eurofins | Eaton Analytical

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)

ACCREDITED
CERTIFICATE #'s 5890.01 & 5890.02

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

NELAP ACCREDITED TNI LABORATORY
Utah ELCP CA00006

Date of Issue
01/19/2022
EUROFINS EATON ANALYTICAL, LLC

DEB: Debbie L Frank
Project Manager

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

* Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.
* Laboratory certifies that the test results meet all **TNI 2016 and ISO/IEC 17025:2017** requirements unless noted under the individual analysis.
* As applicable, this report consists of the cover page, State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms.
* Test results relate only to the sample(s) tested.
* Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).
* This report shall not be reproduced except in full, without the written approval of the laboratory.
* This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

STATE CERTIFICATION LIST

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

* NELAP/TNI Recognized Accreditation Bodies

Eurofins Eaton Analytical, LLC
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www.EurofinsUS.com/Eaton

ISO/IEC 17025:2917 Accredited Method List
The test listed below are accredited and met the requirements of ISO/IEC 17025 as verify by A2LA.
Refer to our certificates and scope of accreditations (no. 5890-1 and 5890-2) found at:
https://www.eurofinsus.com/Eaton

Test(s)	Method(s)	Potable Water *	Waste Water
Enterococci	Enterolert	x	x
Escherichia coli (Enumeration)	SM 9221 B.1 SM 9221 F	x	
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x
Heterotrophic Bacteria	SM 9215 B	x	
Legionella	Legiolert®	x	
Pseudomonas aeruginosa	Idexx Pseudalert	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x	
Total Microcystins and Nodularins	EPA 546	X	
Yeast and Mold	SM 9610	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x	
1,4-Dioxane	EPA 522	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x	
Acrylamide	+LCMS 2440)	x	
Algal Toxins/Microcystin	+ LCMS 3570	x	
Alkalinity	SM 2320B	x	x
Ammonia	EPA 350.1, SM 4500-NH3 H		x
Asbestos	EPA 100.2	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x
BOD/CBOD	SM 5210 B		x
Bromate	+LCMS- 2447	x	
Carbonate as CO3	SM 2330 B	x	x
Carbonyls	EPA 556	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x
Chlorinated Acids	EPA 515.4	x	
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x	
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-Cl G	x	
Color	SM2120B	x	
Conductivity	EPA 120.1, SM 2510B	x	x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x	
Cyanide (Amenable)	SM 4500-CN G	x	x
Cyanide (Free)	SM 4500CN F	x	x
Cyanide (Total)	EPA 335.4	x	x
Cyanogen Chloride (Screen)	+335 Mod (WC-24467)	x	
Diquat and Paraquat	EPA 549.2	x	
DBP and HAA	SM 6251 B	x	
Dissolved Organic Carbon	SM 5310 C	x	
Dissolved Oxygen	SM 4500-O G		x
EDB/DCBP/TCP	EPA 504.1	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x	
EDTA and NTA	+ WC-2454	x	
Endothall	EPA 548.1, +(LCMS-2445)	x	
Fluoride	SM 4500F C	x	x
Glyphosate	EPA 547	x	
Glyphosate and AMPA	+LCMS-3618	x	
Gross Alpha and Gross Beta	EPA 900.0	x	x

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

(*) includes: Bottled Water, Drinking Water and Water as Component of Food & Beverage.
(+) In-House Method

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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 #: 976353
Project: RED-HILL
Sample Group: Red-Hill Expanded List (Albuquerque+)
Project Manager: Debbie L Frank
Phone: (626) 386-1149
PO #: C20525101 exp 05312023

The following samples were received from you on **December 21, 2021** at **1310**. 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
202112210151	HALAWA SHAFT-331-241-TP401	12/20/2021 0933

@625A_Physis C	@625BN_Physis C	@625PAH_Physis_TICS_C
@8015 Ethanol_Subbed	@VOASDWA C plus plus TICs C	(SUB)Gas Fraction Hydrocarbons
Miscellaneous Charges	TPH 8015 Diesel and Motor Oil	TPH 8015 Jet Fuel 5
TPH 8015 Jef Fuel 8		

Sample #	Sample ID	Sample Date
202112210152	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	12/20/2021 0933

@VOASDWA C plus plus TICs TBC	(SUB)Gas Fraction Hydrocarbons

Test Description

@625A_Physis C -- 625 Acid Extractable in ug/L

@625BN_Physis C -- 625 Base Neutral Extractable in ug/L

@625PAH_Physis_TICS_C -- 625PAH in ug/L

@8015 Ethanol_Subbed -- Ethanol

@VOASDWA C plus plus TICs C -- Volatile Organics by GCMS

@VOASDWA C plus plus TICs TBC -- Volatile Organics by GCMS

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CHAIN OF CUSTODY RECORD

976353

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____ SAMPLES CHECKED AGAINST COC BY: _____

