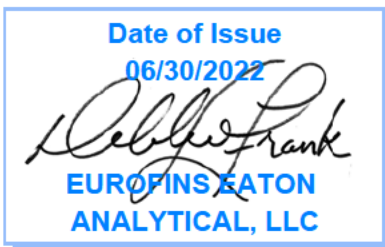


750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

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: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022) - EMAX

* 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	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 Pseudalert	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 Disinfect ion Byproducts	EPA 317.0	x	
Acrylamide	+ LCMS 2440)	x		Perchlorate	EPA 331.0	x	
Algal Toxins/Microcys in	+ 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 #: 1007135
 Project: RED-HILL
 Sample Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX
 Project Manager: Debbie L Frank
 Phone: (626) 386-1149
 PO #: C20525101 exp 05312023

The following samples were received from you on **June 02, 2022 at 1012**. 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>202206030095</u>	AIEA GULCH WELLS P1 (331-201-TP071)	05/31/2022 1024
	@525PLUS C PLUS TICS (SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil	
<u>202206030096</u>	TB:AIEA GULCH WELLS P1 (331-201-TP071)	05/31/2022 1024
	(UB)Gas Fraction Hydrocarbons	
<u>202206030097</u>	AIEA GULCH WELLS P2 (331-202-TP072)	05/31/2022 1043
	@525PLUS C PLUS TICS (SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil	
<u>202206030098</u>	TB:AIEA GULCH WELLS P2 (331-202-TP072)	05/31/2022 1043
	(SUB)Gas Fraction Hydrocarbons	
<u>202206030099</u>	AIEA WELLS P2 (260)-331-004-WL103	05/31/2022 0958
	@525PLUS C PLUS TICS (SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil	
<u>202206030100</u>	TB: AIEA WELLS P2 (260)-331-004-WL103	05/31/2022 0958
	(SUB)Gas Fraction Hydrocarbons	
<u>202206030101</u>	HALAWA WELLS P2 (331-024-WL064)	05/31/2022 0937
	@525PLUS C PLUS TICS (SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil	
<u>202206030102</u>	TB: HALAWA WELLS P2 (331-024-WL064)	05/31/2022 0937
	(SUB)Gas Fraction Hydrocarbons	

Test Description

@525PLUS C PLUS TICS -- Semivolatiles by GCMS

Kit Order for BOARD OF WATER SUPPLY, CITY AND COUNTY OF

Debbie L Frank is your Eurofins Eaton Analytical, LLC Service Manager

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

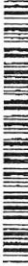
Created Date & Time: 4/27/2022 3:15:49PM

Note: Sampler Please return this paper with your samples

Kit #: 318557



Client ID: HONOLULU



Created By: - [AutoGenerated]
 Deliver By: 05/04/2022
 STG: Bottle Orders
 Ice Type: W

Project Code: RED-HILL Bottle Orders
 Group Name: Weekly TPH-8015_RED-HILL (2022) - EMAX
 PO#/JOB#: C20525101 exp 05312023
 Description: Every 1 week on Wed

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 #
6	TPH 8015 Diesel and Motor Oil_C <input checked="" type="checkbox"/> 3 - 1L amber glass [1 ml Thio 8%]	18	
5	@525PLUS C PLUS TICS 2 - 1L amber glass [45mg Sulfite xis+1 vial 2 ml 6N HCl]	10	UN1789
1	@525PLUS C PLUS TICS 3 - 1L amber glass [45mg Sulfite xis+1 vial 2 ml 6N HCl]	3	UN1789
6	8015 Gas_C <input checked="" type="checkbox"/> 4 - 40ml amber glass vial [1 drop Thio (8%)]	24	
6	8015 Gas_TB <input checked="" type="checkbox"/> 2 - 40ml amber glass vial [1 drop Thio (8%) + H2O]	12	

Sum Tests: 24

Sum Bottles: 67

Comments

WEEKLY SAMPLING

5/31/2022

Moanalua Wells

INTERNAL CHAIN OF CUSTODY RECORD

Eaton Analytical

EEA Folder Number:

SAMPLE TEMP RECEIVED;
Notes: If sampler 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 = C49A (Observation = 4.6 °C) (Corr. Factor = 0.3 °C) (Final = 4.3 °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 816-4, HAA (828, 882), 805, SPME, @CH, 832LCMS, 886, 898, Anstoxin, LCMS methods using 40 ml vials, International Pillaris;

Temp ID	Bottle #	None/<8	>8mm	Test	Temp ID	Bottle #	None/<8	>8mm	Test

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

RECEIVED BY: <u>ASD</u>	PRINT NAME: <u>G. REITER</u>	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: <u>06/02/22</u>	TIME: <u>10:12</u>
SAMPLES CHECKED AGAINST COC BY: _____	PRINT NAME: _____	COMPANY/TITLE: <u>Eurofins Eaton Analytical</u>	DATE: _____	TIME: _____

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 10405

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 = 649A (Observation = 4.3 °C) (Corr. Factor = -0.3 °C) (Final = 4.0 °C)

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

METHOD OF SHIPMENT: Pk-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):

Example from headspace concerns: Methods 816.4, HAA(826,882), 505, 8PM5, @CH, 532LGM8, 558, 559, Anatoxin, LCMB methods using 40 ml vials, international clients:

Samp. ID	Bottle #	None/<8	>8mm	Test	Samp. ID	Bottle #	None/<8	>8mm	Test

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

SIGNATURE: <u>MDA</u>	PRINT NAME: _____	COMPANY/TITLE: _____	DATE: _____	TIME: _____
SIGNATURE: <u>G. REITNER</u>	PRINT NAME: _____	COMPANY/TITLE: _____	DATE: <u>06/02/22</u>	TIME: <u>10:12</u>
SAMPLES CHECKED AGAINST GOOD BY: _____	PRINT NAME: _____	COMPANY/TITLE: _____	DATE: _____	TIME: _____

ORIGIN ID: HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

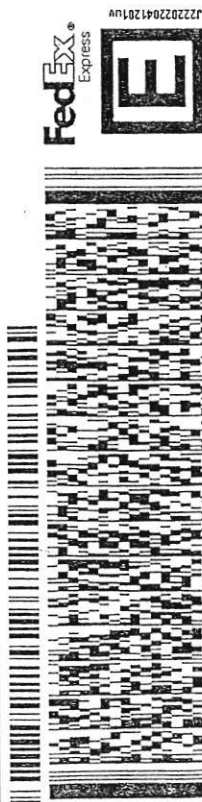
SHIP DATE: 01 JUN 22
ACTWGT: 62.00 LB
CAD: 100205419/INET4490

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

REF: (626) 386-1178

PO: INV: DEPT:

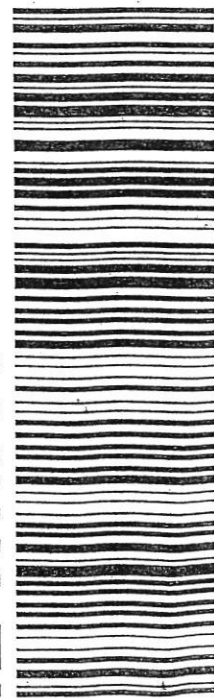
577J274F/E4A



THU - 02 JUN 10:30A
PRIORITY OVERNIGHT

1 of 3
TRK# 7770 1457 6277
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MASTER

91016
BUR
CA-US



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HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES, US

SHIP DATE: 01 JUN 22
ACTWGT: 62.00 LB
CAD: 100205419/IN/ET 4490

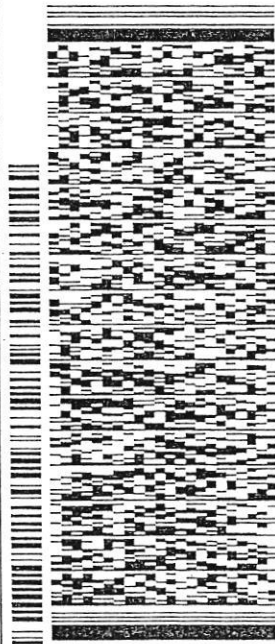
BILL RECIPIENT

TO **BROOKS**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
REF: (626) 386-1178

577J2274FFE4A

DEPT:

PO:



J222022041201uv

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PRIORITY OVERNIGHT

2 of 3

MPS# 7770 1457 5650

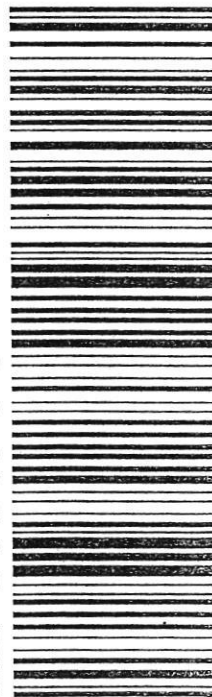
0263

Mstr# 7770 1457 6277

0201

91016
CA-US BUR

WZ WHPA



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- 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.

SHIP DATE: 01 JUN 22
ACTWGT: 62.00 LB
CAD: 100205419/NET4490

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

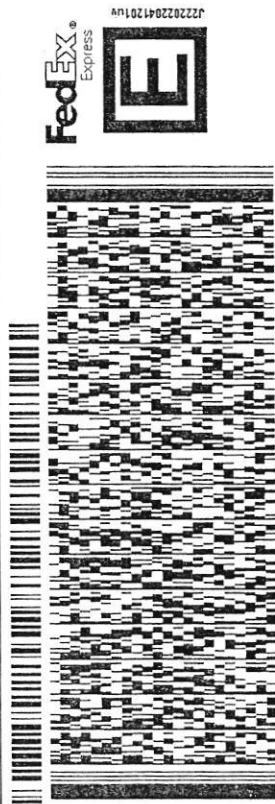
BILL RECIPIENT

TO **BROOKS**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016
REF: (626) 386-1178

577 J2/274FE4A

DEPT

PO



THU - 02 JUN 10:30A

PRIORITY OVERNIGHT

3 of 3

MPS# 7770 1457 3955

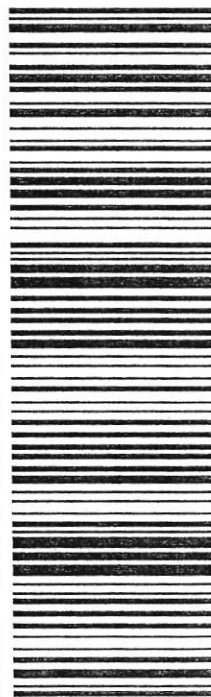
0263

Mstr# 7770 1457 6277

91016

CA-US BUR

WZ WHPA



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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.

