

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Honolulu Board of Water Supply
630 South Beretania Street
Public Service Bldg.” Room 308
Honolulu, HI 96843
Attention: Erwin Kawata
Fax: 808-550-5018



Utah ELCP CA00006

DEB: Debbie L Frank
Project Manager

Report: 981951
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

* Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.

* Laboratory certifies that the test results meet all **TNI 2016 and ISO/IEC 17025:2017** requirements unless noted under the individual analysis.

* As applicable, this report consists of the cover page, State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms.

* Test results relate only to the sample(s) tested.

* Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

* This report shall not be reproduced except in full, without the written approval of the laboratory.

* This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	NE-OS-21-13
Arkansas	CA00006	Nevada	CA00006
California	2813	New Hampshire *	2959
Colorado	CA00006	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	CA00006
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	21-008R	Ohio - 537.1	87786
Hawaii	CA00006	Oregon *	4034
Idaho	CA00006	Pennsylvania *	68-00565
Illinois	200033	Puerto Rico	CA00006
Indiana	C-CA-01	Rhode Island	LAO00326
Iowa – Asbestos	413	South Carolina	87016
Kansas *	E-10268	South Dakota	CA11320
Kentucky	90107	Tennessee	TN02839
Louisiana *	LA008	Texas *	T104704230-20-18
Maine	CA00006	Utah (Primary AB) *	CA00006
Maryland	224	Vermont	VT0114
Marianas Islands	MP0004	Virginia *	460260
Massachusetts	M-CA006	Washington	C838
Michigan	9906	EPA Region 5	CA00006
Mississippi	CA00006	Los Angeles County Sanitation Districts	10264

* NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025:2917 Accredited Method List

The test listed below are accredited and met the requirements of ISO/IEC 17025 as verify by A2LA.

Refer to our certificates and scope of accreditations (no. 5890-1 and 5890-2) found at:

<https://www.eurofinsus.com/Eaton>

Test(s)	Method(s)	Potable Water *	Waste Water	Test(s)	Method(s)	Potable Water *	Waste Water
Enterococci	Enterolert	x	x	Gross Alpha coprecipitation	SM 7110 C	x	x
Escherichia coli (Enumeration)	SM 9221 B.1 SM 9221 F	x		Hardness	SM 2340 B	x	x
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x	Hexavalent Chromium	EPA 218.6,	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x	Hexavalent Chromium	EPA 218.7,	x	
Heterotrophic Bacteria	SM 9215 B	x		Hexavalent Chromium	SM 3500-Cr B		x
Legionella	Legiolert®	x		Inorganic Anions and DBPs	EPA 300.0	x	x
Pseudomonas aeruginosa	Idexx Pseudalart	x		Norganic Anions and DBPs	EPA 300.1	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x	Kjeldahl Nitrogen	EPA 351.2		x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x	Metals	EPA 200.7, EPA200.8	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x		Nitrosamines	EEA-Agilent 521.1 (GCMS-24250)	x	
Total Microcystins and Nodularins	EPA 546	X		Nitrate/Nitrite Nitrogen	EPA 353.2	x	x
Yeast and Mold	SM 9610	x		Odor	SM2150B	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x		Organohalide Pesticides and PCB	EPA 505	x	
1,4-Dioxane	EPA 522	x		Ortho Phosphate	SM 4500P E	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x		Oxyhalides Disinfection Byproducts	EPA 317.0	x	
Acrylamide	+ LCMS 2440)	x		Perchlorate	EPA 331.0	x	
Algal Toxins/Microcystin	+ LCMS 3570	x		Perchlorate (Low and High Levels)	EPA 314.0	x	
Alkalinity	SM 2320B	x	x	Perfluorinated Alkyl Acids	EPA 533, EPA 537, EPA 537.1	x	
Ammonia	EPA 350.1, SM 4500-NH3 H		x	PPCP and EDC	+ LCMS-2443	x	
Asbestos	EPA 100.2	x	x	pH	EPA 150.1 SM 4500-H+ B	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x	Phenolics – Low Level	+WC 2493 (EPA 420.2 and EPA 420.4 MOD)	x	x
BOD/CBOD	SM 5210 B		x	Phenylurea Pesticides/Herbicides	+ LCMS-2448	x	
Bromate	+ LCMS- 2447	x		Radium-226, Radium-228	GA Tech (Rad-2374)	x	
Carbonate as CO3	SM 2330 B	x	x	Radon-222	SM 7500RN	x	
Carbonyls	EPA 556	x	x	Residue (Filterable)	SM 2540C	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x	Residue (Non-Filterable)	SM 2540D		x
Chlorinated Acids	EPA 515.4	x		Residue (Total)	SM 2540B		x
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x		Residue (Volatile)	EPA 160.4		x
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-Cl G	x		Semi-Volatile Compounds	EPA 525.2	x	
Color	SM2120B	x		Silica	SM 4500-SiO2 C	x	x
Conductivity	EPA 120.1, SM 2510B	x	x	Sulfide	SM 4500-S D		x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x		Sulfite	SM 4500-SO3 B	x	x
Cyanide (Amenable)	SM 4500-CN G	x	x	Surfactants	SM 5540C	x	x
Cyanide (Free)	SM 4500CN F	x	x	Taste and Odor	SM 6040 E	x	
Cyanide (Total)	EPA 335.4	x	x	Total Organic Carbon	SM 5310 C	x	x
Cyanogen Chloride (Screen)	+ 335 Mod (WC-24467)	x		Total Phenols	EPA 420.1		x
Diquat and Paraquat	EPA 549.2	x		Total Phenols	EPA 420.4	x	x
DBP and HAA	SM 6251 B	x		Triazine Pesticides and their Degradates	+ LCMS-3617	x	
Dissolved Organic Carbon	SM 5310 C	x		Turbidity	EPA 180.1	x	x
Dissolved Oxygen	SM 4500-O G		x	Uranium by ICP/MS	EPA 200.8	x	
EDB/DCBP/TCP	EPA 504.1	x		UV 254 Organic Constituents	SM 5910B	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x		VOCs	EPA 524.2	x	
EDTA and NTA	+ WC-2454	x		VOCs	+ (GCMS 2412) by EPA 524.2 modified	x	
Endothall	EPA 548.1, +(LCMS-2445)	x					
Fluoride	SM 4500F C	x	x				
Glyphosate	EPA 547	x					
Glyphosate and AMPA	+ LCMS-3618	x					
Gross Alpha and Gross Beta	EPA 900.0	x	x				