_____ SAMPLES LOGGED IN BY: _____

SAMPLE TEMP RECEIVED AT: SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

☐ Colton / No. California / Arizona _____ °C (Compliance: 4 ± 2 °C)

☑ Monrovia 3.5 °C (Compliance: 4 ± 2 °C)

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

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

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME:	PROJECT CODE:	COMPLIANCE SAMPLES (check for yes) ☐	NON-COMPLIANCE SAMPLES (check for yes) X
HONOLULU BOARD OF WATER SUPPLY	RED HILL-Weekly	- Requires state forms ☐	REGULATION INVOLVED:
		Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)	
EEA CLIENT CODE:	COC ID:	SAMPLE GROUP: 4Q2021	*SEE ATTACHED BOTTLE ORDER FOR ANALYSES* X (check for yes), *OR* list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

TAT requested: **RUSH** STD__ 1 wk _X__ 3 day ___ 2 day ___ 1 day ___

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	FIELD DATA	FIELD DATA	Red Hill													SAMPLER COMMENTS
12/20/21	0933	Halawa Shaft	HI0000331-241	CFW			X													

* **MATRIX TYPES:** **RSW** = Raw Surface Water **RGW** = Raw Ground Water **CFW** = Chlor(am)inated Finished Water **FW** = Other Finished Water **SEAW** = Sea Water **WW** = Waste Water **BW** = Bottled Water **SW** = Storm Water **SO** = Soil **SL** = Sludge **O** = Other - Please Identify

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY:		E Juagdan	BWS HONOLULU	12/20/21	0933
RELINQUISHED BY:		E Juagdan	BWS HONOLULU	12/20/21	1200
RECEIVED BY:		Victor Bascara	FedEx	12.21.21	1310
RELINQUISHED BY:					
RECEIVED BY:					

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Kit Order for Honolulu Board of Water Supply

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: 12/10/2021 6:27:11PM

Note: Sampler Please return this paper with your samples

Kit #: 307665

Created By: Davis Haley - [B6AN]
Deliver By: 12/17/2021
STG: Bottle Orders
Ice Type: G

Client ID: HONOLULU
Project Code: RED-HILL Bottle Orders
Group Name: Red-Hill Expanded List (Albuquerque+)
PO#/JOB#: C20525101 exp 05312023
Description: Stock - HALAWA SHAFT - Stock 2

Ship Sample Kits to
Honolulu Board of Water Supply
630 South Beretania Street
Chemistry Lab
Honolulu, HI 96843

Attn: Ron Fenstemacher
Phone: 808-748-5841
Fax: 808-550-5572

Send Report to
Honolulu Board of Water Supply
630 South Beretania Street
Public Service Bldg." Room 308
Honolulu, HI 96843

Attn: Erwin Kawata
Phone: 808-748-5091
Fax: 808-550-5018

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

Attn: Erwin Kawata
Phone: 808-748-5091
Fax: 808-550-5018

# of Sample	Tests	Bottle Qty - Type [preservative information]	Total	UN DOT #
1	@625A_Physis C, @625BN_Physis C, @625PAH_Physis_TICS_C	8 - 1L amber glass [1 ml Thio 8%]	8	
1	TPH 8015 Diesel and Motor Oil_C, TPH 8015 Jet Fuel 5_C, TPH 8015 Jet Fuel 8_C	9 - 1L amber glass [1 ml Thio 8%]	9	
1	8015 Gas_C	3 - 40ml amber glass vial [1 drop Thio (8%)]	3	
1	8015 Gas_C TB	2 - 40ml amber glass vial [1 drop Thio (8%) + H20]	2	
1	@VOASDWA C plus plus TICs TBC	3 - 40ml amber glass vial [25mg AA+ H20+10 drop 1:1 HCL]	3	UN1789
1	@VOASDWA C plus plus TICs C	3 - 40ml amber glass vial [25mg Ascorbic+drop 2ml 1:1 HCL]	3	UN1789
1	@8015 Ethanol_Subbed	4 - 40ml amber glass vial [no preservative]	4	

Sum Tests: 7

Sum Bottles: 32

Comments

2nd MS/MSD
SITE ID:
331-241 HALAWA SHAFT

SAMPLER: Eight 1 LITER AMBER GLASS BOTTLES FOR 625 SERIES and Nine1 LITER AMBER GLASS BOTTLES FOR TPH 8015 SERIES.

