

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

Date of Issue  
05/23/2022

*Rinda Seddas*  
EUROFINS EATON  
ANALYTICAL, LLC



Utah ELCP CA00006

DEB: Debbie L Frank  
Project Manager

Report: 990425  
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 17025:2017 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
Enterococci	Enterolert	x	x
Escherichia coli (Enumeration)	SM 9221 B.1 SM 9221 F	x	
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x
Heterotrophic Bacteria	SM 9215 B	x	
Legionella	Legiolert®	x	
Pseudomonas aeruginosa	Idexx Pseudalert	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x	
Total Microcystins and Nodularins	EPA 546	X	
Yeast and Mold	SM 9610	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x	
1,4-Dioxane	EPA 522	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x	
Acrylamide	+ LCMS 2440)	x	
Algal Toxins/Microcys in	+ LCMS 3570	x	
Alkalinity	SM 2320B	x	x
Ammonia	EPA 350.1, SM 4500-NH3 H		x
Asbestos	EPA 100.2	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x
BOD/CBOD	SM 5210 B		x
Bromate	+ LCMS- 2447	x	
Carbonate as CO3	SM 2330 B	x	x
Carbonyls	EPA 556	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x
Chlorinated Acids	EPA 515.4	x	
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x	
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-Cl G	x	
Color	SM2120B	x	
Conductivity	EPA 120.1, SM 2510B	x	x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x	
Cyanide (Amenable)	SM 4500-CN G	x	x
Cyanide (Free)	SM 4500CN F	x	x
Cyanide (Total)	EPA 335.4	x	x
Cyanogen Chloride (Screen)	+ 335 Mod (WC-24467)	x	
Diquat and Paraquat	EPA 549.2	x	
DBP and HAA	SM 6251 B	x	
Dissolved Organic Carbon	SM 5310 C	x	
Dissolved Oxygen	SM 4500-O G		x
EDB/DCBP/TCP	EPA 504.1	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x	
EDTA and NTA	+ WC-2454	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

Test(s)	Method(s)	Potable Water *	Waste Water
Gross Alpha coprecipitation	SM 7110 C	x	x
Hardness	SM 2340 B	x	x
Hexavalent Chromium	EPA 218.6,	x	x
Hexavalent Chromium	EPA 218.7,	x	
Hexavalent Chromium	SM 3500-Cr B		x
Inorganic Anions and DBPs	EPA 300.0	x	x
Norganic Anions and DBPs	EPA 300.1	x	
Kjeldahl Nitrogen	EPA 351.2		x
Metals	EPA 200.7, EPA200.8	x	x
Nitrosamines	EEA-Agilent 521.1 (GCMS-24250)	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x
Odor	SM2150B	x	
Organohalide Pesticides and PCB	EPA 505	x	
Ortho Phosphate	SM 4500P E	x	
Oxyhalides Disinfect ion Byproducts	EPA 317.0	x	
Perchlorate	EPA 331.0	x	
Perchlorate (Low and High Levels)	EPA 314.0	x	
Perfluorinated Alkyl Acids	EPA 533, EPA 537, EPA 537.1	x	
PPCP and EDC	+ LCMS-2443	x	
pH	EPA 150.1 SM 4500-H+ B	x	x
Phenolics – Low Level	+WC 2493 (EPA 420.2 and EPA 420.4 MOD)	x	x
Phenylurea Pesticides/Herbicides	+ LCMS-2448	x	
Radium-226, Radium-228	GA Tech (Rad-2374)	x	
Radon-222	SM 7500RN	x	
Residue (Filterable)	SM 2540C	x	x
Residue (Non-Filterable)	SM 2540D		x
Residue (Total)	SM 2540B		x
Residue (Volatile)	EPA 160.4		x
Semi-Volatile Compounds	EPA 525.2	x	
Silica	SM 4500-SiO2 C	x	x
Sulfide	SM 4500-S D		x
Sulfite	SM 4500-SO3 B	x	x
Surfactants	SM 5540C	x	x
Taste and Odor	SM 6040 E	x	
Total Organic Carbon	SM 5310 C	x	x
Total Phenols	EPA 420.1		x
Total Phenols	EPA 420.4	x	x
Triazine Pesticides and their Degradates	+ LCMS-3617	x	
Turbidity	EPA 180.1	x	x
Uranium by ICP/MS	EPA 200.8	x	
UV 254 Organic Constituents	SM 5910B	x	
VOCs	EPA 524.2	x	
VOCs	+(GCMS 2412) by EPA 524.2 modified	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 #: 990425