(*) includes: Bottled Water, Drinking Water and Water as Component of Food & Beverage.

(+) In-House Method

Acknowledgement of Samples Received

Addr: **Honolulu Board of Water Supply**
 630 South Beretania Street
 Public Service Bldg." Room 308
 Honolulu, HI 96843

Attn: Erwin Kawata
 Phone: 808-748-5091

Client ID: HONOLULU
 Folder #: 981951
 Project: RED-HILL
 Sample Group: Red-Hill Expanded List
 (Albuquerque+)
 Project Manager: Debbie L Frank
 Phone: (626) 386-1149
 PO #: C20525101 exp 05312023

The following samples were received from you on **January 20, 2022 at 1440**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
<u>202201200773</u>	AIEA WELLS PUMP 2 (331-004-WL103)	01/19/2022 0900
	(SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil TPH 8015 Jet Fuel 5 TPH 8015 Jef Fuel 8	
<u>202201200774</u>	TRAVEL BLANK::AIEA WELLS PUMP 2 (331-004-WL103)	01/19/2022 0900
	(SUB)Gas Fraction Hydrocarbons	
<u>202201200775</u>	HALAWA WELLS 2 (331-024-WL064)	01/19/2022 0835
	(SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil TPH 8015 Jet Fuel 5 TPH 8015 Jef Fuel 8	
<u>202201200776</u>	TRAVEL BLANK::HALAWAY WELLS PUMP 2	01/19/2022 0835
	(SUB)Gas Fraction Hydrocarbons	
<u>202201240075</u>	RUSH	01/19/2022 08:35
	RUSH	

Test Description



Eaton Analytical

CHAIN OF CUSTODY RECORD

981951

EUROFINS EATON ANALYTICAL USE ONLY:

750 Royal Oaks Drive, Suite 100
 Monrovia, CA 91016-3629
 Phone: 626 386 1100
 Fax: 626 386 1101
 800 566 LABS (800 566 5227)

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: BS

SAMPLES LOGGED IN BY: BS

SAMPLE TEMP RECEIVED AT: _____ °C (Compliance: 4 ± 2 °C)

Colton / No. California / Arizona

Monrovia

CONDITION OF BLUE ICE: Frozen 1 Partially Frozen _____ Thawed _____ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

SAMPLES REC'D DAY OF COLLECTION? (check for yes)

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: BWS HONOLULU		PROJECT CODE: Red Hill		COMPLIANCE SAMPLES <input type="checkbox"/> NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>	
EEA CLIENT CODE: Honolulu		COC ID:		REGULATION INVOLVED: - Requires state forms	
TAT requested: rush by adv notice only		STD ___ 1 wk ___ X ___ 3 day ___ 2 day ___ 1 day ___		Type of samples (circle one): ROUTINE <input checked="" type="checkbox"/> SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA, ...)	
SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA
1-19-22	0100	Aiea Wells pump 2	HI0000331-004	RGW	X
1-19-22	0835	Halawa Wells pump 2	HI0000331-024	RGW	X
		Temperature Blank			
				SEE ATTACHED BOTTLE ORDER FOR ANALYSES	SAMPLER COMMENTS
				list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	Re-labeled bottles
					Re-labeled bottles
					Temp Blank: 0.5 °C