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

Laboratory Comments

Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
- EMAX

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

Folder Comments

Analytical results for TPH Gas, Diesel, and Mortor Oil are submitted by EMAX Laboratories, Torrance, CA

ND reporting (subcontract lab reports)

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported as ND, are ND at the RL.

Tentatively Identified compounds (TIC).

The analyte has been "tentatively identified" as present and the associated numerical value is the estimated concentration in the sample. The analytes are not positively identified or quantified. Presentation of results in this report does not indicate actual presence of the compound identified in the TIC summary. Information is for study purposes only.

@525.2 (SVOC by GCMS)

Sample 202206030095: @525.2 TIC's

Compound	Est. Conc.	Retention Time
Unknown	1.3 ug/L	2.943 minutes

Sample 202206030097: @525.2 TIC's: ND

Sample 202206030099: @525.2 TIC's: ND

Sample 202206030101: @525.2 TIC's: ND

(525.2-SVOC)L4

Caffeine is low bias, Caffeine is not a specific target for this testing. Not Reported.

Flags Legend:

L4 - The associated blank spike recovery was below method acceptance limits.

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.



Eaton Analytical

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Laboratory Hits

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Samples Received on:
06/02/2022 1012

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
	202206030101	<u>HALAWA WELLS P2 (331-024-WL064)</u>				
06/08/2022 17:10	alpha-Chlordane		0.057		ug/L	0.050
06/08/2022 17:10	Bromacil		0.11		ug/L	0.10
06/08/2022 17:10	gamma-Chlordane		0.067		ug/L	0.050

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Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
AIEA GULCH WELLS P1 (331-201-TP071) (202206030095)						Sampled on 05/31/2022 1024			
EPA 525.2 - Semivolatiles by GCMS									
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	1-Methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	2-methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	4,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	4,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	4,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Acenaphthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Acetochlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Alachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Anthracene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Atrazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Beta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Bromacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Butachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Caffeine by method 525mod	NR (L4,R7)	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chloroneb	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chrysene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Delta-BHC	ND	ug/L	0.10	1

Rounding on totals after summation.
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Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

Honolulu Board of Water Supply
 Erwin Kawata
 630 South Beretania Street
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 Honolulu, HI 96843

Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Dieldrin	ND	ug/L	0.20	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Dimethoate	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1.0	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Endrin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	EPTC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Fluoranthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Fluorene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Heptachlor	ND	ug/L	0.040	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Isophorone	ND	ug/L	0.50	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Lindane	ND	ug/L	0.040	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Malathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Methoxychlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Metolachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Metribuzin	ND (R7)	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Molinate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Naphthalene	ND	ug/L	0.30	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Parathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Pendimethalin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Permethrin (mixed isomers)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Phenanthrene	ND	ug/L	0.040	1

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Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

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

Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Propachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Simazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Terbacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Terbutylazine	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Trifluralin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	92	%		1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Acenaphthene-d10	76	%		1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Chrysene-d12	90	%		1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Perylene-d12	99	%		1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Phenanthrene-d10	83	%		1
06/06/22	06/08/22 16:04	1411092	1411458	(EPA 525.2)	Triphenylphosphate	114	%		1
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/03/22	06/03/22 21:06			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
06/06/22	06/07/22 18:31			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
06/06/22	06/07/22 18:31			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.048	1
<u>TB:AIEA GULCH WELLS P1 (331-201-TP071) (202206030096)</u>						Sampled on 05/31/2022 1024			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/03/22	06/03/22 22:54			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
<u>AIEA GULCH WELLS P2 (331-202-TP072) (202206030097)</u>						Sampled on 05/31/2022 1043			
EPA 525.2 - Semivolatiles by GCMS									
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	1-Methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	2-methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	4,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	4,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	4,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Acenaphthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.10	1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Acetochlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Alachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Anthracene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Atrazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Beta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Bromacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Butachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Caffeine by method 525mod	NR (L4,R7)	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chloroneb	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chrysene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Delta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Dieldrin	ND	ug/L	0.20	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Dimethoate	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1.0	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Endrin	ND	ug/L	0.10	1

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Report: 1007135
 Project: RED-HILL
 Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

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

Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	EPTC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Fluoranthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Fluorene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Heptachlor	ND	ug/L	0.040	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Isophorone	ND	ug/L	0.50	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Lindane	ND	ug/L	0.040	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Malathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Methoxychlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Metolachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Metribuzin	ND (R7)	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Molinate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Naphthalene	ND	ug/L	0.30	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Parathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Pendimethalin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Permethrin (mixed isomers)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Phenanthrene	ND	ug/L	0.040	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Propachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Simazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Terbacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Terbutylazine	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Trifluralin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	95	%		1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Acenaphthene-d10	71	%		1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Chrysene-d12	64	%		1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Perylene-d12	79	%		1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Phenanthrene-d10	74	%		1
06/06/22	06/08/22 16:26	1411092	1411458	(EPA 525.2)	Triphenylphosphate	89	%		1

SW 8015B - (SUB)Gas Fraction Hydrocarbons

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/03/22	06/03/22 23:30			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
06/06/22	06/07/22 19:26			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
06/06/22	06/07/22 19:26			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.047	1
TB:AIEA GULCH WELLS P2 (331-202-TP072) (202206030098)						Sampled on 05/31/2022 1043			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/04/22	06/04/22 00:06			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
AIEA WELLS P2 (260)-331-004-WL103 (202206030099)						Sampled on 05/31/2022 0958			
EPA 525.2 - Semivolatiles by GCMS									
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	1-Methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	2-methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	4,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	4,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	4,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Acenaphthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Acetochlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Alachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	alpha-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Anthracene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Atrazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Beta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Bromacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Butachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.50	1

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06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Caffeine by method 525mod	NR (L4,R7)	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chloroneb	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chrysene	ND	ug/L	0.020	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Delta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.60	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Dieldrin	ND	ug/L	0.20	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Dimethoate	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1.0	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Endrin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	EPTC	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Fluoranthene	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Fluorene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	gamma-Chlordane	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Heptachlor	ND	ug/L	0.040	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Isophorone	ND	ug/L	0.50	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Lindane	ND	ug/L	0.040	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Malathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Methoxychlor	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Metolachlor	ND	ug/L	0.050	1

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06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Metribuzin	ND (R7)	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Molinate	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Naphthalene	ND	ug/L	0.30	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Parathion	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Pendimethalin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Permethrin (mixed isomers)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Phenanthrene	ND	ug/L	0.040	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Propachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Simazine	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Terbacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Terbutylazine	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.20	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Trifluralin	ND	ug/L	0.10	1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	91	%		1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Acenaphthene-d10	77	%		1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Chrysene-d12	91	%		1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Perylene-d12	96	%		1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Phenanthrene-d10	83	%		1
06/06/22	06/08/22 16:48	1411092	1411458	(EPA 525.2)	Triphenylphosphate	114	%		1
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/04/22	06/04/22 00:41			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
06/06/22	06/07/22 19:45			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
06/06/22	06/07/22 19:45			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.047	1
<u>TB: AIEA WELLS P2 (260)-331-004-WL103 (202206030100)</u>							Sampled on 05/31/2022 0958		
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/04/22	06/04/22 01:17			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
<u>HALAWA WELLS P2 (331-024-WL064) (202206030101)</u>							Sampled on 05/31/2022 0937		
EPA 525.2 - Semivolatiles by GCMS									
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	1-Methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2,4-Dinitrotoluene	ND	ug/L	0.10	1

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Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

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

Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2,6-Dinitrotoluene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	2-methylnaphthalene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	4,4-DDD	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	4,4-DDE	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	4,4-DDT	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Acenaphthene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Acenaphthylene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Acetochlor	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Alachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Alpha-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	alpha-Chlordane	0.057	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Anthracene	ND	ug/L	0.020	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Atrazine	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Benz(a)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.020	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Benzo(b)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Benzo(g,h,i)Perylene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Benzo(k)Fluoranthene	ND	ug/L	0.020	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Beta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Bromacil	0.11 (R7)	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Butachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Butylbenzylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Caffeine by method 525mod	NR (L4,R7)	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chlorobenzilate	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chloroneb	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chlorothalonil(Draconil,Bravo)	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chlorpyrifos (Dursban)	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chrysene	ND	ug/L	0.020	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Delta-BHC	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.60	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Di(2-Ethylhexyl)phthalate	ND	ug/L	0.60	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Diazinon (Qualitative)	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Dibenz(a,h)Anthracene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Dichlorvos (DDVP)	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Dieldrin	ND	ug/L	0.20	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Diethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Dimethoate	ND (R7)	ug/L	0.10	1

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Laboratory Data

Report: 1007135
 Project: RED-HILL
 Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

Honolulu Board of Water Supply
 Erwin Kawata
 630 South Beretania Street
 Public Service Bldg. Room 308
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Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Dimethylphthalate	ND	ug/L	0.50	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Di-n-Butylphthalate	ND	ug/L	1.0	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Di-N-octylphthalate	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Endosulfan I (Alpha)	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Endosulfan II (Beta)	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Endosulfan Sulfate	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Endrin	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Endrin Aldehyde	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	EPTC	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Fluoranthene	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Fluorene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	gamma-Chlordane	0.067	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Heptachlor	ND	ug/L	0.040	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Heptachlor Epoxide (isomer B)	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Isophorone	ND	ug/L	0.50	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Lindane	ND	ug/L	0.040	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Malathion	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Methoxychlor	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Metolachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Metribuzin	ND (R7)	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Molinate	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Naphthalene	ND	ug/L	0.30	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Parathion	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Pendimethalin	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Permethrin (mixed isomers)	ND	ug/L	0.20	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Phenanthrene	ND	ug/L	0.040	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Propachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Pyrene	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Simazine	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Terbacil	ND (R7)	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Terbutylazine	ND	ug/L	0.10	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Thiobencarb (ELAP)	ND	ug/L	0.20	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	trans-Nonachlor	ND	ug/L	0.050	1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Trifluralin	ND	ug/L	0.10	1

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Laboratory Data

Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

Honolulu Board of Water Supply
 Erwin Kawata
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Samples Received on:
 06/02/2022 1012