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 **March 02, 2022 at 1345**. 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>202203020788</u>	MOANALUA WELLS (331-223-TP202)	02/28/2022 1003
	(SUB)Gas Fraction Hydrocarbons      TPH 8015 Diesel and Motor Oil      TPH 8015 Jet Fuel 5 TPH 8015 Jef Fuel 8	
<u>202203020789</u>	TRAVEL BLANK::MOANALUA WELLS (331-223-TP202)	02/28/2022 1003
	(SUB)Gas Fraction Hydrocarbons	

### Test Description



Eaton Analytical

# CHAIN OF CUSTODY RECORD

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

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS:

SAMPLES CHECKED AGAINST COC BY: DB

SAMPLES LOGGED IN BY: DB

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

SAMPLE TEMP RECEIVED AT:

Colton / No. California / Arizona

Monrovia

°C ( Compliance: 4 ± 2 °C )

°C ( Compliance: 4 ± 2 °C )

CONDITION OF BLUE ICE: Frozen  Thawed  Partially Frozen  Wet Ice  No Ice

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

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: \_\_\_\_\_

HONOLULU BOARD OF WATER SUPPLY

PROJECT CODE:

RED HILL-Weekly

EEA CLIENT CODE: \_\_\_\_\_

COC ID: \_\_\_\_\_

SAMPLE GROUP:

1Q2022

TAT requested: **RUSH**

STD \_\_\_ 1 wk \_\_\_ 3 day \_\_\_ 2 day \_\_\_ 1 day \_\_\_

SAMPLE DATE

FIELD DATA

MATRIX \*

SAMPLE ID

CLIENT LAB ID

FIELD DATA

2/28/22 1003 Moanalua Wells

HI0000331-223

CFW

Red Hill

X

COMPLIANCE SAMPLES

NON-COMPLIANCE SAMPLES

REGULATION INVOLVED:

ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)

SEE ATTACHED BOTTLE ORDER FOR ANALYSES  (check for yes), OR

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLER COMMENTS

\* MATRIX TYPES: RSW = Raw Surface Water  
RGW = Raw Ground Water

CFW = Chlor(am)inated Finished Water  
FW = Other Finished Water

SEAW = Sea Water  
WW = Waste Water

BW = Bottled Water  
SW = Storm Water

SO = Soil  
SL = Sludge

SAMPLED BY: [Redacted]  
RELINQUISHED BY: E Juagdan  
RECEIVED BY: Chris Beach  
RELINQUISHED BY: Chris Beach  
RECEIVED BY: \_\_\_\_\_

PRINT NAME

E Juagdan

E Juagdan

COMPANY/TITLE

BWS HONOLULU

BWS HONOLULU

DATE

2/28/22

3/1/22

3-2-22

TIME

1003

1200

1345



Eaton Analytical

# INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 44947K

### 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

IR Gun ID = 401 (Observation = 55 °C) (Corr. Factor = -0.2 °C) (Final = 5.3 °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 Headspace:  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(6251,652), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, international clients:

Samp ID	Bottle #	None/<6 mm	>6mm	Test	Samp ID	Bottle #	None/<6 mm	>6mm	Test

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

RECEIVED BY: Chris Beecher SIGNATURE PRINT NAME DATE: 3-2-22 COMPANY/TITLE: Eurofins Eaton Analytical TIME: 1345

SAMPLES CHECKED AGAINST COC BY: \_\_\_\_\_ SIGNATURE PRINT NAME DATE: \_\_\_\_\_ COMPANY/TITLE: Eurofins Eaton Analytical TIME: \_\_\_\_\_

ORIGIN ID:HIKA (808) 748-5840  
 BMS CHEM LAB  
 HONOLULU BOARD OF WATER SUPPLY  
 630 S. BENEFANA ST.  
 CHEMICAL LABORATORY  
 HONOLULU HI 96843  
 UNITED STATES US

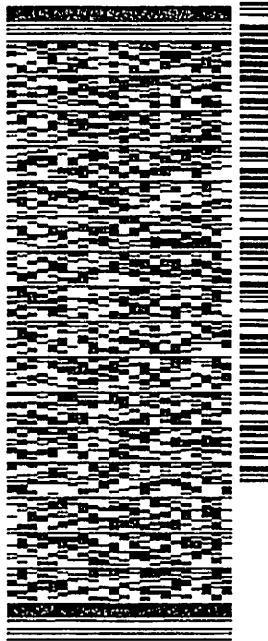
SHIP DATE: 01 MAR 22  
 ACTW/ST: 64.00 LB  
 CAD: 100205419INNET4460  
 BILL RECIPIENT