*** MATRIX TYPES:** RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil

RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

O = Other - Please Identify

SAMPLED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	<i>Derek Dotson</i>	Derek Dotson	Honolulu Board of Water Supply	1-19-2022	
RELINQUISHED BY:		Derek Dotson	Honolulu Board of Water Supply	1-19-2022	1200
RECEIVED BY:	<i>Gustavo Sanchez</i>	Gustavo Sanchez	BEA	1-20-22	1440
RELINQUISHED BY:					
RECEIVED BY:					



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

SAMPLE TEMP RECEIVED:

Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

EEA Folder Number: 981951

IR Gun ID = 631 (Observation = 1.2 °C) (Corr. Factor -0.2 °C) (Final = 1 °C)

TYPE OF ICE: Real Synthetic No ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants

1 = (Observation = _____ °C) (Corr. Factor = _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor = _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor = _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor = _____ °C) (Final = _____ °C)

4) Dioxin (1613 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon No Samples with Headspace: Samples with Headspace (see below):

Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 515.4, HAA(6231,562), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients:

Samp ID	Bottle #	MM	>6mm	Test	Samp ID	Bottle #	MM	>6mm	Test	Samp ID	Bottle #	MM	>6mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY: <u>[Signature]</u>	SIGNATURE	PRINT NAME: <u>Grifano Sanchez</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: <u>1-20-22</u>	TIME: <u>1440</u>
SAMPLES CHECKED AGAINST COC BY: _____	SIGNATURE	PRINT NAME: _____	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: _____	TIME: _____

Tracking: ~~7912 2472 9748~~ ~~7912 2472 9759~~ -65

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Comments

Report: 981951
Project: RED-HILL
Group: Red-Hill Expanded List
(Albuquerque+)

Honolulu Board of Water Supply
Erwin Kawata
630 South Beretania Street
Public Service Bldg." Room 308
Honolulu, HI 96843

Folder Comments

Results for TPH Gas, Diesel, Motor Oil and Jet Fuels are submitted by Emax Laboratories

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Report: 981951
Project: RED-HILL
Group: Red-Hill Expanded List
(Albuquerque+)

Honolulu Board of Water Supply
Erwin Kawata
630 South Beretania Street
Public Service Bldg." Room 308
Honolulu, HI 96843

Samples Received on:
01/20/2022 1440

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
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Tel: (626) 386-1100
 Fax: (626) 988-3757
 1 800 566 LABS (1 800 566 5227)

Report: 981951
Project: RED-HILL
Group: Red-Hill Expanded List
 (Albuquerque+)

Honolulu Board of Water Supply
 Erwin Kawata
 630 South Beretania Street
 Public Service Bldg." Room 308
 Honolulu, HI 96843

Samples Received on:
 01/20/2022 1440

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
<u>AIEA WELLS PUMP 2 (331-004-WL103) (202201200773)</u>						Sampled on 01/19/2022 0900			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
01/21/22	01/21/22 16:39			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
01/24/22	01/25/22 15:46			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
01/24/22	01/25/22 15:46			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.048	1
EPA 8015 - Jet Fuel 5 C8-C18									
01/24/22	01/25/22 15:46			(EPA 8015)	Jet Fuel 5	ND	mg/L	0.048	1
EPA 8015 - Jet Fuel 8 C8-C18									
	01/25/22 15:46			(EPA 8015)	Jet Fuel 8	ND	mg/L	0.048	1
<u>TRAVEL BLANK::AIEA WELLS PUMP 2 (331-004-WL103) (202201200774)</u>						Sampled on 01/19/2022 0900			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
01/21/22	01/21/22 17:15			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
<u>HALAWA WELLS 2 (331-024-WL064) (202201200775)</u>						Sampled on 01/19/2022 0835			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
01/21/22	01/21/22 17:52			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
01/25/22	01/25/22 16:40			(SW 8015B)	TPH Diesel	ND	mg/L	0.023	1
01/25/22	01/25/22 16:40			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.047	1
EPA 8015 - Jet Fuel 5 C8-C18									
01/24/22	01/25/22 16:40			(EPA 8015)	Jet Fuel 5	ND	mg/L	0.047	1
EPA 8015 - Jet Fuel 8 C8-C18									
	01/25/22 16:40			(EPA 8015)	Jet Fuel 8	ND	mg/L	0.047	1
<u>TRAVEL BLANK::HALAWAY WELLS PUMP 2 (202201200776)</u>						Sampled on 01/19/2022 0835			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
01/21/22	01/21/22 18:28			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1

Rounding on totals after summation.
 (c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