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	90	%		1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Acenaphthene-d10	76	%		1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Chrysene-d12	94	%		1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Perylene-d12	97	%		1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Phenanthrene-d10	84	%		1
06/06/22	06/08/22 17:10	1411092	1411458	(EPA 525.2)	Triphenylphosphate	116	%		1
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/04/22	06/04/22 01:53			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
06/06/22	06/07/22 20:04			(SW 8015B)	TPH Diesel	ND	ug/L	0.024	1
06/06/22	06/07/22 20:04			(SW 8015B)	TPH Motor Oil	ND	ug/L	0.048	1
<u>TB: HALAWA WELLS P2 (331-024-WL064) (202206030102)</u>						Sampled on 05/31/2022 0937			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
06/04/22	06/04/22 02:28			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1

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Laboratory QC Summary

Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
- EMAX

Honolulu Board of Water Supply

Semivolatiles by GCMS

Prep Batch: 1411092 Analytical Batch: 1411458

Analysis Date: 06/08/2022

202206030095	AIEA GULCH WELLS P1 (331-201-TP071)
202206030097	AIEA GULCH WELLS P2 (331-202-TP072)
202206030099	AIEA WELLS P2 (260)-331-004-WL103
202206030101	HALAWA WELLS P2 (331-024-WL064)

Analyzed by: JWC
Analyzed by: JWC
Analyzed by: JWC
Analyzed by: JWC

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Report: 1007135
 Project: RED-HILL
 Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Semivolatiles by GCMS by EPA 525.2									
Prep Batch: 1411092 Analytical Batch: 1411458					Analysis Date: 06/08/2022				
DUP_202205260805	1,3-Dimethyl-2-nitrobenzene (S)			94.0	%	94	(70-130)		
LCS1	1,3-Dimethyl-2-nitrobenzene (S)		5	93.6	%	94	(70-130)		
LC 2	1,3 Dimethyl 2 nitrobenzene ()		5	90.6	%	91	(70-130)		
MBLK	1,3-Dimethyl-2-nitrobenzene (S)			92.2	%	92	(70-130)		
MRL_CHK	1,3-Dimethyl-2-nitrobenzene (S)		5	94.2	%	94	(70-130)		
MS_202205260804	1,3-Dimethyl-2-nitrobenzene (S)		5	92.6	%	93	(70-130)		
DUP_202205260805	1-Methylnaphthalene			ND	ug/L		(0-20)		
LCS1	1-Methylnaphthalene		2	1.78	ug/L	89	(70-130)		
LCS2	1-Methylnaphthalene		2	1.77	ug/L	88	(70-130)	20	0.56
MBLK	1-Methylnaphthalene			<0.1	ug/L				
MRL_CHK	1-Methylnaphthalene		0.1	0.0960	ug/L	96	(50-150)		
MS_202205260804	1-Methylnaphthalene		2	1.81	ug/L	90	(70-130)		
DUP_202205260805	2,4-DDD			ND	ug/L		(0-20)		
LCS1	2,4-DDD		2	1.97	ug/L	99	(70-130)		
LCS2	2,4-DDD		2	2.08	ug/L	104	(70-130)	20	5.4
MBLK	2,4-DDD			<0.1	ug/L				
MRL_CHK	2,4-DDD		0.1	0.111	ug/L	111	(50-150)		
MS_202205260804	2,4-DDD		2	2.09	ug/L	105	(70-130)		
DUP_202205260805	2,4-DDE			ND	ug/L		(0-20)		
LCS1	2,4-DDE		2	1.98	ug/L	99	(70-130)		
LCS2	2,4-DDE		2	2.08	ug/L	104	(70-130)	20	4.9
MBLK	2,4-DDE			<0.1	ug/L				
MRL_CHK	2,4-DDE		0.1	0.104	ug/L	104	(50-150)		
MS_202205260804	2,4-DDE		2	2.03	ug/L	102	(70-130)		
DUP_202205260805	2,4-DDT			ND	ug/L		(0-20)		
LCS1	2,4-DDT		2	2.02	ug/L	101	(70-130)		
LCS2	2,4-DDT		2	2.14	ug/L	107	(70-130)	20	5.8
MBLK	2,4-DDT			<0.1	ug/L				
MRL_CHK	2,4-DDT		0.1	0.108	ug/L	108	(50-150)		
MS_202205260804	2,4-DDT		2	2.12	ug/L	106	(70-130)		
DUP_202205260805	2,4-Dinitrotoluene			ND	ug/L		(0-20)		
LCS1	2,4-Dinitrotoluene		2	1.64	ug/L	82	(70-130)		
LCS2	2,4-Dinitrotoluene		2	1.93	ug/L	97	(70-130)	20	16
MBLK	2,4-Dinitrotoluene			<0.1	ug/L				
MRL_CHK	2,4-Dinitrotoluene		0.1	0.102	ug/L	102	(50-150)		

Spike recovery is already corrected for native results.
 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
 Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
 RPD not calculated for LCS2 when different a concentration than LCS1 is used.
 RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
 (S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.

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Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202205260804	2,4-Dinitrotoluene		2	2.06	ug/L	103	(70-130)		
DUP_202205260805	2,6-Dinitrotoluene			ND	ug/L		(0-20)		
LCS1	2,6-Dinitrotoluene		2	1.77	ug/L	89	(70-130)		
LCS2	2,6-Dinitrotoluene		2	2.10	ug/L	105	(70-130)	20	17
MBLK	2,6-Dinitrotoluene			<0.1	ug/L				
MRL_CHK	2,6-Dinitrotoluene		0.1	0.0930	ug/L	93	(50-150)		
MS_202205260804	2,6-Dinitrotoluene		2	2.14	ug/L	107	(70-130)		
DUP_202205260805	2-methylnaphthalene			ND	ug/L		(0-20)		
LCS1	2-methylnaphthalene		2	1.90	ug/L	95	(70-130)		
LCS2	2-methylnaphthalene		2	1.87	ug/L	94	(70-130)	20	1.6
MBLK	2-methylnaphthalene			<0.1	ug/L				
MRL_CHK	2-methylnaphthalene		0.1	0.0990	ug/L	99	(50-150)		
MS_202205260804	2-methylnaphthalene		2	1.89	ug/L	95	(70-130)		
DUP_202205260805	4,4-DDD			ND	ug/L		(0-20)		
LCS1	4,4-DDD		2	2.06	ug/L	103	(70-130)		
LCS2	4,4-DDD		2	2.15	ug/L	108	(70-130)	20	4.3
MBLK	4,4-DDD			<0.1	ug/L				
MRL_CHK	4,4-DDD		0.1	0.103	ug/L	103	(50-150)		
MS_202205260804	4,4-DDD		2	2.16	ug/L	108	(70-130)		
DUP_202205260805	4,4-DDE			ND	ug/L		(0-20)		
LCS1	4,4-DDE		2	2.12	ug/L	106	(70-130)		
LCS2	4,4-DDE		2	2.26	ug/L	113	(70-130)	20	6.4
MBLK	4,4-DDE			<0.1	ug/L				
MRL_CHK	4,4-DDE		0.1	0.105	ug/L	105	(50-150)		
MS_202205260804	4,4-DDE		2	2.25	ug/L	112	(70-130)		
DUP_202205260805	4,4-DDT			ND	ug/L		(0-20)		
LCS1	4,4-DDT		2	2.16	ug/L	108	(70-130)		
LCS2	4,4-DDT		2	2.31	ug/L	115	(70-130)	20	6.7
MBLK	4,4-DDT			<0.1	ug/L				
MRL_CHK	4,4-DDT		0.1	0.0990	ug/L	99	(50-150)		
MS_202205260804	4,4-DDT		2	2.32	ug/L	116	(70-130)		
DUP_202205260805	Acenaphthene			ND	ug/L		(0-20)		
LCS1	Acenaphthene		2	1.69	ug/L	85	(70-130)		
LCS2	Acenaphthene		2	1.71	ug/L	86	(70-130)	20	1.2
MBLK	Acenaphthene			<0.1	ug/L				
MRL_CHK	Acenaphthene		0.1	0.0870	ug/L	87	(50-150)		
MS_202205260804	Acenaphthene		2	1.74	ug/L	87	(70-130)		
DUP_202205260805	Acenaphthene-d10 (I)			76.4	%	76	(50-150)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Acenaphthene-d10 (I)		5	98.0	%	98	(50-150)		
LCS2	Acenaphthene-d10 (I)		5	88.0	%	88	(50-150)		
MBLK	Acenaphthene-d10 (I)			83.3	%	83	(50-150)		
MRL_CHK	Acenaphthene-d10 (I)		5	93.4	%	93	(50-150)		
MS_202205260804	Acenaphthene-d10 (I)		5	80.0	%	80	(50-150)		
DUP_202205260805	Acenaphthylene			ND	ug/L		(0-20)		
LCS1	Acenaphthylene		2	1.74	ug/L	87	(70-130)		
LCS2	Acenaphthylene		2	1.75	ug/L	88	(70-130)	20	0.57
MBLK	Acenaphthylene			<0.1	ug/L				
MRL_CHK	Acenaphthylene		0.1	0.0750	ug/L	75	(50-150)		
MS_202205260804	Acenaphthylene		2	1.78	ug/L	89	(70-130)		
DUP_202205260805	Acetochlor			ND	ug/L		(0-20)		
LCS1	Acetochlor		2	1.89	ug/L	95	(70-130)		
LCS2	Acetochlor		2	1.94	ug/L	97	(70-130)	20	2.6
MBLK	Acetochlor			<0.1	ug/L				
MRL_CHK	Acetochlor		0.05	0.0400	ug/L	80	(50-150)		
MS_202205260804	Acetochlor		2	1.98	ug/L	99	(70-130)		
DUP_202205260805	Alachlor			ND	ug/L		(0-20)		
LCS1	Alachlor		2	1.89	ug/L	94	(70-130)		
LCS2	Alachlor		2	1.94	ug/L	97	(70-130)	20	2.6
MBLK	Alachlor			<0.05	ug/L				
MRL_CHK	Alachlor		0.05	0.0480	ug/L	96	(50-150)		
MS_202205260804	Alachlor		2	1.95	ug/L	98	(70-130)		
DUP_202205260805	Alpha-BHC			ND	ug/L		(0-20)		
LCS1	Alpha-BHC		2	1.93	ug/L	96	(70-130)		
LCS2	Alpha-BHC		2	1.96	ug/L	98	(70-130)	20	1.5
MBLK	Alpha-BHC			<0.1	ug/L				
MRL_CHK	Alpha-BHC		0.1	0.111	ug/L	111	(50-150)		
MS_202205260804	Alpha-BHC		2	2.03	ug/L	101	(70-130)		
DUP_202205260805	alpha-Chlordane			ND	ug/L		(0-20)		
LCS1	alpha-Chlordane		2	2.12	ug/L	106	(70-130)		
LCS2	alpha-Chlordane		2	2.19	ug/L	109	(70-130)	20	2.8
MBLK	alpha-Chlordane			<0.05	ug/L				
MRL_CHK	alpha-Chlordane		0.05	0.0540	ug/L	108	(50-150)		
MS_202205260804	alpha-Chlordane		2	2.20	ug/L	110	(70-130)		
DUP_202205260805	Anthracene			ND	ug/L		(0-20)		
LCS1	Anthracene		2	1.84	ug/L	92	(70-130)		
LCS2	Anthracene		2	1.86	ug/L	93	(70-130)	20	1.1