TO C CHUCK

EUROFINS EATON ANALYTICAL, INC  
 750 ROYAL OAKS DR  
 SUITE 100  
 MONROVIA CA 91016

(626) 386-1178 REF:  
 INV:  
 PO:

DEPT:



56D.039088/FE4A

WED - 02 MAR 10:30A

PRIORITY OVERNIGHT

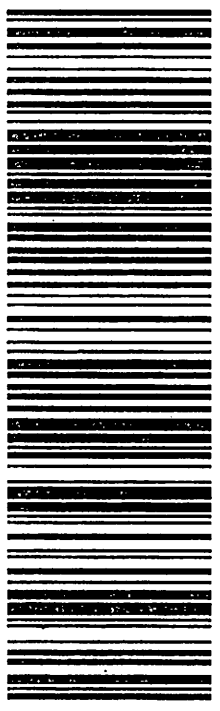
3 of 3

MPS# 7761 7738 0860  
 0263

Mst# 7761 7737 9293  
 0201

WZ WHPA

91016  
 CA-US BUR



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
(626) 386-1100 FAX (866) 988-3757

Created Date & Time: 1/10/2022 12:06:27AM

Note: Sampler Please return this paper with your samples

Client ID: HONOLULU  
Project Code: RED-HILL Bottle Orders  
Group Name: Red-Hill Expanded List (Albuquerque+)  
PO#/JOB#: C20525101 exp 05312023  
Description: AIEA WELLS PUMPS 1&2 (260) - 1

Kit #: 310070  
Created By: - [AutoGenerated]  
Deliver By: 02/09/2022  
STG: Bottle Orders  
Ice Type: G  
Pre Registered

Ship Sample Kits to  
Honolulu Board of Water Supply  
630 South Beretania Street  
Chemistry Lab  
Honolulu, HI 96843  
Attn: Ron Fenstermacher  
Phone: 808-748-5841  
Fax: 808-550-5572

Send Report to  
Honolulu Board of Water Supply  
630 South Beretania Street  
Public Service Bldg. Room 308  
Honolulu, HI 96843  
Attn: Erwin Kawata  
Phone: 808-748-5091  
Fax: 808-550-5018

Billing Address  
Honolulu Board of Water Supply  
630 South Beretania Street  
Public Service Bldg. Room 308  
Honolulu, HI 96843  
Attn: Erwin Kawata  
Phone: 808-748-5091  
Fax: 808-550-5018

# of Sample Tests	Bottle Qty - Type [preservative information]	Total	UN DOT #
1	TPH 8015 Diesel and Motor Oil_C, TPH 8015 Jet Fuel 5_C, TPH 8015 Jet Fuel 8_C	6	
1	8015 Gas_C	3	
1	@504MOD TB C 8015 Gas_C TB	2	
<b>Sum Tests: 3</b>		<b>Sum Bottles: 11</b>	

Comments

AIEA WELLS PUMPS 1&2 (260) (884-203-IP400)

SAMPLER:

Four 1 LITER AMBER GLASS BOTTLES FOR 625 SERIES AND SIX 1 LITER AMBER GLASS BOTTLES FOR TPH 8015 SERIES.

SHIPPING:

Travel Blanks - TBA/MTBE, VOASDWA - Prepare TBs in the VOA LAB.  
Label Cooler on TOP and right below both Handles with Site description of contents ( use extra Container Labels)

ASM: Be sure to coordinate Follow-up as needed for any new detections in Field samples.  
Acetone - follow-ups need to use EPA 624



Tel: (626) 386-1100  
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**Laboratory Comments**

**Report:** 990425  
**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

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**Folder Comments**

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



Eaton Analytical

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

Laboratory Hits

Report: 990425  
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:  
03/02/2022 1345

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
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SUMMARY OF POSITIVE DATA ONLY

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

Laboratory Data

**Report:** 990425  
**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:  
 03/02/2022 1345

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
<b><u>MOANALUA WELLS (331-223-TP202) (202203020788)</u></b>						<b>Sampled on 02/28/2022 1003</b>			
<b>SW 8015B - (SUB)Gas Fraction Hydrocarbons</b>									
03/03/22	03/03/22 22:05			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
<b>SW 8015B - TPH 8015 Diesel and Motor Oil</b>									
03/07/22	03/08/22 17:16			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
03/07/22	03/08/22 17:16			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.048	1
<b>EPA 8015 - Jet Fuel 5 C8-C18</b>									
03/07/22	03/08/22 17:16			(EPA 8015)	Jet Fuel 5	ND	mg/L	0.048	1
<b>EPA 8015 - Jet Fuel 8 C8-C18</b>									
	03/08/22 17:16			(EPA 8015)	Jet Fuel 8	ND	mg/L	0.048	1
<b><u>TRAVEL BLANK::MOANALUA WELLS (331-223-TP202) (202203020789)</u></b>						<b>Sampled on 02/28/2022 1003</b>			
<b>SW 8015B - (SUB)Gas Fraction Hydrocarbons</b>									
03/03/22	03/03/22 21:28			(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.