3051 Fujita Street
 Torrance, CA 90505
 Tel: (310)-618-8889

Date: 02-01-2022
 EMAX Batch No.: 22A208

Attn: Jackie Contreras

Eurofins Eaton Analytical
 750 Royal Oaks Dr., Suite 100
 Monrovia, CA 91016-3629

Subject: Laboratory Report
 Project: 981951

 Enclosed is the Laboratory report for samples received on 01/21/22.
 The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202201200773	A208-01	01/19/22	WATER	TPH GASOLINE TPH
202201200774	A208-02	01/19/22	WATER	TPH GASOLINE
202201200775	A208-03	01/19/22	WATER	TPH GASOLINE TPH
202201200776	A208-04	01/19/22	WATER	TPH GASOLINE
202201200773MS	A208-01M	01/19/22	WATER	TPH JP-5
202201200773MSD	A208-01S	01/19/22	WATER	TPH JP-5
202201200775MS	A208-03M	01/19/22	WATER	TPH JP-8
202201200775MSD	A208-03S	01/19/22	WATER	TPH JP-8

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

 Caspar J. Pang
 Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912021-19
 ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
 California ELAP Accredited Certificate Number 2672



Eaton Analytical

Ship To:
EMAX Laboratories, Inc.
3051 Fujita St.
Torrance, CA 90505

Phone: 310-618-8889 Fax: 310-618-0818

Folder #: 981951 Report Due: 01/25/2022

Sample ID: 202201200773 Client Sample ID for reference onl: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Sample type: Sample Event: Facility ID: Sample Point ID: Static ID:

Method Analysis Requested

SW 8015B EPA 5030C (SUB)Gas Fraction Hydrocarbons
SW 8015B EPA 3550B TPH 8015 Diesel and Motor Oil
EPA 8015 EPA 8015 Jet Fuel 5 C8-C18
EPA 8015 Jet Fuel 8 C8-C18

Sample ID: 202201200774 Client Sample ID for reference onl: TRAVEL BLANK:AIEA GULCH WELLS PUMP 2 -331-202-TP072

Sample type: Sample Event: Facility ID: Sample Point ID: Static ID:

Method Analysis Requested

SW 8015B EPA 5030C (SUB)Gas Fraction Hydrocarbons

Date: 1/21/2022

22A208

Submittal Form

*REPORTING REQUIREMENTS: Do Not Combine Reports with any other samples submitted under different Folder Numbers! Report & Invoice must have the Folder# 981951 Job # 1000014

Report all quality control data according to Method. Include dates analyzed. Date extracted (if extracted) and Method reference on the report. Results must have Complete data & QC with Approval Signature.

Reports: Jackie Contreras Sub-Contracting Administrator
EMAIL TO: Eaton-MonroviaSubContract@eurofins.com
Eurofins Eaton Analytical, LLC 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016
Phone (626) 386-1165 Fax (626) 386-1122
Invoices to: Eurofins Eaton Analytical, LLC
Accounts Payable 2425 New Holland Pike, Lancaster, PA 17605

Provide in each Report the Specified State Certification # and Exp Date for requested tests + matrix.

Samples from: HAWAII

3 day rush

Relinquished by: [Signature] Sample Control

Received by: [Signature] Date 1/21/22 Time 11:28

Relinquished by: Sample Control

Received by: Date Date Date Date

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

Temp: 1.6°

22A-208

Sample ID 202201200775	Client Sample ID for reference on/ HALAWA WELLS PUMP 2	Sample Date & Time 01/19/22 0835 DW	Matrix DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:		

Method	Prep Method	Analysis Requested
SW 8015B	EPA 5030C	(SUB)Gas Fraction Hydrocarbons
SW 8015B	EPA 3550B	TPH 8015 Diesel and Motor Oil
EPA 8015	EPA 8015	Jet Fuel 5 C8-C18
EPA 8015		Jet Fuel 8 C8-C18

Sample ID 202201200776	Client Sample ID for reference on/ TRAVEL BLANK::HALAWAY WELLS PUMP 2	Sample Date & Time 01/19/22 0835 DW	Matrix DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:		

Method	Prep Method	Analysis Requested
SW 8015B	EPA 5030C	(SUB)Gas Fraction Hydrocarbons

Relinquished by: [Signature] Date 1/21/22 Time 11:28

Received by: [Signature] Date 1/21/22 Time 11:28

Relinquished by: _____ Date _____ Time _____

Received by: _____ Date _____ Time _____

Sample Control

Sample Control

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>22A208</u> Recipient <u>ALAN RAMO</u> Date <u>01/21/22</u> Time <u>11:28</u>
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COC INSPECTION

<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input checked="" type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input checked="" type="checkbox"/> TAT
Safety Issues (if any)		<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required	

Note: _____

PACKAGING INSPECTION

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>1.6</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
	<input type="checkbox"/> Cooler 9 _____ °C	<input type="checkbox"/> Cooler 10 _____ °C	

Thermometer: A - S/N 210191066 on 1/14/22 B - S/N 210271390 C - S/N 210271399 D - S/N _____

Comments: Temperature is out of range. PM was informed IMMEDIATELY.