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

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

Code	Status	Date Shipped	Via	Tracking #	# of Coolers	Prepared By

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INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:
976353

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) [No circled]

IR Gun ID = 630 (Observation= 4.0 °C) (Corr.Factor -0.2 °C) (Final = 3.8 °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) [FedEx circled] / 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: [X] Samples with Headspace (see below): [ ]

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

Exempt from headspace concerns: Methods 515.4, HAA(6251,552), 505, SPME, @CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients:

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

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

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

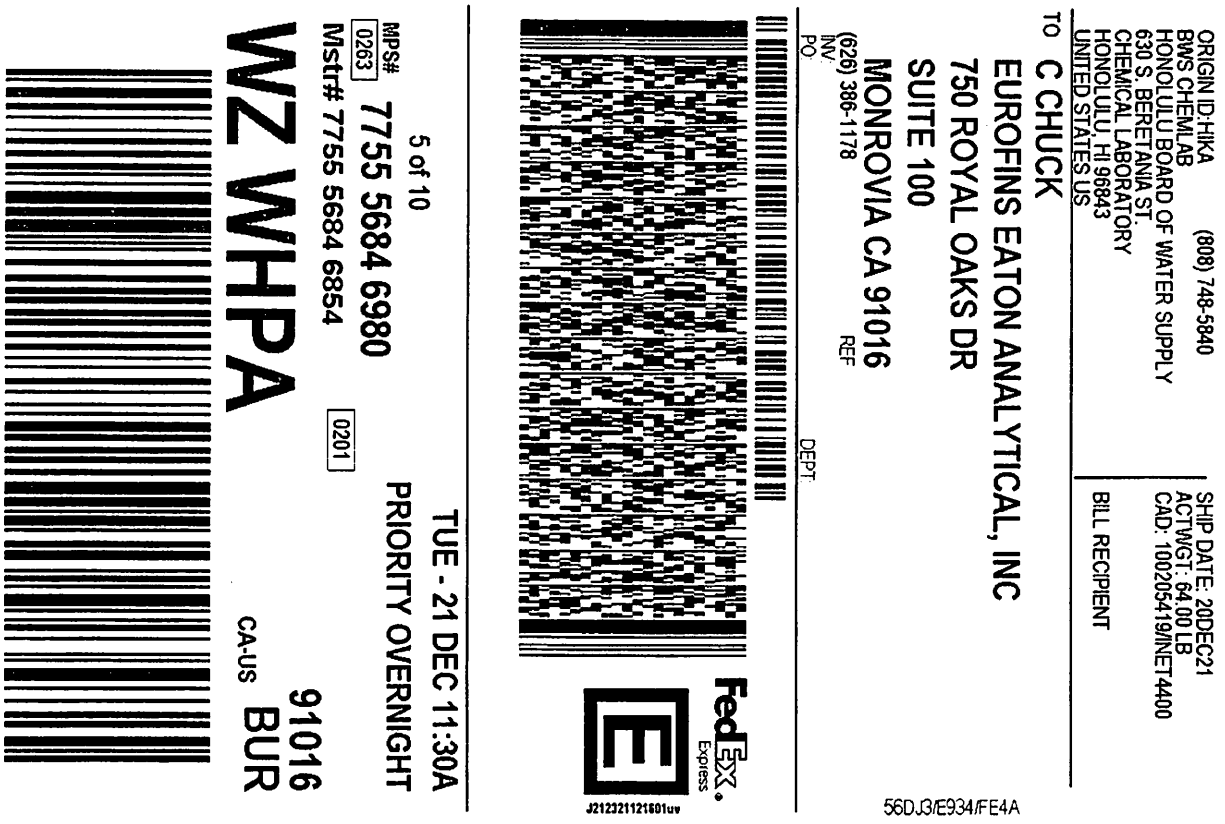
Samp ID	Bottle #	None/<6 mm	>6mm	Test

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

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RECEIVED BY:	[signature]	Victor Masciano	Eurofins Eaton Analytical	12.21.21	1152
SAMPLES CHECKED AGAINST COC BY:			Eurofins Eaton Analytical		

QA FO-FRM5504 (9.28.21) Ver 9

Page ___ of ___



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

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

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Laboratory Comments

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Folder Comments

Results for 625 ACIDS, PAHS and BNAS are submitted by Physis Environmental in Anaheim CA
Results for TPH Gas, TPH Diesel, Motor Oil, Jet Fuels and Ethanol are submitted by Emax Laboratories

Subcontracted Data -- Please review Subcontractor's report in full. EEA enters Subcontractor data into EEA system for archive tracking purposes of final result. EEA reports results to 2 sigfig. See subcontractor's report for Qualifier definition.

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.

@625mod (Low Level SVOCs by GCMS (PAH/BNA - Base/Neutral/Acid Extractables)
See subcontractor's report. Physis reports TICs in addendum report titled Total Ion Chromatogram.

@524.2 (VOC by GCMS)
202112210151 524.2 TICs None Detected
202112210152

Compound	Estimated Retention Time	Estimated Concentration
Furfural	9.584min	1.9 ug/L

Project change per communication with Erwin Kawata, 071718
Ethanol - ELLE method 1671 2000 ug/L. EMAX method 8015, RL 2000 ug/L. MRLs are the same.
MTBE - 524.3 0.02 ug/L (20 ng/L) is not reported, method decommissioned. See 524.2 at elevated RL of 0.5 ug/L.
TBA - 524.3 1 ug/L is not reported, method decommissioned. See 524.2 at elevated RL of 2 ug/L
ACETONE MRL elevated to 500 due to matrix artifact of preservation, project spec change Erwin Kawata. 021821

Flags Legend:

BM - Target analyte detected in method blank above the MDL, but below the minimum reporting limit (MRL) and

The Comments Report may be blank if there are no comments for this report.