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	Anthracene			<0.02	ug/L				
MRL_CHK	Anthracene		0.02	0.0180	ug/L	90	(50-150)		
MS_202205260804	Anthracene		2	1.87	ug/L	93	(70-130)		
DUP_202205260805	Atrazine	ND		ND	ug/L		(0-20)		
LCS1	Atrazine		2	2.14	ug/L	107	(70-130)		
LCS2	Atrazine		2	2.28	ug/L	114	(70-130)	20	6.3
MBLK	Atrazine			<0.05	ug/L				
MRL_CHK	Atrazine		0.05	0.0550	ug/L	110	(50-150)		
MS_202205260804	Atrazine	ND	2	2.40	ug/L	120	(70-130)		
DUP_202205260805	Benz(a)Anthracene			ND	ug/L		(0-20)		
LCS1	Benz(a)Anthracene		2	2.02	ug/L	101	(70-130)		
LCS2	Benz(a)Anthracene		2	2.17	ug/L	109	(70-130)	20	7.2
MBLK	Benz(a)Anthracene			<0.05	ug/L				
MRL_CHK	Benz(a)Anthracene		0.05	0.0510	ug/L	102	(50-150)		
MS_202205260804	Benz(a)Anthracene		2	2.16	ug/L	108	(70-130)		
DUP_202205260805	Benzo(a)pyrene	ND		ND	ug/L		(0-20)		
LCS1	Benzo(a)pyrene		2	1.91	ug/L	96	(70-130)		
LCS2	Benzo(a)pyrene		2	2.00	ug/L	100	(70-130)	20	4.6
MBLK	Benzo(a)pyrene			<0.02	ug/L				
MRL_CHK	Benzo(a)pyrene		0.02	0.0150	ug/L	75	(50-150)		
MS_202205260804	Benzo(a)pyrene	ND	2	1.97	ug/L	99	(70-130)		
DUP_202205260805	Benzo(b)Fluoranthene			ND	ug/L		(0-20)		
LCS1	Benzo(b)Fluoranthene		2	1.92	ug/L	96	(70-130)		
LCS2	Benzo(b)Fluoranthene		2	2.08	ug/L	104	(70-130)	20	8.0
MBLK	Benzo(b)Fluoranthene			<0.02	ug/L				
MRL_CHK	Benzo(b)Fluoranthene		0.02	0.0190	ug/L	95	(50-150)		
MS_202205260804	Benzo(b)Fluoranthene		2	1.99	ug/L	100	(70-130)		
DUP_202205260805	Benzo(g,h,i)Perylene			ND	ug/L		(0-20)		
LCS1	Benzo(g,h,i)Perylene		2	2.21	ug/L	110	(70-130)		
LCS2	Benzo(g,h,i)Perylene		2	2.28	ug/L	114	(70-130)	20	3.1
MBLK	Benzo(g,h,i)Perylene			<0.05	ug/L				
MRL_CHK	Benzo(g,h,i)Perylene		0.05	0.0460	ug/L	92	(50-150)		
MS_202205260804	Benzo(g,h,i)Perylene		2	2.19	ug/L	110	(70-130)		
DUP_202205260805	Benzo(k)Fluoranthene			ND	ug/L		(0-20)		
LCS1	Benzo(k)Fluoranthene		2	2.15	ug/L	108	(70-130)		
LCS2	Benzo(k)Fluoranthene		2	2.21	ug/L	111	(70-130)	20	2.8
MBLK	Benzo(k)Fluoranthene			<0.02	ug/L				
MRL_CHK	Benzo(k)Fluoranthene		0.02	0.0170	ug/L	85	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202205260804	Benzo(k)Fluoranthene		2	2.14	ug/L	107	(70-130)		
DUP_202205260805	Beta-BHC			ND	ug/L		(0-20)		
LCS1	Beta-BHC		2	1.97	ug/L	99	(70-130)		
LCS2	Beta-BHC		2	2.02	ug/L	101	(70-130)	20	2.5
MBLK	Beta-BHC			<0.1	ug/L				
MRL_CHK	Beta-BHC		0.1	0.0960	ug/L	96	(50-150)		
MS_202205260804	Beta-BHC		2	2.14	ug/L	107	(70-130)		
DUP_202205260805	Bromacil			ND	ug/L		(0-20)		
LCS1	Bromacil		2	1.62	ug/L	81	(70-130)		
LCS2	Bromacil		2	2.38	ug/L	119	(70-130)	20	<u>37</u>
MBLK	Bromacil			<0.2	ug/L				
MRL_CHK	Bromacil		0.1	0.113	ug/L	113	(50-150)		
MS_202205260804	Bromacil		2	2.48	ug/L	124	(70-130)		
DUP_202205260805	Butachlor			ND	ug/L		(0-20)		
LCS1	Butachlor		2	1.93	ug/L	96	(70-130)		
LCS2	Butachlor		2	2.02	ug/L	101	(70-130)	20	4.6
MBLK	Butachlor			<0.05	ug/L				
MRL_CHK	Butachlor		0.05	0.0500	ug/L	100	(50-150)		
MS_202205260804	Butachlor		2	2.04	ug/L	102	(70-130)		
DUP_202205260805	Butylbenzylphthalate			ND	ug/L		(0-20)		
LCS1	Butylbenzylphthalate		2	1.92	ug/L	96	(70-130)		
LCS2	Butylbenzylphthalate		2	2.05	ug/L	102	(70-130)	20	6.5
MBLK	Butylbenzylphthalate			<0.5	ug/L				
MRL_CHK	Butylbenzylphthalate		0.15	0.163	ug/L	109	(50-150)		
MS_202205260804	Butylbenzylphthalate		2	2.10	ug/L	105	(70-130)		
DUP_202205260805	Caffeine by method 525mod			ND	ug/L		(0-20)		
LCS1	Caffeine by method 525mod		2	0.742	ug/L	<u>37</u>	(45-137)		
LCS2	Caffeine by method 525mod		2	1.80	ug/L	90	(45-137)	20	<u>83</u>
MBLK	Caffeine by method 525mod			<0.05	ug/L				
MRL_CHK	Caffeine by method 525mod		0.05	0.0410	ug/L	82	(50-150)		
MS_202205260804	Caffeine by method 525mod		2	2.15	ug/L	108	(46-144)		
DUP_202205260805	Chlorobenzilate			ND	ug/L		(0-20)		
LCS1	Chlorobenzilate		2	1.96	ug/L	98	(70-130)		
LC 2	Chlorobenzilate		2	2.06	ug/L	103	(70 130)	20	5.0
MBLK	Chlorobenzilate			<0.1	ug/L				
MRL_CHK	Chlorobenzilate		0.1	0.0950	ug/L	95	(50-150)		
MS_202205260804	Chlorobenzilate		2	2.14	ug/L	107	(70-130)		
DUP_202205260805	Chloroneb			ND	ug/L		(0-20)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Chloroneb		2	1.92	ug/L	96	(70-130)		
LCS2	Chloroneb		2	1.93	ug/L	97	(70-130)	20	0.52
MBLK	Chloroneb			<0.1	ug/L				
MRL_CHK	Chloroneb		0.1	0.101	ug/L	101	(50-150)		
MS_202205260804	Chloroneb		2	1.96	ug/L	98	(70-130)		
DUP_202205260805	Chlorothalonil(Draconil,Bravo)			ND	ug/L		(0-20)		
LCS1	Chlorothalonil(Draconil,Bravo)		2	2.27	ug/L	114	(70-130)		
LCS2	Chlorothalonil(Draconil,Bravo)		2	2.33	ug/L	117	(70-130)	20	2.6
MBLK	Chlorothalonil(Draconil,Bravo)			<0.1	ug/L				
MRL_CHK	Chlorothalonil(Draconil,Bravo)		0.1	0.105	ug/L	105	(50-150)		
MS_202205260804	Chlorothalonil(Draconil,Bravo)		2	2.37	ug/L	118	(70-130)		
DUP_202205260805	Chlorpyrifos (Dursban)			ND	ug/L		(0-20)		
LCS1	Chlorpyrifos (Dursban)		2	1.95	ug/L	98	(70-130)		
LCS2	Chlorpyrifos (Dursban)		2	1.97	ug/L	99	(70-130)	20	1.0
MBLK	Chlorpyrifos (Dursban)			<0.05	ug/L				
MRL_CHK	Chlorpyrifos (Dursban)		0.05	0.0430	ug/L	86	(50-150)		
MS_202205260804	Chlorpyrifos (Dursban)		2	1.99	ug/L	100	(70-130)		
DUP_202205260805	Chrysene			ND	ug/L		(0-20)		
LCS1	Chrysene		2	1.96	ug/L	98	(70-130)		
LCS2	Chrysene		2	2.01	ug/L	101	(70-130)	20	2.5
MBLK	Chrysene			<0.02	ug/L				
MRL_CHK	Chrysene		0.02	0.0190	ug/L	95	(50-150)		
MS_202205260804	Chrysene		2	2.01	ug/L	101	(70-130)		
DUP_202205260805	Chrysene-d12 (I)			92.3	%	92	(50-150)		
LCS1	Chrysene-d12 (I)		5	107	%	107	(50-150)		
LCS2	Chrysene-d12 (I)		5	104	%	104	(50-150)		
MBLK	Chrysene-d12 (I)			97.4	%	97	(50-150)		
MRL_CHK	Chrysene-d12 (I)		5	99.3	%	99	(50-150)		
MS_202205260804	Chrysene-d12 (I)		5	97.0	%	97	(50-150)		
DUP_202205260805	Delta-BHC			ND	ug/L		(0-20)		
LCS1	Delta-BHC		2	1.84	ug/L	92	(70-130)		
LCS2	Delta-BHC		2	1.86	ug/L	93	(70-130)	20	1.1
MBLK	Delta-BHC			<0.1	ug/L				
MRL_CHK	Delta-BHC		0.1	0.108	ug/L	108	(50-150)		
MS_202205260804	Delta-BHC		2	1.92	ug/L	96	(70-130)		
DUP_202205260805	Di-(2-Ethylhexyl)adipate	ND		ND	ug/L		(0-20)		
LCS1	Di-(2-Ethylhexyl)adipate		2	1.90	ug/L	95	(70-130)		
LCS2	Di-(2-Ethylhexyl)adipate		2	2.14	ug/L	107	(70-130)	20	12