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1,3	4-7, 13-16	D2/D0	JET FUEL B is not indicated on label	PLB ↓ R1
1,3	10-12, 2	D10		
2,4	8, 9, 17, 18	D7	two dates on label - 1/4/22 and 01/19/22	
/w/2/22				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. RB 1/24/22

NOTES/OBSERVATIONS:

LEGEND:

<p>Code Description- Sample Management</p> <p>D1 Analysis is not indicated in _____</p> <p>D2 Analysis mismatch COC vs label</p> <p>D3 Sample ID mismatch COC vs label</p> <p>D4 Sample ID is not indicated in _____</p> <p>D5 Container -[improper] [leaking] [broken]</p> <p>D6 Date/Time is not indicated in _____</p> <p>D7 Date/Time mismatch COC vs label</p> <p>D8 Sample listed in COC is not received</p> <p>D9 Sample received is not listed in COC</p> <p>D10 No initial/date on corrections in COC/label</p> <p>D11 Container count mismatch COC vs received</p> <p>D12 Container size mismatch COC vs received</p>	<p>Code Description-Sample Management</p> <p>D13 Out of Holding Time</p> <p>D14 Bubble is >6mm</p> <p>D15 No trip blank in cooler</p> <p>D16 Preservation not indicated in _____</p> <p>D17 Preservation mismatch COC vs label</p> <p>D18 Insufficient chemical preservative</p> <p>D19 Insufficient Sample</p> <p>D20 No filtration info for dissolved analysis</p> <p>D21 No sample for moisture determination</p> <p>D22 _____</p> <p>D23 _____</p> <p>D24 _____</p>	<p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p>R1 Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label</p> <p>R2 Refer to attached instruction</p> <p>R3 Cancel the analysis</p> <p>R4 Use vial with smallest bubble first</p> <p>R5 Log-in with latest sampling date and time+1 min</p> <p>R6 Adjust pH as necessary</p> <p>R7 Filter and preserved as necessary</p> <p>R8 <u>Informed Client</u></p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p>
---	---	---

REVIEWS:

Sample Labeling Jocelyne
Date 01/21/22

SRF [Signature]
Date 1/21/22

PM RB
Date 1/24/22

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

981951

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 22A208

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 981951

SDG : 22A208

METHOD 5030B/8015B TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

A total of four(4) water samples were received on 01/21/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VG39A12B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VG39A12L/VG39A12C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in A207-01M/A207-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL
Project     : 981951
SDG NO.    : 22A208
Instrument ID : GCT039
=====

```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	WATER		Extraction Date/Time	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
				Analysis Date/Time	Sample Data FN					
202201200773	VG39A12B	1	NA	01/21/2205:02	EA20032A	01/21/2205:02	EA20023A	EA20023A	22VG39A12	Method Blank
202201200774	VG39A12L	1	NA	01/21/2205:39	EA20033A	01/21/2205:39	EA20023A	EA20023A	22VG39A12	Lab Control Sample (LCS)
202201200775	VG39A12C	1	NA	01/21/2206:15	EA20034A	01/21/2206:15	EA20023A	EA20023A	22VG39A12	LCS Duplicate
202201200776	A208-01	1	NA	01/21/2216:39	EA20051A	01/21/2216:39	EA20044A	EA20044A	22VG39A12	Field Sample
	A208-02	1	NA	01/21/2217:15	EA20052A	01/21/2217:15	EA20044A	EA20044A	22VG39A12	Field Sample
	A208-03	1	NA	01/21/2217:52	EA20053A	01/21/2217:52	EA20044A	EA20044A	22VG39A12	Field Sample
	A208-04	1	NA	01/21/2218:28	EA20054A	01/21/2218:28	EA20044A	EA20044A	22VG39A12	Field Sample