Eaton Analytical

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1 800 566 LABS (1 800 566 5227)

Laboratory Hits

**Report:** 990425  
**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:  
03/02/2022 1345

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Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
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3051 Fujita Street  
Torrance, CA 90505  
Tel: (310)-618-8889

Date: 03-14-2022  
EMAX Batch No.: 22C036

Attn: Jackie Contreras

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

Subject: Laboratory Report  
Project: 990425

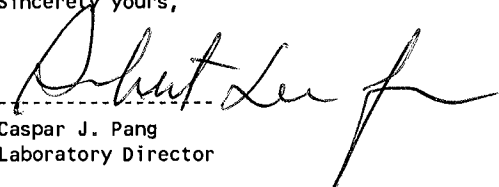
Enclosed is the Laboratory report for samples received on 03/03/22.  
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202203020788	C036-01	02/28/22	WATER	TPH GASOLINE TPH
202203020789	C036-02	02/28/22	WATER	TPH GASOLINE
202203020788MS	C036-01M	02/28/22	WATER	TPH GASOLINE TPH
202203020788MSD	C036-01S	02/28/22	WATER	TPH GASOLINE TPH

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 #: 990425 Report Due: 03/09/2022

Sample ID: 202203020788 Client Sample ID for reference on!  
MOANALUA WELLS (331-223-TP202)

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: 202203020789 Client Sample ID for reference on!  
TRAVEL BLANK: MOANALUA WELLS (331-223-TP202)

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

Date: 3/13/2022

220036

### Submittal Form

\*REPORTING REQUIREMENTS: Do Not Combine Reports with any other samples submitted under different Folder Numbers! Report & Invoice must have the Folder # 990425 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

2-3 day rush

Sample ID	Sample Date & Time	Matrix	Clip Code	PWSID
202203020788	02/28/22	1003 DW		JLS

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

Sample ID	Sample Date & Time	Matrix	Clip Code	PWSID
202203020789	02/28/22	1003 DW		JLS

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

Relinquished by: [Signature] Date: 3/13/22 Time: 12:36

Received by: [Signature] Date: 3/13/22 Time: 12:36

Relinquished by: [Signature] Date: 3/13/22 Time: 12:36

Received by: [Signature] Date: 3/13/22 Time: 12:36

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn. Jackie Contreras

TEMP: ① 3.0°/3.1° ③ 2.5°/2.0°

② 1.0°/1.3°

Type of Delivery	Airbill / Tracking Number	ECN <u>22C036</u>
<input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others		Recipient <u>Cocilla Chavez</u>
<input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery		Date <u>03/03/22</u> Time <u>12:36</u>

**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**

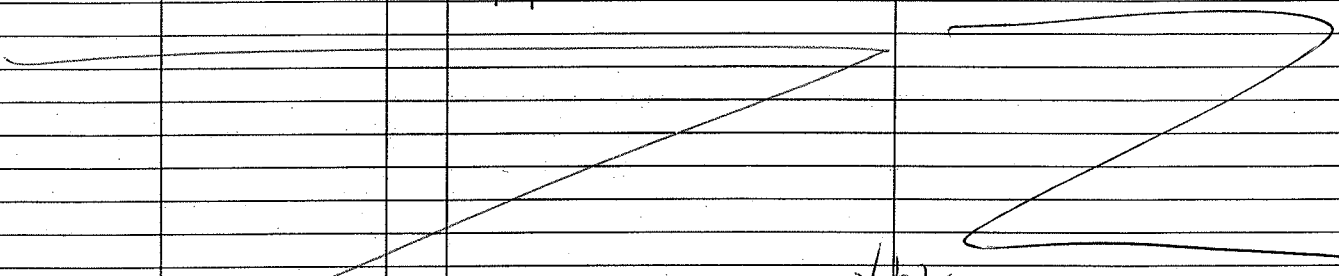
Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>3.0/3.1 °C</u>	<input checked="" type="checkbox"/> Cooler 2 <u>1.0/1.3 °C</u>	<input checked="" type="checkbox"/> Cooler 3 <u>2.5/2.0 °C</u>
	<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 ~ 11/14 B - S/N 210271396 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	4-12	D2	Jet fuel B is not indicated on label	R8
2	13,14	D7	two dates on label: 02/20/22 and 02/02/22	R1
				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. MS 3/4/22