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anayte not present in the sample, no impact on data.

FB - Target analyte detected in TB > MRL but sample is ND.

L1 - The associated blank spike recovery was above laboratory acceptance limits.

LK - The associated blank spike recovery was above method acceptance limits. This target analyte was not detected in the sample.

LM - MRL Check recovery was above laboratory acceptance limits. This target analyte was not detected in the sample.

The Comments Report may be blank if there are no comments for this report.

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Laboratory Hits

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Samples Received on:
12/21/2021 1310

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
	202112210151	**HALAWA SHAFT-331-241-TP401**				
12/25/2021 00:00	Benzoic acid		2.14		ug/L	0.2

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data

Report: 976353
Project: RED-HILL
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Erwin Kawata
630 South Beretania Street
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Samples Received on:
12/21/2021 1310

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
HALAWA SHAFT-331-241-TP401 (202112210151)							**Sampled on 12/20/2021 0933**		
				SW 8015B - (SUB)Gas Fraction Hydrocarbons					
12/22/21	12/22/21 15:39			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
				SW 8015B - TPH 8015 Diesel and Motor Oil					
12/21/21	12/22/21 17:10			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
12/21/21	12/22/21 17:10			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.048	1
				EPA 8015 - Jet Fuel 5 C8-C18					
12/21/21	12/22/21 17:10			(EPA 8015)	Jet Fuel 5	ND	mg/L	0.048	1
				EPA 625 - 625PAH in ug/L					
12/22/21	12/25/21 00:00			(EPA 625)	1-Methylnaphthalene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	1-Methylphenanthrene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	2,3,5-Trimethylnaphthalene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	2,4,6-Trichlorophenol	NA	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,6-Dimethylnaphthalene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	2-Methylnaphthalene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Acenaphthene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Acenaphthylene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Anthracene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benz(a)Anthracene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzo(a)pyrene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzo(b)fluoranthene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzo(e)pyrene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzo(g,h,i)perylene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzo(k)fluoranthene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Biphenyl	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Chrysene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Dibenz(a,h)Anthracene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Dibenzo(a,l)pyrene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Dibenzothiophene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Fluoranthene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Fluorene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Naphthalene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Pentachlorophenol	NA	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Perylene	ND	ug/L	0.005	1
12/22/21	12/25/21 00:00			(EPA 625)	Phenanthrene	ND	ug/L	0.005	1

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Laboratory Data

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Samples Received on:
12/21/2021 1310

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/22/21	12/25/21 00:00			(EPA 625)	Pyrene	ND	ug/L	0.005	1
		EPA 8015 - Jet Fuel 8 C8-C18							
	12/22/21 17:10			(EPA 8015)	Jet Fuel 8	ND	mg/L	0.048	1
		EPA 625 - 625 Acid Extractable in ug/L							
12/22/21	12/25/21 00:00			(EPA 625)	2,4,5-Trichlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,4,6-Trichlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,4-Dichlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,4-Dinitrophenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	2,6-Dichlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,6-Di-tert-butyl-4-methylphenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2,6-Di-tert-butylphenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2-Chlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2-Methylphenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	2-Nitrophenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	4,6-Dinitro-2-methylphenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Chloro-3-methyl phenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Methylphenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Nitrophenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	6-tert-Butyl-2,4-dimethylphenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzoic acid	2.14	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzyl alcohol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	pentachlorophenol	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Phenol	ND	ug/L	0.2	1
12/22/21	12/25/21 00:00			(EPA 625)	p-tert-Butylphenol	ND	ug/L	0.1	1
		EPA 625 - 625 Base Neutral Extractable in ug/L							
12/22/21	12/25/21 00:00			(EPA 625)	2-Chloronaphthalene	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	2-Nitroaniline	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	3-Nitroaniline	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Bromophenylphenyl Ether	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Chlorophenylphenyl Ether	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	4-Nitroaniline	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Aniline	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Benzidine	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	bis(2-Chloroethoxy)methane	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	bis(2-Chloroethyl)ether	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	bis(2-Chloroisopropyl) ether	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Dibenzofuran	ND	ug/L	0.1	1

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12/22/21	12/25/21 00:00			(EPA 625)	Disalicylidenepropanediamine	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Hexachloroethane	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	Nitrobenzene	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	N-Nitrosodi-N-propylamine	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	N-Nitrosodiphenylamine	ND	ug/L	0.1	1
12/22/21	12/25/21 00:00			(EPA 625)	p-Chloroaniline	ND	ug/L	0.1	1
		SW8015C - Ethanol							
	12/21/21 19:09			(SW8015C)	Ethanol	ND	ug/L	2000	1
		EPA 524.2 - Volatile Organics by GCMS							
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5.0	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	2-Hexanone	ND	ug/L	10	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Acetone	ND (FB,LM)	ug/L	500	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Benzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromoethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromoform	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.50	1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Chloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Dibromomethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Dichlorodifluoromethane	ND (LK)	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Dichloromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3.0	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Naphthalene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	o-Xylene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Styrene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3.0	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3.0	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Total THM	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Total xylenes	ND	ug/L	0.50	1