```

FN          - Filename
% Moist     - Percent Moisture

```

SAMPLE RESULTS

METHOD 5030B/8015B
 TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 09:00
Project    : 981951                      Date Received: 01/21/22
Batch No.  : 22A208                      Date Extracted: 01/21/22 16:39
Sample ID  : 202201200773               Date Analyzed: 01/21/22 16:39
Lab Samp ID: A208-01                    Dilution Factor: 1
Lab File ID: EA20051A                   Matrix: WATER
Ext Btch ID: 22VG39A12                  % Moisture: NA
Calib. Ref.: EA20044A                   Instrument ID: 39
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0332	0.0400	83	60-140

Notes:
 Parameter H-C Range
 Gasoline C6-C10
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 5ml Final Volume : 5ml
 Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

=====
Client : EUROFINS EATON ANALYTICAL Date Collected: 01/19/22 09:00
Project : 981951 Date Received: 01/21/22
Batch No. : 22A208 Date Extracted: 01/21/22 17:15
Sample ID : 202201200774 Date Analyzed: 01/21/22 17:15
Lab Samp ID: A208-02 Dilution Factor: 1
Lab File ID: EA20052A Matrix: WATER
Ext Btch ID: 22VG39A12 % Moisture: NA
Calib. Ref.: EA20044A Instrument ID: 39
=====

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0332	0.0400	83	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client       : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 08:35
Project      : 981951                     Date Received: 01/21/22
Batch No.    : 22A208                     Date Extracted: 01/21/22 17:52
Sample ID    : 202201200775              Date Analyzed: 01/21/22 17:52
Lab Samp ID  : A208-03                    Dilution Factor: 1
Lab File ID  : EA20053A                   Matrix: WATER
Ext Btch ID  : 22VG39A12                  % Moisture: NA
Calib. Ref. : EA20044A                    Instrument ID: 39
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0330	0.0400	83	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```
=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 08:35
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/21/22 18:28
Sample ID   : 202201200776              Date Analyzed: 01/21/22 18:28
Lab Samp ID: A208-04                     Dilution Factor: 1
Lab File ID: EA20054A                     Matrix: WATER
Ext Btch ID: 22VG39A12                    % Moisture: NA
Calib. Ref.: EA20044A                    Instrument ID: 39
=====
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
GASOLINE	ND	0.020	0.010		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromofluorobenzene	0.0331	0.0400	83	60-140	

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

QC SUMMARIES

METHOD 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

=====
Client : EUROFINS EATON ANALYTICAL Date Collected: 01/21/22 05:02
Project : 981951 Date Received: 01/21/22
Batch No. : 22A208 Date Extracted: 01/21/22 05:02
Sample ID : MBLK1W Date Analyzed: 01/21/22 05:02
Lab Samp ID: VG39A12B Dilution Factor: 1
Lab File ID: EA20032A Matrix: WATER
Ext Btch ID: 22VG39A12 % Moisture: NA
Calib. Ref.: EA20023A Instrument ID: 39
=====

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0331	0.0400	83	60-140

Notes:
Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W         LCD1W
LAB SAMPLE ID : VG39A12B                         VG39A12L     VG39A12C
LAB FILE ID  : EA20032A                         EA20033A     EA20034A
DATE PREPARED : 01/21/22 05:02                 01/21/22 05:39 01/21/22 06:15
DATE ANALYZED : 01/21/22 05:02                 01/21/22 05:39 01/21/22 06:15
PREP BATCH   : 22VG39A12                       22VG39A12    22VG39A12
CALIBRATION REF: EA20023A                       EA20023A     EA20023A
  
```

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.528	106	0.500	0.497	99	6	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0454	114	0.0400	0.0435	109	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981948
BATCH NO. : 22A207
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 202201200765	202201200765MS	202201200765MSD
LAB SAMPLE ID	: A207-01	A207-01M	A207-01S
LAB FILE ID	: EA20047A	EA20048A	EA20049A
DATE PREPARED	: 01/21/22 14:12	01/21/22 14:48	01/21/22 15:25
DATE ANALYZED	: 01/21/22 14:12	01/21/22 14:48	01/21/22 15:25
PREP BATCH	: 22VG39A12	22VG39A12	22VG39A12
CALIBRATION REF:	EA20044A	EA20044A	EA20044A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.493	99	0.500	0.485	97	2	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0428	107	0.0400	0.0413	103	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

981951

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22A208

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 981951

SDG : 22A208

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 01/21/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSA017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSA017WL. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG. One(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22A207-01M/22A207-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 981951

SDG : 22A208

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 01/21/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSA017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP5 was within LCS QC limits in J5A017WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP5 was within MS QC limits in 22A208-01M/22A208-01S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 981951

SDG : 22A208

METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 01/21/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

Samples were analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria, Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSA017WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP8 was within LCS QC limits in J8A017WL. Refer to LCS summary form for details.

Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP8 was within MS QC limits in 22A208-03M/22A208-03S. Refer to Matrix QC summary form for details.

Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms for details.

Sample Analysis

Samples were analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL
Project     : 981951
=====
SDG NO.    : 22A208
Instrument ID : D5
=====

```

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSA017NB	1	NA	01/25/2213:41	01/24/2211:15	LA25011A	LA25006A	22DSA017W	Method Blank
LCS1W	J8A017WL	1	NA	01/25/2214:35	01/24/2211:15	LA25014A	LA25006A	22DSA017W	Lab Control Sample (LCS)
202201200773	A208-01	1	NA	01/25/2215:46	01/24/2211:15	LA25018A	LA25006A	22DSA017W	Field Sample
202201200775	A208-03	1	NA	01/25/2216:40	01/24/2211:15	LA25021A	LA25006A	22DSA017W	Field Sample
202201200775MS	A208-03M	1	NA	01/25/2216:57	01/24/2211:15	LA25022A	LA25006A	22DSA017W	Matrix Spike Sample (MS)
202201200775MSD	A208-03S	1	NA	01/25/2217:15	01/24/2211:15	LA25023A	LA25006A	22DSA017W	MS Duplicate (MSD)