**NOTES/OBSERVATIONS:**

**LEGEND:**

**Code Description- Sample Management**

- D1 Analysis is not indicated in \_\_\_\_\_
- D2 Analysis mismatch COC vs label
- D3 Sample ID mismatch COC vs label
- D4 Sample ID is not indicated in \_\_\_\_\_
- D5 Container -[improper] [leaking] [broken]
- D6 Date/Time is not indicated in \_\_\_\_\_
- D7 Date/Time mismatch COC vs label
- D8 Sample listed in COC is not received
- D9 Sample received is not listed in COC
- D10 No initial/date on corrections in COC/label
- D11 Container count mismatch COC vs received
- D12 Container size mismatch COC vs received

**Code Description-Sample Management**

- D13 Out of Holding Time
- D14 Bubble is >6mm
- D15 No trip blank in cooler
- D16 Preservation not indicated in \_\_\_\_\_
- D17 Preservation mismatch COC vs label
- D18 Insufficient chemical preservative
- D19 Insufficient Sample
- D20 No filtration info for dissolved analysis
- D21 No sample for moisture determination
- D22 \_\_\_\_\_
- D23 \_\_\_\_\_
- D24 \_\_\_\_\_

Continue to next page.

**Code Description-Sample Management**

- R1 Proceed as indicated in  COC  Label
- R2 Refer to attached instruction
- R3 Cancel the analysis
- R4 Use vial with smallest bubble first
- R5 Log-in with latest sampling date and time+1 min
- R6 Adjust pH as necessary
- R7 Filter and preserved as necessary
- R8 Informed Client
- R9 \_\_\_\_\_
- R10 \_\_\_\_\_
- R11 \_\_\_\_\_
- R12 \_\_\_\_\_

**REVIEWS:**

Sample Labeling Joelyne Solis Ramos  
 Date 03/03/22 3/3/22

SRF Cocilla  
 Date 3/3/22

PM MS  
 Date 3/4/22

## 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

990425

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

SDG#: 22C036

## CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 990425

SDG : 22C036

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

A total of two(2) water samples were received on 03/03/22 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. VG39C01B - 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. VG39C01L/VG39C01C 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 C036-01M/C036-01S. 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 : 990425

SDG NO. : 22C036  
Instrument ID : GCT039

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
WATER									
202203020789	VG39C01B	1	NA	03/03/2213:31	03/03/2213:31	EC03004A	EC03003A	22VG39C01	Method Blank
202203020788	VG39C01L	1	NA	03/03/2214:08	03/03/2214:08	EC03005A	EC03003A	22VG39C01	Lab Control Sample (LCS)
202203020788MS	VG39C01C	1	NA	03/03/2214:44	03/03/2214:44	EC03006A	EC03003A	22VG39C01	LCS Duplicate
202203020788MSD	C036-02	1	NA	03/03/2221:28	03/03/2221:28	EC03017A	EC03014A	22VG39C01	Field Sample
	C036-01	1	NA	03/03/2222:05	03/03/2222:05	EC03018A	EC03014A	22VG39C01	Field Sample
	C036-01M	1	NA	03/03/2222:42	03/03/2222:42	EC03019A	EC03014A	22VG39C01	Matrix Spike Sample (MS)
	C036-01S	1	NA	03/03/2223:18	03/03/2223:18	EC03020A	EC03014A	22VG39C01	MS Duplicate (MSD)