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Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.50	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.30	1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	1,2-Dichloroethane-d4	102	%		1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	4-Bromofluorobenzene	102	%		1
12/28/21	12/29/21 01:39	1376546	1376547	(EPA 524.2)	Toluene-d8	96	%		1

TRAVEL BLANK::HALAWA SHAFT-331-241-TP401 (202112210152) **Sampled on 12/20/2021 0933**

SW 8015B - (SUB)Gas Fraction Hydrocarbons

12/22/21	12/22/21 18:05			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1

EPA 524.2 - Volatile Organics by GCMS

12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5.0	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	2-Hexanone	ND	ug/L	10	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Acetone	ND (FB,L1)	ug/L	500	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Benzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.50	1

Rounding on totals after summation.
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Laboratory Data

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Samples Received on:
12/21/2021 1310

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromoethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromoform	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Chloroethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Dibromomethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Dichlorodifluoromethane	ND (LK)	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Dichloromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3.0	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Naphthalene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	o-Xylene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Styrene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3.0	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3.0	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.50	1

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Laboratory Data

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Samples Received on:
12/21/2021 1310

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Total THM	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Total xylenes	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.50	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.30	1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	1,2-Dichloroethane-d4	103	%		1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	4-Bromofluorobenzene	100	%		1
12/28/21	12/29/21 02:00	1376546	1376547	(EPA 524.2)	Toluene-d8	92	%		1

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

Honolulu Board of Water Supply

Volatile Organics by GCMS

Prep Batch: 1376546 **Analytical Batch: 1376547** **Analysis Date: 12/29/2021**

202112210151	HALAWA SHAFT-331-241-TP401	Analyzed by: TR7W
202112210152	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	Analyzed by: TR7W

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Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Volatile Organics by GCMS by EPA 524.2									
Analytical Batch: 1376547						**Analysis Date: 12/28/2021**			
LCS1	1,1,1,2-Tetrachloroethane		5	4.85	ug/L	97	(70-130)		
LCS2	1,1,1,2-Tetrachloroethane		5	5.02	ug/L	100	(70-130)	20	3.4
MBLK	1,1,1,2-Tetrachloroethane			<0.5	ug/L				
MRL_CHK	1,1,1,2-Tetrachloroethane		0.5	0.650	ug/L	130	(50-150)		
LCS1	1,1,1-Trichloroethane		5	4.81	ug/L	96	(70-130)		
LCS2	1,1,1-Trichloroethane		5	4.85	ug/L	97	(70-130)	20	0.83
MBLK	1,1,1-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,1-Trichloroethane		0.5	0.430	ug/L	86	(50-150)		
LCS1	1,1,2,2-Tetrachloroethane		5	5.26	ug/L	105	(70-130)		
LCS2	1,1,2,2-Tetrachloroethane		5	5.35	ug/L	107	(70-130)	20	1.7
MBLK	1,1,2,2-Tetrachloroethane			<0.5	ug/L				
MRL_CHK	1,1,2,2-Tetrachloroethane		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,1,2-Trichloroethane		5	4.90	ug/L	98	(70-130)		
LCS2	1,1,2-Trichloroethane		5	5.10	ug/L	102	(70-130)	20	4.0
MBLK	1,1,2-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,2-Trichloroethane		0.5	0.440	ug/L	88	(50-150)		
LCS1	1,1-Dichloroethane		5	4.86	ug/L	97	(70-130)		
LCS2	1,1-Dichloroethane		5	4.86	ug/L	97	(70-130)	20	0.0
MBLK	1,1-Dichloroethane			<0.5	ug/L				
MRL_CHK	1,1-Dichloroethane		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,1-Dichloroethylene		5	5.17	ug/L	103	(70-130)		
LCS2	1,1-Dichloroethylene		5	5.14	ug/L	103	(70-130)	20	0.58
MBLK	1,1-Dichloroethylene			<0.5	ug/L				
MRL_CHK	1,1-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	1,1-Dichloropropene		5	4.90	ug/L	98	(70-130)		
LCS2	1,1-Dichloropropene		5	5.01	ug/L	100	(70-130)	20	2.2
MBLK	1,1-Dichloropropene			<0.5	ug/L				
MRL_CHK	1,1-Dichloropropene		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,2,3-Trichlorobenzene		5	4.89	ug/L	98	(70-130)		
LCS2	1,2,3-Trichlorobenzene		5	5.28	ug/L	106	(70-130)	20	7.7
MBLK	1,2,3-Trichlorobenzene			<0.5	ug/L				
MRL_CHK	1,2,3-Trichlorobenzene		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,2,3-Trichloropropane		5	5.25	ug/L	105	(70-130)		
LCS2	1,2,3-Trichloropropane		5	5.36	ug/L	107	(70-130)	20	2.1
MBLK	1,2,3-Trichloropropane			<0.5	ug/L				

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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Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	1,2,3-Trichloropropane		0.5	0.530	ug/L	106	(50-150)		
LCS1	1,2,4-Trichlorobenzene		5	4.90	ug/L	98	(70-130)		
LCS2	1,2,4-Trichlorobenzene		5	5.17	ug/L	103	(70-130)	20	5.4
MBLK	1,2,4-Trichlorobenzene			<0.5	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene		0.5	0.500	ug/L	100	(50-150)		
LCS1	1,2,4-Trimethylbenzene		5	4.24	ug/L	85	(70-130)		
LCS2	1,2,4-Trimethylbenzene		5	4.33	ug/L	87	(70-130)	20	2.1
MBLK	1,2,4-Trimethylbenzene			<0.5	ug/L				
MRL_CHK	1,2,4-Trimethylbenzene		0.5	0.390	ug/L	78	(50-150)		
LCS1	1,2-Dichloroethane		5	5.09	ug/L	102	(70-130)		
LCS2	1,2-Dichloroethane		5	5.21	ug/L	104	(70-130)	20	2.3
MBLK	1,2-Dichloroethane			<0.5	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.540	ug/L	108	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)		5	99.0	%	99	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)		5	99.8	%	100	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			99.6	%	100	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)		5	101	%	101	(70-130)		
MRLLW	1,2-Dichloroethane-d4 (S)		5	105	%	105	(70-130)		
LCS1	1,2-Dichloropropane		5	5.25	ug/L	105	(70-130)		
LCS2	1,2-Dichloropropane		5	5.22	ug/L	104	(70-130)	20	0.57
MBLK	1,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.530	ug/L	106	(50-150)		
LCS1	1,3,5-Trimethylbenzene		5	4.51	ug/L	90	(70-130)		
LCS2	1,3,5-Trimethylbenzene		5	4.47	ug/L	89	(70-130)	20	0.89
MBLK	1,3,5-Trimethylbenzene			<0.5	ug/L				
MRL_CHK	1,3,5-Trimethylbenzene		0.5	0.400	ug/L	80	(50-150)		
LCS1	1,3-Dichloropropane		5	5.18	ug/L	104	(70-130)		
LCS2	1,3-Dichloropropane		5	5.21	ug/L	104	(70-130)	20	0.58
MBLK	1,3-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,3-Dichloropropane		0.5	0.460	ug/L	92	(50-150)		
LCS1	2,2-Dichloropropane		5	3.92	ug/L	78	(70-130)		
LCS2	2,2-Dichloropropane		5	4.02	ug/L	80	(70-130)	20	2.5
MBLK	2,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	2,2-Dichloropropane		0.5	0.460	ug/L	92	(50-150)		
LCS1	2-Butanone (MEK)		50	56.0	ug/L	112	(70-130)		
LCS2	2-Butanone (MEK)		50	55.3	ug/L	111	(70-130)	20	1.3
MBLK	2-Butanone (MEK)			<5.0	ug/L				
MRL_CHK	2-Butanone (MEK)		5	5.75	ug/L	115	(50-150)		

Spike recovery is already corrected for native results.
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Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	2-Hexanone		50	55.8	ug/L	112	(70-130)		
LCS2	2-Hexanone		50	56.1	ug/L	112	(70-130)	20	0.54
MBLK	2-Hexanone			<5.0	ug/L				
MRL_CHK	2-Hexanone		5	4.94	ug/L	99	(50-150)		
LCS1	4-Bromofluorobenzene (S)		5	94.6	%	95	(70-130)		
LCS2	4-Bromofluorobenzene (S)		5	96.4	%	96	(70-130)		
MBLK	4-Bromofluorobenzene (S)			105	%	105	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)		5	98.4	%	98	(70-130)		
MRLLW	4-Bromofluorobenzene (S)		5	98.8	%	99	(70-130)		
LCS1	4-Methyl-2-Pentanone (MIBK)		50	54.4	ug/L	109	(70-130)		
LCS2	4-Methyl-2-Pentanone (MIBK)		50	55.9	ug/L	112	(70-130)	20	2.7
MBLK	4-Methyl-2-Pentanone (MIBK)			<5.0	ug/L				
MRL_CHK	4-Methyl-2-Pentanone (MIBK)		5	4.78	ug/L	96	(50-150)		
LCS1	Acetone		50	54.4	ug/L	109	(70-130)		
LCS2	Acetone		50	54.3	ug/L	109	(70-130)	20	0.18
MBLK	Acetone			<10	ug/L				
MRL_CHK	Acetone		5	7.80	ug/L	**156**	(50-150)		
LCS1	Benzene		5	5.00	ug/L	100	(70-130)		
LCS2	Benzene		5	5.08	ug/L	102	(70-130)	20	1.6
MBLK	Benzene			<0.5	ug/L				
MRL_CHK	Benzene		0.5	0.510	ug/L	102	(50-150)		
LCS1	Bromobenzene		5	4.71	ug/L	94	(70-130)		
LCS2	Bromobenzene		5	4.78	ug/L	96	(70-130)	20	1.5
MBLK	Bromobenzene			<0.5	ug/L				
MRL_CHK	Bromobenzene		0.5	0.480	ug/L	96	(50-150)		
LCS1	Bromochloromethane		5	4.48	ug/L	90	(70-130)		
LCS2	Bromochloromethane		5	4.52	ug/L	90	(70-130)	20	0.89
MBLK	Bromochloromethane			<0.5	ug/L				
MRL_CHK	Bromochloromethane		0.5	0.580	ug/L	116	(50-150)		
LCS1	Bromodichloromethane		5	5.30	ug/L	106	(70-130)		
LCS2	Bromodichloromethane		5	5.34	ug/L	107	(70-130)	20	0.75
MBLK	Bromodichloromethane			<0.5	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.380	ug/L	76	(50-150)		
LCS1	Bromoethane		5	5.12	ug/L	102	(70-130)		
LCS2	Bromoethane		5	5.04	ug/L	101	(70-130)	20	1.6
MBLK	Bromoethane			<0.5	ug/L				
MRL_CHK	Bromoethane		0.5	0.520	ug/L	104	(50-150)		
LCS1	Bromoform		5	4.31	ug/L	86	(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.
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Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS2	Bromoform		5	4.55	ug/L	91	(70-130)	20	5.4
MBLK	Bromoform			<0.5	ug/L				
MRL_CHK	Bromoform		0.5	0.540	ug/L	108	(50-150)		
LCS1	Bromomethane (Methyl Bromide)		5	5.25	ug/L	105	(70-130)		
LCS2	Bromomethane (Methyl Bromide)		5	5.40	ug/L	108	(70-130)	20	2.8
MBLK	Bromomethane (Methyl Bromide)			<0.5	ug/L				
MRL_CHK	Bromomethane (Methyl Bromide)		0.5	0.470	ug/L	94	(50-150)		
LCS1	Carbon disulfide		5	5.50	ug/L	110	(70-130)		
LCS2	Carbon disulfide		5	5.60	ug/L	112	(70-130)	20	1.8
MBLK	Carbon disulfide			<0.5	ug/L				
MRL_CHK	Carbon disulfide		0.5	0.400	ug/L	80	(50-150)		
LCS1	Carbon Tetrachloride		5	5.23	ug/L	105	(70-130)		
LCS2	Carbon Tetrachloride		5	5.24	ug/L	105	(70-130)	20	0.19
MBLK	Carbon Tetrachloride			<0.5	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.450	ug/L	90	(50-150)		
LCS1	Chlorobenzene		5	5.17	ug/L	103	(70-130)		
LCS2	Chlorobenzene		5	5.05	ug/L	101	(70-130)	20	2.4
MBLK	Chlorobenzene			<0.5	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.440	ug/L	88	(50-150)		
LCS1	Chlorodibromomethane		5	4.79	ug/L	96	(70-130)		
LCS2	Chlorodibromomethane		5	5.03	ug/L	101	(70-130)	20	4.9
MBLK	Chlorodibromomethane			<0.5	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.690	ug/L	138	(50-150)		
LCS1	Chloroethane		5	4.91	ug/L	98	(70-130)		
LCS2	Chloroethane		5	4.88	ug/L	98	(70-130)	20	0.61
MBLK	Chloroethane			<0.5	ug/L				
MRL_CHK	Chloroethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Chloroform (Trichloromethane)		5	4.91	ug/L	98	(70-130)		
LCS2	Chloroform (Trichloromethane)		5	4.91	ug/L	98	(70-130)	20	0.0
MBLK	Chloroform (Trichloromethane)			<0.5	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.560	ug/L	112	(50-150)		
LCS1	Chloromethane(Methyl Chloride)		5	5.38	ug/L	108	(70-130)		
LCS2	Chloromethane(Methyl Chloride)		5	5.40	ug/L	108	(70-130)	20	0.37
MBLK	Chloromethane(Methyl Chloride)			<0.5	ug/L				
MRL_CHK	Chloromethane(Methyl Chloride)		0.5	0.570	ug/L	114	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5	4.94	ug/L	99	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5	4.96	ug/L	99	(70-130)	20	0.40
MBLK	cis-1,2-Dichloroethylene			<0.5	ug/L				