```

FN      - Filename
% Moist - Percent Moisture

```

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 09:00
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200773              Date Analyzed: 01/25/22 15:46
Lab Samp ID : 22A208-01                  Dilution Factor: 1
Lab File ID : LA25018A                   Matrix: WATER
Ext Btch ID : 22DSA017W                  % Moisture: NA
Calib. Ref.: LA25004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)		
Diesel	ND	0.024	0.012		
Motor Oil	ND	0.048	0.024		
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT	
Bromobenzene	0.361	0.475	76	60-130	
Hexacosane	0.111	0.119	94	60-130	

Notes:
Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1050ml Final Volume : 5ml
Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 09:00
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200773              Date Analyzed: 01/25/22 15:46
Lab Samp ID: 22A208-01                   Dilution Factor: 1
Lab File ID: LA25018A                    Matrix: WATER
Ext Btch ID: 22DSA017W                   % Moisture: NA
Calib. Ref.: LA25005A                    Instrument ID: D5
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.048	0.024	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.361	0.475	76	60-130
Hexacosane	0.111	0.119	94	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 1050ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 09:00
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200773              Date Analyzed: 01/25/22 15:46
Lab Samp ID: 22A208-01                   Dilution Factor: 1
Lab File ID: LA25018A                    Matrix: WATER
Ext Btch ID: 22DSA017W                   % Moisture: NA
Calib. Ref.: LA25006A                    Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.048	0.024	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.361	0.475	76	60-130
Hexacosane	0.111	0.119	94	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 1050ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 08:35
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200775              Date Analyzed: 01/25/22 16:40
Lab Samp ID : 22A208-03                  Dilution Factor: 1
Lab File ID : LA25021A                   Matrix: WATER
Ext Btch ID : 22DSA017W                  % Moisture: NA
Calib. Ref.: LA25004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.023	0.012	
Motor Oil	ND	0.047	0.023	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.367	0.465	79	60-130
Hexacosane	0.107	0.116	92	60-130

Notes:

Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1070ml Final Volume : 5ml
Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 08:35
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200775              Date Analyzed: 01/25/22 16:40
Lab Samp ID: 22A208-03                   Dilution Factor: 1
Lab File ID: LA25021A                     Matrix: WATER
Ext Btch ID: 22DSA017W                    % Moisture: NA
Calib. Ref.: LA25005A                     Instrument ID: D5
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP5	ND	0.047	0.023	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.367	0.465	79	60-130
Hexacosane	0.107	0.116	92	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 1070ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/19/22 08:35
Project     : 981951                     Date Received: 01/21/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : 202201200775              Date Analyzed: 01/25/22 16:40
Lab Samp ID: 22A208-03                   Dilution Factor: 1
Lab File ID: LA25021A                    Matrix: WATER
Ext Btch ID: 22DSA017W                   % Moisture: NA
Calib. Ref.: LA25006A                    Instrument ID: D5
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.047	0.023

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.367	0.465	79	60-130
Hexacosane	0.107	0.116	92	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1070ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/24/22 11:15
Project     : 981951                     Date Received: 01/24/22
Batch No.   : 22A208                     Date Extracted: 01/24/22 11:15
Sample ID   : MBLK1W                     Date Analyzed: 01/25/22 13:41
Lab Samp ID: DSA017WB                    Dilution Factor: 1
Lab File ID: LA25011A                    Matrix: WATER
Ext Btch ID: 22DSA017W                    % Moisture: NA
Calib. Ref.: LA25004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.025	0.012	
Motor Oil	ND	0.050	0.025	

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.404	0.500	81	60-130
Hexacocane	0.122	0.125	97	60-130

Notes:
Parameter H-C Range
Diesel C10-C24
Motor Oil C24-C36
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1000ml Final Volume : 5ml
Prepared by : HWang Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 3520C/8015B

MATRIX : WATER % MOISTURE:NA
DILUTION FACTOR: 1 1
SAMPLE ID : MBLK1W LCS1W
LAB SAMPLE ID : DSA017WB DSA017WL
LAB FILE ID : LA25011A LA25012A
DATE PREPARED : 01/24/22 11:15 01/24/22 11:15
DATE ANALYZED : 01/25/22 13:41 01/25/22 13:59
PREP BATCH : 22DSA017W 22DSA017W
CALIBRATION REF: LA25004A LA25004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.52	101	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.429	86	60-130
Hexacosane	0.125	0.127	102	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981948
BATCH NO. : 22A207
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 202201200765	202201200765MS	202201200765MSD
LAB SAMPLE ID	: 22A207-01	22A207-01M	22A207-01S
LAB FILE ID	: LA25015A	LA25016A	LA25017A
DATE PREPARED	: 01/24/22 11:15	01/24/22 11:15	01/24/22 11:15
DATE ANALYZED	: 01/25/22 14:53	01/25/22 15:11	01/25/22 15:28
PREP BATCH	: 22DSA017W	22DSA017W	22DSA017W
CALIBRATION REF:	LA25004A	LA25004A	LA25004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.40	96	2.53	2.31	91	4	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.415	83	0.505	0.368	73	60-130
Hexacosane	0.125	0.124	99	0.126	0.127	101	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/24/22 11:15
Project    : 981951                      Date Received: 01/24/22
Batch No.  : 22A208                      Date Extracted: 01/24/22 11:15
Sample ID  : MBLK1W                      Date Analyzed: 01/25/22 13:41
Lab Samp ID: DSA017WB                   Dilution Factor: 1
Lab File ID: LA25011A                   Matrix: WATER
Ext Btch ID: 22DSA017W                   % Moisture: NA
Calib. Ref.: LA25005A                   Instrument ID: D5
=====
  
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.404	0.500	81	60-130
Hexacosane	0.122	0.125	97	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP5 C8-C18
 Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
 Sample Amount : 1000ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSA017WB	J5A017WL
LAB FILE ID	: LA25011A	LA25013A
DATE PREPARED	: 01/24/22 11:15	01/24/22 11:15
DATE ANALYZED	: 01/25/22 13:41	01/25/22 14:17
PREP BATCH	: 22DSA017W	22DSA017W
CALIBRATION REF:	LA25005A	LA25005A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----	-----
JP5	ND	2.50	2.23	89	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----
Bromobenzene	0.500	0.497	99	60-130
Hexacosane	0.125	0.124	99	60-130

=====

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                % MOISTURE:NA
DILUTION FACTOR: 1                                1
SAMPLE ID   : 202201200773                        202201200773MSD
LAB SAMPLE ID : 22A208-01                          22A208-01S
LAB FILE ID  : LA25018A                           LA25020A
DATE PREPARED : 01/24/22 11:15                    01/24/22 11:15
DATE ANALYZED : 01/25/22 15:46                    01/25/22 16:22
PREP BATCH   : 22DSA017W                          22DSA017W
CALIBRATION REF: LA25005A                          LA25005A
=====
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.60	2.27	87	2.58	2.38	92	5	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.520	0.441	85	0.515	0.491	95	60-130
Hexacosane	0.130	0.122	94	0.129	0.125	97	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

METHOD 3520C/8015B
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 01/24/22 11:15
Project    : 981951                       Date Received: 01/24/22
Batch No.  : 22A208                       Date Extracted: 01/24/22 11:15
Sample ID  : MBLK1W                       Date Analyzed: 01/25/22 13:41
Lab Samp ID: DSA017WB                     Dilution Factor: 1
Lab File ID: LA25011A                     Matrix: WATER
Ext Btch ID: 22DSA017W                    % Moisture: NA
Calib. Ref.: LA25006A                     Instrument ID: D5
=====
    
```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
JP8	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.404	0.500	81	60-130
Hexacosane	0.122	0.125	97	60-130