FN - Filename  
% Moist - Percent Moisture

# SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 02/28/22 10:03
Project     : 990425                     Date Received: 03/03/22
Batch No.   : 22C036                     Date Extracted: 03/03/22 22:05
Sample ID   : 202203020788              Date Analyzed: 03/03/22 22:05
Lab Samp ID : C036-01                    Dilution Factor: 1
Lab File ID : EC03018A                   Matrix: WATER
Ext Btch ID : 22VG39C01                  % Moisture: NA
Calib. Ref.: EC03014A                    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	0.0316	0.0400	79	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: 02/28/22 10:03
Project     : 990425                      Date Received: 03/03/22
Batch No.   : 22C036                      Date Extracted: 03/03/22 21:28
Sample ID   : 202203020789               Date Analyzed: 03/03/22 21:28
Lab Samp ID : C036-02                     Dilution Factor: 1
Lab File ID : EC03017A                   Matrix: WATER
Ext Btch ID : 22VG39C01                  % Moisture: NA
Calib. Ref. : EC03014A                   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	0.0312	0.0400	78	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: 03/03/22 13:31
Project     : 990425                      Date Received: 03/03/22
Batch No.   : 22C036                      Date Extracted: 03/03/22 13:31
Sample ID   : MBLK1W                      Date Analyzed: 03/03/22 13:31
Lab Samp ID : VG39C01B                    Dilution Factor: 1
Lab File ID : EC03004A                    Matrix: WATER
Ext Btch ID : 22VG39C01                   % Moisture: NA
Calib. Ref. : EC03003A                    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	0.0334	0.0400	84	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 : 990425  
BATCH NO. : 22C036  
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W         LCD1W
LAB SAMPLE ID : VG39C01B                         VG39C01L     VG39C01C
LAB FILE ID  : EC03004A                         EC03005A     EC03006A
DATE PREPARED : 03/03/22 13:31                 03/03/22 14:08 03/03/22 14:44
DATE ANALYZED : 03/03/22 13:31                 03/03/22 14:08 03/03/22 14:44
PREP BATCH   : 22VG39C01                       22VG39C01   22VG39C01
CALIBRATION REF: EC03003A                       EC03003A    EC03003A
  
```

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	0.466	93	0.500	0.465	93	0	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0400	100	0.0400	0.0413	103	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 : 990425  
BATCH NO. : 22C036  
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 202203020788	202203020788MS	202203020788MSD
LAB SAMPLE ID	: C036-01	C036-01M	C036-01S
LAB FILE ID	: EC03018A	EC03019A	EC03020A
DATE PREPARED	: 03/03/22 22:05	03/03/22 22:42	03/03/22 23:18
DATE ANALYZED	: 03/03/22 22:05	03/03/22 22:42	03/03/22 23:18
PREP BATCH	: 22VG39C01	22VG39C01	22VG39C01
CALIBRATION REF:	EC03014A	EC03014A	EC03014A

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	0.466	93	0.500	0.458	92	2	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0434	109	0.0400	0.0468	117	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

990425

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22C036

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 990425

SDG : 22C036

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 03/03/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was 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. DSC008WB - 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 DSC008WL. 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. Diesel was within MS QC limits in 22C036-01M/22C036-01S. 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

The sample was 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: 990425

SDG : 22C036

METHOD 3520C/8015B  
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 03/03/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time

The sample was 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. DSC008WB - 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 J5C008WL. 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 22C036-01M/22C036-01S. 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

The sample was 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: 990425

SDG : 22C036

### METHOD 3520C/8015B PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 03/03/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

#### Holding Time

The sample was 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. DSC008WB - 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 J8C008WL. 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 22C036-01M/22C036-01S. 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

The sample was 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 EXTRACTION

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=====
Client      : EUROFINS EATON ANALYTICAL
Project    : 990425
SDG NO.   : 22C036
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	DSC008WB	1	NA	03/08/2215:08	03/07/2211:45	LC08009A	LC08003A	22DSC008W	Method Blank
LCS1W	DSC008WL	1	NA	03/08/2215:26	03/07/2211:45	LC08010A	LC08003A	22DSC008W	Lab Control Sample (LCS)
202203020788	C036-01	1	NA	03/08/2217:16	03/07/2211:45	LC08016A	LC08003A	22DSC008W	Field Sample
202203020788MS	C036-07M	1	NA	03/08/2217:35	03/07/2211:45	LC08017A	LC08003A	22DSC008W	Matrix Spike Sample (MS)
202203020788MSD	C036-01S	1	NA	03/08/2217:53	03/07/2211:45	LC08018A	LC08003A	22DSC008W	MS Duplicate (MSD)

```

FN      - Filename
% Moist - Percent Moisture

```

LAB CHRONICLE  
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL  
Project : 990425

SDG NO. : 22C036  
Instrument ID : D5

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	WATER		Extraction Date/Time	Sample Data FN	Calibration Prep. Data FN	Notes
				Analysis Date/Time	Extraction Date/Time				
MBLK1W	DSC008WB	1	NA	03/08/2215:08	03/07/2211:45	LC08009A	LC08004A	22DSC008W	Method Blank
LCS1W	J5C008WL	1	NA	03/08/2215:45	03/07/2211:45	LC08011A	LC08004A	22DSC008W	Lab Control Sample (LCS)
202203020788	C036-01	1	NA	03/08/2217:16	03/07/2211:45	LC08016A	LC08004A	22DSC008W	Field Sample
202203020788MS	C036-01M	1	NA	03/08/2218:12	03/07/2211:45	LC08019A	LC08004A	22DSC008W	Matrix Spike Sample (MS)
202203020788MSD	C036-01S	1	NA	03/08/2218:30	03/07/2211:45	LC08020A	LC08004A	22DSC008W	MS Duplicate (MSD)

FN - Filename  
% Moist - Percent Moisture



LAB CHRONICLE  
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL  
Project : 990425

SDG NO. : 22C036  
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	DSC008WB	1	NA	03/08/2215:08	03/07/2211:45	LC08009A	LC08005A	22DSC008W	Method Blank
LCS1W	J8C008WL	1	NA	03/08/2216:03	03/07/2211:45	LC08012A	LC08005A	22DSC008W	Lab Control Sample (LCS)
202203020788	C036-01	1	NA	03/08/2217:16	03/07/2211:45	LC08016A	LC08005A	22DSC008W	Field Sample
202203020788MS	C036-01M	1	NA	03/08/2218:49	03/07/2211:45	LC08021A	LC08005A	22DSC008W	Matrix Spike Sample (MS)
202203020788MSD	C036-01S	1	NA	03/08/2219:07	03/07/2211:45	LC08022A	LC08005A	22DSC008W	MS Duplicate (MSD)

FN - Filename  
% Moist - Percent Moisture

# SAMPLE RESULTS

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client       : EUROFINS EATON ANALYTICAL   Date Collected: 02/28/22 10:03
Project      : 990425                       Date Received: 03/03/22
Batch No.    : 22C036                       Date Extracted: 03/07/22 11:45
Sample ID    : 202203020788                Date Analyzed: 03/08/22 17:16
Lab Samp ID  : 22C036-01                   Dilution Factor: 1
Lab File ID  : LC08016A                     Matrix: WATER
Ext Btch ID  : 22DSC008W                    % Moisture: NA
Calib. Ref. : LC08003A                     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	0.405	0.475	85	60-130	
Hexacosane	0.141	0.119	119	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 : POrreto                        Analyzed by : SDeeso

METHOD 3520C/8015B  
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 02/28/22 10:03
Project     : 990425                      Date Received: 03/03/22
Batch No.   : 22C036                      Date Extracted: 03/07/22 11:45
Sample ID   : 202203020788                Date Analyzed: 03/08/22 17:16
Lab Samp ID : 22C036-01                   Dilution Factor: 1
Lab File ID : LC08016A                    Matrix: WATER
Ext Btch ID : 22DSC008W                   % Moisture: NA
Calib. Ref.: LC08004A                     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	0.405	0.475	85	60 130
Hexacosane	0.141	0.119	119	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 : P0reto                         Analyzed by : SDeeso

METHOD 3520C/8015B  
 PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 02/28/22 10:03
Project    : 990425                       Date Received: 03/03/22
Batch No.  : 22C036                       Date Extracted: 03/07/22 11:45
Sample ID  : 202203020788                Date Analyzed: 03/08/22 17:16
Lab Samp ID: 22C036-01                    Dilution Factor: 1
Lab File ID: LC08016A                      Matrix: WATER
Ext Btch ID: 22DSC008W                     % Moisture: NA
Calib. Ref.: LC08005A                     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	0.405	0.475	85	60-130
Hexacosane	0.141	0.119	119	60-130

Notes:

RL : Reporting Limit  
 Parameter H-C Range  
 JP8 CB-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 : P0reto Analyzed by : SDeeso

# QC SUMMARIES

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 03/07/22 11:45
Project    : 990425                       Date Received: 03/07/22
Batch No.  : 22C036                       Date Extracted: 03/07/22 11:45
Sample ID  : MBLK1W                       Date Analyzed: 03/08/22 15:08
Lab Samp ID: DSC008WB                     Dilution Factor: 1
Lab File ID: LC08009A                     Matrix: WATER
Ext Btch ID: 22DSC008W                    % Moisture: NA
Calib. Ref.: LC08003A                     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	0.375	0.500	75	60-130	
Hexacosane	0.134	0.125	107	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 : POrreto                        Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSC008WB	DSC008WL
LAB FILE ID	: LC08009A	LC08010A
DATE PREPARED	: 03/07/22 11:45	03/07/22 11:45
DATE ANALYZED	: 03/08/22 15:08	03/08/22 15:26
PREP BATCH	: 22DSC008W	22DSC008W
CALIBRATION REF:	LC08003A	LC08003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----	-----
Diesel	ND	2.50	2.50	100	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----
Bromobenzene	0.500	0.432	86	60-130
Hexacosane	0.125	0.147	118	60-130

=====

MB: Method Blank sample    LCS: Lab Control Sample



EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                % MOISTURE:NA
DILUTION FACTOR: 1                                1
SAMPLE ID   : 202203020788                        202203020788MSD
LAB SAMPLE ID : 22C036-01                          22C036-01S
LAB FILE ID  : LC08016A                            LC08018A
DATE PREPARED : 03/07/22 11:45                    03/07/22 11:45
DATE ANALYZED : 03/08/22 17:16                    03/08/22 17:53
PREP BATCH   : 22DSC008W                          22DSC008W
CALIBRATION REF: LC08003A                          LC08003A
=====
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.53	2.37	94	2.53	2.44	97	3	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.505	0.451	89	0.505	0.448	89	60-130
Hexacosane	0.126	0.147	116	0.126	0.152	120	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: 03/07/22 11:45
Project     : 990425                      Date Received: 03/07/22
Batch No.   : 22C036                      Date Extracted: 03/07/22 11:45
Sample ID   : MBLK1W                      Date Analyzed: 03/08/22 15:08
Lab Samp ID: DSC008WB                    Dilution Factor: 1
Lab File ID: LC08009A                    Matrix: WATER
Ext Btch ID: 22DSC008W                   % Moisture: NA
Calib. Ref.: LC08004A                    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	0.375	0.500	75	60-130
Hexacosane	0.134	0.125	107	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 : P0reto                        Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

MATRIX : WATER % MOISTURE:NA  
DILUTION FACTOR: 1 1  
SAMPLE ID : MBLK1W LCS1W  
LAB SAMPLE ID : DSC008WB J5C008WL  
LAB FILE ID : LC08009A LC08011A  
DATE PREPARED : 03/07/22 11:45 03/07/22 11:45  
DATE ANALYZED : 03/08/22 15:08 03/08/22 15:45  
PREP BATCH : 22DSC008W 22DSC008W  
CALIBRATION REF: LC08004A LC08004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP5	ND	2.50	2.69	108	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.471	94	60-130
Hexacosane	0.125	0.146	117	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 202203020788                       202203020788MSD
LAB SAMPLE ID : 22C036-01                         22C036-01M
LAB FILE ID  : LC08016A                           LC08019A
DATE PREPARED : 03/07/22 11:45                   03/07/22 11:45
DATE ANALYZED : 03/08/22 17:16                   03/08/22 18:30
PREP BATCH   : 22DSC008W                         22DSC008W
CALIBRATION REF: LC08004A                         LC08004A
=====