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	Di-(2-Ethylhexyl)adipate			<0.6	ug/L				
MRL_CHK	Di-(2-Ethylhexyl)adipate		0.3	0.331	ug/L	110	(50-150)		
MS_202205260804	Di-(2-Ethylhexyl)adipate	ND	2	2.03	ug/L	102	(70-130)		
DUP_202205260805	Di(2-E hylhexyl)phthalate	ND		ND	ug/L		(0-20)		
LCS1	Di(2-E hylhexyl)phthalate		2	1.71	ug/L	85	(70-130)		
LCS2	Di(2-E hylhexyl)phthalate		2	1.84	ug/L	92	(70-130)	20	7.3
MBLK	Di(2-E hylhexyl)phthalate			<0.6	ug/L				
MRL_CHK	Di(2-E hylhexyl)phthalate		0.6	0.588	ug/L	98	(50-150)		
MS_202205260804	Di(2-E hylhexyl)phthalate	ND	2	1.74	ug/L	87	(70-130)		
DUP_202205260805	Diazinon (Qualitative)			ND	ug/L		(0-20)		
LCS1	Diazinon (Qualitative)		2	1.60	ug/L	80	(15-132)		
LCS2	Diazinon (Qualitative)		2	1.72	ug/L	86	(15-132)	20	7.2
MBLK	Diazinon (Qualitative)			<0.10	ug/L				
MRL_CHK	Diazinon (Qualitative)		0.1	0.0790	ug/L	79	(15-132)		
MS_202205260804	Diazinon (Qualitative)		2	1.92	ug/L	96	(15-132)		
DUP_202205260805	Dibenz(a,h)Anthracene			ND	ug/L		(0-20)		
LCS1	Dibenz(a,h)Anthracene		2	2.13	ug/L	107	(70-130)		
LCS2	Dibenz(a,h)Anthracene		2	2.26	ug/L	113	(70-130)	20	5.9
MBLK	Dibenz(a,h)Anthracene			<0.05	ug/L				
MRL_CHK	Dibenz(a,h)Anthracene		0.05	0.0420	ug/L	84	(50-150)		
MS_202205260804	Dibenz(a,h)Anthracene		2	2.12	ug/L	106	(70-130)		
DUP_202205260805	Dichlorvos (DDVP)			ND	ug/L		(0-20)		
LCS1	Dichlorvos (DDVP)		2	2.07	ug/L	103	(70-130)		
LCS2	Dichlorvos (DDVP)		2	2.21	ug/L	111	(70-130)	20	6.5
MBLK	Dichlorvos (DDVP)			<0.05	ug/L				
MRL_CHK	Dichlorvos (DDVP)		0.05	0.0540	ug/L	108	(50-150)		
MS_202205260804	Dichlorvos (DDVP)		2	2.28	ug/L	114	(70-130)		
DUP_202205260805	Dieldrin			ND	ug/L		(0-20)		
LCS1	Dieldrin		2	1.84	ug/L	92	(70-130)		
LCS2	Dieldrin		2	1.92	ug/L	96	(70-130)	20	4.3
MBLK	Dieldrin			<0.2	ug/L				
MRL_CHK	Dieldrin		0.1	0.115	ug/L	115	(50-150)		
MS_202205260804	Dieldrin		2	1.99	ug/L	99	(70-130)		
DUP_202205260805	Diethylphthalate			ND	ug/L		(0-20)		
LCS1	Diethylphthalate		2	1.85	ug/L	93	(70-130)		
LCS2	Diethylphthalate		2	1.89	ug/L	95	(70-130)	20	2.1
MBLK	Diethylphthalate			<0.5	ug/L				
MRL_CHK	Diethylphthalate		0.15	0.166	ug/L	111	(50-150)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202205260804	Diethylphthalate		2	1.95	ug/L	98	(70-130)		
DUP_202205260805	Dimethoate			ND	ug/L		(0-20)		
LCS1	Dimethoate		2	0.744	ug/L	37	(35-100)		
LCS2	Dimethoate		2	1.73	ug/L	87	(35-100)	20	<u>80</u>
MBLK	Dimethoate			<0.1	ug/L				
MRL_CHK	Dimethoate		0.1	0.0950	ug/L	95	(35-100)		
MS_202205260804	Dimethoate		2	2.02	ug/L	101	(34-111)		
DUP_202205260805	Dimethylphthalate			ND	ug/L		(0-20)		
LCS1	Dimethylphthalate		2	1.97	ug/L	99	(70-130)		
LCS2	Dimethylphthalate		2	2.04	ug/L	102	(70-130)	20	3.5
MBLK	Dimethylphthalate			<0.5	ug/L				
MRL_CHK	Dimethylphthalate		0.3	0.295	ug/L	98	(50-150)		
MS_202205260804	Dimethylphthalate		2	2.09	ug/L	105	(70-130)		
DUP_202205260805	Di-n-Butylphthalate			ND	ug/L		(0-20)		
LCS1	Di-n-Butylphthalate		4	3.39	ug/L	85	(70-130)		
LCS2	Di-n-Butylphthalate		4	3.50	ug/L	88	(70-130)	20	3.2
MBLK	Di-n-Butylphthalate			<1	ug/L				
MRL_CHK	Di-n-Butylphthalate		0.3	0.316	ug/L	105	(50-150)		
MS_202205260804	Di-n-Butylphthalate		4	3.59	ug/L	90	(70-130)		
DUP_202205260805	Di-N-octylphthalate			ND	ug/L		(0-20)		
LCS1	Di-N-octylphthalate		2	1.42	ug/L	71	(70-130)		
LCS2	Di-N-octylphthalate		2	1.55	ug/L	78	(70-130)	20	8.8
MBLK	Di-N-octylphthalate			<0.1	ug/L				
MRL_CHK	Di-N-octylphthalate		0.1	0.0760	ug/L	76	(50-150)		
MS_202205260804	Di-N-octylphthalate		2	1.45	ug/L	72	(70-130)		
DUP_202205260805	Endosulfan I (Alpha)			ND	ug/L		(0-20)		
LCS1	Endosulfan I (Alpha)		2	1.84	ug/L	92	(70-130)		
LCS2	Endosulfan I (Alpha)		2	1.95	ug/L	97	(70-130)	20	5.8
MBLK	Endosulfan I (Alpha)			<0.1	ug/L				
MRL_CHK	Endosulfan I (Alpha)		0.1	0.106	ug/L	106	(50-150)		
MS_202205260804	Endosulfan I (Alpha)		2	1.99	ug/L	99	(70-130)		
DUP_202205260805	Endosulfan II (Beta)			ND	ug/L		(0-20)		
LCS1	Endosulfan II (Beta)		2	1.95	ug/L	98	(70-130)		
LCS2	Endosulfan II (Beta)		2	2.05	ug/L	103	(70-130)	20	5.0
MBLK	Endosulfan II (Beta)			<0.1	ug/L				
MRL_CHK	Endosulfan II (Beta)		0.1	0.112	ug/L	112	(50-150)		
MS_202205260804	Endosulfan II (Beta)		2	2.11	ug/L	106	(70-130)		
DUP_202205260805	Endosulfan Sulfate			ND	ug/L		(0-20)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Endosulfan Sulfate		2	2.23	ug/L	111	(70-130)		
LCS2	Endosulfan Sulfate		2	2.37	ug/L	119	(70-130)	20	6.1
MBLK	Endosulfan Sulfate			<0.1	ug/L				
MRL_CHK	Endosulfan Sulfate		0.1	0.108	ug/L	108	(50-150)		
MS_202205260804	Endosulfan Sulfate		2	2.47	ug/L	124	(70-130)		
DUP_202205260805	Endrin			ND	ug/L		(0-20)		
LCS1	Endrin		2	1.85	ug/L	93	(70-130)		
LCS2	Endrin		2	1.98	ug/L	99	(70-130)	20	6.8
MBLK	Endrin			<0.1	ug/L				
MRL_CHK	Endrin		0.1	0.0990	ug/L	99	(50-150)		
MS_202205260804	Endrin		2	1.95	ug/L	98	(70-130)		
DUP_202205260805	Endrin Aldehyde			ND	ug/L		(0-20)		
LCS1	Endrin Aldehyde		2	2.03	ug/L	101	(70-130)		
LCS2	Endrin Aldehyde		2	2.16	ug/L	108	(70-130)	20	6.2
MBLK	Endrin Aldehyde			<0.1	ug/L				
MRL_CHK	Endrin Aldehyde		0.1	0.0860	ug/L	86	(50-150)		
MS_202205260804	Endrin Aldehyde		2	2.19	ug/L	110	(70-130)		
DUP_202205260805	EPTC			ND	ug/L		(0-20)		
LCS1	EPTC		2	1.84	ug/L	92	(70-130)		
LCS2	EPTC		2	1.84	ug/L	92	(70-130)	20	0.0
MBLK	EPTC			<0.1	ug/L				
MRL_CHK	EPTC		0.1	0.0960	ug/L	96	(50-150)		
MS_202205260804	EPTC		2	1.86	ug/L	93	(70-130)		
DUP_202205260805	Fluoranthene			ND	ug/L		(0-20)		
LCS1	Fluoranthene		2	1.93	ug/L	97	(70-130)		
LCS2	Fluoranthene		2	2.02	ug/L	101	(70-130)	20	4.6
MBLK	Fluoranthene			<0.1	ug/L				
MRL_CHK	Fluoranthene		0.05	0.0490	ug/L	98	(50-150)		
MS_202205260804	Fluoranthene		2	2.04	ug/L	102	(70-130)		
DUP_202205260805	Fluorene			ND	ug/L		(0-20)		
LCS1	Fluorene		2	1.88	ug/L	94	(70-130)		
LCS2	Fluorene		2	1.91	ug/L	96	(70-130)	20	1.6
MBLK	Fluorene			<0.05	ug/L				
MRL_CHK	Fluorene		0.05	0.0480	ug/L	96	(50-150)		
MS_202205260804	Fluorene		2	1.97	ug/L	99	(70-130)		
DUP_202205260805	gamma-Chlordane			ND	ug/L		(0-20)		
LCS1	gamma-Chlordane		2	2.13	ug/L	106	(70-130)		
LCS2	gamma-Chlordane		2	2.21	ug/L	110	(70-130)	20	3.7

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	gamma-Chlordane			<0.05	ug/L				
MRL_CHK	gamma-Chlordane		0.05	0.0560	ug/L	112	(50-150)		
MS_202205260804	gamma-Chlordane		2	2.17	ug/L	108	(70-130)		
DUP_202205260805	Heptachlor			ND	ug/L		(0-20)		
LCS1	Heptachlor		2	1.73	ug/L	87	(70-130)		
LCS2	Heptachlor		2	1.76	ug/L	88	(70-130)	20	1.7
MBLK	Heptachlor			<0.04	ug/L				
MRL_CHK	Heptachlor		0.04	0.0430	ug/L	108	(50-150)		
MS_202205260804	Heptachlor		2	1.78	ug/L	89	(70-130)		
DUP_202205260805	Heptachlor Epoxide (isomer B)			ND	ug/L		(0-20)		
LCS1	Heptachlor Epoxide (isomer B)		2	2.12	ug/L	106	(70-130)		
LCS2	Heptachlor Epoxide (isomer B)		2	2.19	ug/L	110	(70-130)	20	3.3
MBLK	Heptachlor Epoxide (isomer B)			<0.05	ug/L				
MRL_CHK	Heptachlor Epoxide (isomer B)		0.05	0.0500	ug/L	100	(50-150)		
MS_202205260804	Heptachlor Epoxide (isomer B)		2	2.19	ug/L	110	(70-130)		
DUP_202205260805	Hexachlorobenzene	ND		ND	ug/L		(0-20)		
LCS1	Hexachlorobenzene		2	2.02	ug/L	101	(70-130)		
LCS2	Hexachlorobenzene		2	2.07	ug/L	104	(70-130)	20	2.4
MBLK	Hexachlorobenzene			<0.05	ug/L				
MRL_CHK	Hexachlorobenzene		0.05	0.0600	ug/L	120	(50-150)		
MS_202205260804	Hexachlorobenzene	ND	2	2.10	ug/L	105	(70-130)		
DUP_202205260805	Hexachlorocyclopentadiene	ND		ND	ug/L		(0-20)		
LCS1	Hexachlorocyclopentadiene		2	1.94	ug/L	97	(70-130)		
LCS2	Hexachlorocyclopentadiene		2	1.94	ug/L	97	(70-130)	20	0.0
MBLK	Hexachlorocyclopentadiene			<0.05	ug/L				
MRL_CHK	Hexachlorocyclopentadiene		0.05	0.0440	ug/L	88	(50-150)		
MS_202205260804	Hexachlorocyclopentadiene	ND	2	1.94	ug/L	97	(70-130)		
DUP_202205260805	Indeno(1,2,3,c,d)Pyrene			ND	ug/L		(0-20)		
LCS1	Indeno(1,2,3,c,d)Pyrene		2	2.17	ug/L	108	(70-130)		
LCS2	Indeno(1,2,3,c,d)Pyrene		2	2.22	ug/L	111	(70-130)	20	2.7
MBLK	Indeno(1,2,3,c,d)Pyrene			<0.05	ug/L				
MRL_CHK	Indeno(1,2,3,c,d)Pyrene		0.05	0.0420	ug/L	84	(50-150)		
MS_202205260804	Indeno(1,2,3,c,d)Pyrene		2	2.12	ug/L	106	(70-130)		
DUP_202205260805	Isophorone			ND	ug/L		(0-20)		
LCS1	Isophorone		2	1.88	ug/L	94	(70-130)		
LCS2	Isophorone		2	1.93	ug/L	97	(70-130)	20	2.6
MBLK	Isophorone			<0.5	ug/L				
MRL_CHK	Isophorone		0.1	0.0920	ug/L	92	(50-150)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202205260804	Isophorone		2	1.96	ug/L	98	(70-130)		
DUP_202205260805	Lindane			ND	ug/L		(0-20)		
LCS1	Lindane		2	1.81	ug/L	90	(70-130)		
LCS2	Lindane		2	1.84	ug/L	92	(70-130)	20	1.6
MBLK	Lindane			<0.04	ug/L				
MRL_CHK	Lindane		0.04	0.0440	ug/L	110	(50-150)		
MS_202205260804	Lindane		2	1.95	ug/L	97	(70-130)		
DUP_202205260805	Malathion			ND	ug/L		(0-20)		
LCS1	Malathion		2	2.03	ug/L	101	(70-130)		
LCS2	Malathion		2	2.10	ug/L	105	(70-130)	20	3.4
MBLK	Malathion			<0.1	ug/L				
MRL_CHK	Malathion		0.1	0.0900	ug/L	90	(50-150)		
MS_202205260804	Malathion		2	2.12	ug/L	106	(70-130)		
DUP_202205260805	Methoxychlor			ND	ug/L		(0-20)		
LCS1	Methoxychlor		2	2.16	ug/L	108	(70-130)		
LCS2	Methoxychlor		2	2.18	ug/L	109	(70-130)	20	0.92
MBLK	Methoxychlor			<0.1	ug/L				
MRL_CHK	Methoxychlor		0.1	0.0960	ug/L	96	(50-150)		
MS_202205260804	Methoxychlor		2	2.21	ug/L	111	(70-130)		
DUP_202205260805	Metolachlor			ND	ug/L		(0-20)		
LCS1	Metolachlor		2	1.88	ug/L	94	(70-130)		
LCS2	Metolachlor		2	1.92	ug/L	96	(70-130)	20	2.1
MBLK	Metolachlor			<0.05	ug/L				
MRL_CHK	Metolachlor		0.05	0.0460	ug/L	92	(50-150)		
MS_202205260804	Metolachlor		2	1.94	ug/L	97	(70-130)		
DUP_202205260805	Metribuzin			ND	ug/L		(0-20)		
LCS1	Metribuzin		2	1.57	ug/L	79	(70-130)		
LCS2	Metribuzin		2	2.02	ug/L	101	(70-130)	20	<u>25</u>
MBLK	Metribuzin			<0.05	ug/L				
MRL_CHK	Metribuzin		0.05	0.0450	ug/L	90	(50-150)		
MS_202205260804	Metribuzin		2	2.14	ug/L	107	(70-130)		
DUP_202205260805	Molinate	ND		ND	ug/L		(0-20)		
LCS1	Molinate		2	1.95	ug/L	97	(70-130)		
LC 2	Molinate		2	1.98	ug/L	99	(70 130)	20	1.5
MBLK	Molinate			<0.1	ug/L				
MRL_CHK	Molinate		0.1	0.103	ug/L	103	(50-150)		
MS_202205260804	Molinate	ND	2	2.02	ug/L	101	(70-130)		
DUP_202205260805	Naphthalene			ND	ug/L		(0-20)		

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	Naphthalene		2	1.77	ug/L	89	(70-130)		
LCS2	Naphthalene		2	1.75	ug/L	88	(70-130)	20	1.1
MBLK	Naphthalene			<0.3	ug/L				
MRL_CHK	Naphthalene		0.1	0.0930	ug/L	93	(50-150)		
MS_202205260804	Naphthalene		2	1.78	ug/L	89	(70-130)		
DUP_202205260805	Parathion			ND	ug/L		(0-20)		
LCS1	Parathion		2	1.96	ug/L	98	(70-130)		
LCS2	Parathion		2	2.02	ug/L	101	(70-130)	20	3.0
MBLK	Parathion			<0.1	ug/L				
MRL_CHK	Parathion		0.1	0.0880	ug/L	88	(50-150)		
MS_202205260804	Parathion		2	2.05	ug/L	103	(70-130)		
DUP_202205260805	Pendimethalin			ND	ug/L		(0-20)		
LCS1	Pendimethalin		2	1.98	ug/L	99	(70-130)		
LCS2	Pendimethalin		2	2.05	ug/L	103	(70-130)	20	3.5
MBLK	Pendimethalin			<0.1	ug/L				
MRL_CHK	Pendimethalin		0.1	0.0980	ug/L	98	(50-150)		
MS_202205260804	Pendimethalin		2	2.09	ug/L	104	(70-130)		
DUP_202205260805	Permethrin (mixed isomers)			ND	ug/L		(0-20)		
LCS1	Permethrin (mixed isomers)		4	3.34	ug/L	83	(70-130)		
LCS2	Permethrin (mixed isomers)		4	3.54	ug/L	89	(70-130)	20	6.1
MBLK	Permethrin (mixed isomers)			<0.2	ug/L				
MRL_CHK	Permethrin (mixed isomers)		0.2	0.178	ug/L	89	(50-150)		
MS_202205260804	Permethrin (mixed isomers)		4	3.49	ug/L	87	(70-130)		
DUP_202205260805	Perylene-d12 (S)			93.8	%	94	(70-130)		
LCS1	Perylene-d12 (S)		5	96.4	%	96	(70-130)		
LCS2	Perylene-d12 (S)		5	99.4	%	99	(70-130)		
MBLK	Perylene-d12 (S)			93.8	%	94	(70-130)		
MRL_CHK	Perylene-d12 (S)		5	90.4	%	90	(70-130)		
MS_202205260804	Perylene-d12 (S)		5	95.8	%	96	(70-130)		
DUP_202205260805	Phenanthrene			ND	ug/L		(0-20)		
LCS1	Phenanthrene		2	1.76	ug/L	88	(70-130)		
LCS2	Phenanthrene		2	1.78	ug/L	89	(70-130)	20	1.1
MBLK	Phenanthrene			<0.04	ug/L				
MRL_CHK	Phenanthrene		0.02	0.0200	ug/L	100	(50-150)		
MS_202205260804	Phenanthrene		2	1.80	ug/L	90	(70-130)		
DUP_202205260805	Phenanthrene-d10 (I)			82.9	%	83	(50-150)		
LCS1	Phenanthrene-d10 (I)		5	102	%	102	(50-150)		
LCS2	Phenanthrene-d10 (I)		5	93.6	%	94	(50-150)		

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Report: 1007135
 Project: RED-HILL
 Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	Phenanthrene-d10 (I)			88.2	%	88	(50-150)		
MRL_CHK	Phenanthrene-d10 (I)		5	96.8	%	97	(50-150)		
MS_202205260804	Phenanthrene-d10 (I)		5	88.2	%	88	(50-150)		
DUP_202205260805	Propachlor			ND	ug/L		(0-20)		
LCS1	Propachlor		2	1.88	ug/L	94	(70-130)		
LCS2	Propachlor		2	1.97	ug/L	98	(70-130)	20	4.7
MBLK	Propachlor			<0.05	ug/L				
MRL_CHK	Propachlor		0.05	0.0490	ug/L	98	(50-150)		
MS_202205260804	Propachlor		2	2.10	ug/L	105	(70-130)		
DUP_202205260805	Pyrene			ND	ug/L		(0-20)		
LCS1	Pyrene		2	1.99	ug/L	99	(70-130)		
LCS2	Pyrene		2	2.04	ug/L	102	(70-130)	20	2.5
MBLK	Pyrene			<0.05	ug/L				
MRL_CHK	Pyrene		0.05	0.0480	ug/L	96	(50-150)		
MS_202205260804	Pyrene		2	2.10	ug/L	105	(70-130)		
DUP_202205260805	Simazine	ND		ND	ug/L		(0-20)		
LCS1	Simazine		2	1.96	ug/L	98	(70-130)		
LCS2	Simazine		2	2.26	ug/L	113	(70-130)	20	14
MBLK	Simazine			<0.05	ug/L				
MRL_CHK	Simazine		0.05	0.0560	ug/L	112	(50-150)		
MS_202205260804	Simazine	ND	2	2.42	ug/L	121	(70-130)		
DUP_202205260805	Terbacil			ND	ug/L		(0-20)		
LCS1	Terbacil		2	1.72	ug/L	86	(70-130)		
LCS2	Terbacil		2	2.21	ug/L	111	(70-130)	20	25
MBLK	Terbacil			<0.1	ug/L				
MRL_CHK	Terbacil		0.1	0.126	ug/L	126	(50-150)		
MS_202205260804	Terbacil		2	2.25	ug/L	113	(70-130)		
DUP_202205260805	Terbutylazine			ND	ug/L		(0-20)		
LCS1	Terbutylazine		2	2.09	ug/L	105	(70-130)		
LCS2	Terbutylazine		2	2.19	ug/L	110	(70-130)	20	4.7
MBLK	Terbutylazine			<0.1	ug/L				
MRL_CHK	Terbutylazine		0.1	0.101	ug/L	101	(50-150)		
MS_202205260804	Terbutylazine		2	2.32	ug/L	116	(70-130)		
DUP_202205260805	Thiobencarb	ND		ND	ug/L		(0-20)		
LCS1	Thiobencarb		2	1.85	ug/L	93	(70-130)		
LCS2	Thiobencarb		2	1.89	ug/L	94	(70-130)	20	2.1
MBLK	Thiobencarb			<0.2	ug/L				
MRL_CHK	Thiobencarb		0.1	0.0960	ug/L	96	(50-150)		

Spike recovery is already corrected for native results.
 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
 Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
 RPD not calculated for LCS2 when different a concentration than LCS1 is used.
 RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
 (S) - Indicates surrogate compound.
 (I) - Indicates internal standard compound.

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MS_202205260804	Thiobencarb	ND	2	1.94	ug/L	97	(70-130)		
DUP_202205260805	trans-Nonachlor			ND	ug/L		(0-20)		
LCS1	trans-Nonachlor		2	2.26	ug/L	113	(70-130)		
LCS2	trans-Nonachlor		2	2.31	ug/L	115	(70-130)	20	2.2
MBLK	trans-Nonachlor			<0.05	ug/L				
MRL_CHK	trans-Nonachlor		0.05	0.0540	ug/L	108	(50-150)		
MS_202205260804	trans-Nonachlor		2	2.34	ug/L	117	(70-130)		
DUP_202205260805	Trifluralin			ND	ug/L		(0-20)		
LCS1	Trifluralin		2	1.90	ug/L	95	(70-130)		
LCS2	Trifluralin		2	1.92	ug/L	96	(70-130)	20	1.1
MBLK	Trifluralin			<0.1	ug/L				
MRL_CHK	Trifluralin		0.1	0.0930	ug/L	93	(50-150)		
MS_202205260804	Trifluralin		2	1.98	ug/L	99	(70-130)		
DUP_202205260805	Triphenylphosphate (S)			121	%	121	(70-130)		
LCS1	Triphenylphosphate (S)		5	111	%	111	(70-130)		
LCS2	Triphenylphosphate (S)		5	117	%	117	(70-130)		
MBLK	Triphenylphosphate (S)			117	%	117	(70-130)		
MRL_CHK	Triphenylphosphate (S)		5	107	%	107	(70-130)		
MS_202205260804	Triphenylphosphate (S)		5	120	%	120	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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

Laboratory Hits

Report: 1007135
Project: RED-HILL
Group: Weekly TPH-8015_RED-HILL (2022)
 - EMAX

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

Samples Received on:
 06/02/2022 1012

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		<u>202206030101</u>				
		<u>HALAWA WELLS P2 (331-024-WL064)</u>				
06/08/2022 17:10	alpha-Chlordane		0.057		ug/L	0.050
06/08/2022 17:10	Bromacil		0.11		ug/L	0.10
06/08/2022 17:10	gamma-Chlordane		0.067		ug/L	0.050



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

Date: 06-16-2022
EMAX Batch No.: 22F041

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 1007135

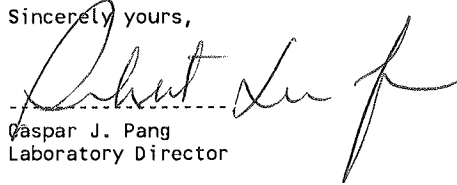
Enclosed is the Laboratory report for samples received on 06/03/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202206030095	F041-01	05/31/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
202206030096	F041-02	05/31/22	WATER	TPH GASOLINE
202206030097	F041-03	05/31/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
202206030098	F041-04	05/31/22	WATER	TPH GASOLINE
202206030099	F041-05	05/31/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
202206030100	F041-06	05/31/22	WATER	TPH GASOLINE
202206030101	F041-07	05/31/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
202206030102	F041-08	05/31/22	WATER	TPH GASOLINE
202206030095MS	F041-01M	05/31/22	WATER	TPH GASOLINE TPH DIESEL
202206030095MSD	F041-01S	05/31/22	WATER	TPH GASOLINE TPH DIESEL

The results are summarized on the following pages.

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

Sincerely yours,


Gaspar 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 CA002912022-22
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 #: 1007135
Report Due: 06/09/2022

Submittal Form

Date: 6/3/2022

22F041

*REPORTING REQUIREMENTS: Do Not Combine Reports with any other samples submitted under different Folder Numbers!
Report & Invoice must have the Folder # 1007135 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

Sample ID 202206030095 (1) Client Sample ID for reference on/ AIEA GULCH WELLS P1 (331-201-TP071) Sample Date & Time Matrix 05/31/22 1024 DW Clip Code PWSID JLS

Sample type: Sample Event: Analysis Requested (SUB)Gas Fraction Hydrocarbons and Motor Oil
Method SW 8015B EPA 5030C
SW 8015B EPA 3550B

Sample ID 202206030096 (2) Client Sample ID for reference on/ TB:AIEA GULCH WELLS P1 (331-201-TP071) Sample Date & Time Matrix 05/31/22 1024 DW Clip Code PWSID JLS

Sample type: Sample Event: Analysis Requested (SUB)Gas Fraction Hydrocarbons
Method SW 8015B EPA 5030C

Sample ID 202206030097 (3) Client Sample ID for reference on/ AIEA GULCH WELLS P2 (331-202-TP072) Sample Date & Time Matrix 05/31/22 1043 DW Clip Code PWSID JLS

Sample type: Sample Event: Analysis Requested (SUB)Gas Fraction Hydrocarbons and Motor Oil
Method SW 8015B EPA 5030C
SW 8015B EPA 3550B

Relinquished by: [Signature] Sample Control Date 6/2/22 Time 11:53
Received by: [Signature] Sample Control Date 6/2/22 Time 11:53

Temp: ① 4.9/5.1
② 3.3/3.5
CF: +0.2

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS
An Acknowledgement of Receipt is requested to attn: Jackie Contreras

22F041

Sample ID 202206030098	Client Sample ID for reference on! TB:AIEA GULCH WELLS P2 (331-202-TP072)	Sample Date & Time Matrix 05/31/22 1043 DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:	

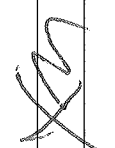
Method SW 8015B	Prep Method EPA 5030C	Analysis Requested (SUB)Gas Fraction Hydrocarbons			
Sample ID 202206030099	Client Sample ID for reference on! AIEA WELLS P2 (260)-331-004-WL103	Sample Date & Time Matrix 05/31/22 0958 DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:	

Method SW 8015B	Prep Method EPA 5030C	Analysis Requested (SUB)Gas Fraction Hydrocarbons			
SW 8015B	EPA 3550B	TPH 8015 Diesel and Motor Oil			
Sample ID 202206030100	Client Sample ID for reference on! TB:AIEA WELLS P2 (260)-331-004-WL103	Sample Date & Time Matrix 05/31/22 0958 DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:	

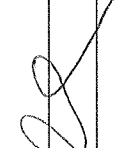
Method SW 8015B	Prep Method EPA 5030C	Analysis Requested (SUB)Gas Fraction Hydrocarbons			
Sample ID 202206030101	Client Sample ID for reference on! HALAWA WELLS P2 (331-024-WL064)	Sample Date & Time Matrix 05/31/22 0937 DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:	

Method SW 8015B	Prep Method EPA 5030C	Analysis Requested (SUB)Gas Fraction Hydrocarbons			
SW 8015B	EPA 3550B	TPH 8015 Diesel and Motor Oil			
Sample ID 202206030102	Client Sample ID for reference on! TB: HALAWA WELLS P2 (331-024-WL064)	Sample Date & Time Matrix 05/31/22 0937 DW	Clip Code	PWSID	JLS
Sample type:	Sample Event:	Sample Point ID:	Facility ID:	Static ID:	

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

Relinquished by:  Date: 6/3/22 Time: 1153

Received by: _____ Date: _____ Time: _____

Relinquished by:  Date: 6/3/22 Time: 1153

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

REPORT ID: 22F041-150 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 www.EurofinsUS.com/Eaton

Page 4 of 4

Page 3 of 33



Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input checked="" type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>22F041</u> Recipient <u>CECILIA CHAVEZ</u> Date <u>05/03/22</u> Time <u>11:53</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) Note:	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

PACKAGING INSPECTION

Container <u>Correction</u>	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition <u>factor to .2</u>	<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>4.9/5.1</u> °C	<input checked="" type="checkbox"/> Cooler 2 <u>3.3/3.5</u> °C	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer: <u>(A) S/N 210583479</u>	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 4 _____ °C
			<input type="checkbox"/> Cooler 5 _____ °C
			<input type="checkbox"/> Cooler 8 _____ °C
			<input type="checkbox"/> Cooler 9 _____ °C
			<input type="checkbox"/> Cooler 10 _____ °C
			C - S/N <u>210271399</u>
			D - S/N _____

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

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
<u>2, 6</u>	<u>B, 26, 27</u>	<u>D7</u>	<u>two dates listed - 05/24/22 and 05/31/22</u>	<u>R1</u>
<u>5</u>	<u>1A-25</u>	<u>D10</u>		<u>R8</u>
<u>6</u>	<u>24, 35</u>	<u>D7</u>	<u>two dates on label - 05/14/22 and 05/31/22</u>	<u>R1</u>
<u>2/6/22</u>				
<u>MS 6/5/22</u>				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:
 SAMPLE MATRIX IS DRINKING WATER? YES NO

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

REVIEWS:

Sample Labeling <u>Jocelyne Solis-Ramos</u>	SRF <u>Cecilia Chavez</u>	PM <u>MS</u>
Date <u>06/03/22</u>	Date <u>6/3/22</u>	Date <u>6/5/22</u>

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

1007135

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

SDG#: 22F041

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 1007135

SDG : 22F041

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

A total of eight(8) water samples were received on 06/03/22 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. VG39F02B - 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. VG39F02L/VG39F02C 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 F041-01M/F041-01S. 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.

SAMPLE RESULTS

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

```

=====
Client      : EUROFINS EATON ANALYTICAL    Date Collected: 05/31/22 10:24
Project    : 1007135                      Date Received: 06/03/22
Batch No.  : 22F041                       Date Extracted: 06/03/22 21:06
Sample ID  : 202206030095                 Date Analyzed: 06/03/22 21:06
Lab Samp ID: F041-01                      Dilution Factor: 1
Lab File ID: EF03016A                    Matrix: WATER
Ext Btch ID: 22VG39F02                   % Moisture: NA
Calib. Ref.: EF03015A                    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	0.0353	0.0400	88	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: 05/31/22 10:43
Project    : 1007135                     Date Received: 06/03/22
Batch No.  : 22F041                       Date Extracted: 06/03/22 23:30
Sample ID  : 202206030097                Date Analyzed: 06/03/22 23:30
Lab Samp ID: F041-03                      Dilution Factor: 1
Lab File ID: EF03020A                     Matrix: WATER
Ext Btch ID: 22VG39F02                    % Moisture: NA
Calib. Ref.: EF03015A                     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	0.0341	0.0400	85	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: 05/31/22 10:43
Project    : 1007135                     Date Received: 06/03/22
Batch No.  : 22F041                       Date Extracted: 06/04/22 00:06
Sample ID  : 202206030098                Date Analyzed: 06/04/22 00:06
Lab Samp ID: F041-04                      Dilution Factor: 1
Lab File ID: EF03021A                     Matrix: WATER
Ext Btch ID: 22VG39F02                    % Moisture: NA
Calib. Ref.: EF03015A                     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	0.0335	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

METHOD 50308/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

=====
Client : EUROFINS EATON ANALYTICAL Date Collected: 05/31/22 09:58
Project : 1007135 Date Received: 06/03/22
Batch No. : 22F041 Date Extracted: 06/04/22 00:41
Sample ID : 202206030099 Date Analyzed: 06/04/22 00:41
Lab Samp ID: F041-05 Dilution Factor: 1
Lab File ID: EF03022A Matrix: WATER
Ext Btch ID: 22VG39F02 % Moisture: NA
Calib. Ref.: EF03015A 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	0.0311	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

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

```

=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 05/31/22 09:58
Project     : 1007135                        Date Received: 06/03/22
Batch No.   : 22F041                          Date Extracted: 06/04/22 01:17
Sample ID   : 202206030100                   Date Analyzed: 06/04/22 01:17
Lab Samp ID: F041-06                          Dilution Factor: 1
Lab File ID: EF03023A                          Matrix: WATER
Ext Btch ID: 22VG39F02                         % Moisture: NA
Calib. Ref.: EF03015A                          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	0.0335	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

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/31/22 09:37
Project     : 1007135                     Date Received: 06/03/22
Batch No.   : 22F041                       Date Extracted: 06/04/22 02:28
Sample ID   : 202206030102                Date Analyzed: 06/04/22 02:28
Lab Samp ID: F041-08                       Dilution Factor: 1
Lab File ID: EF03025A                       Matrix: WATER
Ext Btch ID: 22VG39F02                     % Moisture: NA
Calib. Ref.: EF03015A                     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	0.0336	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

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 1007135
BATCH NO. : 22F041
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W         LCD1W
LAB SAMPLE ID : VG39F02B                         VG39F02L     VG39F02C
LAB FILE ID  : EF03005A                         EF03006A     EF03007A
DATE PREPARED : 06/03/22 14:31                 06/03/22 15:07 06/03/22 15:43
DATE ANALYZED : 06/03/22 14:31                 06/03/22 15:07 06/03/22 15:43
PREP BATCH   : 22VG39F02                       22VG39F02    22VG39F02
CALIBRATION REF: EF03004A                       EF03004A     EF03004A
  
```

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	0.473	95	0.500	0.487	97	3	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0453	113	0.0400	0.0464	116	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 : 1007135
BATCH NO. : 22F041
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 202206030095	202206030095MS	202206030095MSD
LAB SAMPLE ID	: F041-01	F041-01M	F041-01S
LAB FILE ID	: EF03016A	EF03017A	EF03018A
DATE PREPARED	: 06/03/22 21:06	06/03/22 21:42	06/03/22 22:18
DATE ANALYZED	: 06/03/22 21:06	06/03/22 21:42	06/03/22 22:18
PREP BATCH	: 22VG39F02	22VG39F02	22VG39F02
CALIBRATION REF:	EF03015A	EF03015A	EF03015A

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	0.535	107	0.500	0.557	111	4	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0473	118	0.0400	0.0462	116	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

1007135

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22F041

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 1007135

SDG : 22F041

METHOD 3520C/8015B TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 06/03/22 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. DSF005WB - 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. DSF005WL/DSF005WC 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. Diesel was within MS QC limits in 22F041-01M/22F041-01S. 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.

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/31/22 10:24
Project    : 1007135                     Date Received: 06/03/22
Batch No.  : 22F041                       Date Extracted: 06/06/22 10:15
Sample ID  : 202206030095                Date Analyzed: 06/07/22 18:31
Lab Samp ID: 22F041-01                   Dilution Factor: 1
Lab File ID: LF07025A                    Matrix: WATER
Ext Btch ID: 22DSF005W                   % Moisture: NA
Calib. Ref.: LF07018A                    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	0.450	0.475	95	60-130
Hexacosane	0.119	0.119	100	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 : JMuert Analyzed by : CMPang

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/31/22 09:58
Project     : 1007135                     Date Received: 06/03/22
Batch No.   : 22F041                       Date Extracted: 06/06/22 10:15
Sample ID   : 202206030099                Date Analyzed: 06/07/22 19:45
Lab Samp ID: 22F041-05                     Dilution Factor: 1
Lab File ID: LF07029A                      Matrix: WATER
Ext Btch ID: 22DSF005W                     % Moisture: NA
Calib. Ref.: LF07018A                      Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.024	0.012	
Motor Oil	ND	0.047	0.024	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.364	0.470	77	60-130
Hexacosane	0.118	0.118	100	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 : 1060ml Final Volume : 5ml
Prepared by : JMuert Analyzed by : CMPang

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 05/31/22 09:37
Project     : 1007135                     Date Received: 06/03/22
Batch No.   : 22F041                       Date Extracted: 06/06/22 10:15
Sample ID   : 202206030101                Date Analyzed: 06/07/22 20:04
Lab Samp ID: 22F041-07                     Dilution Factor: 1
Lab File ID: LF07030A                       Matrix: WATER
Ext Btch ID: 22DSF005W                       % Moisture: NA
Calib. Ref.: LF07018A                       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	0.414	0.475	87	60-130
Hexacosane	0.133	0.119	112	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 : JMuert Analyzed by : CMPang

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 06/06/22 10:15
Project     : 1007135                     Date Received: 06/06/22
Batch No.   : 22F041                      Date Extracted: 06/06/22 10:15
Sample ID   : MBLK1W                      Date Analyzed: 06/07/22 17:35
Lab Samp ID: DSF005WB                     Dilution Factor: 1
Lab File ID: LF07022A                     Matrix: WATER
Ext Btch ID: 22DSF005W                    % Moisture: NA
Calib. Ref.: LF07018A                     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	0.416	0.500	83	60-130
Hexacosane	0.122	0.125	98	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 : JMuert Analyzed by : CMPang

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 1007135
BATCH NO. : 22F041
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSF005WB	DSF005WL	DSF005WC
LAB FILE ID	: LF07022A	LF07023A	LF07024A
DATE PREPARED	: 06/06/22 10:15	06/06/22 10:15	06/06/22 10:15
DATE ANALYZED	: 06/07/22 17:35	06/07/22 17:54	06/07/22 18:12
PREP BATCH	: 22DSF005W	22DSF005W	22DSF005W
CALIBRATION REF:	LF07018A	LF07018A	LF07018A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.38	95	2.50	2.43	97	2	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.512	102	0.500	0.551	110	60-130
Hexacosane	0.125	0.126	101	0.125	0.135	108	60-130

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 : 1007135
BATCH NO. : 22F041
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 202206030095                       202206030095MSD
LAB SAMPLE ID : 22F041-01                         22F041-01S
LAB FILE ID  : LF07025A                          LF07026A
DATE PREPARED : 06/06/22 10:15                   06/06/22 10:15
DATE ANALYZED : 06/07/22 18:31                   06/07/22 19:08
PREP BATCH   : 22DSF005W                         22DSF005W
CALIBRATION REF: LF07018A                       LF07018A
=====
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.58	2.48	96	2.62	2.38	91	4	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.515	0.500	97	0.525	0.507	97	60-130
Hexacosane	0.129	0.137	106	0.131	0.128	98	60-130

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