Notes:

RL : Reporting Limit
 Parameter H-C Range
 JP8 C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1000ml Final Volume : 5ml
 Prepared by : HWang Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSA017WB	J8A017WL
LAB FILE ID	: LA25011A	LA25014A
DATE PREPARED	: 01/24/22 11:15	01/24/22 11:15
DATE ANALYZED	: 01/25/22 13:41	01/25/22 14:35
PREP BATCH	: 22DSA017W	22DSA017W
CALIBRATION REF:	LA25006A	LA25006A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.26	90	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.533	107	60-130
Hexacosane	0.125	0.123	98	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 981951
BATCH NO. : 22A208
METHOD : 3520C/8015B

MATRIX : WATER		% MOISTURE:NA
DILUTION FACTOR: 1	1	1
SAMPLE ID : 202201200775	202201200775MS	202201200775MSD
LAB SAMPLE ID : 22A208-03	22A208-03M	22A208-03S
LAB FILE ID : LA25021A	LA25022A	LA25023A
DATE PREPARED : 01/24/22 11:15	01/24/22 11:15	01/24/22 11:15
DATE ANALYZED : 01/25/22 16:40	01/25/22 16:57	01/25/22 17:15
PREP BATCH : 22DSA017W	22DSA017W	22DSA017W
CALIBRATION REF: LA25006A	LA25006A	LA25006A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.53	1.97	78	2.50	1.84	74	7	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.505	0.478	95	0.500	0.428	86	60-130
Hexacosane	0.126	0.112	89	0.125	0.117	94	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate