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C**

- 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: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 21

SampType: Sample Matrix Spike

Batch ID: 163174

Method: SW8270C

Analysis Date: 02/02/2022 16:45

Prep Date: 01/25/2022 08:25

Lab ID: B22011446-006CMS

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	63	10	103	0.0	61.0	29	116				
1,2-Dichlorobenzene	61	10	103	0.0	59.0	32	111				
1,3-Dichlorobenzene	59	10	103	0.0	57.0	28	110				
1,4-Dichlorobenzene	57	10	103	0.0	56.0	29	112				
2,2'-Oxybis(1-Chloropropane)	55	10	103	0.0	54.0	37	130				
2,4,5-Trichlorophenol	69	10	103	0.0	67.0	53	123				
2,4,6-Trichlorophenol	75	10	103	0.0	72.0	50	125				
2,4-Dichlorophenol	59	10	103	0.0	57.0	47	121				
2,4-Dimethylphenol	52	10	103	0.0	51.0	31	124				
2,4-Dinitrophenol	54	10	103	0.0	52.0	23	142				
2,4-Dinitrotoluene	78	10	103	0.0	75.0	57	128				
2,6-Dinitrotoluene	83	10	103	0.0	81.0	50	118				
2-Chloronaphthalene	78	10	103	0.0	76.0	40	116				
2-Chlorophenol	55	10	103	0.0	53.0	38	117				
2-Nitroaniline	78	10	103	0.0	75.0	55	127				
2-Nitrophenol	64	10	103	0.0	62.0	47	123				
3,3'-Dichlorobenzidine	60	10	103	0.0	59.0	27	129				
3-Nitroaniline	66	10	103	0.0	64.0	41	128				
4,6-Dinitro-2-methylphenol	64	10	103	0.0	62.0	44	137				
4-Bromophenyl phenyl ether	80	10	103	0.0	78.0	55	124				
4-Chloro-2-methylphenol	69	10	103	0.0	67.0	49	89				
4-Chloro-3-methylphenol	77	10	103	0.0	74.0	52	119				
4-Chlorophenol	53	10	103	0.0	51.0	41	81				
4-Chlorophenyl phenyl ether	86	10	103	0.0	83.0	53	121				
4-Nitroaniline	62	10	103	0.0	60.0	57	101				
4-Nitrophenol	39	10	103	0.0	38.0	15	36				S
Aniline	29	10	103	0.0	28.0	24	60				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 21

SampType: Sample Matrix Spike

Batch ID: 163174

Method: SW8270C

Analysis Date: 02/02/2022 16:45

Prep Date: 01/25/2022 08:25

Lab ID: B22011446-006CMS

Units: ug/L

Prep Method: SW3510C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Azobenzene	78	10	103	0.0	75.0	61	116				
Benzoic acid	23	10	103	0.0	23.0	10	30				
Benzyl alcohol	55	10	103	0.0	54.0	31	112				
bis(-2-chloroethoxy)Methane	76	10	103	0.0	74.0	48	120				
bis(-2-chloroethyl)Ether	71	10	103	0.0	69.0	43	118				
bis(2-chloroisopropyl)Ether	55	10	103	0.0	54.0	37	130				
bis(2-ethylhexyl)Phthalate	79	10	103	0.0	77.0	55	135				
Butylbenzylphthalate	83	10	103	0.0	81.0	53	134				
Carbazole	86	10	103	0.0	84.0	60	122				
Dibenzofuran	85	10	103	0.0	83.0	53	118				
Diethyl phthalate	97	10	103	0.0	94.0	56	125				
Dimethyl phthalate	85	10	103	0.0	82.0	45	127				
Di-n-butyl phthalate	94	10	103	0.0	91.0	59	127				
Di-n-octyl phthalate	82	10	103	0.0	79.0	51	140				
Hexachlorobenzene	80	10	103	0.0	78.0	53	125				
Hexachlorobutadiene	54	10	103	0.0	52.0	22	124				
Hexachlorocyclopentadiene	45	10	103	0.0	44.0	39	91				
Hexachloroethane	55	10	103	0.0	54.0	21	115				
Isophorone	66	10	103	0.0	65.0	42	124				
m+p-Cresols	59	10	103	0.0	57.0	29	110				
Nitrobenzene	74	10	103	0.0	72.0	45	121				
n-Nitrosodimethylamine	34	10	103	0.0	33.0	20	45				
n-Nitroso-di-n-propylamine	81	10	103	0.0	79.0	49	119				
n-Nitrosodiphenylamine	82	10	103	0.0	80.0	51	123				
o-Cresol	63	10	103	0.0	61.0	30	117				
p-Chloroaniline	43	10	103	0.0	42.0	33	117				
Pentachlorophenol	93	10	103	0.0	90.0	35	138				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenol	35	10	103	0.0	34.0	37	75				S
Pyridine	25	10	103	0.0	24.0	16	45				
Triallate	83	10	103	0.0	81.0	59	105				
Surr: 2,4,6-Tribromophenol	190	10	206	0.0	92.0	43	140				
Surr: 2-Fluorobiphenyl	66	10	103	0.0	64.0	44	119				
Surr: 2-Fluorophenol	65	10	206	0.0	31.0	19	119				
Surr: Nitrobenzene-d5	69	10	103	0.0	67.0	44	120				
Surr: Phenol-d5	69	10	206	0.0	33.0	10	65				
Surr: Terphenyl-d14	85	10	103	0.0	83.0	50	134				

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	65	10	102	0.0	64.0	29	116				
1,2-Dichlorobenzene	60	10	102	0.0	59.0	32	111				
1,3-Dichlorobenzene	61	10	102	0.0	60.0	28	110				
1,4-Dichlorobenzene	59	10	102	0.0	58.0	29	112				
2,2'-Oxybis(1-Chloropropane)	59	10	102	0.0	58.0	37	130				
2,4,5-Trichlorophenol	73	10	102	0.0	72.0	53	123				
2,4,6-Trichlorophenol	72	10	102	0.0	71.0	50	125				
2,4-Dichlorophenol	70	10	102	0.0	69.0	47	121				
2,4-Dimethylphenol	54	10	102	0.0	53.0	31	124				
2,4-Dinitrophenol	57	10	102	0.0	56.0	23	142				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	79	10	102	0.0	77.0	57	128				
2,6-Dinitrotoluene	88	10	102	0.0	86.0	50	118				
2-Chloronaphthalene	84	10	102	0.0	82.0	40	116				
2-Chlorophenol	62	10	102	0.0	61.0	38	117				
2-Nitroaniline	80	10	102	0.0	79.0	55	127				
2-Nitrophenol	72	10	102	0.0	70.0	47	123				
3,3'-Dichlorobenzidine	50	10	102	0.0	49.0	27	129				
3-Nitroaniline	64	10	102	0.0	63.0	41	128				
4,6-Dinitro-2-methylphenol	59	10	102	0.0	58.0	44	137				
4-Bromophenyl phenyl ether	82	10	102	0.0	81.0	55	124				
4-Chloro-2-methylphenol	74	10	102	0.0	73.0	49	89				
4-Chloro-3-methylphenol	79	10	102	0.0	77.0	52	119				
4-Chlorophenol	64	10	102	0.0	63.0	41	81				
4-Chlorophenyl phenyl ether	83	10	102	0.0	81.0	53	121				
4-Nitroaniline	67	10	102	0.0	65.0	57	101				
4-Nitrophenol	41	10	102	0.0	40.0	15	36				S
Aniline	30	10	102	0.0	29.0	24	60				
Azobenzene	78	10	102	0.0	77.0	61	116				
Benzoic acid	27	10	102	0.0	26.0	10	30				
Benzyl alcohol	58	10	102	0.0	57.0	31	112				
bis(-2-chloroethoxy)Methane	81	10	102	0.0	80.0	48	120				
bis(-2-chloroethyl)Ether	75	10	102	0.0	73.0	43	118				
bis(2-chloroisopropyl)Ether	59	10	102	0.0	58.0	37	130				
bis(2-ethylhexyl)Phthalate	78	10	102	0.0	77.0	55	135				
Butylbenzylphthalate	90	10	102	0.0	88.0	53	134				
Carbazole	94	10	102	0.0	92.0	60	122				
Dibenzofuran	85	10	102	0.0	83.0	53	118				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diethyl phthalate	98	10	102	0.0	96.0	56	125				
Dimethyl phthalate	86	10	102	0.0	85.0	45	127				
Di-n-butyl phthalate	96	10	102	3.1	91.0	59	127				
Di-n-octyl phthalate	79	10	102	0.0	78.0	51	140				
Hexachlorobenzene	72	10	102	0.0	71.0	53	125				
Hexachlorobutadiene	52	10	102	0.0	51.0	22	124				
Hexachlorocyclopentadiene	45	10	102	0.0	45.0	39	91				
Hexachloroethane	53	10	102	0.0	52.0	21	115				
Isophorone	68	10	102	0.0	67.0	42	124				
m+p-Cresols	63	10	102	0.0	62.0	29	110				
Nitrobenzene	79	10	102	0.0	77.0	45	121				
n-Nitrosodimethylamine	50	10	102	0.0	49.0	20	45				S
n-Nitroso-di-n-propylamine	82	10	102	0.0	81.0	49	119				
n-Nitrosodiphenylamine	83	10	102	0.0	82.0	51	123				
o-Cresol	66	10	102	0.0	65.0	30	117				
p-Chloroaniline	45	10	102	0.0	45.0	33	117				
Pentachlorophenol	82	10	102	0.0	80.0	35	138				
Phenol	46	10	102	0.0	45.0	37	75				
Pyridine	28	10	102	0.0	27.0	16	45				
Triallate	82	10	102	0.0	80.0	59	105				
Surr: 2,4,6-Tribromophenol	167	10	204	0.0	82.0	43	140				
Surr: 2-Fluorobiphenyl	71	10	102	0.0	69.0	44	119				
Surr: 2-Fluorophenol	75	10	204	0.0	37.0	19	119				
Surr: Nitrobenzene-d5	70	10	102	0.0	69.0	44	120				
Surr: Phenol-d5	80	10	204	0.0	39.0	10	65				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Surr: Terphenyl-d14	90	10	102	0.0	88.0	50	134				

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A, B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	79	10	75		106.0	80	120				
1,2-Dichlorobenzene	76	10	75		102.0	80	120				
1,3-Dichlorobenzene	81	10	75		108.0	80	120				
1,4-Dichlorobenzene	74	10	75		98.0	80	120				
2,2'-Oxybis(1-Chloropropane)	76	10	75		101.0	80	120				
2,4,5-Trichlorophenol	81	10	75		108.0	80	120				
2,4,6-Trichlorophenol	86	10	75		115.0	80	120				
2,4-Dichlorophenol	80	10	75		106.0	80	120				
2,4-Dimethylphenol	71	10	75		94.0	80	120				
2,4-Dinitrophenol	60	10	75		80.0	80	120				
2,4-Dinitrotoluene	76	10	75		102.0	80	120				
2,6-Dinitrotoluene	77	10	75		102.0	80	120				
2-Chloronaphthalene	87	10	75		115.0	80	120				
2-Chlorophenol	79	10	75		106.0	80	120				
2-Nitroaniline	74	10	75		99.0	80	120				
2-Nitrophenol	75	10	75		101.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
3,3'-Dichlorobenzidine	82	10	75		109.0	80	120				
3-Nitroaniline	77	10	75		103.0	80	120				
4,6-Dinitro-2-methylphenol	71	10	75		95.0	80	120				
4-Bromophenyl phenyl ether	81	10	75		107.0	80	120				
4-Chloro-2-methylphenol	78	10	75		104.0	80	120				
4-Chloro-3-methylphenol	81	10	75		108.0	80	120				
4-Chlorophenol	77	10	75		103.0	80	120				
4-Chlorophenyl phenyl ether	78	10	75		104.0	80	120				
4-Nitroaniline	69	10	75		92.0	80	120				
4-Nitrophenol	80	10	75		106.0	80	120				
Aniline	76	10	75		102.0	80	120				
Azobenzene	74	10	75		99.0	80	120				
Benzoic acid	74	10	75		99.0	80	120				
Benzyl alcohol	81	10	75		108.0	80	120				
bis(-2-chloroethoxy)Methane	85	10	75		113.0	80	120				
bis(-2-chloroethyl)Ether	79	10	75		106.0	80	120				
bis(2-chloroisopropyl)Ether	76	10	75		101.0	80	120				
bis(2-ethylhexyl)Phthalate	76	10	75		102.0	80	120				
Butylbenzylphthalate	77	10	75		103.0	80	120				
Carbazole	82	10	75		109.0	80	120				
Dibenzofuran	80	10	75		106.0	80	120				
Diethyl phthalate	77	10	75		103.0	80	120				
Dimethyl phthalate	79	10	75		105.0	80	120				
Di-n-butyl phthalate	81	10	75		108.0	80	120				
Di-n-octyl phthalate	75	10	75		100.0	80	120				
Hexachlorobenzene	71	10	75		94.0	80	120				
Hexachlorobutadiene	74	10	75		99.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Hexachlorocyclopentadiene	71	10	75		95.0	80	120				
Hexachloroethane	80	10	75		107.0	80	120				
Isophorone	79	10	75		105.0	80	120				
m+p-Cresols	76	10	75		101.0	80	120				
Nitrobenzene	80	10	75		107.0	80	120				
n-Nitrosodimethylamine	81	10	75		108.0	80	120				
n-Nitroso-di-n-propylamine	76	10	75		102.0	80	120				
n-Nitrosodiphenylamine	78	10	75		104.0	80	120				
o-Cresol	75	10	75		100.0	80	120				
p-Chloroaniline	75	10	75		100.0	80	120				
Pentachlorophenol	74	10	75		98.0	80	120				
Phenol	81	10	75		108.0	80	120				
Pyridine	64	10	75		86.0	80	120				
Triallate	82	10	75		109.0	80	120				
Surr: 2,4,6-Tribromophenol	77	10	75		102.0	80	120				
Surr: 2-Fluorobiphenyl	79	10	75		106.0	80	120				
Surr: 2-Fluorophenol	79	10	75		105.0	80	120				
Surr: Nitrobenzene-d5	77	10	75		103.0	80	120				
Surr: Phenol-d5	80	10	75		107.0	80	120				
Surr: Terphenyl-d14	77	10	75		103.0	80	120				

Associated Samples: B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 25

SampType: Continuing Calibration Verification Standard

Batch ID: R374159

Method: SW8270C

Analysis Date: 02/02/2022 18:54

Prep Date:

Lab ID: 01-Feb-22_CCv_50

Units: ug/L

Prep Method:

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	73	10	75		98.0	50	150				
1,2-Dichlorobenzene	78	10	75		104.0	50	150				
1,3-Dichlorobenzene	82	10	75		109.0	50	150				
1,4-Dichlorobenzene	79	10	75		106.0	50	150				
2,2'-Oxybis(1-Chloropropane)	78	10	75		103.0	50	150				
2,4,5-Trichlorophenol	84	10	75		112.0	50	150				
2,4,6-Trichlorophenol	83	10	75		111.0	50	150				
2,4-Dichlorophenol	79	10	75		105.0	50	150				
2,4-Dimethylphenol	72	10	75		96.0	50	150				
2,4-Dinitrophenol	54	10	75		72.0	50	150				
2,4-Dinitrotoluene	70	10	75		93.0	50	150				
2,6-Dinitrotoluene	77	10	75		103.0	50	150				
2-Chloronaphthalene	78	10	75		104.0	50	150				
2-Chlorophenol	84	10	75		111.0	50	150				
2-Nitroaniline	72	10	75		96.0	50	150				
2-Nitrophenol	74	10	75		99.0	50	150				
3,3'-Dichlorobenzidine	79	10	75		105.0	50	150				
3-Nitroaniline	78	10	75		105.0	50	150				
4,6-Dinitro-2-methylphenol	65	10	75		87.0	50	150				
4-Bromophenyl phenyl ether	74	10	75		99.0	50	150				
4-Chloro-2-methylphenol	78	10	75		105.0	50	150				
4-Chloro-3-methylphenol	78	10	75		104.0	50	150				
4-Chlorophenol	73	10	75		97.0	50	150				
4-Chlorophenyl phenyl ether	76	10	75		101.0	50	150				
4-Nitroaniline	70	10	75		93.0	50	150				
4-Nitrophenol	80	10	75		106.0	50	150				
Aniline	78	10	75		104.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Azobenzene	76	10	75		102.0	50	150				
Benzoic acid	82	10	75		110.0	50	150				
Benzyl alcohol	84	10	75		113.0	50	150				
bis(-2-chloroethoxy)Methane	79	10	75		105.0	50	150				
bis(-2-chloroethyl)Ether	81	10	75		108.0	50	150				
bis(2-chloroisopropyl)Ether	78	10	75		103.0	50	150				
bis(2-ethylhexyl)Phthalate	75	10	75		100.0	50	150				
Butylbenzylphthalate	76	10	75		101.0	50	150				
Carbazole	81	10	75		107.0	50	150				
Dibenzofuran	75	10	75		101.0	50	150				
Diethyl phthalate	82	10	75		109.0	50	150				
Dimethyl phthalate	76	10	75		101.0	50	150				
Di-n-butyl phthalate	80	10	75		106.0	50	150				
Di-n-octyl phthalate	74	10	75		99.0	50	150				
Hexachlorobenzene	73	10	75		97.0	50	150				
Hexachlorobutadiene	71	10	75		95.0	50	150				
Hexachlorocyclopentadiene	70	10	75		94.0	50	150				
Hexachloroethane	83	10	75		110.0	50	150				
Isophorone	73	10	75		98.0	50	150				
m+p-Cresols	83	10	75		110.0	50	150				
Nitrobenzene	76	10	75		102.0	50	150				
n-Nitrosodimethylamine	77	10	75		102.0	50	150				
n-Nitroso-di-n-propylamine	79	10	75		106.0	50	150				
n-Nitrosodiphenylamine	73	10	75		97.0	50	150				
o-Cresol	79	10	75		105.0	50	150				
p-Chloroaniline	75	10	75		100.0	50	150				
Pentachlorophenol	73	10	75		97.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220201B: 25 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374159
Method: SW8270C **Analysis Date:** 02/02/2022 18:54 **Prep Date:**
Lab ID: 01-Feb-22_CC_V_50 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Phenol	81	10	75		107.0	50	150				
Pyridine	76	10	75		101.0	50	150				
Triallate	76	10	75		101.0	50	150				
Surr: 2,4,6-Tribromophenol	72	10	75		96.0	50	150				
Surr: 2-Fluorobiphenyl	72	10	75		96.0	50	150				
Surr: 2-Fluorophenol	84	10	75		112.0	50	150				
Surr: Nitrobenzene-d5	78	10	75		104.0	50	150				
Surr: Phenol-d5	88	10	75		118.0	50	150				
Surr: Terphenyl-d14	74	10	75		99.0	50	150				

Associated Samples: **B22011446-001C, B22011446-006C, B22011446-011C, B22011446-012A**

Run ID: Run Order: SV5973N.I_220203A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/03/2022 17:46 **Prep Date:**
Lab ID: 03-Feb-22_CC_V_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	76	10	75		102.0	80	120				
1,2-Dichlorobenzene	77	10	75		102.0	80	120				
1,3-Dichlorobenzene	81	10	75		108.0	80	120				
1,4-Dichlorobenzene	79	10	75		105.0	80	120				
2,4,5-Trichlorophenol	75	10	75		100.0	80	120				
2,4,6-Trichlorophenol	77	10	75		103.0	80	120				
2,4-Dichlorophenol	67	10	75		89.0	80	120				
2,4-Dimethylphenol	78	10	75		104.0	80	120				
2,4-Dinitrophenol	76	10	75		102.0	80	120				
2,4-Dinitrotoluene	81	10	75		108.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220203A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/03/2022 17:46 **Prep Date:**
Lab ID: 03-Feb-22_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	74	10	75		99.0	80	120				
2-Chloronaphthalene	83	10	75		110.0	80	120				
2-Chlorophenol	68	10	75		90.0	80	120				
2-Nitrophenol	78	10	75		104.0	80	120				
3,3'-Dichlorobenzidine	77	10	75		103.0	80	120				
4,6-Dinitro-2-methylphenol	72	10	75		96.0	80	120				
4-Bromophenyl phenyl ether	76	10	75		101.0	80	120				
4-Chloro-3-methylphenol	71	10	75		95.0	80	120				
4-Chlorophenol	74	10	75		98.0	80	120				
4-Chlorophenyl phenyl ether	80	10	75		106.0	80	120				
4-Nitrophenol	80	10	75		107.0	80	120				
Azobenzene	78	10	75		105.0	80	120				
bis(-2-chloroethoxy)Methane	77	10	75		102.0	80	120				
bis(-2-chloroethyl)Ether	84	10	75		112.0	80	120				
bis(2-chloroisopropyl)Ether	80	10	75		106.0	80	120				
bis(2-ethylhexyl)Phthalate	76	10	75		101.0	80	120				
Butylbenzylphthalate	76	10	75		101.0	80	120				
Diethyl phthalate	72	10	75		96.0	80	120				
Dimethyl phthalate	81	10	75		108.0	80	120				
Di-n-butyl phthalate	74	10	75		99.0	80	120				
Di-n-octyl phthalate	81	10	75		108.0	80	120				
Hexachlorobenzene	77	10	75		102.0	80	120				
Hexachlorobutadiene	84	10	75		112.0	80	120				
Hexachlorocyclopentadiene	71	10	75		94.0	80	120				
Hexachloroethane	85	10	75		113.0	80	120				
Isophorone	78	10	75		104.0	80	120				
m+p-Cresols	73	10	75		98.0	80	120				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220203A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/03/2022 17:46 **Prep Date:**
Lab ID: 03-Feb-22_CCV_2 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Nitrobenzene	84	10	75		113.0	80	120				
n-Nitrosodimethylamine	87	10	75		116.0	80	120				
n-Nitroso-di-n-propylamine	78	10	75		104.0	80	120				
n-Nitrosodiphenylamine	81	10	75		108.0	80	120				
o-Cresol	81	10	75		108.0	80	120				
Pentachlorophenol	71	10	75		95.0	80	120				
Phenol	77	10	75		103.0	80	120				
Pyridine	88	10	75		118.0	80	120				
Surr: 2,4,6-Tribromophenol	72	10	75		96.0	80	120				
Surr: 2-Fluorobiphenyl	85	10	75		113.0	80	120				
Surr: 2-Fluorophenol	79	10	75		105.0	80	120				
Surr: Nitrobenzene-d5	82	10	75		110.0	80	120				
Surr: Phenol-d5	80	10	75		107.0	80	120				
Surr: Terphenyl-d14	79	10	75		106.0	80	120				

Associated Samples: **B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C**

Run ID: Run Order: SV5973N.I_220203A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/04/2022 05:34 **Prep Date:**
Lab ID: 03-Feb-22_CCV_24 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	77	10	75		102.0	50	150				
1,2-Dichlorobenzene	80	10	75		107.0	50	150				
1,3-Dichlorobenzene	84	10	75		112.0	50	150				
1,4-Dichlorobenzene	81	10	75		108.0	50	150				
2,4,5-Trichlorophenol	86	10	75		115.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220203A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/04/2022 05:34 **Prep Date:**
Lab ID: 03-Feb-22_CCV_24 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
2,4,6-Trichlorophenol	91	10	75		122.0	50	150				
2,4-Dichlorophenol	86	10	75		115.0	50	150				
2,4-Dimethylphenol	78	10	75		103.0	50	150				
2,4-Dinitrophenol	69	10	75		92.0	50	150				
2,4-Dinitrotoluene	82	10	75		110.0	50	150				
2,6-Dinitrotoluene	72	10	75		96.0	50	150				
2-Chloronaphthalene	81	10	75		107.0	50	150				
2-Chlorophenol	87	10	75		116.0	50	150				
2-Nitrophenol	80	10	75		107.0	50	150				
3,3'-Dichlorobenzidine	88	10	75		117.0	50	150				
4,6-Dinitro-2-methylphenol	77	10	75		102.0	50	150				
4-Bromophenyl phenyl ether	79	10	75		105.0	50	150				
4-Chloro-3-methylphenol	85	10	75		113.0	50	150				
4-Chlorophenol	84	10	75		112.0	50	150				
4-Chlorophenyl phenyl ether	78	10	75		104.0	50	150				
4-Nitrophenol	96	10	75		128.0	50	150				
Azobenzene	86	10	75		115.0	50	150				
bis(-2-chloroethoxy)Methane	79	10	75		106.0	50	150				
bis(-2-chloroethyl)Ether	87	10	75		116.0	50	150				
bis(2-chloroisopropyl)Ether	82	10	75		109.0	50	150				
bis(2-ethylhexyl)Phthalate	85	10	75		114.0	50	150				
Butylbenzylphthalate	87	10	75		115.0	50	150				
Diethyl phthalate	78	10	75		104.0	50	150				
Dimethyl phthalate	85	10	75		114.0	50	150				
Di-n-butyl phthalate	87	10	75		115.0	50	150				
Di-n-octyl phthalate	84	10	75		112.0	50	150				
Hexachlorobenzene	73	10	75		98.0	50	150				



Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

Run ID: Run Order: SV5973N.I_220203A: 24 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R374228
Method: SW8270C **Analysis Date:** 02/04/2022 05:34 **Prep Date:**
Lab ID: 03-Feb-22_CCV_24 **Units:** ug/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Hexachlorobutadiene	81	10	75		107.0	50	150				
Hexachlorocyclopentadiene	69	10	75		92.0	50	150				
Hexachloroethane	88	10	75		117.0	50	150				
Isophorone	80	10	75		106.0	50	150				
m+p-Cresols	81	10	75		108.0	50	150				
Nitrobenzene	89	10	75		119.0	50	150				
n-Nitrosodimethylamine	90	10	75		120.0	50	150				
n-Nitroso-di-n-propylamine	87	10	75		116.0	50	150				
n-Nitrosodiphenylamine	82	10	75		109.0	50	150				
o-Cresol	84	10	75		112.0	50	150				
Pentachlorophenol	88	10	75		117.0	50	150				
Phenol	86	10	75		114.0	50	150				
Pyridine	82	10	75		109.0	50	150				
Surr: 2,4,6-Tribromophenol	88	10	75		118.0	50	150				
Surr: 2-Fluorobiphenyl	87	10	75		115.0	50	150				
Surr: 2-Fluorophenol	86	10	75		114.0	50	150				
Surr: Nitrobenzene-d5	84	10	75		112.0	50	150				
Surr: Phenol-d5	86	10	75		114.0	50	150				
Surr: Terphenyl-d14	80	10	75		106.0	50	150				

Associated Samples: B22011446-017C, B22011446-022C, B22011446-027C, B22011446-032C



Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: AECOM - Honolulu
Workorder: B22011446
Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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				
SW8011	EDB in Water by ECD	163202	001H, 004A, 006H, 009A, 011H, 015A, 017H, 020A, 022H, 025A, 027H, 030A, 032H, 035A	CCV4	CK5-163202	1/26/2022	19:27	Surr: 1,1,1,2-Tetrachloroethane	148.0	80	120			S				
								1,2-Dibromoethane	138.0	80	120			S				
SW8270C	Semi-Volatile Organic Compounds, Extended List	163174	001C, 006C, 011C, 012A, 017C, 022C, 027C, 032C	LCS-DOD	LCS-163174	2/2/2022	12:28	4-Nitrophenol	40.0	15	36			S				
									n-Nitrosodimethylamine	49.0	20	45			S			
										2,2'-Oxybis(1-Chloropropane)	70.0	37	130	21	20.0	R		
										2,4-Dinitrotoluene	104.0	57	128	23	20.0	R		
										2-Chlorophenol	79.0	38	117	24	20.0	R		
										2-Nitroaniline	102.0	55	127	21	20.0	R		
										4-Nitroaniline	103.0	57	101	29	20.0	SR		
								LCSD-DOD	LCSD-163174	2/2/2022	13:00	4-Nitrophenol	47.0	15	36	15	20.0	S
												Benzyl alcohol	73.0	31	112	23	20.0	R
												bis(2-chloroisopropyl)Ether	70.0	37	130	21	20.0	R
												Hexachlorobenzene	98.0	53	125	23	20.0	R
												n-Nitrosodimethylamine	56.0	20	45	14	20.0	S
												n-Nitroso-di-n-propylamine	102.0	49	119	21	20.0	R
												Pentachlorophenol	119.0	35	138	23	20.0	R
				MS-DOD	B22011446-006CMS	2/2/2022	16:45	4-Nitrophenol	38.0	15	36			S				
								Phenol	34.0	37	75			S				
				MS-DOD	B22011446-012AMS	2/2/2022	18:21	4-Nitrophenol	40.0	15	36			S				
								n-Nitrosodimethylamine	49.0	20	45			S				



Preparation and Analysis Dates Report

Work Order: B22011446

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/03/2022

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001B	ERH2470 (RHMW19)	01/19/2022 13:00	Ground Water	Metals by ICP-MS, Total		SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 16:48
						SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 17:06
001C	ERH2470 (RHMW19)	01/19/2022 13:00	Ground Water	Low Level PAH by 8270C SIM Semi-Volatile Organic Compounds, Extended List		SW3510C	01/24/2022 13:27	163174	SW8270CSIM	01/31/2022 22:13
						SW3510C	01/24/2022 13:27	163174	SW8270C	02/02/2022 15:41
001D	ERH2470 (RHMW19)	01/19/2022 13:00	Ground Water	Diesel Range Organics		SW3520C	01/24/2022 15:16	163190	SW8015C	01/26/2022 11:48
						SW3520C	01/24/2022 15:16	163190	SW8015C	01/27/2022 16:21
001H	ERH2470 (RHMW19)	01/19/2022 13:00	Ground Water	EDB in Water by ECD		SW8011	01/25/2022 09:07	163202	SW8011	01/26/2022 14:49
004A	ERH2469 (Trip Blank)-14733	01/19/2022 13:00	Trip Blank	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 12:30
006B	ERH2456 (RHMW13 zone 5)	01/19/2022 14:05	Ground Water	Metals by ICP-MS, Total		SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 17:44
						SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 17:49
006C	ERH2456 (RHMW13 zone 5)	01/19/2022 14:05	Ground Water	Low Level PAH by 8270C SIM Semi-Volatile Organic Compounds, Extended List		SW3510C	01/24/2022 13:27	163174	SW8270CSIM	01/31/2022 22:45
						SW3510C	01/24/2022 13:27	163174	SW8270C	02/02/2022 16:13
006D	ERH2456 (RHMW13 zone 5)	01/19/2022 14:05	Ground Water	Diesel Range Organics		SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 01:48
						SW3520C	01/24/2022 15:17	163190	SW8015C	01/27/2022 15:39
006H	ERH2456 (RHMW13 zone 5)	01/19/2022 14:05	Ground Water	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 12:50
009A	ERH2455 (Trip Blank) 14733	01/19/2022 14:05	Trip Blank	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 13:10
011B	ERH2435 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	Metals by ICP-MS, Total		SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 17:56
						SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 18:02
011C	ERH2435 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	Low Level PAH by 8270C SIM Semi-Volatile Organic Compounds, Extended List		SW3510C	01/24/2022 13:27	163174	SW8270CSIM	01/31/2022 23:18
						SW3510C	01/24/2022 13:27	163174	SW8270C	02/02/2022 17:17
011D	ERH2435 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	Diesel Range Organics		SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 06:05
						SW3520C	01/24/2022 15:17	163190	SW8015C	01/27/2022 19:55
011H	ERH2435 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 13:30
012A	ERH2437 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	Low Level PAH by 8270C SIM Semi-Volatile Organic Compounds, Extended List		SW3510C	01/24/2022 13:27	163174	SW8270CSIM	02/01/2022 00:23
						SW3510C	01/24/2022 13:27	163174	SW8270C	02/02/2022 17:49
012B	ERH2437 (RHMW2254-01 Bailer)	01/20/2022 13:15	Ground Water	Diesel Range Organics		SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 05:22
						SW3520C	01/24/2022 15:17	163190	SW8015C	01/27/2022 19:12
015A	ERH2434 (Trip Blank) 14694	01/20/2022 13:15	Trip Blank	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 13:50



Preparation and Analysis Dates Report

Work Order: B22011446

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/03/2022

017B	ERH2439 (RHMW2254-01 LF)	01/20/2022 14:05	Ground Water	Metals by ICP-MS, Total	SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 18:09
					SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 18:27
017C	ERH2439 (RHMW2254-01 LF)	01/20/2022 14:05	Ground Water	Low Level PAH by 8270C SIM	SW3510C	01/24/2022 13:27	163174	SW8270CSIM	02/01/2022 00:56
				Semi-Volatile Organic Compounds, Extended List	SW3510C	01/24/2022 13:27	163174	SW8270C	02/03/2022 18:51
017D	ERH2439 (RHMW2254-01 LF)	01/20/2022 14:05	Ground Water	Diesel Range Organics	SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 02:31
					SW3520C	01/24/2022 15:17	163190	SW8015C	01/27/2022 17:04
017H	ERH2439 (RHMW2254-01 LF)	01/20/2022 14:05	Ground Water	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 14:10
020A	ERH2438 (Trip Blank) 14733	01/20/2022 14:05	Trip Blank	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 14:29
022B	ERH2442 (Sump Adit3)	01/20/2022 15:30	Ground Water	Metals by ICP-MS, Total	SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 18:21
					SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 18:39
022C	ERH2442 (Sump Adit3)	01/20/2022 15:30	Ground Water	Low Level PAH by 8270C SIM	SW3510C	01/24/2022 13:27	163174	SW8270CSIM	02/01/2022 02:00
				Semi-Volatile Organic Compounds, Extended List	SW3510C	01/24/2022 13:27	163174	SW8270C	02/03/2022 19:23
022D	ERH2442 (Sump Adit3)	01/20/2022 15:30	Ground Water	Diesel Range Organics	SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 04:39
					SW3520C	01/24/2022 15:17	163190	SW8015C	01/27/2022 18:29
022H	ERH2442 (Sump Adit3)	01/20/2022 15:30	Ground Water	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 16:48
025A	ERH2441 (Trip Blank) 14694	01/20/2022 15:30	Trip Blank	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 17:08
027B	ERH2452 (OWDFMW07A)	01/20/2022 13:15	Ground Water	Metals by ICP-MS, Total	SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 18:34
					SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 18:52
027C	ERH2452 (OWDFMW07A)	01/20/2022 13:15	Ground Water	Low Level PAH by 8270C SIM	SW3510C	01/24/2022 13:27	163174	SW8270CSIM	02/01/2022 02:33
				Semi-Volatile Organic Compounds, Extended List	SW3510C	01/24/2022 13:27	163174	SW8270C	02/03/2022 19:55
027D	ERH2452 (OWDFMW07A)	01/20/2022 13:15	Ground Water	Diesel Range Organics	SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 12:30
027H	ERH2452 (OWDFMW07A)	01/20/2022 13:15	Ground Water	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 17:28
030A	ERH2451 (Trip Blank)-14733	01/20/2022 13:15	Trip Blank	EDB in Water by ECD	SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 17:48
032B	ERH2462 (RHMW11-05)	01/20/2022 13:00	Ground Water	Metals by ICP-MS, Total	SW3010A	01/24/2022 13:01	163179	SW6020	01/26/2022 18:59
					SW3010A	01/24/2022 13:01	163179	SW6020	01/31/2022 19:04
032C	ERH2462 (RHMW11-05)	01/20/2022 13:00	Ground Water	Low Level PAH by 8270C SIM	SW3510C	01/24/2022 13:27	163174	SW8270CSIM	02/01/2022 03:05
				Semi-Volatile Organic Compounds, Extended List	SW3510C	01/24/2022 13:27	163174	SW8270C	02/03/2022 20:27
032D	ERH2462 (RHMW11-05)	01/20/2022 13:00	Ground Water	Diesel Range Organics	SW3520C	01/24/2022 15:17	163190	SW8015C	01/26/2022 07:30



Preparation and Analysis Dates Report

Work Order: B22011446

Client: AECOM - Honolulu

Project Name: CV18F0126, 60571032.02.46.01

Report Date: 3/03/2022

032H	ERH2462 (RHMW11-05)	01/20/2022 13:00	Ground Water	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 18:08
035A	ERH2461 (Trip Blank) 14694	01/20/2022 13:00	Trip Blank	EDB in Water by ECD		SW8011	01/25/2022 09:08	163202	SW8011	01/26/2022 18:28



Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: AECOM - Honolulu

Workorder: B22011446

Project: CV18F0126, 60571032.02.46.01

Report Date: 03/03/2022

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

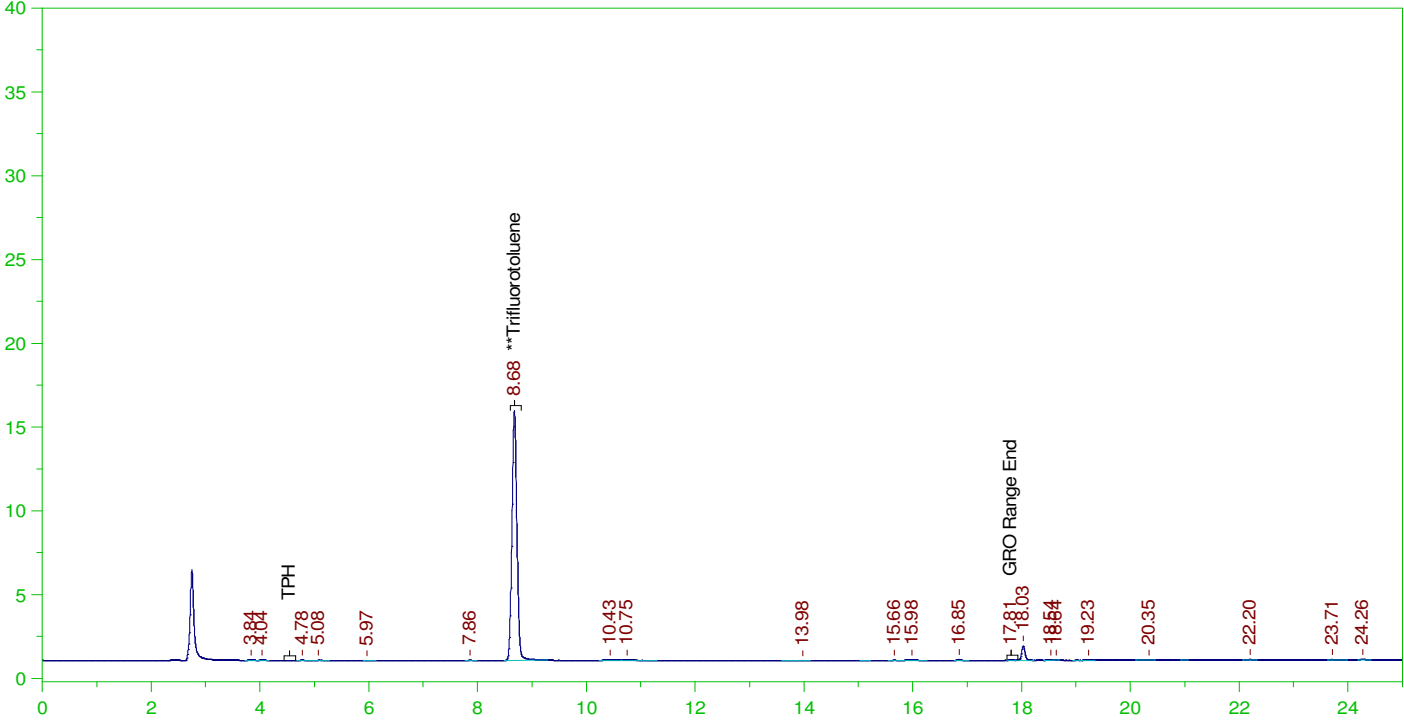
SEMI-VOLATILE ORGANIC COMPOUNDS

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

ERH2470 (RHMW19)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0007.RAW

B22011446-001G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-001G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0007.RAW
Date & Time Acquired: 1/25/2022 11:16:33 AM
Method File: G:\Org\PE1\Methods\211208G1446-1DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

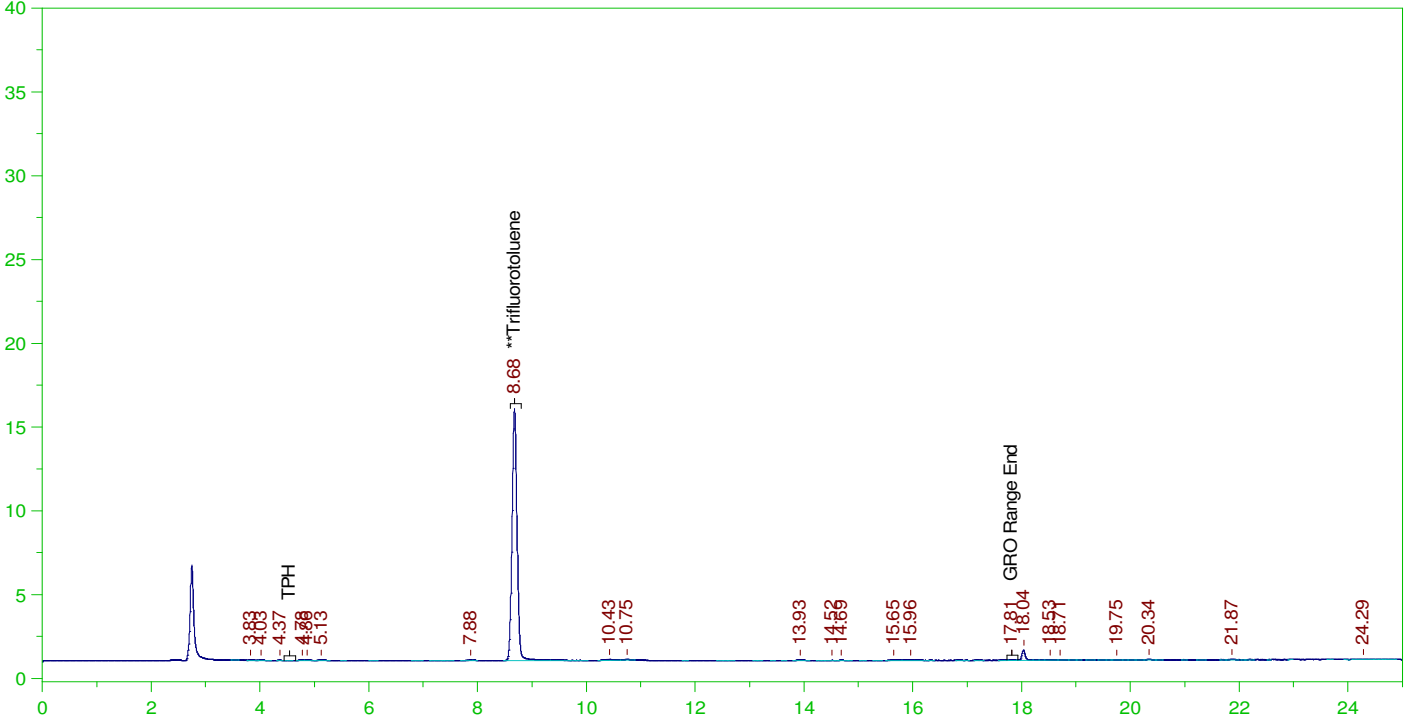
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.678	25.	20.254	81.02

C6 to C10 Area:2525.492 C6 to C10 Amount: 0.533949
TPH Area:7362.317 TPH Amount: 1.619174

ERH2469 (Trip Blank)-14733

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0009.RAW

B22011446-003A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-003A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0009.RAW
Date & Time Acquired: 1/25/2022 12:25:20 PM
Method File: G:\Org\PE1\Methods\211208GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

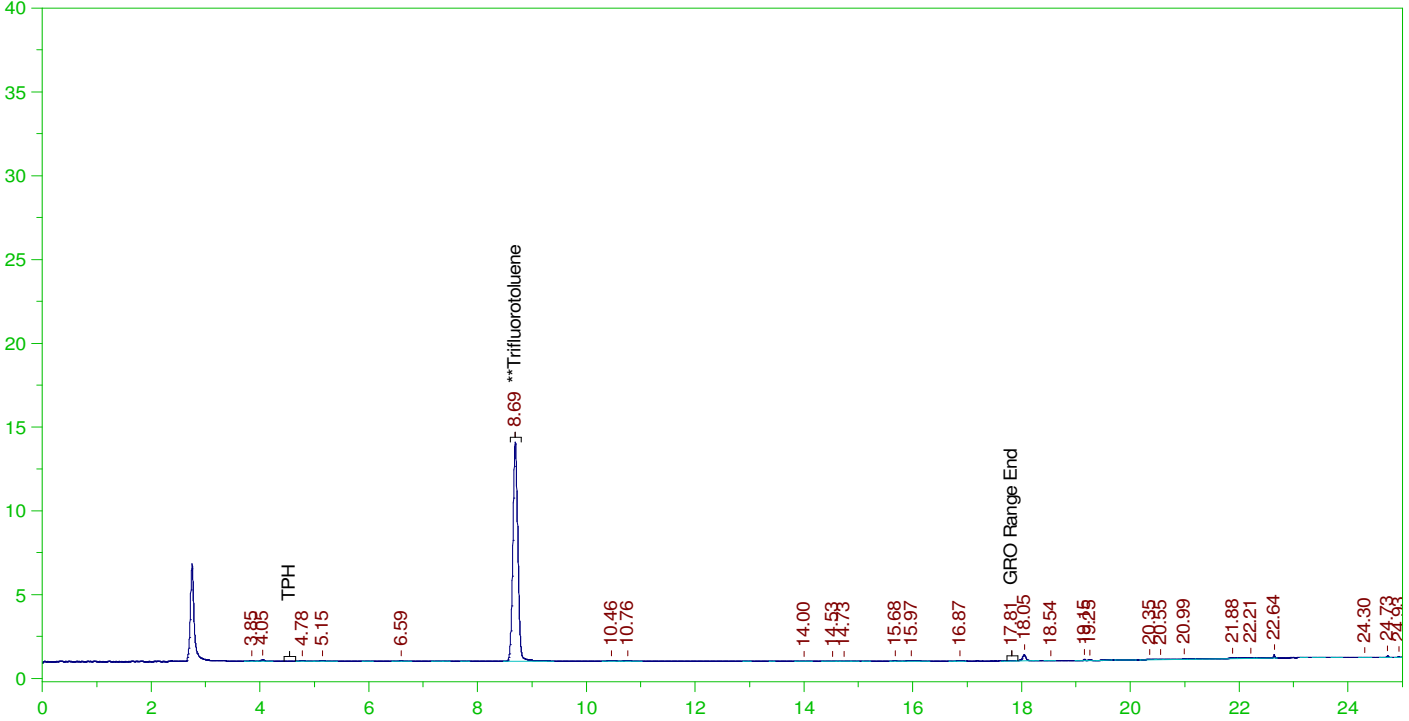
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.68	25.	20.473	81.89

C6 to C10 Area:3187.139 C6 to C10 Amount: 0.6738367
TPH Area:7280.481 TPH Amount: 1.601177

ERH2456 (RHMW13 zone 5)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0026.RAW

B22011446-006G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-006G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0026.RAW
Date & Time Acquired: 1/26/2022 11:58:24 AM
Method File: G:\Org\PE1\Methods\211208G1446-6DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

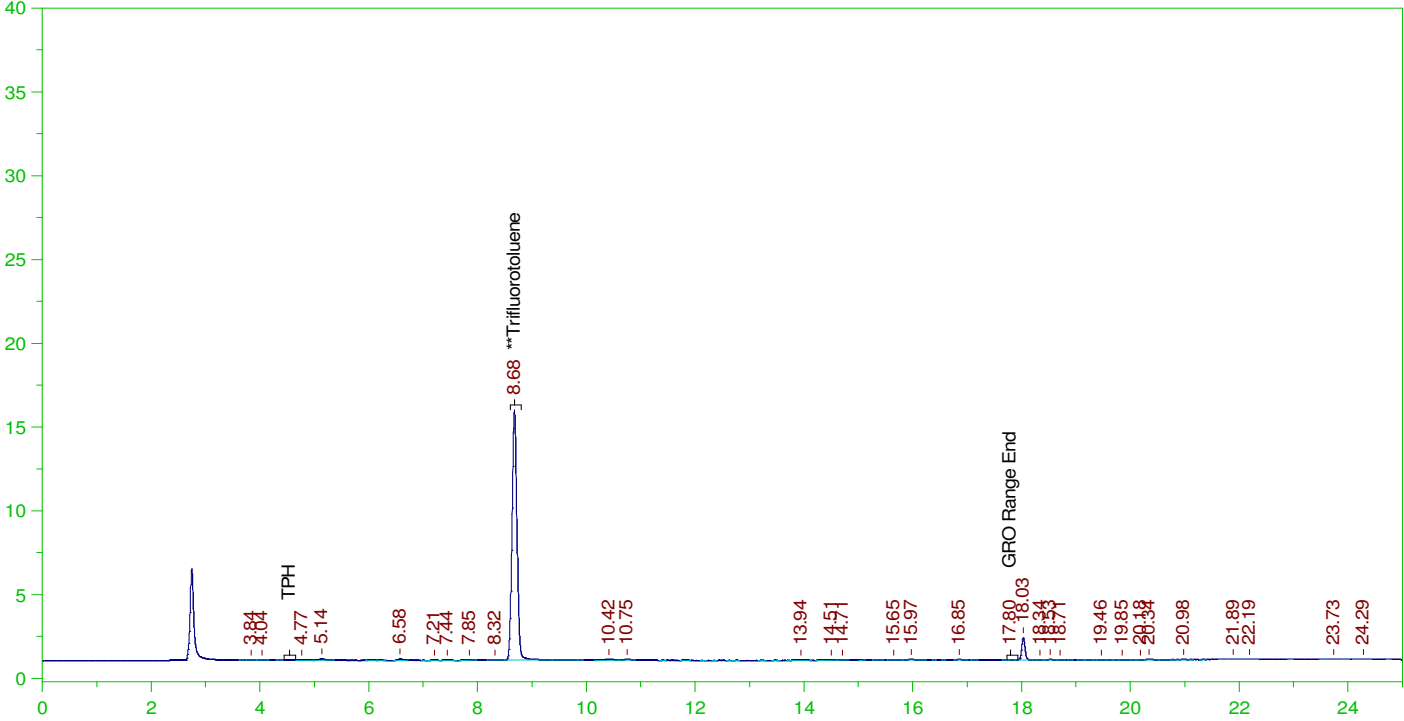
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.694	25.	17.764	71.06

C6 to C10 Area:2827.187 C6 to C10 Amount: 0.5977343
TPH Area:7702.764 TPH Amount: 1.694048

ERH2455 (Trip Blank) 14733

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0010.RAW

B22011446-008A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-008A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0010.RAW
Date & Time Acquired: 1/25/2022 12:59:47 PM
Method File: G:\Org\PE1\Methods\211208GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

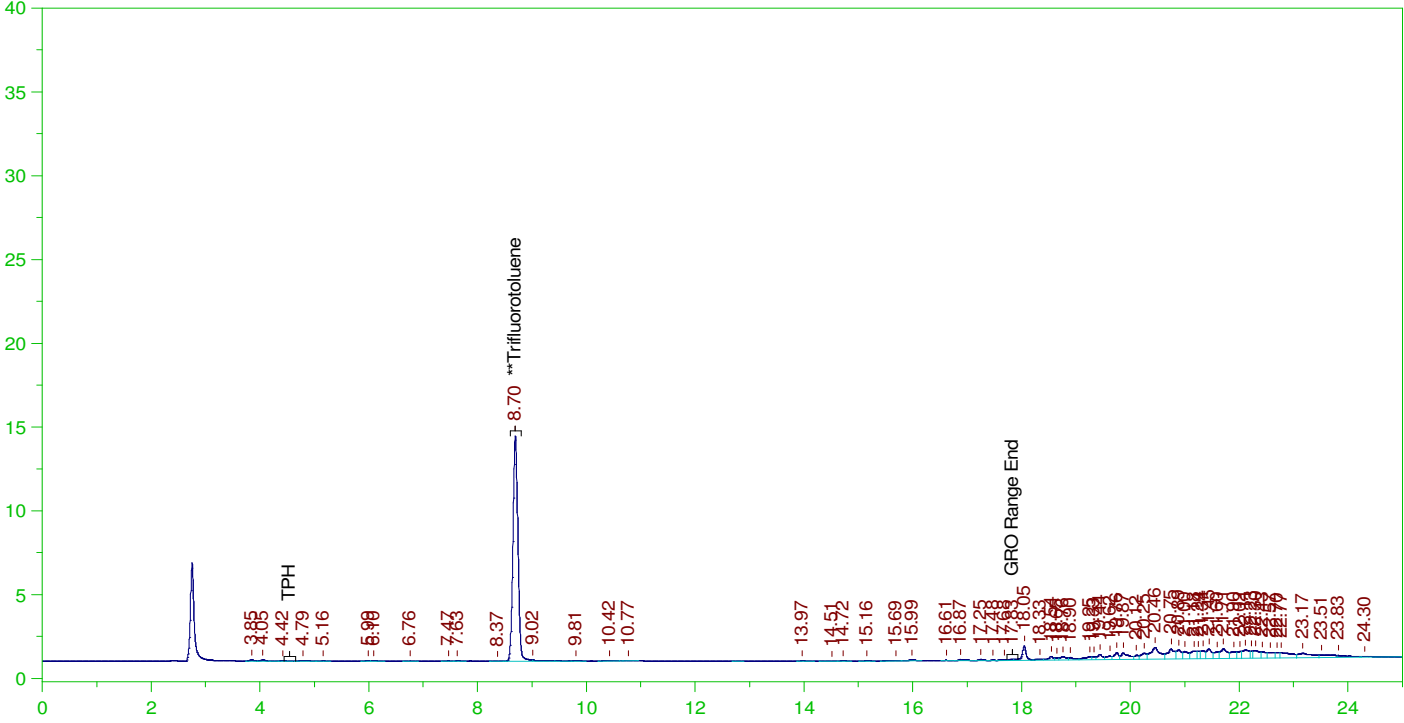
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.679	25.	20.369	81.48

C6 to C10 Area:4751.973 C6 to C10 Amount: 1.00468
TPH Area:12409.52 TPH Amount: 2.729192

ERH2435 (RHMW2254-01 Bailer)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0028.RAW

B22011446-011G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-011G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0028.RAW
Date & Time Acquired: 1/26/2022 1:07:08 PM
Method File: G:\Org\PE1\Methods\211208G1446-11DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

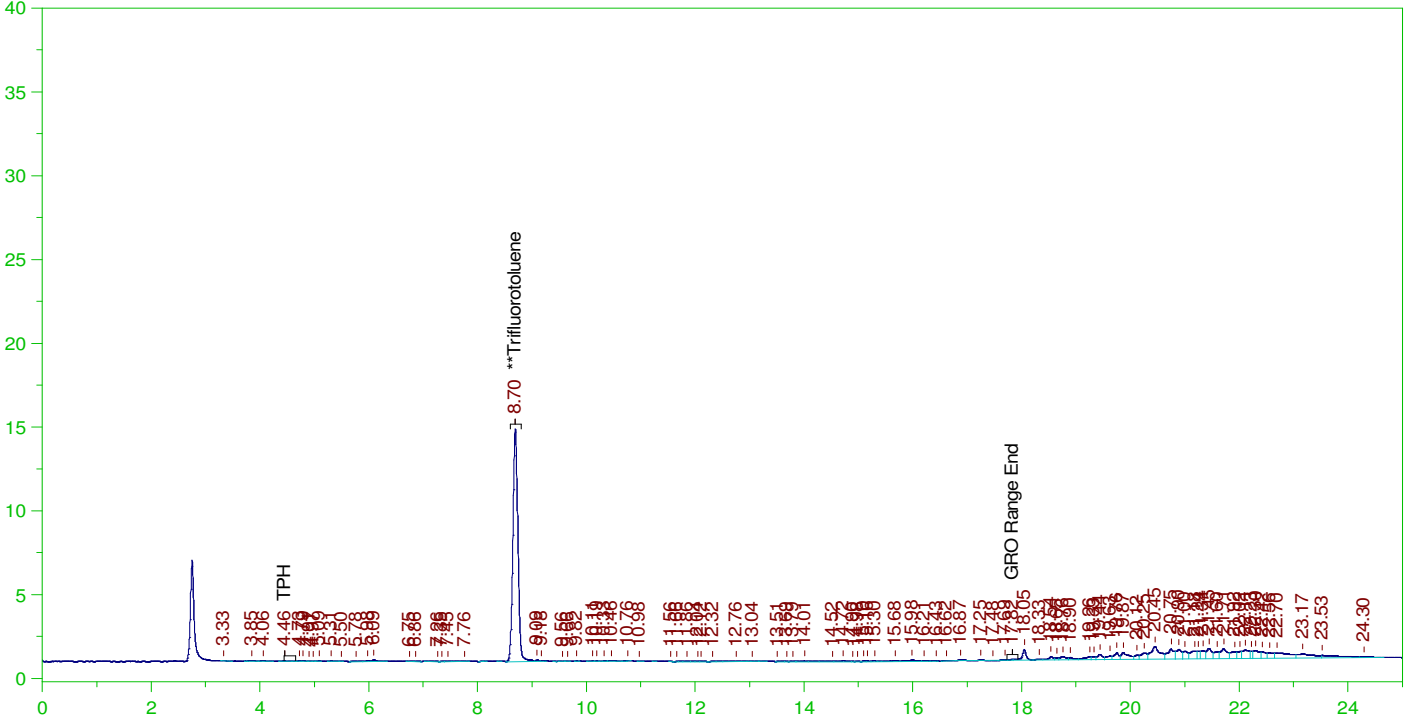
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.696	25.	18.193	72.77

C6 to C10 Area:5852.28 C6 to C10 Amount: 1.237311
TPH Area:111160.3 TPH Amount: 24.44719

ERH2437 (RHMW2254-01 Bailer)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0031.RAW

B22011446-012D ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-012D ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0031.RAW
Date & Time Acquired: 1/26/2022 2:49:42 PM
Method File: G:\Org\PE1\Methods\211208G1446-12DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

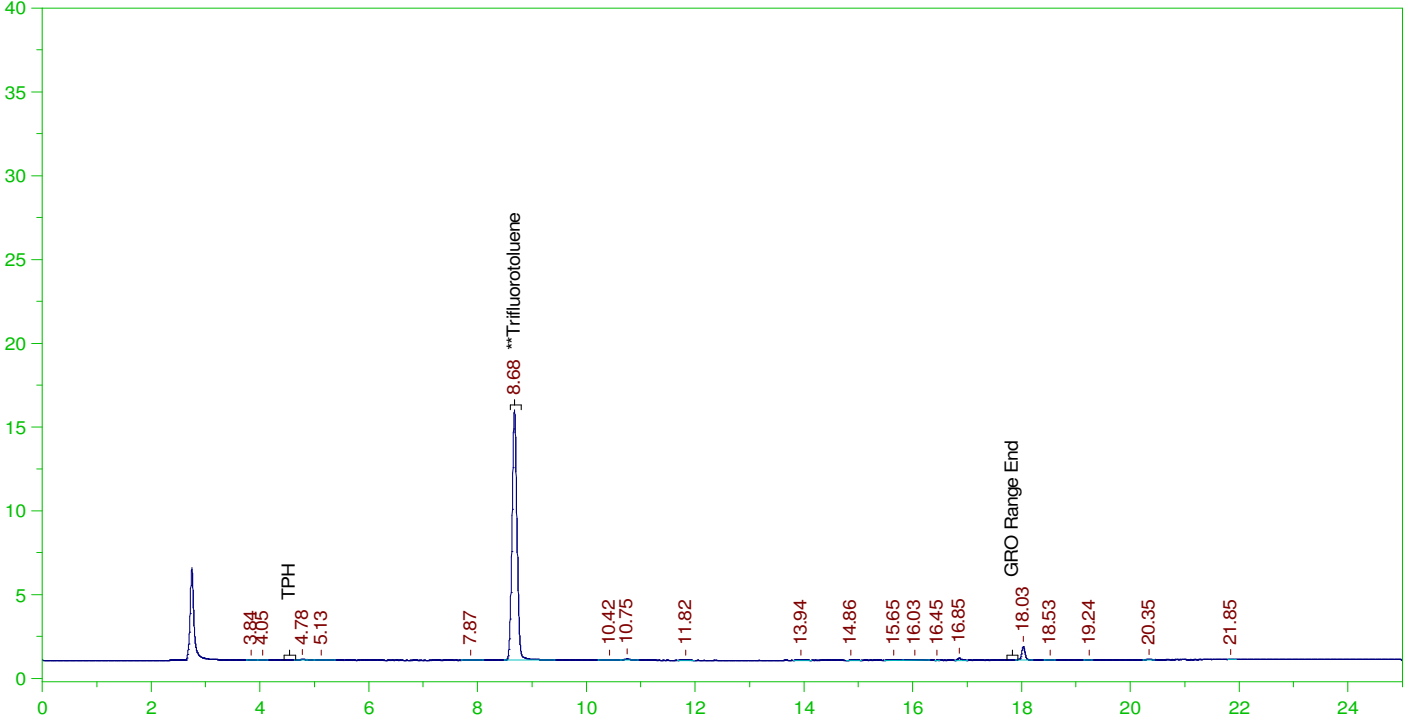
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.695	25.	18.859	75.44

C6 to C10 Area:12178.36 C6 to C10 Amount: 2.574793
TPH Area:117564.1 TPH Amount: 25.85555

ERH2434 (Trip Blank) 14694

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0011.RAW

B22011446-014A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-014A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0011.RAW
Date & Time Acquired: 1/25/2022 1:34:05 PM
Method File: G:\Org\PE1\Methods\211208G1446-14DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

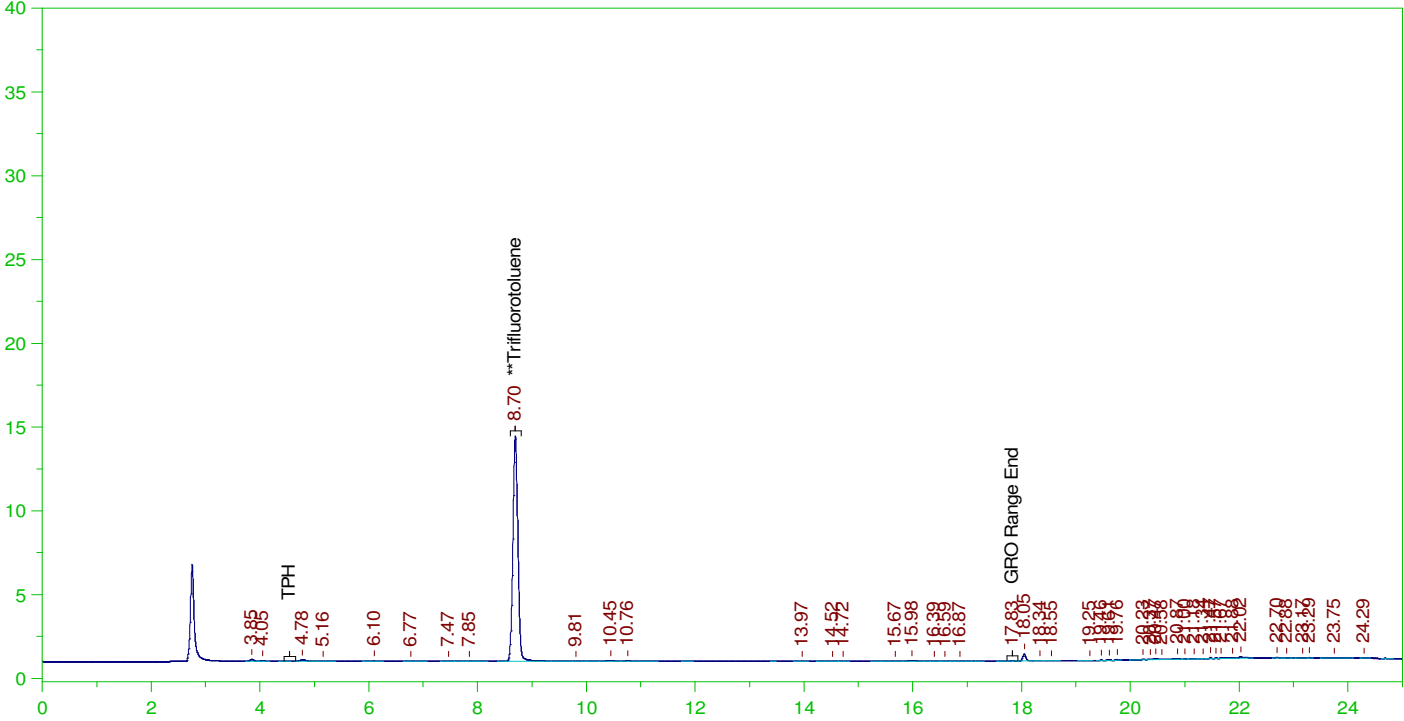
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.679	25.	20.315	81.26

C6 to C10 Area:3594.851 C6 to C10 Amount: 0.7600367
TPH Area:7799.385 TPH Amount: 1.715298

ERH2439 (RHMW2254-01 LF)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0033.RAW

B22011446-017G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-017G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0033.RAW
Date & Time Acquired: 1/26/2022 3:58:10 PM
Method File: G:\Org\PE1\Methods\211208G1446-17DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

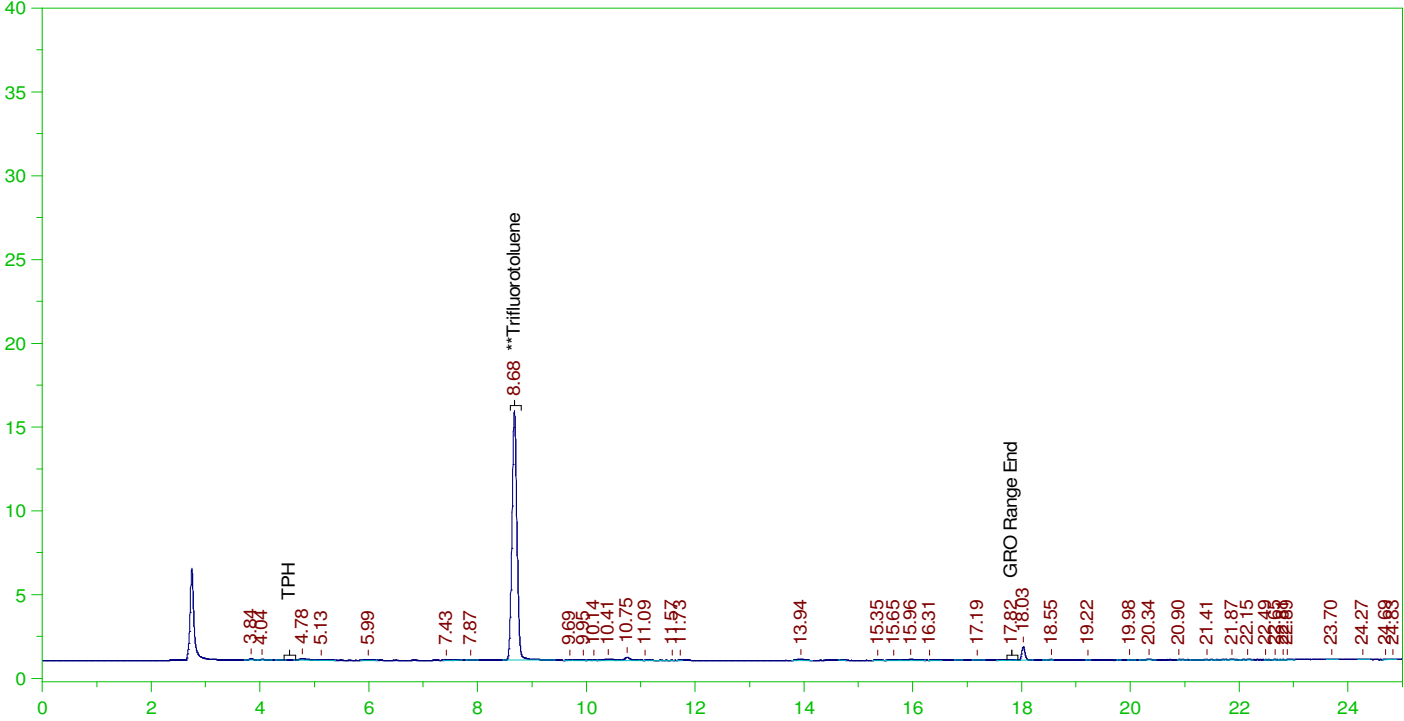
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.695	25.	18.379	73.51

C6 to C10 Area:4806.32 C6 to C10 Amount: 1.01617
TPH Area:11611.69 TPH Amount: 2.553727

ERH2438 (Trip Blank) 14733

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0012.RAW

B22011446-019A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-019A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0012.RAW
Date & Time Acquired: 1/25/2022 2:08:23 PM
Method File: G:\Org\PE1\Methods\211208G1446-19DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

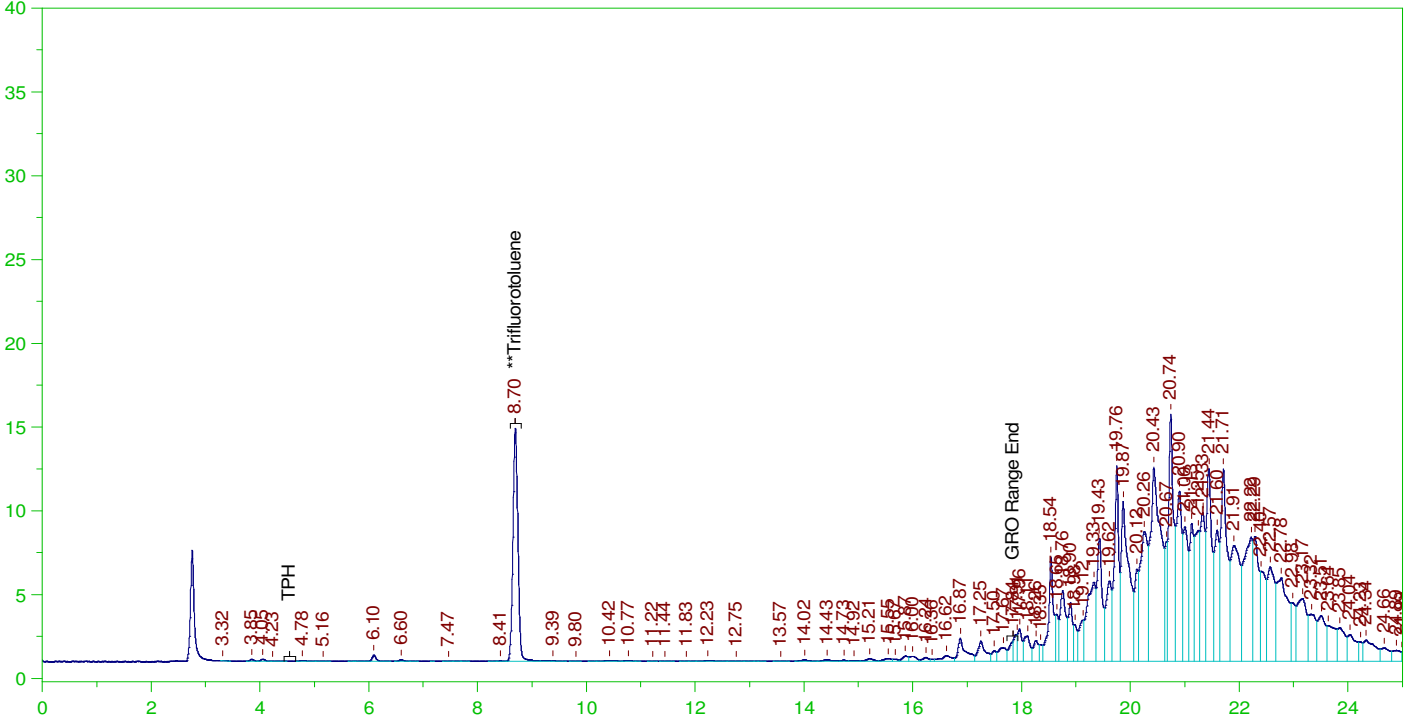
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.678	25.	20.28	81.12

C6 to C10 Area:7534.337 C6 to C10 Amount: 1.592937
TPH Area:14004.76 TPH Amount: 3.08003

ERH2442 (Sump Adit3)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0035.RAW

B22011446-022G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-022G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0035.RAW
Date & Time Acquired: 1/26/2022 5:06:44 PM
Method File: G:\Org\PE1\Methods\211208G1446-22DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

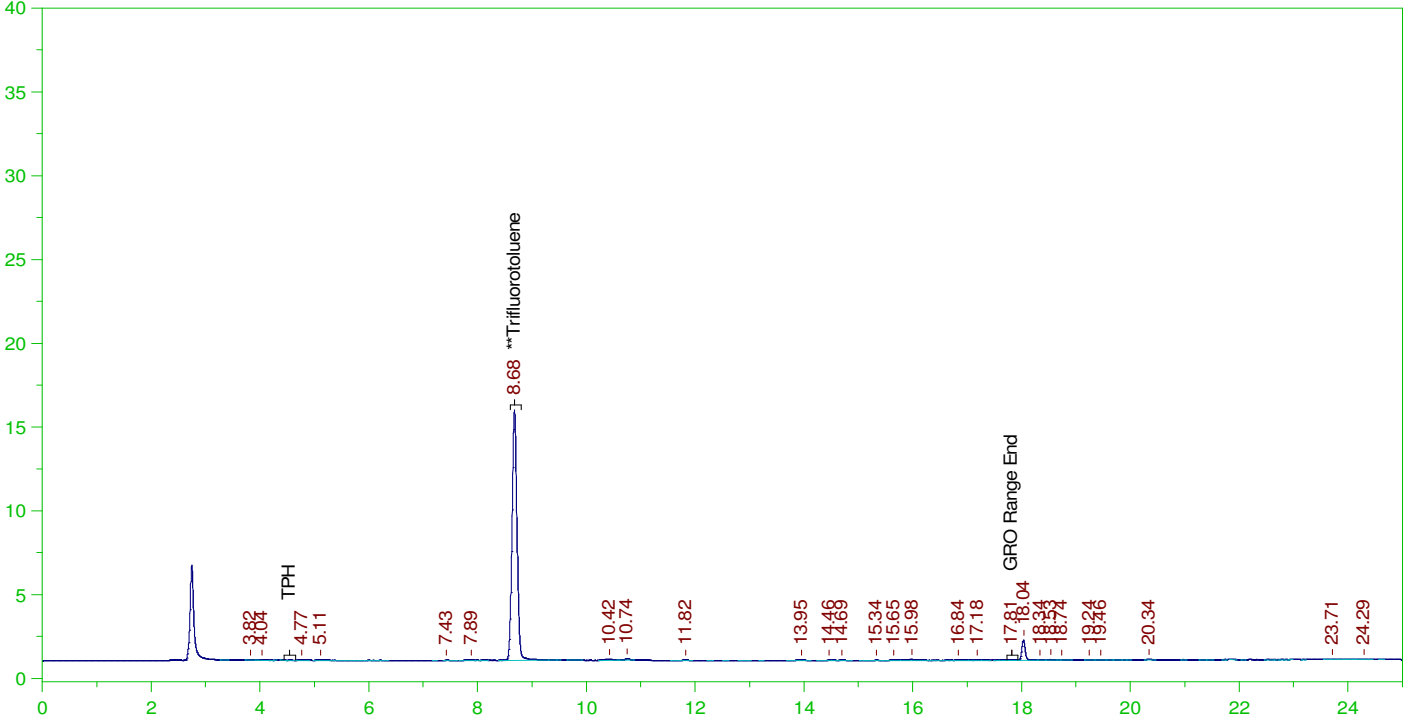
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.696	25.	18.885	75.54

C6 to C10 Area:74548.38 C6 to C10 Amount: 15.76129
TPH Area:1986881 TPH Amount: 436.9694

ERH2441 (Trip Blank) 14694

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0013.RAW

B22011446-024A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-024A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0013.RAW
Date & Time Acquired: 1/25/2022 2:42:39 PM
Method File: G:\Org\PE1\Methods\211208GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

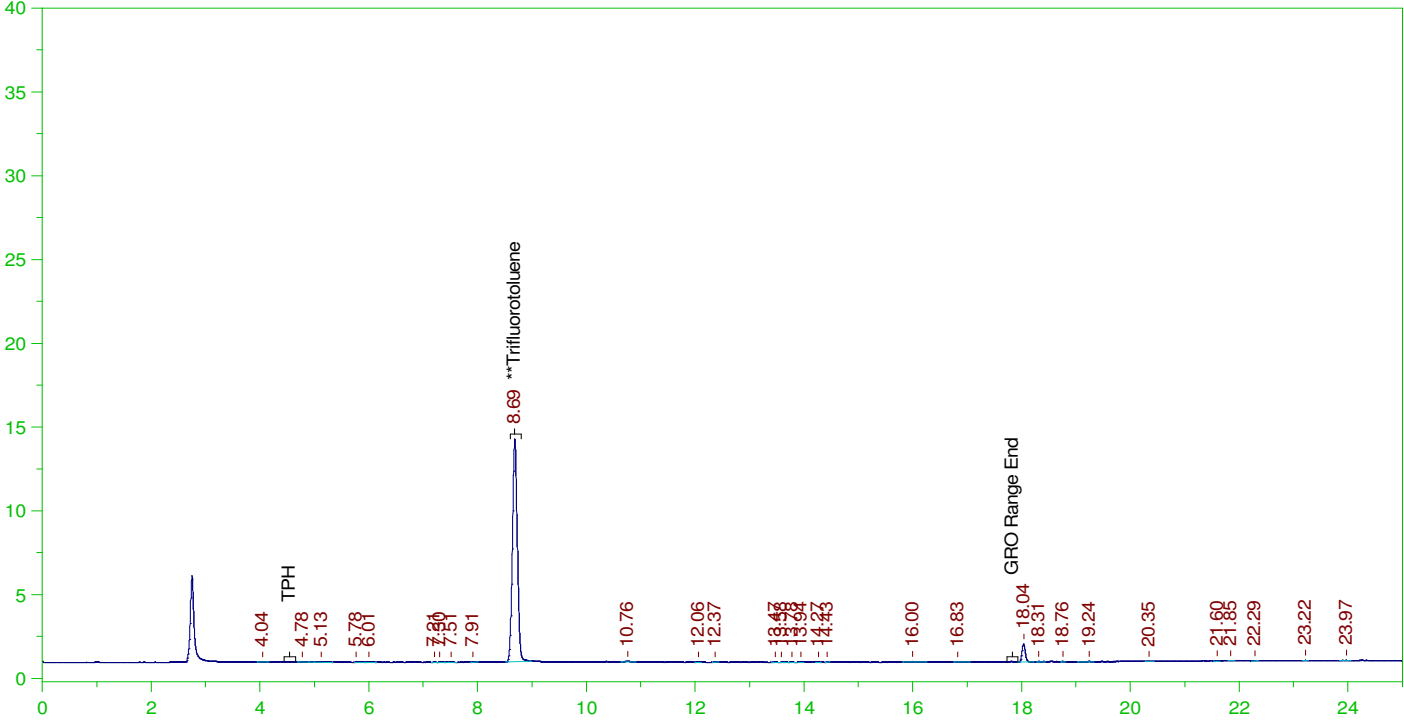
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.679	25.	20.364	81.46

C6 to C10 Area:4285.445 C6 to C10 Amount: 0.9060446
TPH Area:11239.13 TPH Amount: 2.471792

ERH2452 (OWDFMW07A)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0050.RAW

B22011446-027G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-027G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0050.RAW
Date & Time Acquired: 1/27/2022 10:33:46 AM
Method File: G:\Org\PE1\Methods\211208G1446-27DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

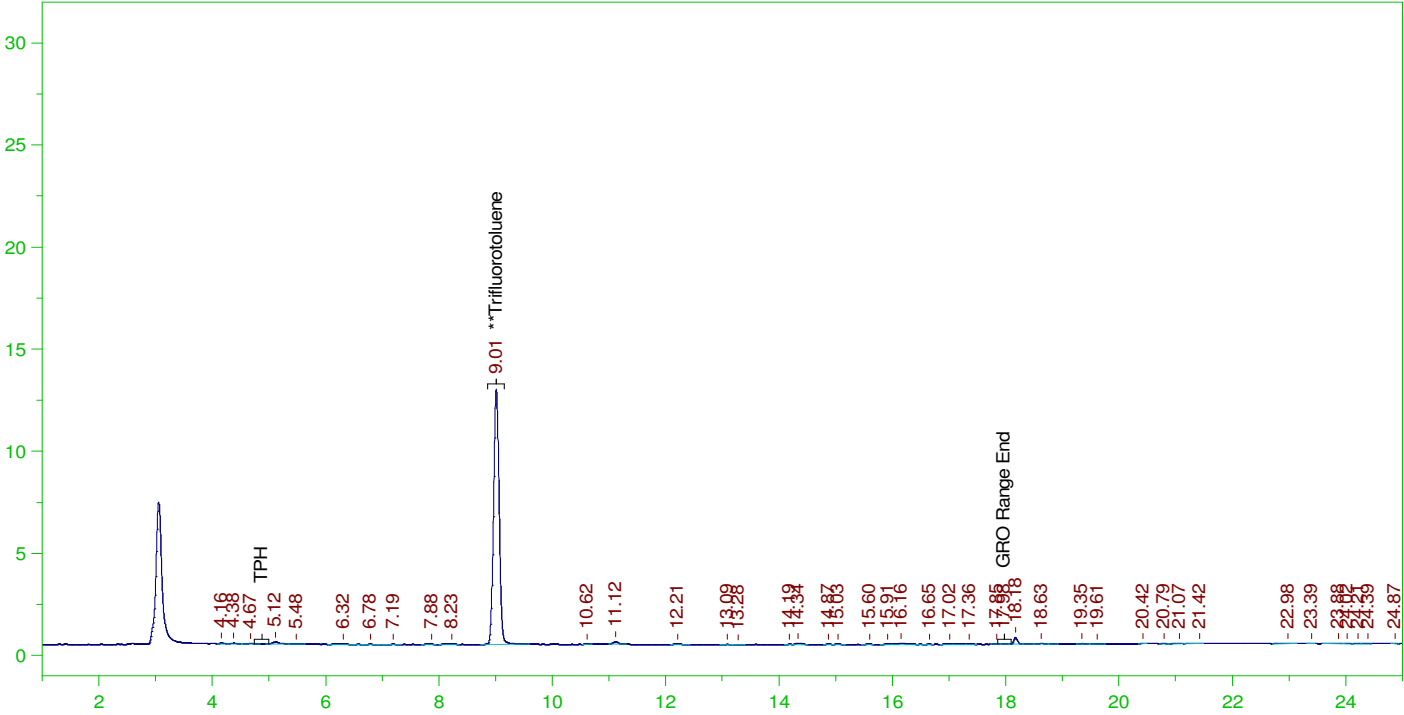
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.686	25.	17.818	71.27

C6 to C10 Area:2906.823 C6 to C10 Amount: 0.6145713
TPH Area:8371.051 TPH Amount: 1.841022

ERH2451 (Trip Blank)-14694

G:\Org\VAR\DAT\VAR013022_b\0130VARB.0011.RAW

B22011446-028A ;0130VAR , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-028A ;0130VAR , \$HC-8015-GRO-W,
Raw File: G:\Org\VAR\DAT\VAR013022_b\0130VARB.0011.RAW
Date & Time Acquired: 1/30/2022 3:49:57 PM
Method File: G:\Org\VAR\Methods\211208G1446-28DoDB%.MET
Calibration File: G:\Org\VAR\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

Mean RF for C6 to C10: 979.9788
Mean RF for TPH: 955.6747
Rt range for Gasoline Range Organics: 4.75 to 18.09

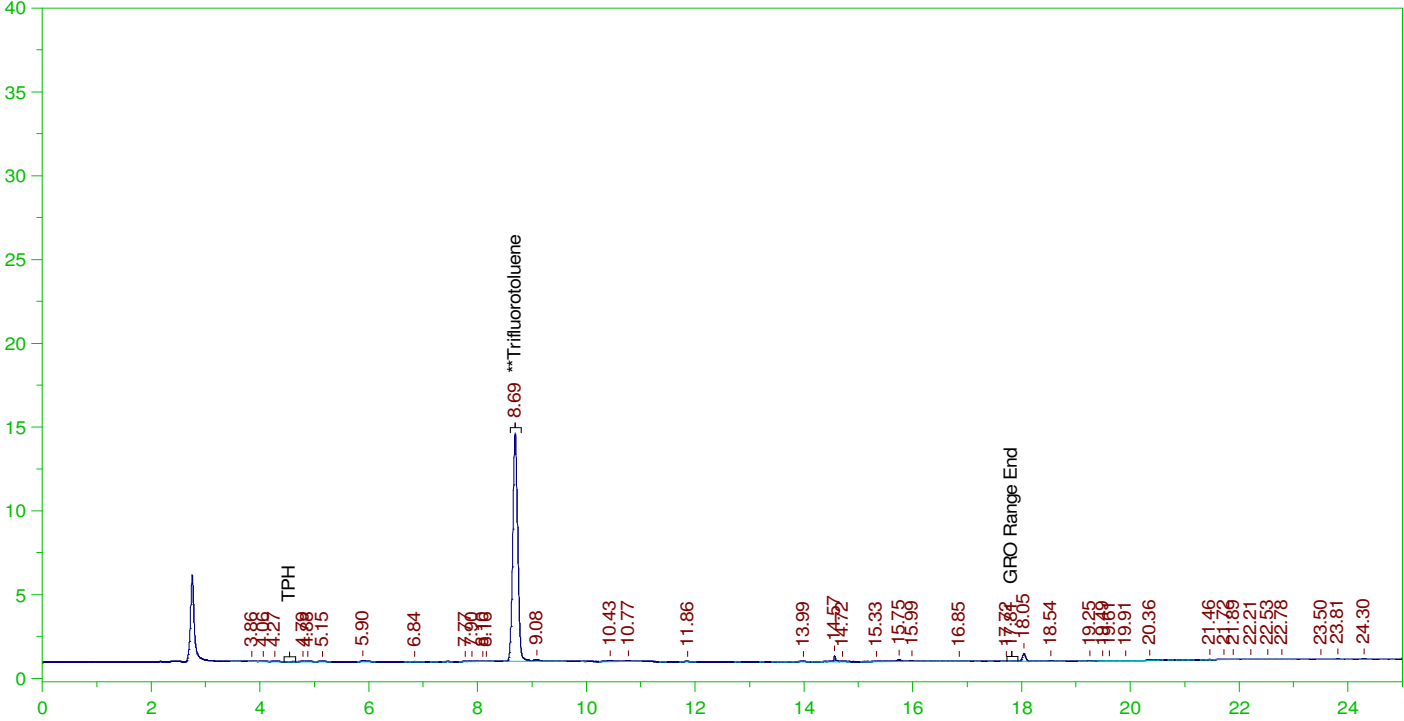
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	9.012	25.	18.563	74.25

C6 to C10 Area:5829.158 C6 to C10 Amount: 1.18965
TPH Area:10088.43 TPH Amount: 2.111268

ERH2462 (RHMW11-05)

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0038.RAW

B22011446-032G ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-032G ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0038.RAW
Date & Time Acquired: 1/26/2022 6:49:47 PM
Method File: G:\Org\PE1\Methods\211208GRO_DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

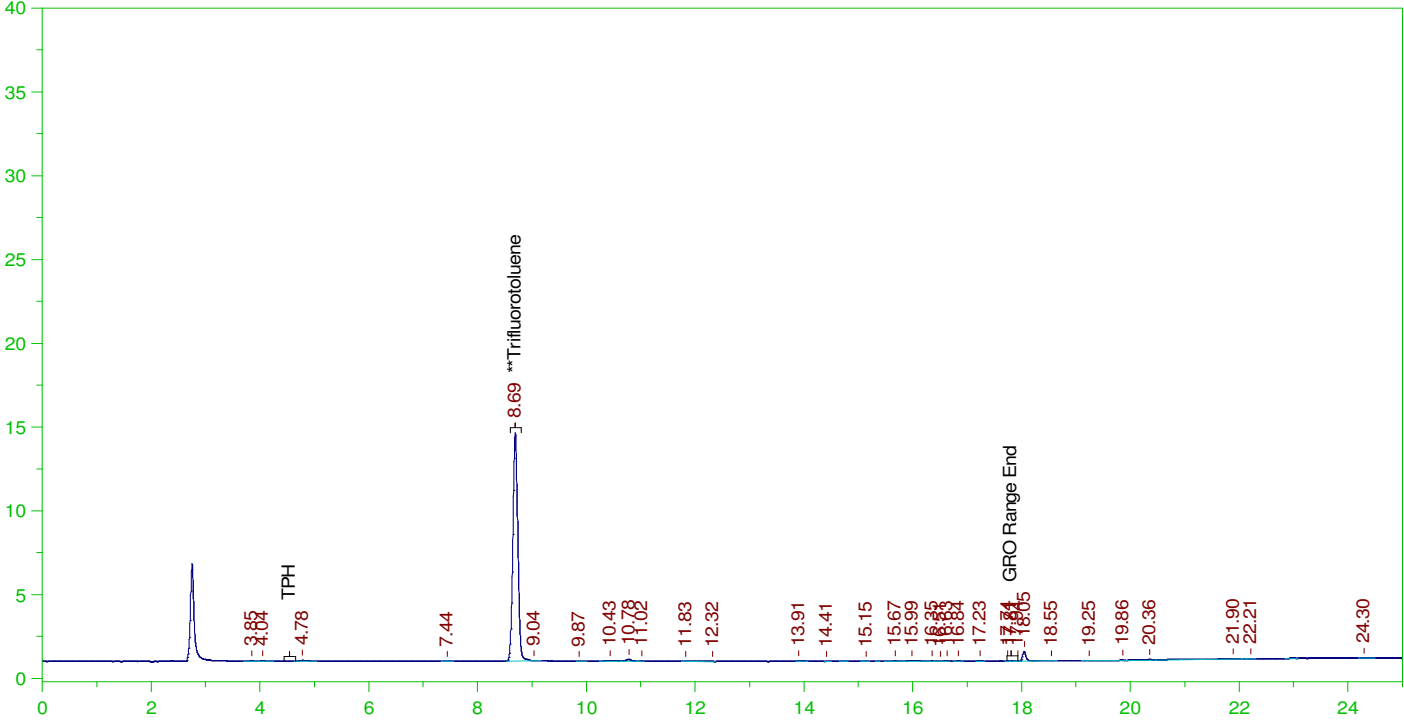
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.692	25.	18.435	73.74

C6 to C10 Area:6486.317 C6 to C10 Amount: 1.371361
TPH Area:11157.56 TPH Amount: 2.453852

ERH2461 (Trip Blank) 14694

G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0030.RAW

B22011446-034A ;0125PE1 , \$HC-8015-GRO-W,



GASOLINE RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-034A ;0125PE1 , \$HC-8015-GRO-W,
Raw File: G:\Org\PE1\DAT\PE1012522_b\0125PE1B.0030.RAW
Date & Time Acquired: 1/26/2022 2:15:32 PM
Method File: G:\Org\PE1\Methods\211208G1446-34DoDB%.MET
Calibration File: G:\Org\PE1\Cals\211208GRO8015CB.CAL
Sample Weight: 5 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
**Trifluorotoluene	8.694	25.	18.351	73.41

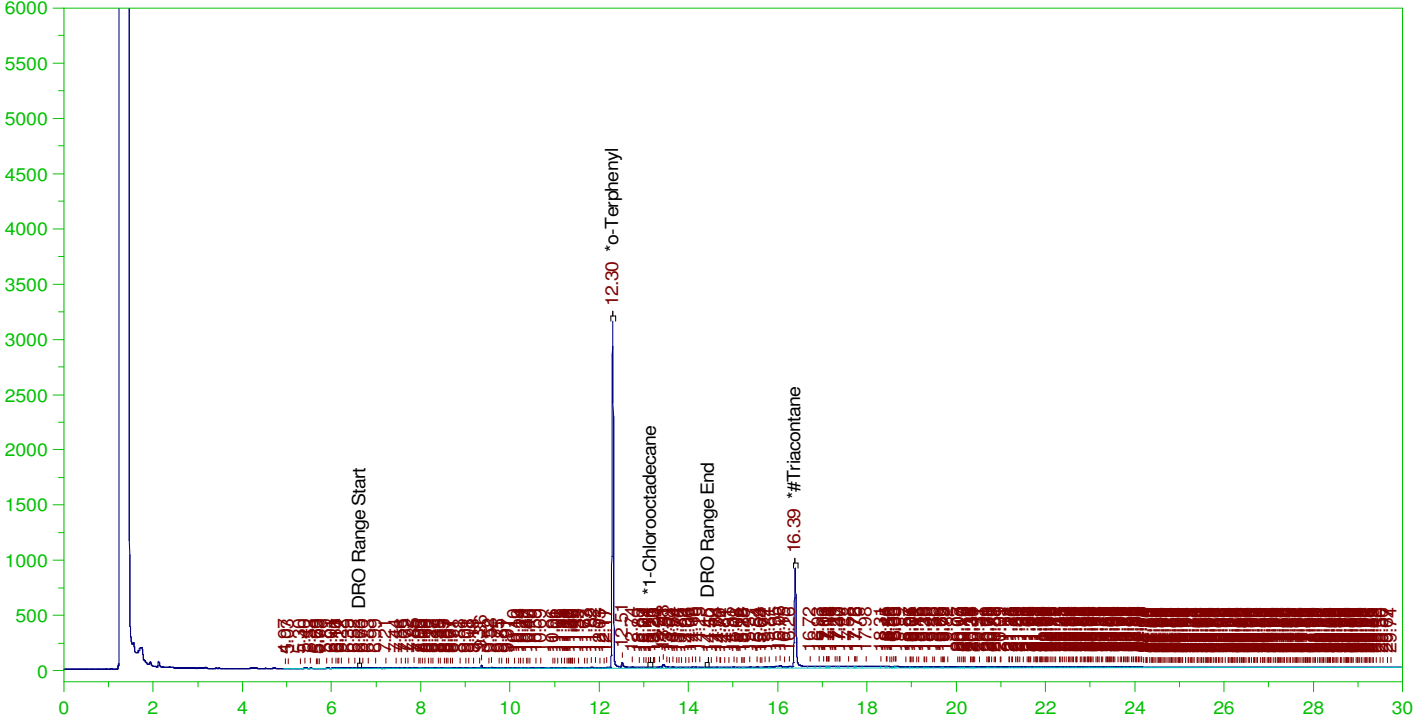
C6 to C10 Area:5365.296 C6 to C10 Amount: 1.134351
TPH Area:9858.429 TPH Amount: 2.168138

ERH2470 (RHMW19)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0073.RAW

B22011446-001D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-001D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0073.RAW
Date & Time Acquired: 1/26/2022 11:48:03 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.301	.198	.169	85.27	-
*1-Chlorooctadecane	13.155	.198	.001	.32	-
*#Triacontane	16.387	.198	.096	48.57	-

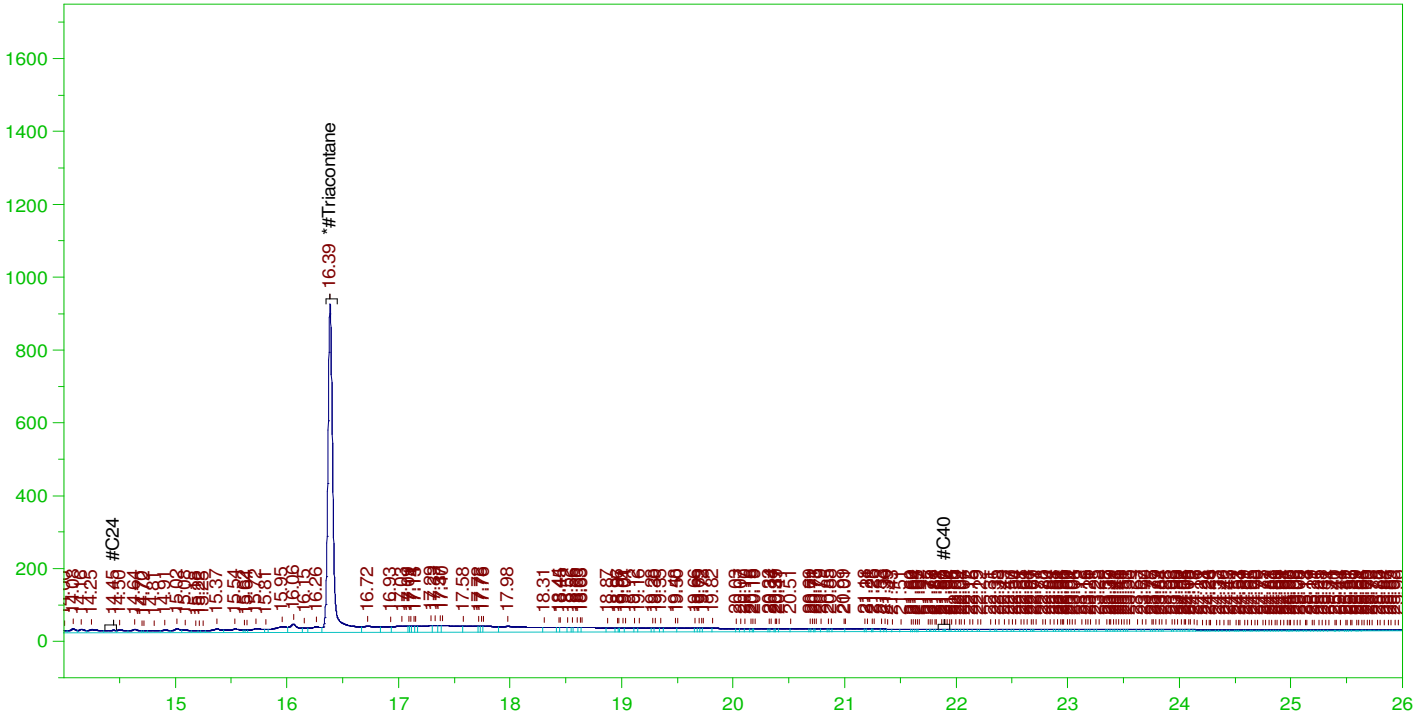
DRO Area:1572873 DRO Amount: 4.765976E-02
TEH Area:7467341 TEH Amount: 0.2262686

ERH2470 (RHMW19)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0073.RAW

B22011446-001D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-001D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0073.RAW
Date & Time Acquired: 1/26/2022 11:48:03 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.387	.495	.096	19.43

RRO Area:4490057

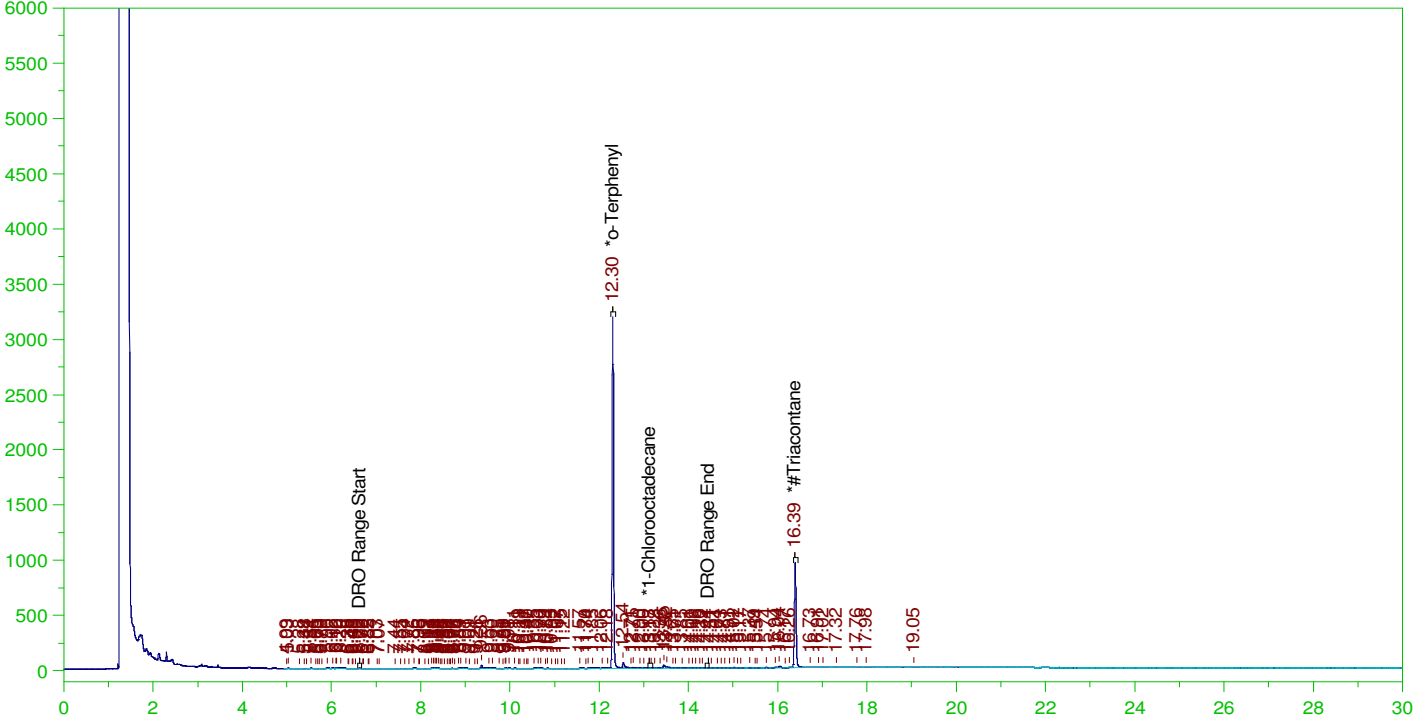
RRO AMOUNT: 0.1682375

ERH2456 (RHMW13 zone 5)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0059.RAW

B22011446-006D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-006D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0059.RAW
Date & Time Acquired: 1/26/2022 1:48:36 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.303	.202	.182	90.34	-
*1-Chlorooctadecane	13.126	.202	.	.05	-
*#Triacontane	16.388	.202	.093	46.04	-

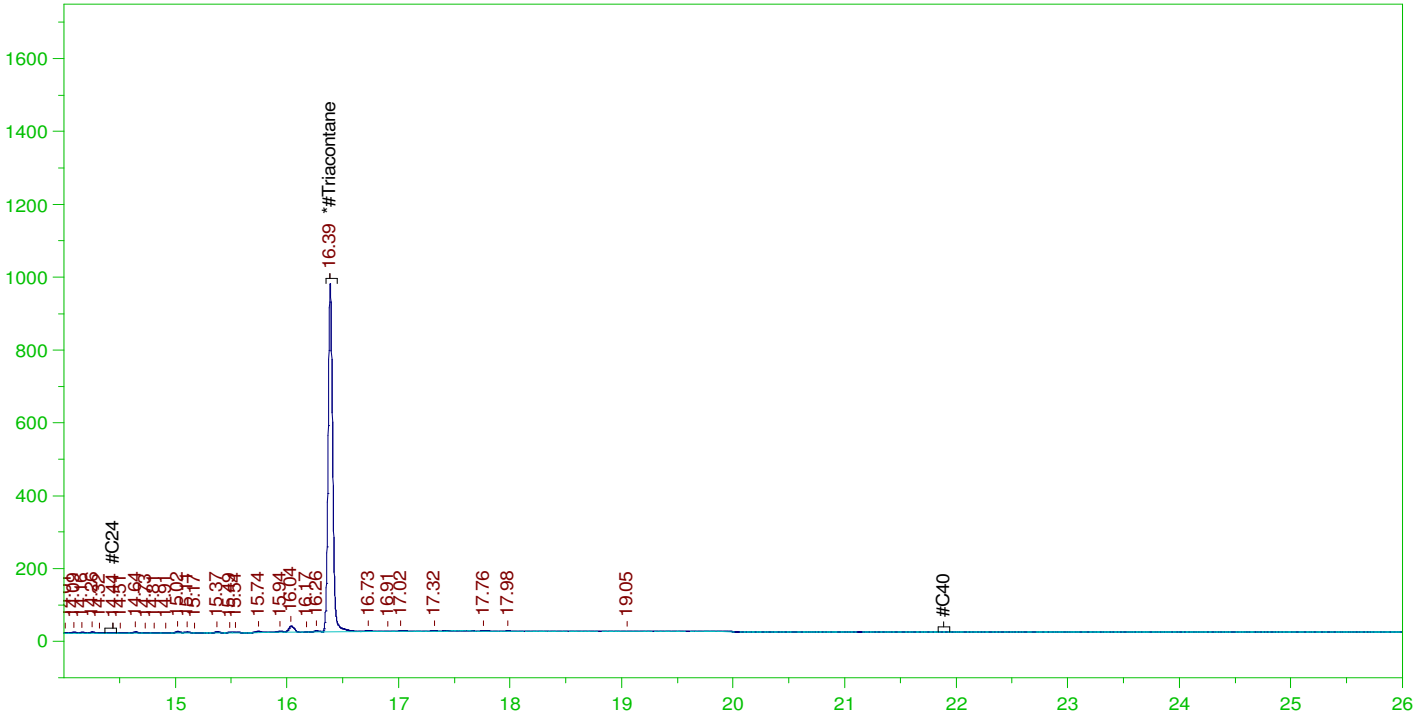
DRO Area:952732.2 DRO Amount: 2.945203E-02
TEH Area:1228798 TEH Amount: 0.0379861

ERH2456 (RHMW13 zone 5)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0059.RAW

B22011446-006D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-006D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0059.RAW
Date & Time Acquired: 1/26/2022 1:48:36 AM
Method File: G:\Org\HP5\Methods\DR_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.388	.505	.093	18.42

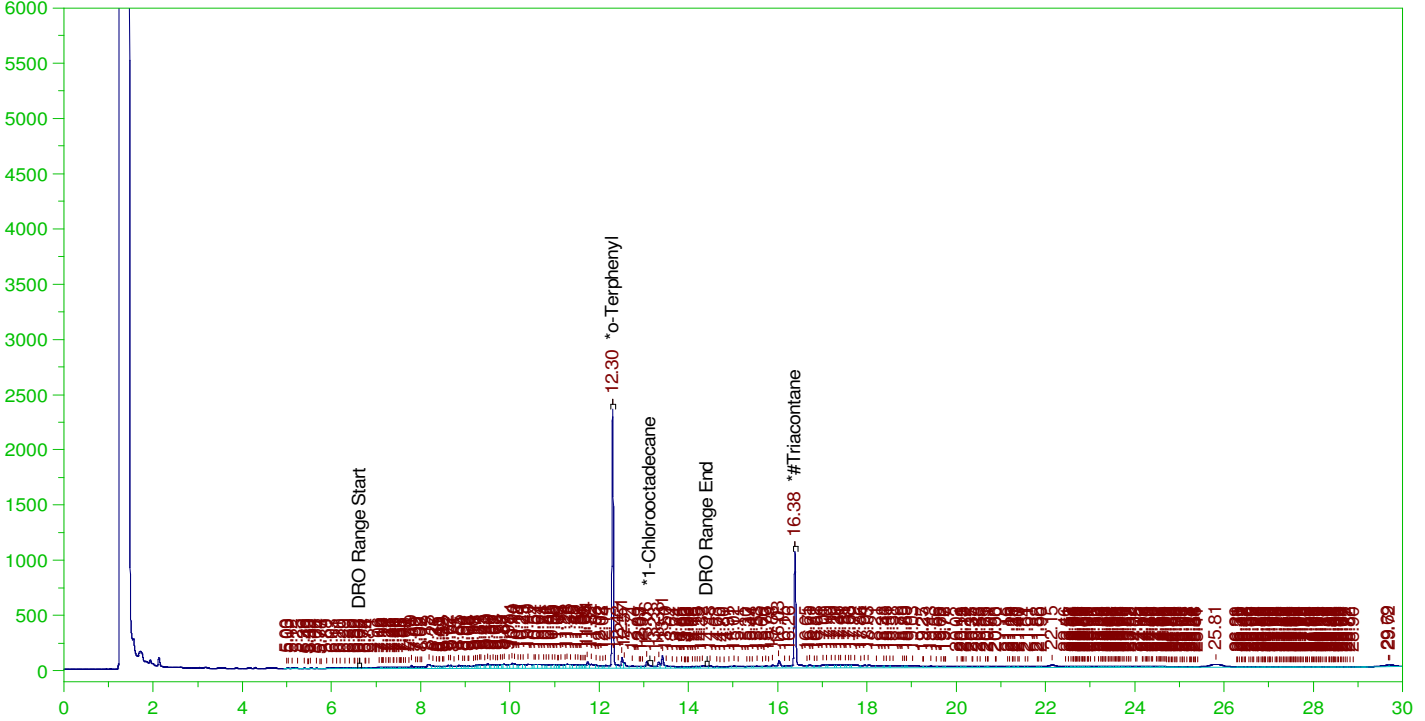
RRO Area:217830.5 RRO AMOUNT: 8.326758E-03

ERH2435 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0065.RAW

B22011446-011D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-011D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0065.RAW
Date & Time Acquired: 1/26/2022 6:05:20 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.299	.198	.127	63.88	-
*1-Chlorooctadecane	29.715	.198	.	.	-
*#Triacontane	16.382	.198	.105	52.79	-

DRO Area:1.028414E+07 DRO Amount: 0.3116207

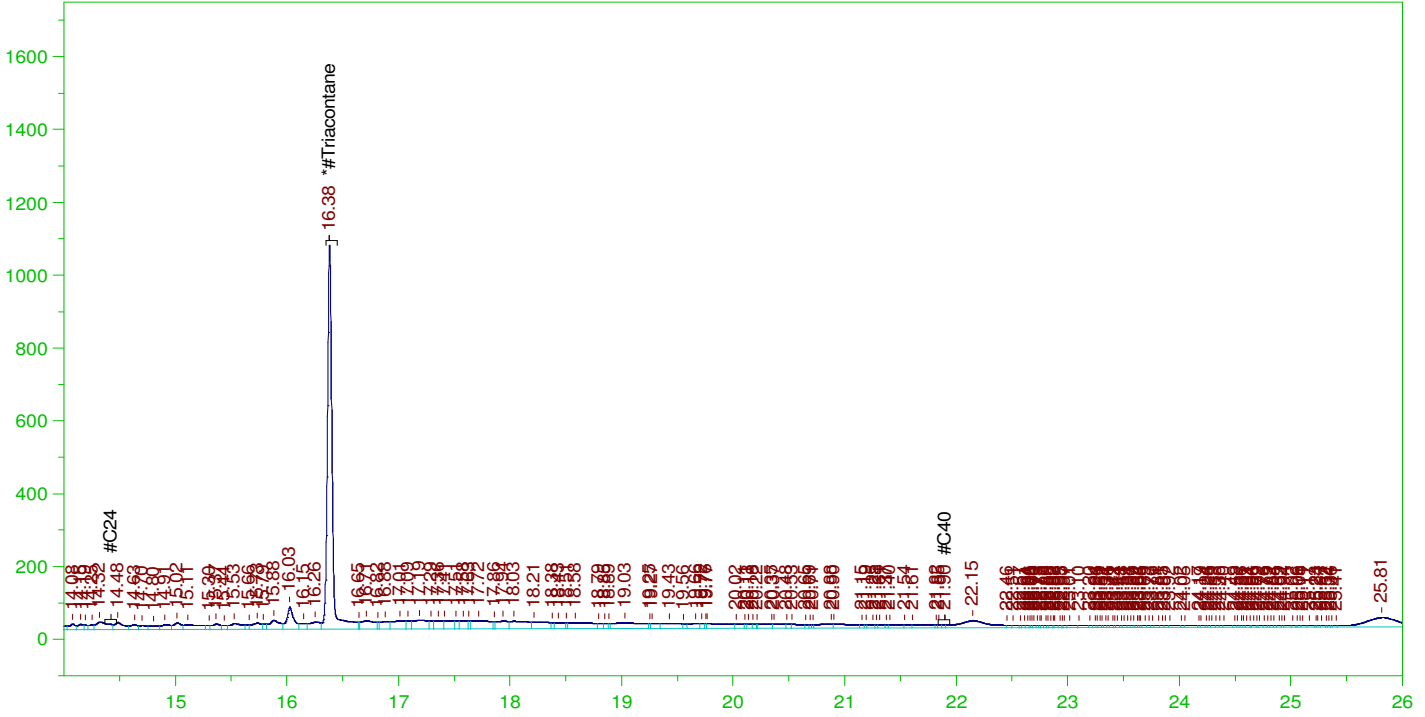
TEH Area:1.915033E+07 TEH Amount: 0.580276

ERH2435 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0065.RAW

B22011446-011D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-011D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0065.RAW
Date & Time Acquired: 1/26/2022 6:05:20 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.382	.495	.105	21.12

RRO Area:6324467

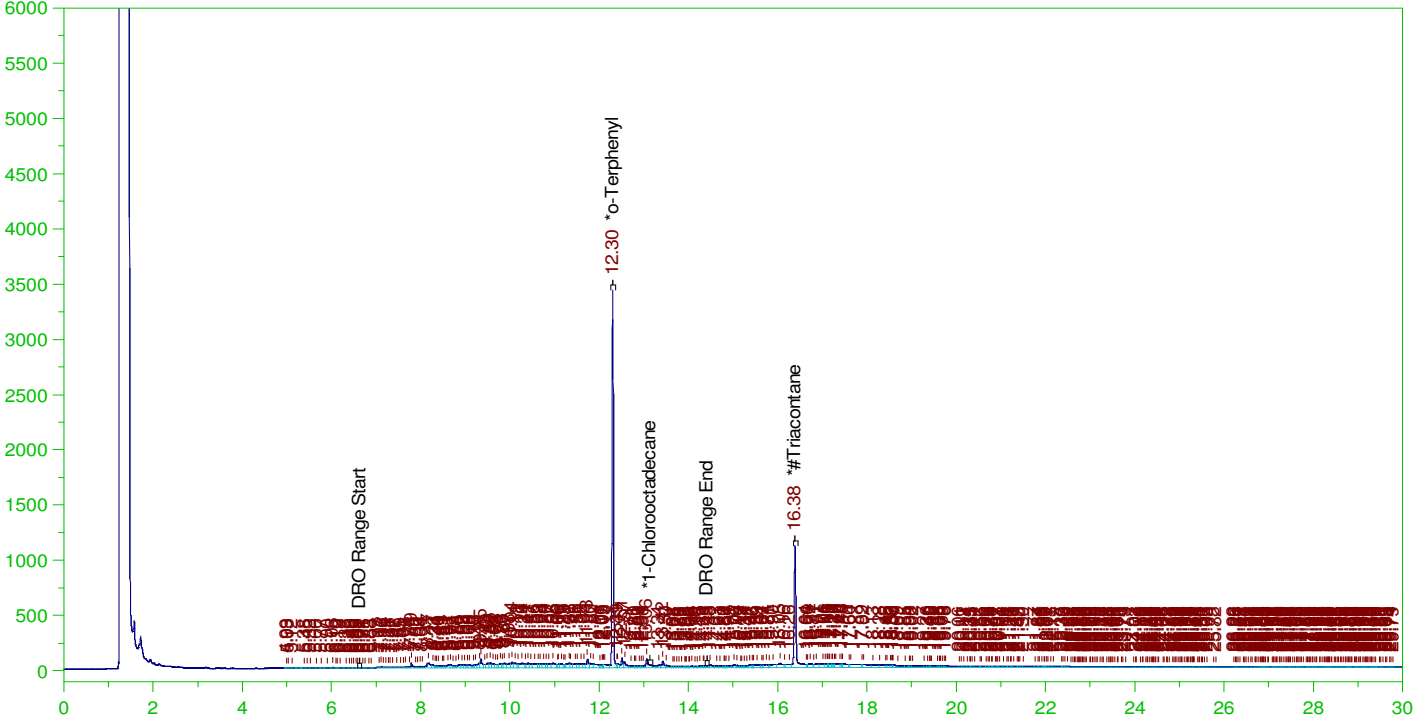
RRO AMOUNT: 0.2369708

ERH2437 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012422_b\0124HP5.0064.RAW

B22011446-012B ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-012B ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5012422_b\0124HP5.0064.RAW
Date & Time Acquired: 1/26/2022 5:22:34 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.301	.194	.18	92.7	-
*1-Chlorooctadecane	29.791	.194	.	.	-
*#Triacontane	16.383	.194	.114	58.82	-

DRO Area:1.255819E+07 DRO Amount: 0.3731379

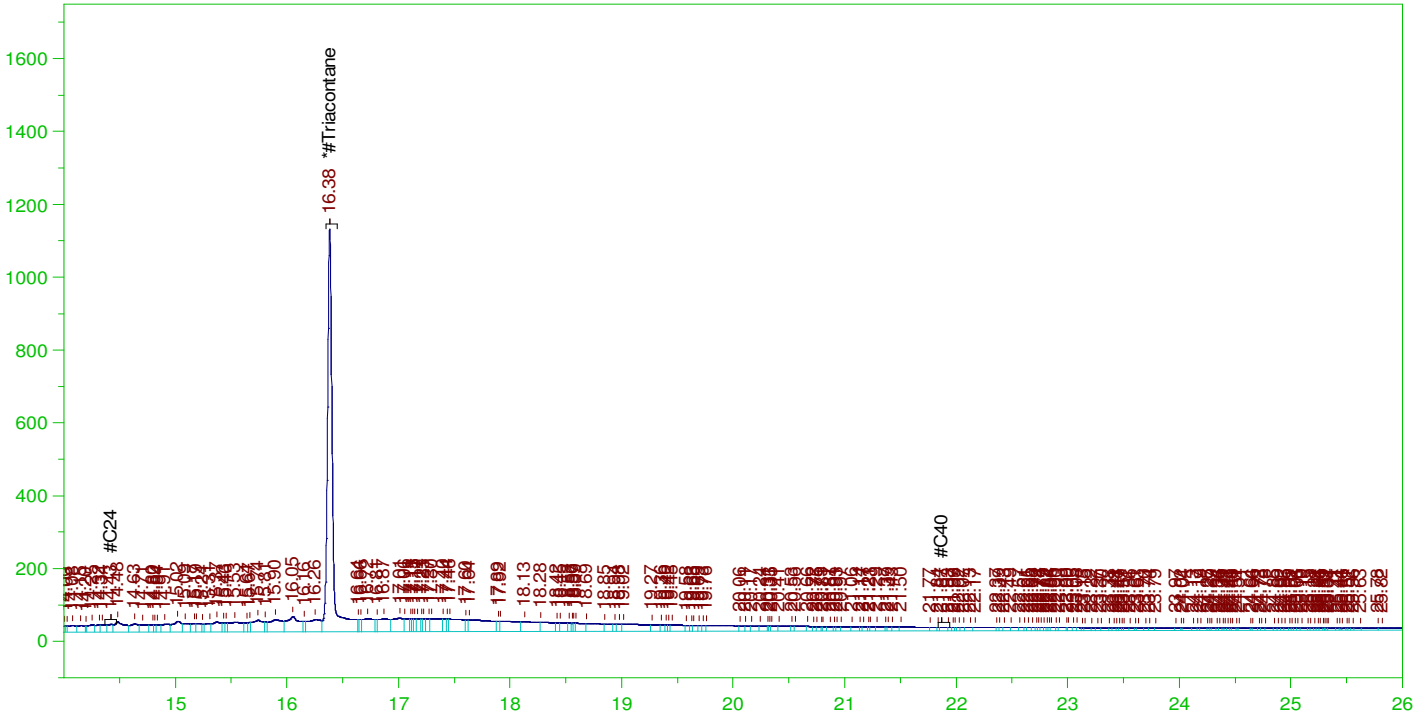
TEH Area:2.358476E+07 TEH Amount: 0.7007675

ERH2437 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0064.RAW

B22011446-012B ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-012B ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0064.RAW
Date & Time Acquired: 1/26/2022 5:22:34 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_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: 14.37 to 21.94

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.383	.485	.114	23.53

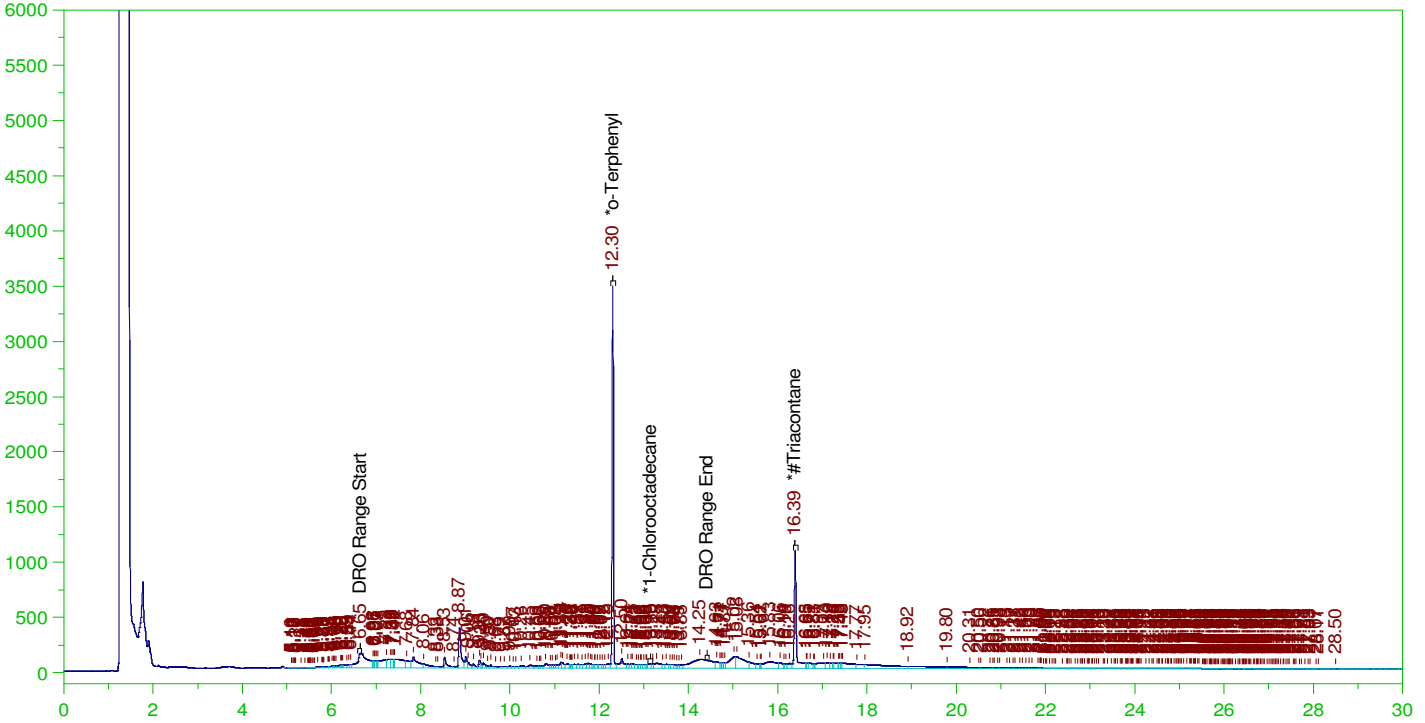
RRO Area:9122947 RRO AMOUNT: 0.3351894

ERH2439 (RHMW2254-01 LF)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012422_b\0124HP5.0060.RAW

B22011446-017D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-017D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5012422_b\0124HP5.0060.RAW
Date & Time Acquired: 1/26/2022 2:31:22 AM
Method File: G:\Org\HP5\Methods\D3_8015-012460-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.302	.194	.18	92.82	-
*1-Chlorooctadecane	13.149	.194	.005	2.77	-
*#Triacontane	16.388	.194	.117	60.23	-

DRO Area:1.988011E+07 DRO Amount: 0.5906921

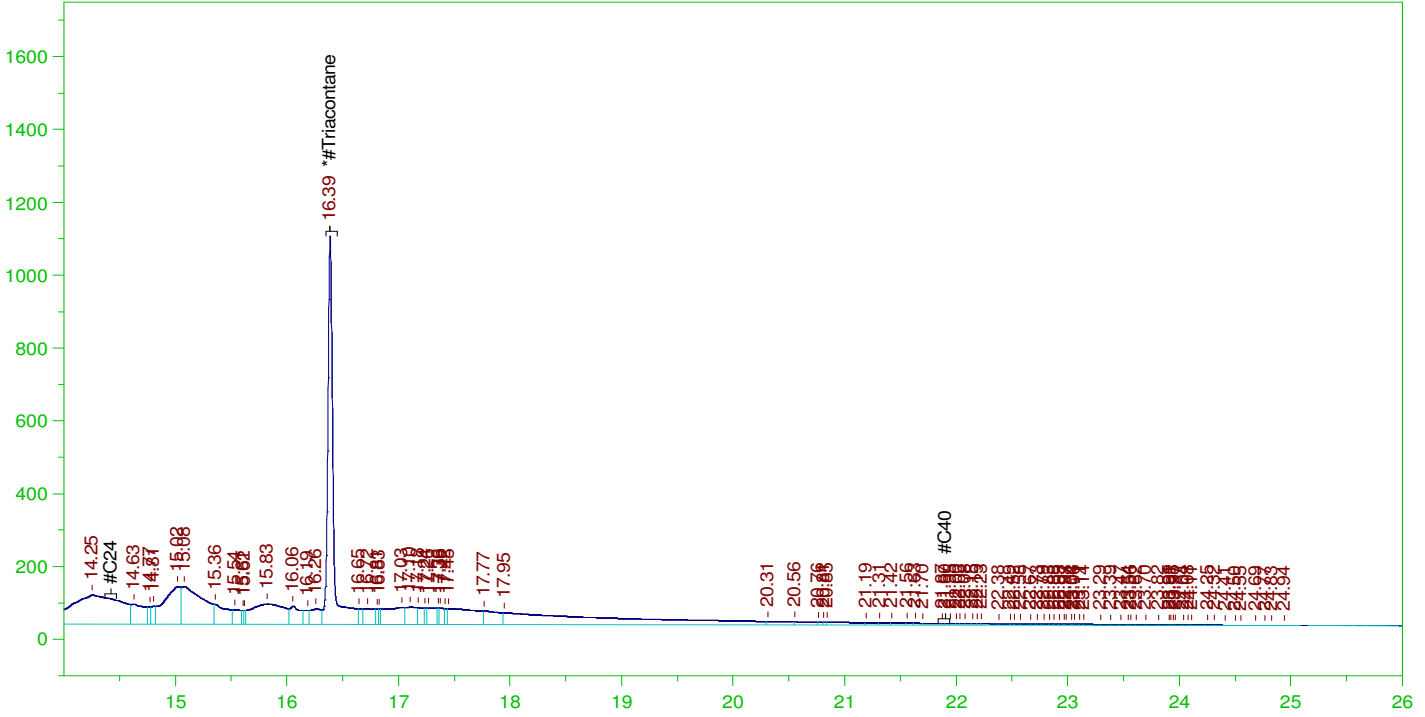
TEH Area:3.399236E+07 TEH Amount: 1.010005

ERH2439 (RHMW2254-01 LF)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012422_b\0124HP5.0060.RAW

B22011446-017D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-017D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5012422_b\0124HP5.0060.RAW
Date & Time Acquired: 1/26/2022 2:31:22 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_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: 14.37 to 21.94

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.388	.485	.117	24.19

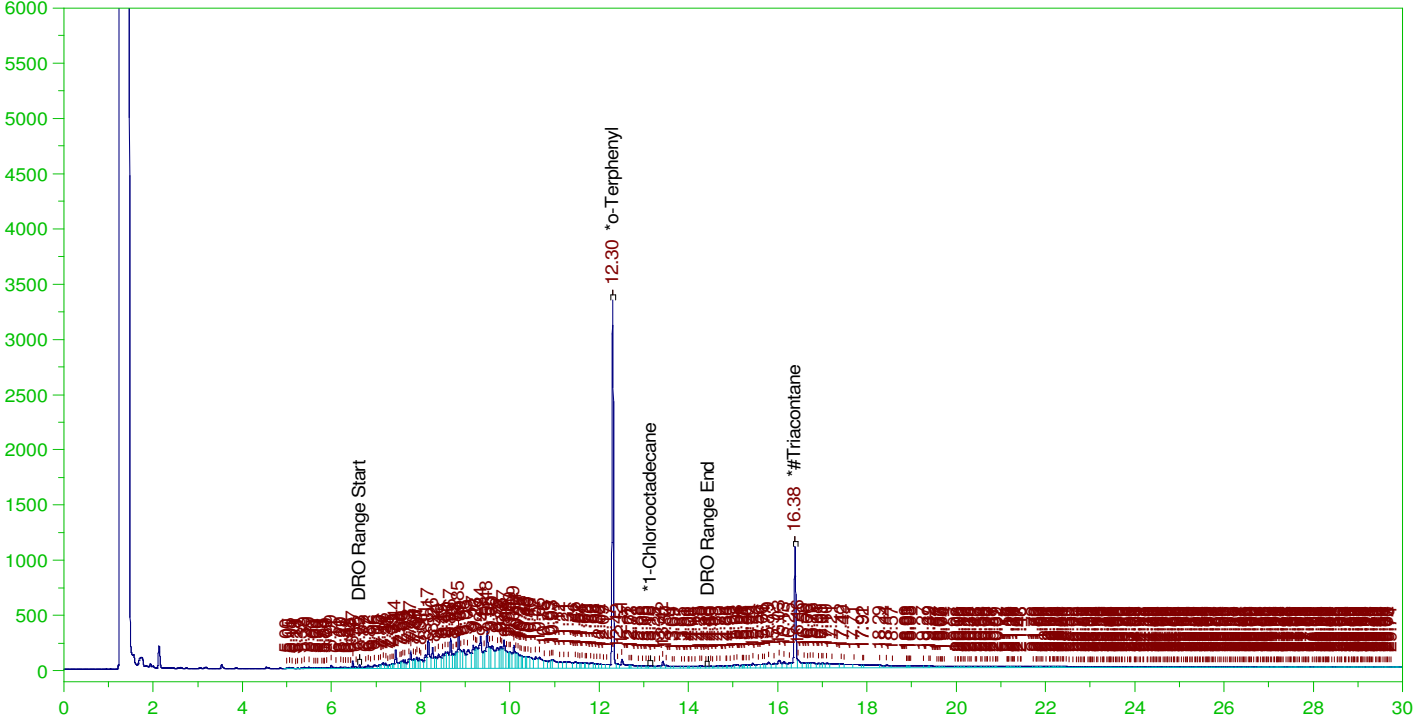
RRO Area:1.205952E+07 RRO AMOUNT: 0.4430831

ERH2442 (Sump Adit3)

G:\org\HP5\DAT\HP5012422_b\0124HP5.0063.RAW

Batch ID: 163190

B22011446-022D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-022D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0063.RAW
Date & Time Acquired: 1/26/2022 4:39:52 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.301	.196	.179	91.48	-
*1-Chlorooctadecane	13.156	.196	.004	1.96	-
*#Triacontane	16.385	.196	.102	52.22	-

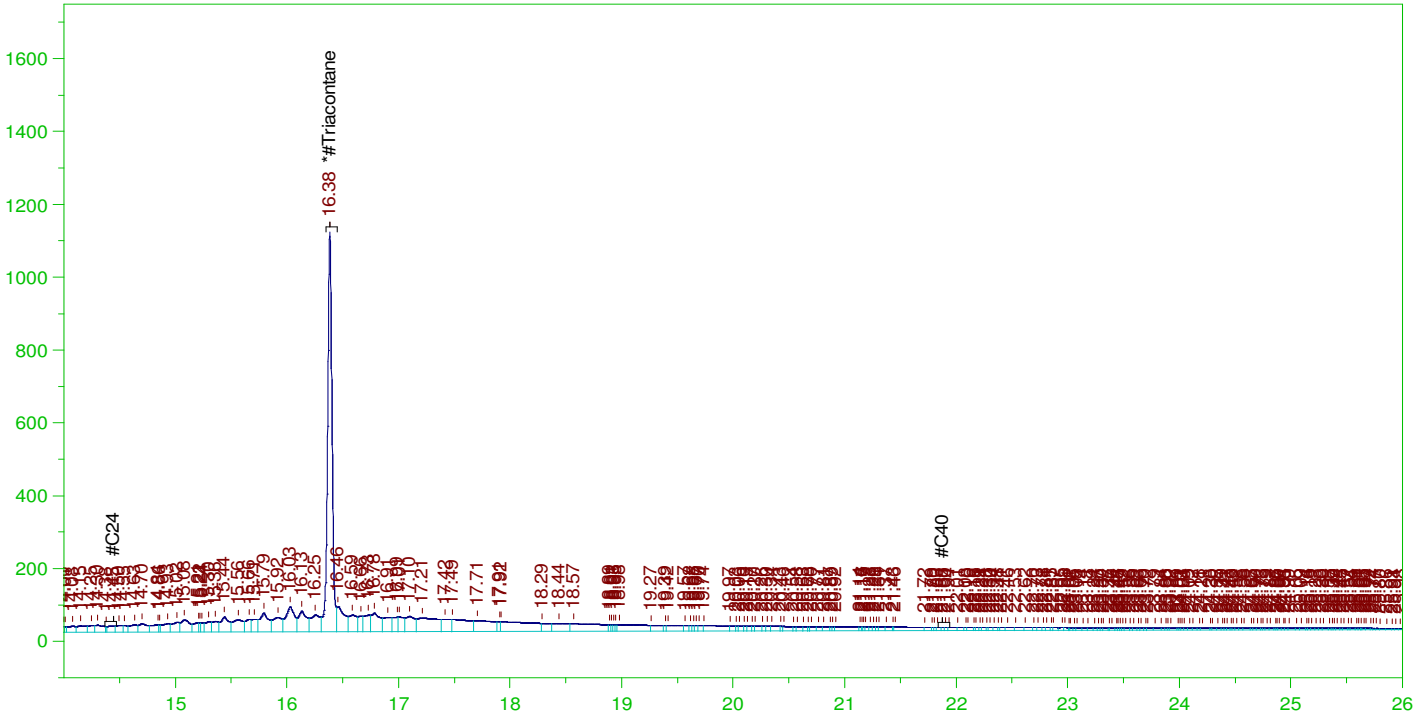
DRO Area: 3.468403E+07 DRO Amount: 1.04066
TEH Area: 4.742224E+07 TEH Amount: 1.422858

ERH2442 (Sump Adit3)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0063.RAW

B22011446-022D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-022D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0063.RAW
Date & Time Acquired: 1/26/2022 4:39:52 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.385	.49	.102	20.88

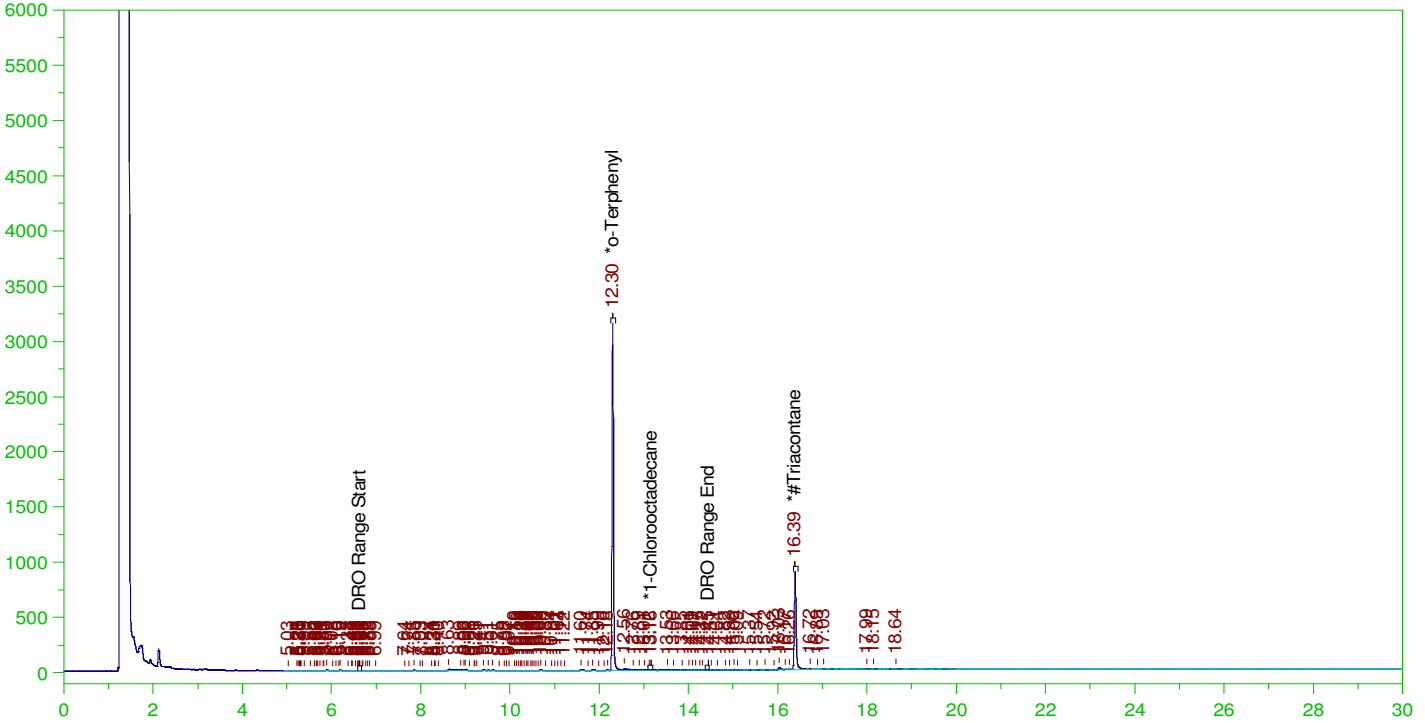
RRO Area:1.03215E+07 RRO AMOUNT: 0.3829437

ERH2452 (OWDFMW07A)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0074.RAW

B22011446-027D ;0124HP5 , \$HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-027D ;0124HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0074.RAW
 Date & Time Acquired: 1/26/2022 12:30:49 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JC-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.301	.192	.173	89.99	-
*1-Chlorooctadecane	13.16	.192	.	.09	-
*#Triacontane	16.387	.192	.087	45.4	-

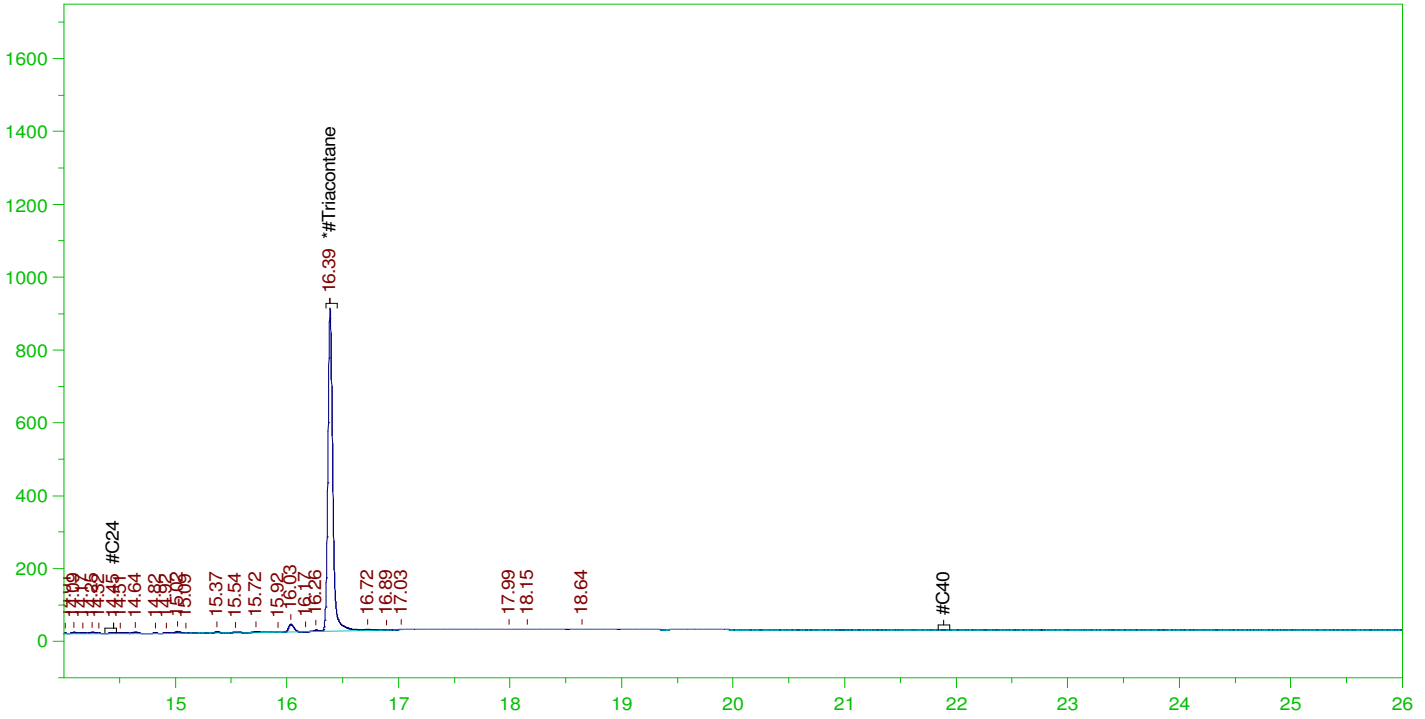
DRO Area:685602.8 DRO Amount: 2.017525E-02
 TEH Area:953293.1 TEH Amount: 2.805257E-02

ERH2452 (OWDFMW07A)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0074.RAW

B22011446-027D ;0124HP5 , \$HC-8015-DRO-W, RR



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-027D ;0124HP5 , \$HC-8015-DRO-W, RR
 Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0074.RAW
 Date & Time Acquired: 1/26/2022 12:30:49 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BC-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.387	.481	.087	18.16

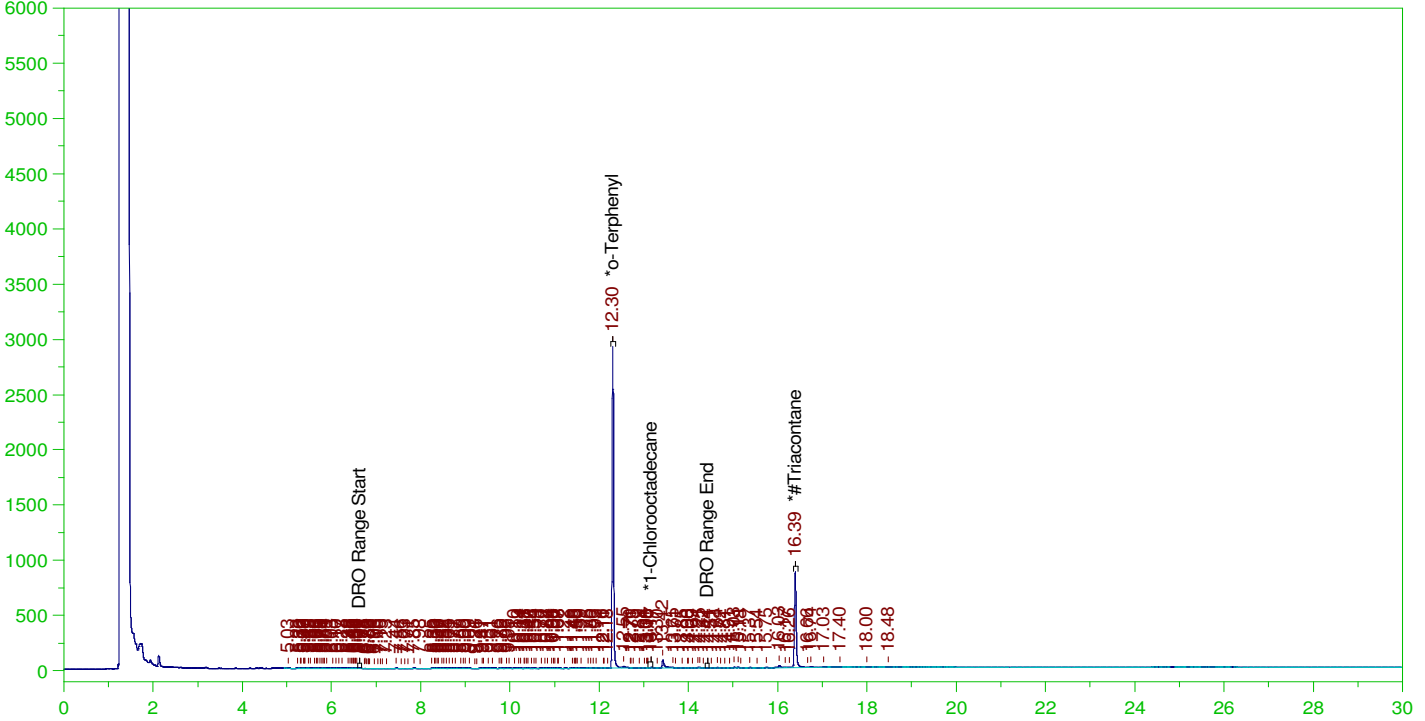
RRO Area:185335 RRO AMOUNT: 6.743983E-03

ERH2462 (RHMW11-05)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0067.RAW

B22011446-032D ;0124HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-032D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0067.RAW
Date & Time Acquired: 1/26/2022 7:30:56 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JC-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JC-C24-T.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.58 to 14.47

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.303	.202	.173	85.4	-
*1-Chlorooctadecane	13.167	.202	.001	.4	-
*#Triacontane	16.389	.202	.089	44.	-

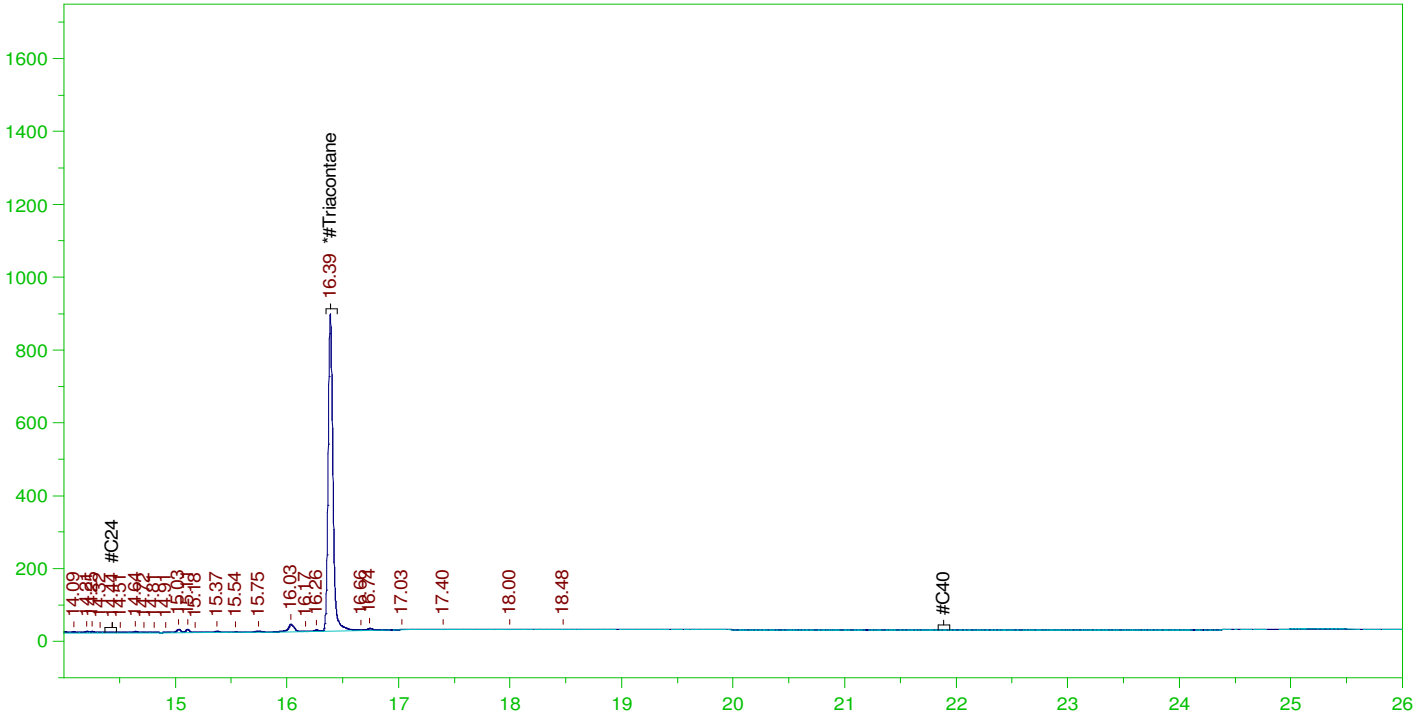
DRO Area:829487.9 DRO Amount: 2.564215E-02
TEH Area:1170675 TEH Amount: 3.618934E-02

ERH2462 (RHMW11-05)

Batch ID: 163190

G:\org\HP5\DAT\HP5012422_b\0124HP5.0067.RAW

B22011446-032D ;0124HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-032D ;0124HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012422_b\0124HP5.0067.RAW
Date & Time Acquired: 1/26/2022 7:30:56 AM
Method File: G:\Org\HP5\Methods\DR_OROS-BC-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BC_SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.389	.505	.089	17.6

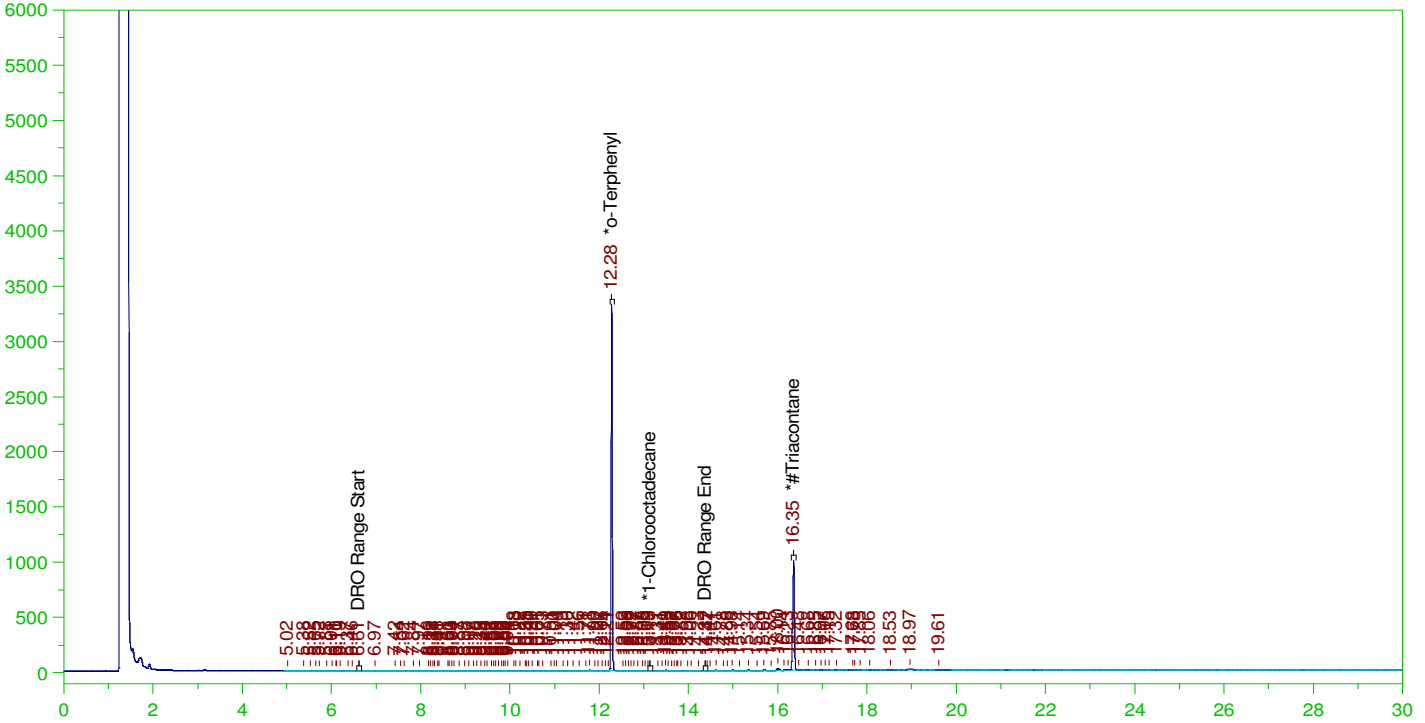
RRO Area:258295.7 RRO AMOUNT: 9.873572E-03

ERH2470 (RHMW19)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012722_b\0127HP5.0012.RAW

B22011446-001D ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-001D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\Org\HP5\DAT\HP5012722_b\0127HP5.0012.RAW
 Date & Time Acquired: 1/27/2022 4:21:39 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.278	.198	.171	86.26	-
*1-Chlorooctadecane	13.134	.198	.	.04	-
*#Triacontane	16.35	.198	.086	43.35	-

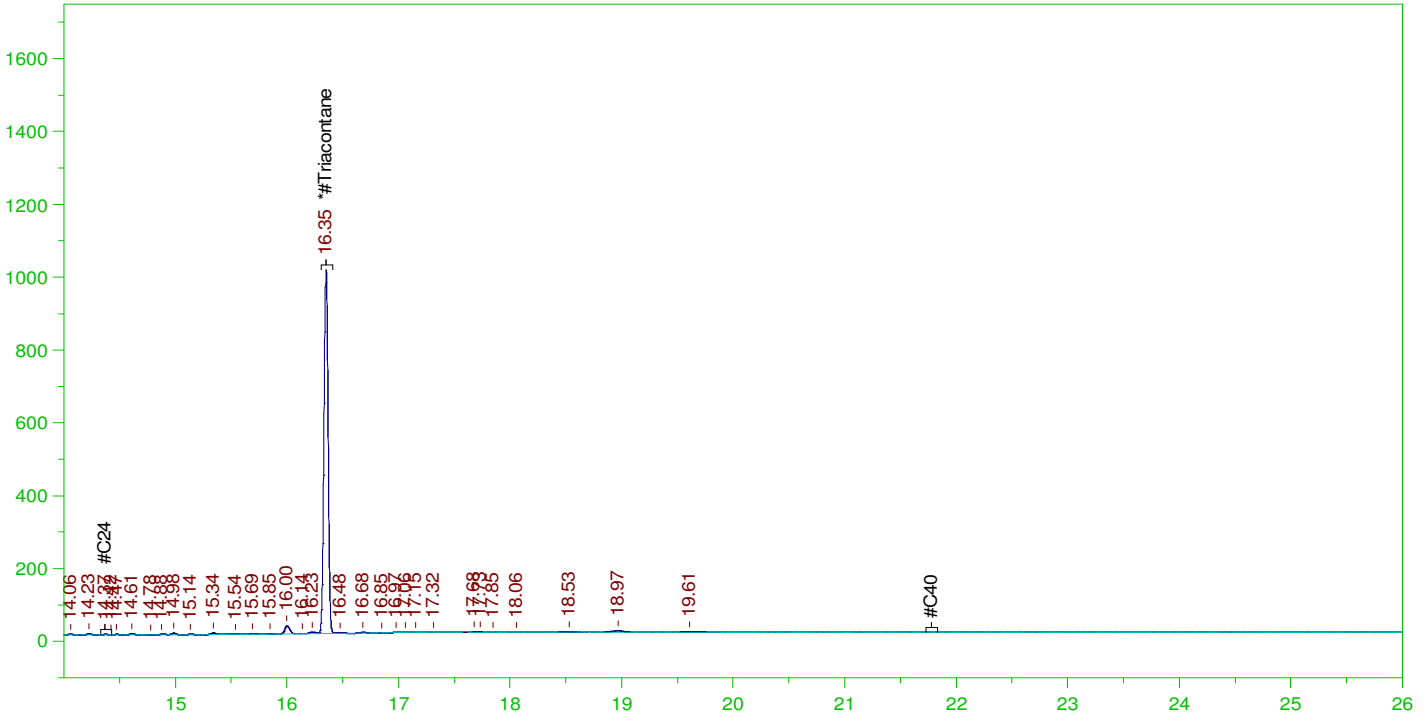
DRO Area:235639.9 DRO Amount: 7.140147E-03
 TEH Area:514117.2 TEH Amount: 1.557831E-02

ERH2470 (RHMW19)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0012.RAW

B22011446-001D ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-001D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0012.RAW
 Date & Time Acquired: 1/27/2022 4:21:39 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_SAMP.CAL
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.35	.495	.086	17.34

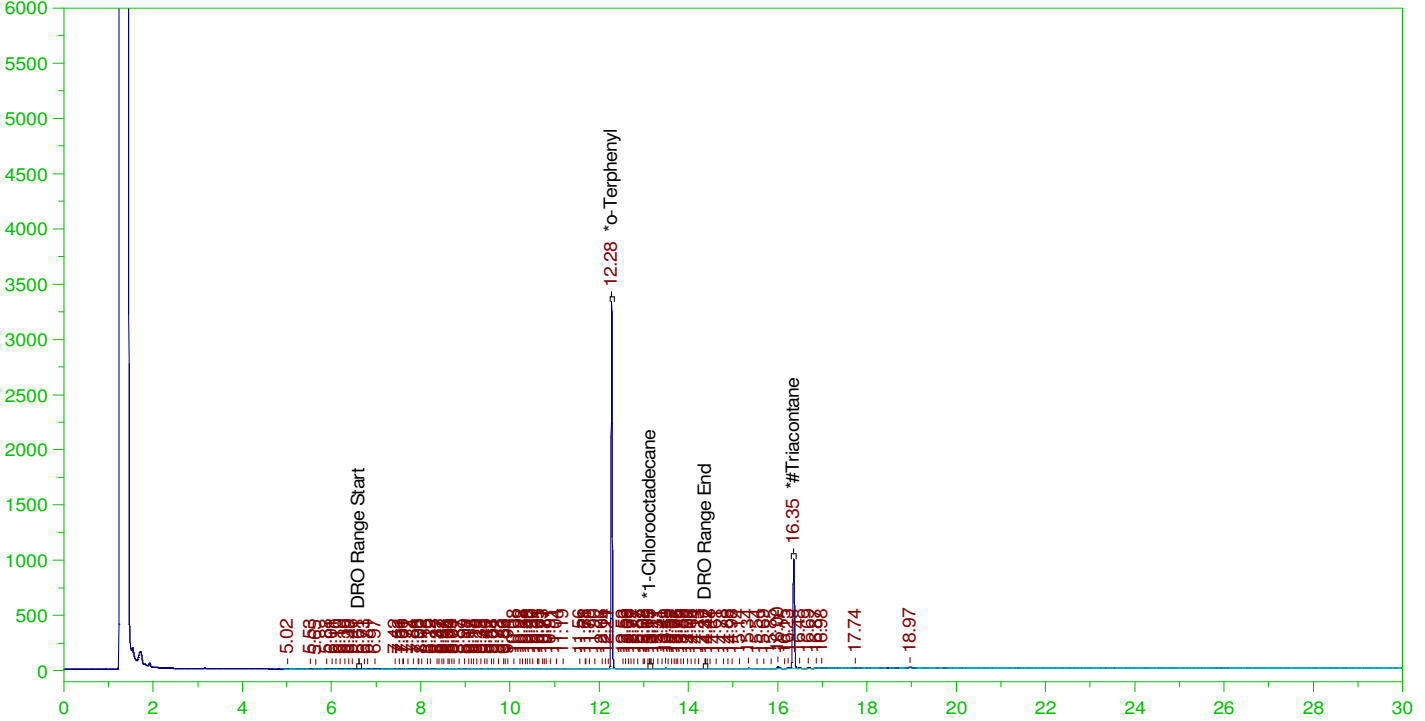
RRO Area:221269.8 RRO AMOUNT: 8.290736E-03

ERH2456 (RHMW13 zone 5)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0011.RAW

B22011446-006D ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-006D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0011.RAW
 Date & Time Acquired: 1/27/2022 3:39:18 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.278	.202	.176	86.9	-
*1-Chlorooctadecane	13.132	.202	.	.03	-
*#Triacontane	16.354	.202	.088	43.51	-

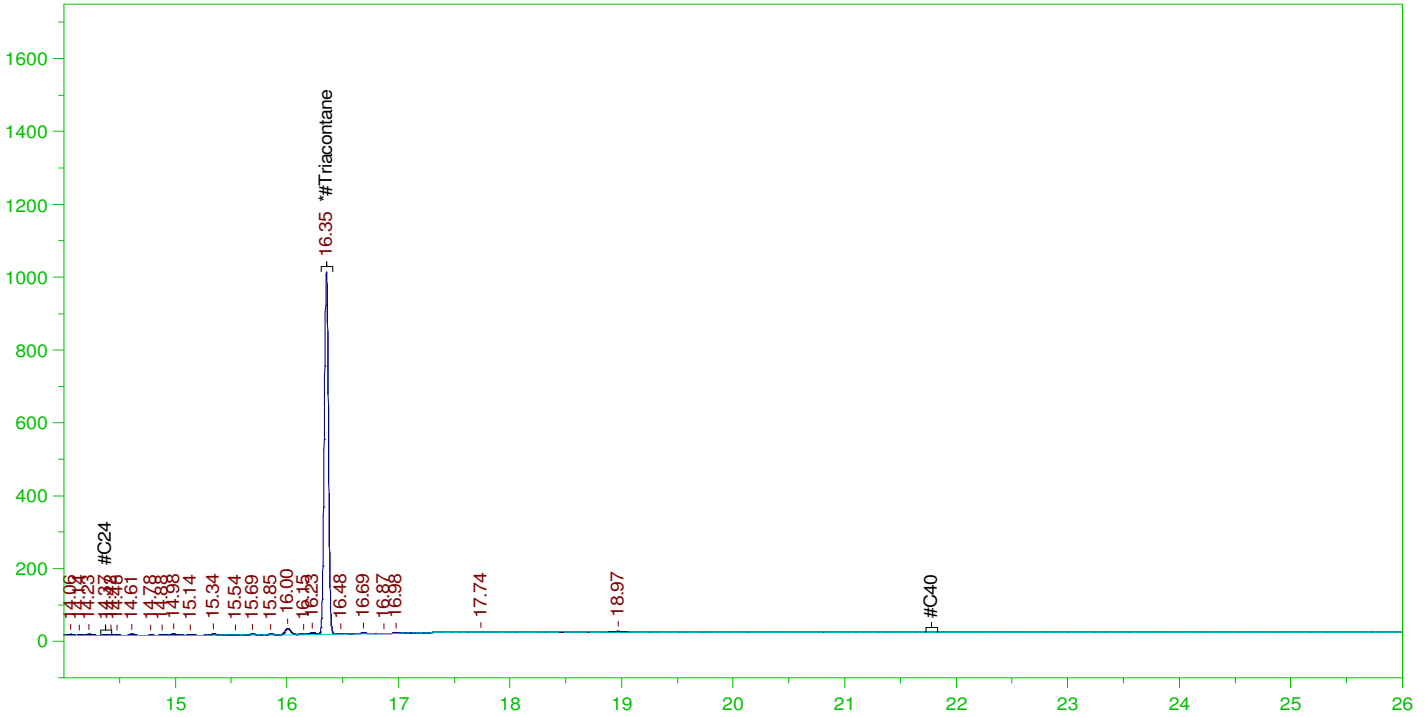
DRO Area:294259.6 DRO Amount: 9.096516E-03
 TEH Area:521507.3 TEH Amount: 1.612148E-02

ERH2456 (RHMW13 zone 5)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0011.RAW

B22011446-006D ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-006D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0011.RAW
 Date & Time Acquired: 1/27/2022 3:39:18 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_SAMP.CAL
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.354	.505	.088	17.4

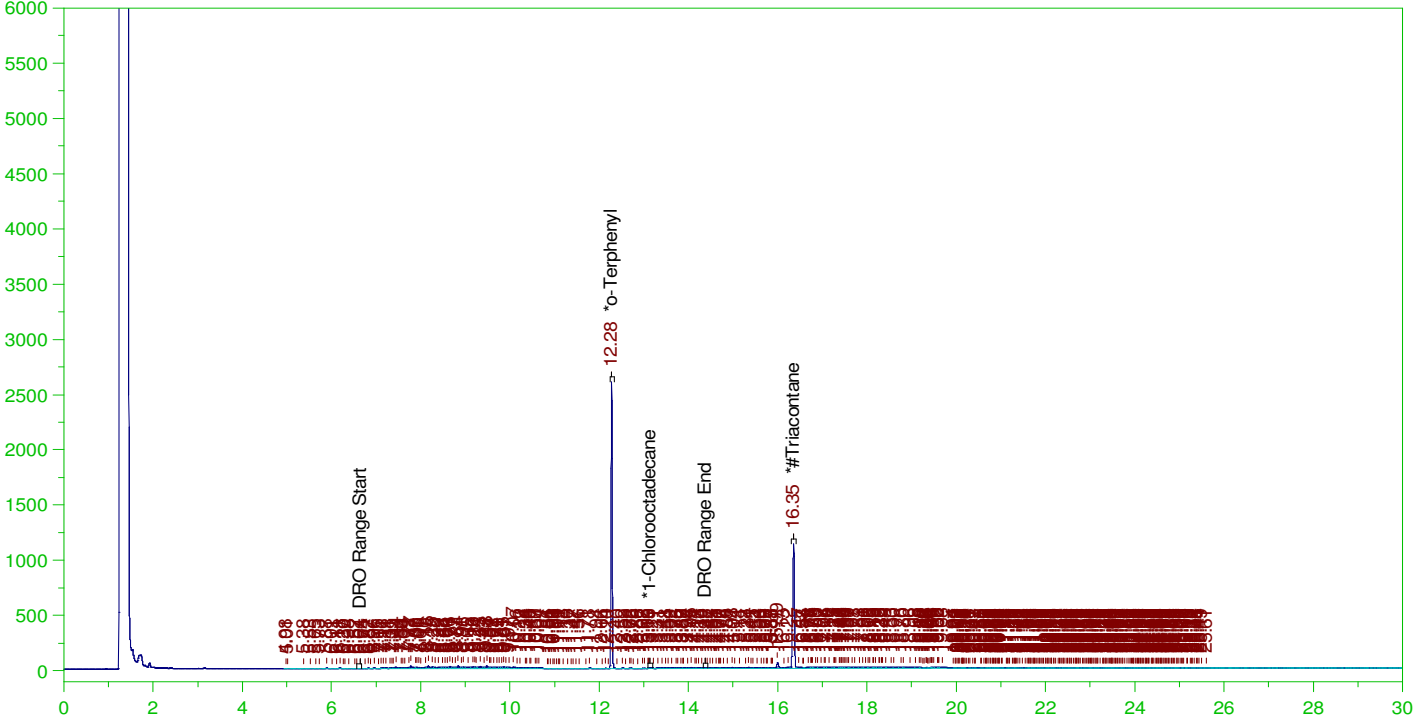
RRO Area:178412.1 RRO AMOUNT: 6.819955E-03

ERH2435 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0017.RAW

B22011446-011D ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-011D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0017.RAW
 Date & Time Acquired: 1/27/2022 7:55:16 PM
 Method File: G:\Org\HP5\Methods\DR_8015-012717-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111Jd-C24-T.CAL
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.276	.198	.133	67.09	-
*1-Chlorooctadecane	13.133	.198	.	.14	-
*#Triacontane	16.35	.198	.1	50.25	-

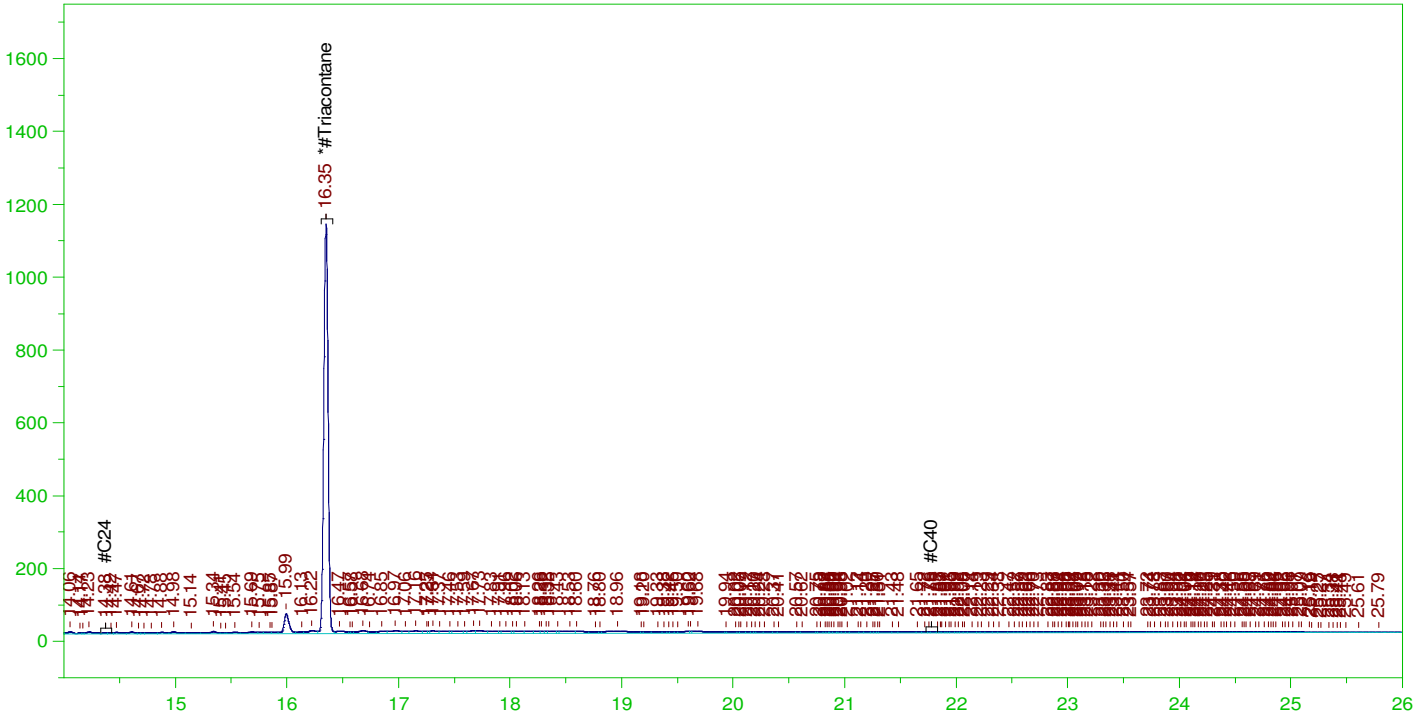
DRO Area:2440933 DRO Amount: 7.396293E-02
 TEH Area:4915867 TEH Amount: 0.1489561

ERH2435 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0017.RAW

B22011446-011D ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-011D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0017.RAW
 Date & Time Acquired: 1/27/2022 7:55:16 PM
 Method File: G:\Org\HP5\Methods\D3_OROS-012717-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_SAMP.CAL
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*Triacontane_____	16.35	.495	.1	20.1 -

RRO Area:2121808 RRO AMOUNT: 0.0795018

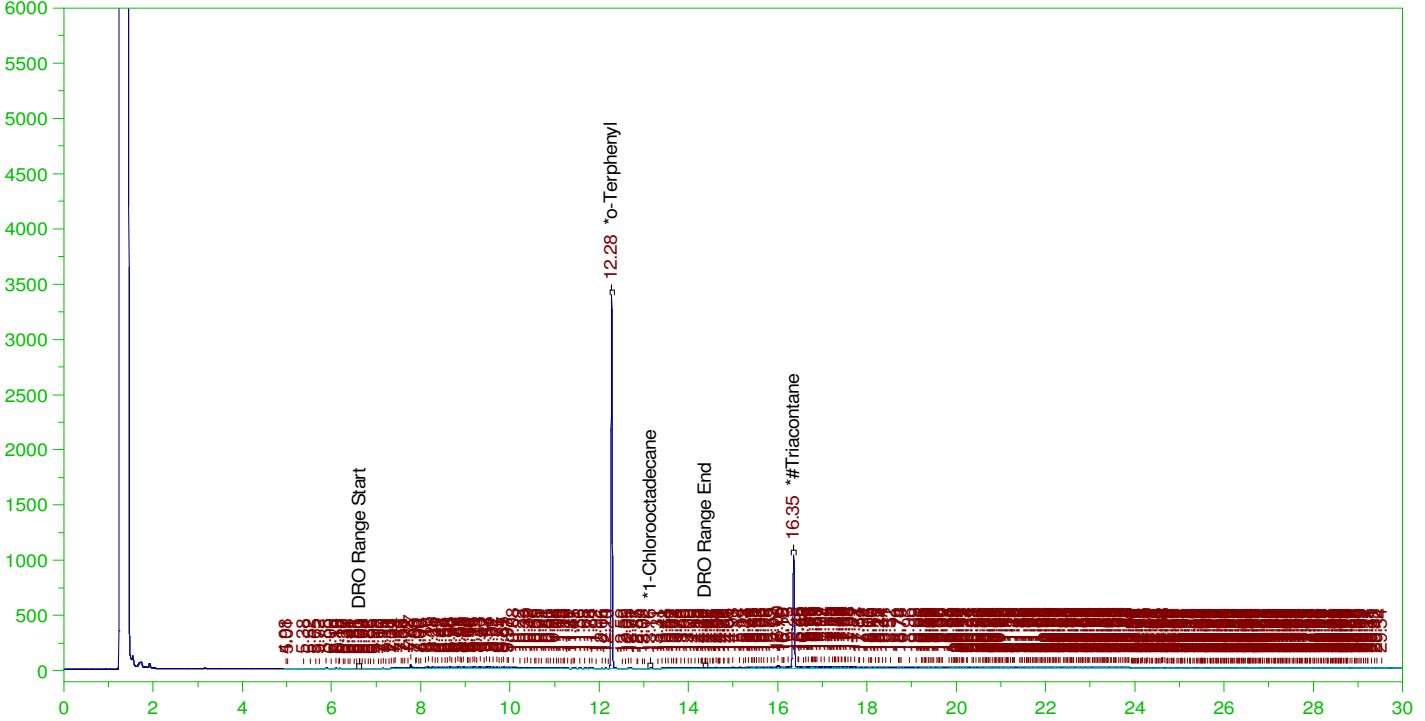


ERH2437 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012722_b\0127HP5.0016.RAW

B22011446-012B ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-012B ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\Org\HP5\DAT\HP5012722_b\0127HP5.0016.RAW
 Date & Time Acquired: 1/27/2022 7:12:32 PM
 Method File: G:\Org\HP5\Methods\D3_8015-012716-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.277	.194	.169	87.03	-
*1-Chlorooctadecane	13.156	.194	.	.09	-
*#Triacontane	16.351	.194	.088	45.52	-

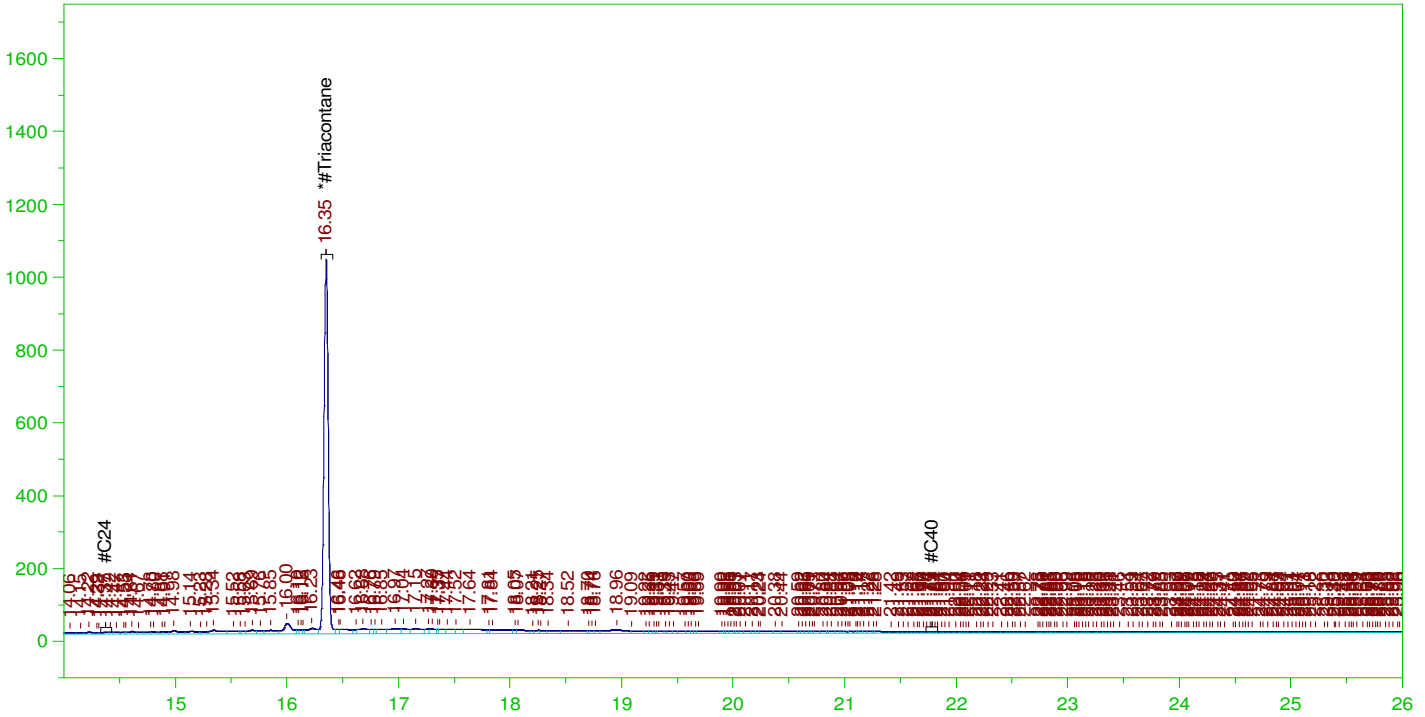
DRO Area:2504376 DRO Amount: 7.441181E-02
 TEH Area:6789349 TEH Amount: 0.20173

ERH2437 (RHMW2254-01 Bailer)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0016.RAW

B22011446-012B ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-012B ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0016.RAW
 Date & Time Acquired: 1/27/2022 7:12:32 PM
 Method File: G:\Org\HP5\Methods\D3_OROS-012716-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_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: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.351	.485	.088	18.21

RRO Area:3329877

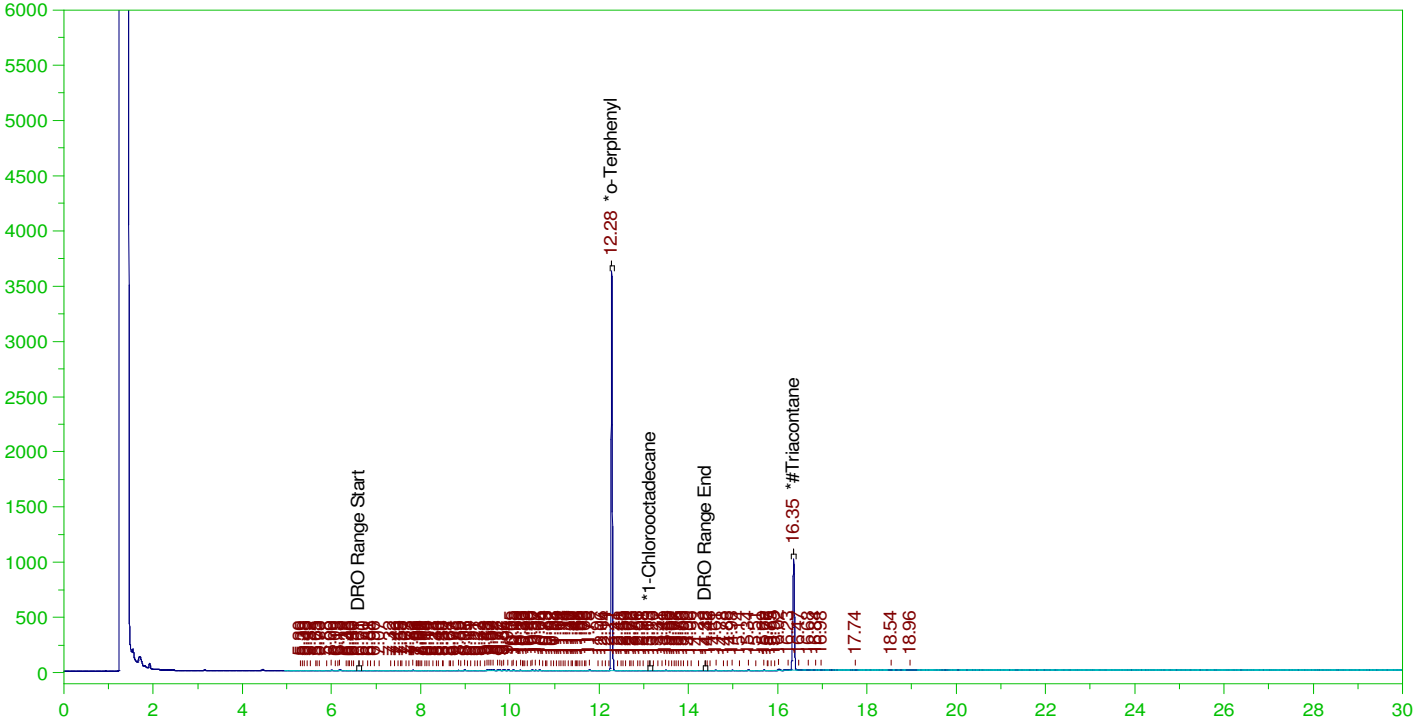
RRO AMOUNT: 0.1223442

ERH2439 (RHMW2254-01 LF)

Batch ID: 163190

G:\Org\HP5\DAT\HP5012722_b\0127HP5.0013.RAW

B22011446-017D ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-017D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\Org\HP5\DAT\HP5012722_b\0127HP5.0013.RAW
 Date & Time Acquired: 1/27/2022 5:04:14 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.194	.182	93.55	-
*1-Chlorooctadecane	13.132	.194	.	.04	-
*#Triacontane	16.351	.194	.086	44.53	-

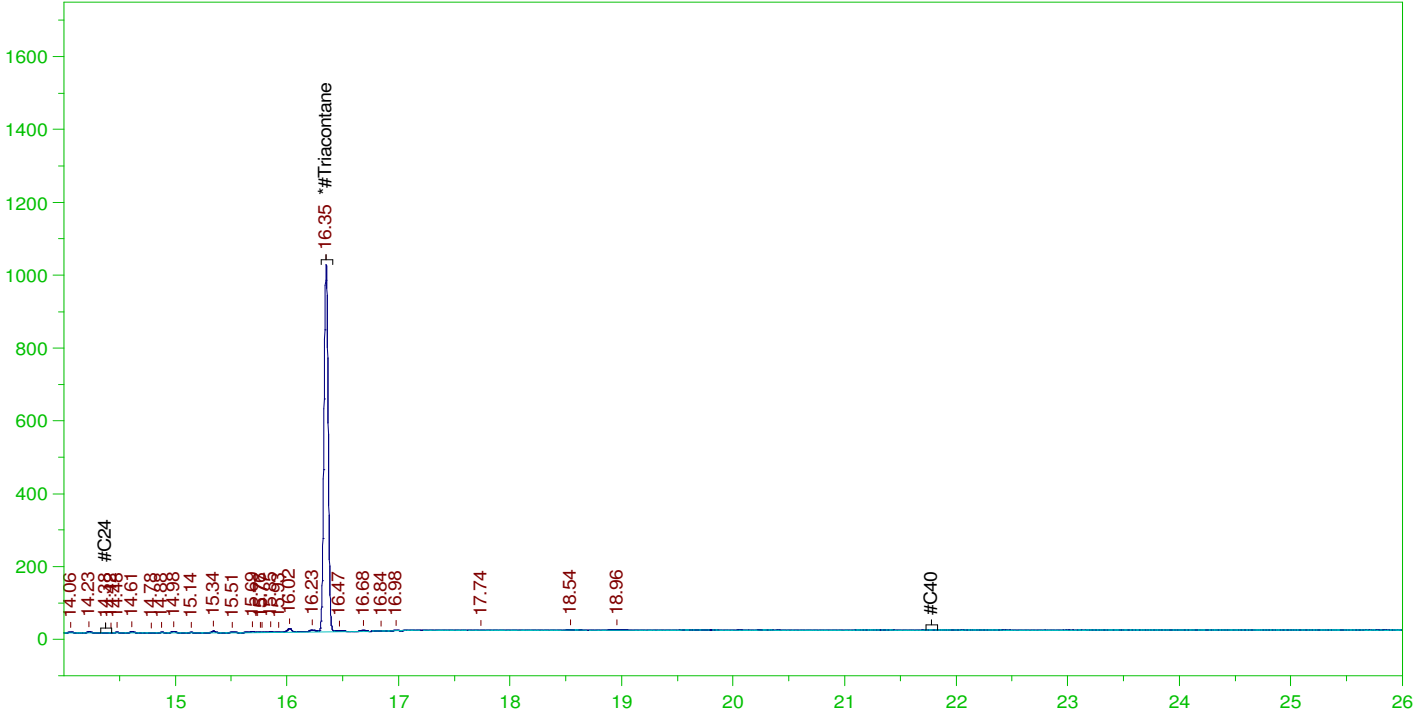
DRO Area:834081.8 DRO Amount: 2.478284E-02
 TEH Area:1102743 TEH Amount: 3.276548E-02

ERH2439 (RHMW2254-01 LF)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0013.RAW

B22011446-017D ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-017D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0013.RAW
 Date & Time Acquired: 1/27/2022 5:04:14 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_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: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.351	.485	.086	17.81

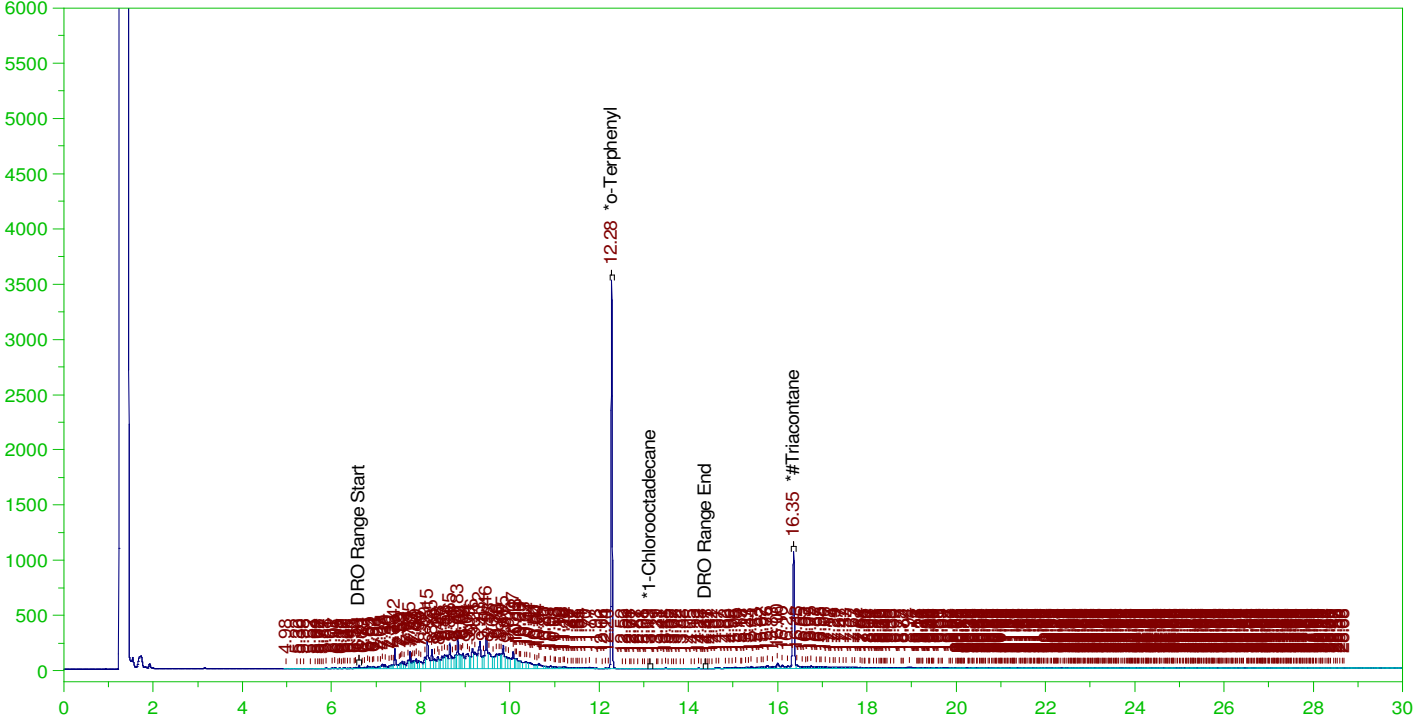
RRO Area:145101.8 RRO AMOUNT: 5.331235E-03

ERH2442 (Sump Adit3)

G:\org\HP5\DAT\HP5012722_b\0127HP5.0015.RAW

Batch ID: 163190

B22011446-022D ;0127HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22011446-022D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0015.RAW
 Date & Time Acquired: 1/27/2022 6:29:45 PM
 Method File: G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24-T.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.277	.196	.179	91.33	-
*1-Chlorooctadecane	13.131	.196	.	.05	-
*#Triacontane	16.35	.196	.093	47.66	-

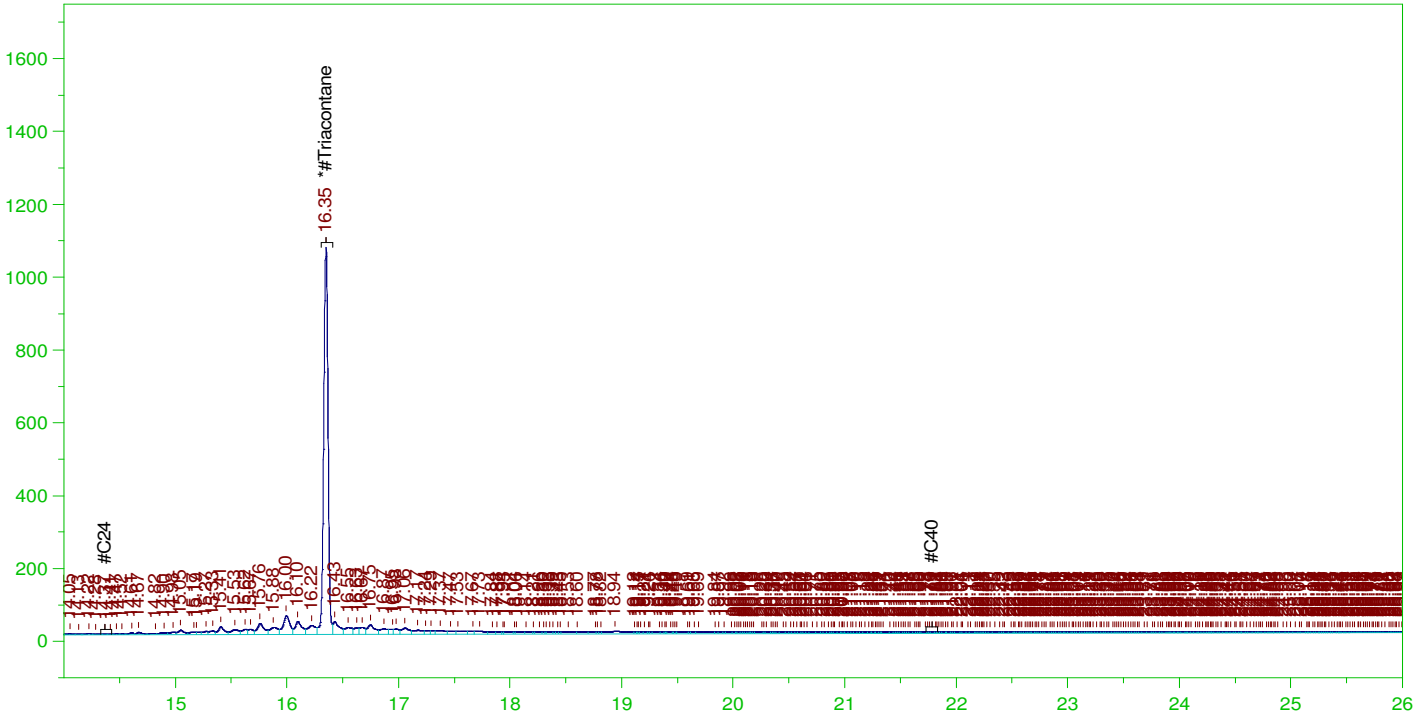
DRO Area: 2.192973E+07 DRO Amount: 0.6579801
 TEH Area: 2.63767E+07 TEH Amount: 0.791407

ERH2442 (Sump Adit3)

Batch ID: 163190

G:\org\HP5\DAT\HP5012722_b\0127HP5.0015.RAW

B22011446-022D ;0127HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22011446-022D ;0127HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5012722_b\0127HP5.0015.RAW
 Date & Time Acquired: 1/27/2022 6:29:45 PM
 Method File: G:\Org\HP5\Methods\D3_OROS-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD_SAMP.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.35	.49	.093	19.06	-

RRO Area:3423568

RRO AMOUNT: 0.1270197

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

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***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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