```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.50	2.26	90	2.50	2.71	108	18	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.398	80	0.500	0.459	92	60-130
Hexacosane	0.125	0.146	117	0.125	0.141	113	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: 03/07/22 11:45
Project    : 990425                      Date Received: 03/07/22
Batch No.  : 22C036                      Date Extracted: 03/07/22 11:45
Sample ID  : MBLK1W                      Date Analyzed: 03/08/22 15:08
Lab Samp ID: DSC008WB                   Dilution Factor: 1
Lab File ID: LC08009A                   Matrix: WATER
Ext Btch ID: 22DSC008W                  % Moisture: NA
Calib. Ref.: LC08005A                   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	0.375	0.500	75	60-130
Hexacosane	0.134	0.125	107	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 : P0reto                         Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

MATRIX : WATER % MOISTURE:NA  
DILUTION FACTOR: 1 1  
SAMPLE ID : MBLK1W LCS1W  
LAB SAMPLE ID : DSC008WB J8C008WL  
LAB FILE ID : LC08009A LC08012A  
DATE PREPARED : 03/07/22 11:45 03/07/22 11:45  
DATE ANALYZED : 03/08/22 15:08 03/08/22 16:03  
PREP BATCH : 22DSC008W 22DSC008W  
CALIBRATION REF: LC08005A LC08005A

ACCESSION:

PARAMETERS	MRResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.48	99	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.484	97	60-130
Hexacosane	0.125	0.145	116	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 990425  
BATCH NO. : 22C036  
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 202203020788                       202203020788MSD
LAB SAMPLE ID : 22C036-01                         22C036-01S
LAB FILE ID  : LC08016A                          LC08022A
DATE PREPARED : 03/07/22 11:45                   03/07/22 11:45
DATE ANALYZED : 03/08/22 17:16                   03/08/22 19:07
PREP BATCH   : 22DSC008W                         22DSC008W
CALIBRATION REF: LC08005A                        LC08005A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.75	2.96	108	2.78	2.86	103	3	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.550	0.639	116	0.555	0.548	99	60-130
Hexacosane	0.138	0.156	113	0.139	0.153	110	60-130

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