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.
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Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.490	ug/L	98	(50-150)		
LCS1	cis-1,3-Dichloropropene		5	4.64	ug/L	93	(70-130)		
LCS2	cis-1,3-Dichloropropene		5	4.68	ug/L	94	(70-130)	20	0.86
MBLK	cis-1,3-Dichloropropene			<0.5	ug/L				
MRL_CHK	cis-1,3-Dichloropropene		0.5	0.690	ug/L	138	(50-150)		
LCS1	Dibromomethane		5	4.87	ug/L	97	(70-130)		
LCS2	Dibromomethane		5	4.93	ug/L	99	(70-130)	20	1.2
MBLK	Dibromomethane			<0.5	ug/L				
MRL_CHK	Dibromomethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	Dichlorodifluoromethane		5	6.58	ug/L	**132**	(70-130)		
LCS2	Dichlorodifluoromethane		5	6.56	ug/L	**131**	(70-130)	20	0.30
MBLK	Dichlorodifluoromethane			<0.5	ug/L				
MRL_CHK	Dichlorodifluoromethane		0.5	0.470	ug/L	94	(50-150)		
LCS1	Dichloromethane		5	4.91	ug/L	98	(70-130)		
LCS2	Dichloromethane		5	4.88	ug/L	98	(70-130)	20	0.61
MBLK	Dichloromethane			<0.5	ug/L				
MRL_CHK	Dichloromethane		0.5	0.540	ug/L	108	(50-150)		
LCS1	Di-isopropyl ether		5	4.90	ug/L	98	(70-130)		
LCS2	Di-isopropyl ether		5	5.03	ug/L	101	(70-130)	20	2.6
MBLK	Di-isopropyl ether			<3.0	ug/L				
MRL_CHK	Di-isopropyl ether		0.5	0.530	ug/L	106	(50-150)		
LCS1	Ethyl benzene		5	5.05	ug/L	101	(70-130)		
LCS2	Ethyl benzene		5	5.21	ug/L	104	(70-130)	20	3.1
MBLK	Ethyl benzene			<0.5	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.450	ug/L	90	(50-150)		
LCS1	Hexachlorobutadiene		5	4.66	ug/L	93	(70-130)		
LCS2	Hexachlorobutadiene		5	5.07	ug/L	101	(70-130)	20	8.4
MBLK	Hexachlorobutadiene			<0.5	ug/L				
MRL_CHK	Hexachlorobutadiene		0.5	0.460	ug/L	92	(50-150)		
LCS1	Isopropylbenzene		5	4.73	ug/L	95	(70-130)		
LCS2	Isopropylbenzene		5	4.78	ug/L	96	(70-130)	20	1.1
MBLK	Isopropylbenzene			<0.5	ug/L				
MRL_CHK	Isopropylbenzene		0.5	0.430	ug/L	86	(50-150)		
LCS1	m,p-Xylenes		10	9.90	ug/L	99	(70-130)		
LCS2	m,p-Xylenes		10	10.0	ug/L	100	(70-130)	20	1.0
MBLK	m,p-Xylenes			<0.5	ug/L				
MRL_CHK	m,p-Xylenes		1	0.780	ug/L	78	(50-150)		
MRLLW	m,p-Xylenes		0.5	0.370	ug/L	74	(50-150)		

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.
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Report: 976353
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Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	m-Dichlorobenzene (1,3-DCB)		5	4.78	ug/L	96	(70-130)		
LCS2	m-Dichlorobenzene (1,3-DCB)		5	4.79	ug/L	96	(70-130)	20	0.21
MBLK	m-Dichlorobenzene (1,3-DCB)			<0.5	ug/L				
MRL_CHK	m-Dichlorobenzene (1,3-DCB)		0.5	0.470	ug/L	94	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5	5.00	ug/L	100	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5	5.03	ug/L	101	(70-130)	20	0.60
MBLK	Methyl Tert-butyl ether (MTBE)			<0.5	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.480	ug/L	96	(50-150)		
LCS1	Naphthalene		5	4.71	ug/L	94	(70-130)		
LCS2	Naphthalene		5	5.01	ug/L	100	(70-130)	20	6.2
MBLK	Naphthalene			<0.5	ug/L				
MRL_CHK	Naphthalene		0.5	0.450	ug/L	90	(50-150)		
LCS1	n-Butylbenzene		5	4.52	ug/L	90	(70-130)		
LCS2	n-Butylbenzene		5	4.75	ug/L	95	(70-130)	20	5.0
MBLK	n-Butylbenzene			<0.5	ug/L				
MRL_CHK	n-Butylbenzene		0.5	0.460	ug/L	92	(50-150)		
LCS1	n-Propylbenzene		5	4.63	ug/L	93	(70-130)		
LCS2	n-Propylbenzene		5	4.67	ug/L	93	(70-130)	20	0.86
MBLK	n-Propylbenzene			<0.5	ug/L				
MRL_CHK	n-Propylbenzene		0.5	0.420	ug/L	84	(50-150)		
LCS1	o-Chlorotoluene		5	4.49	ug/L	90	(70-130)		
LCS2	o-Chlorotoluene		5	4.64	ug/L	93	(70-130)	20	3.3
MBLK	o-Chlorotoluene			<0.5	ug/L				
MRL_CHK	o-Chlorotoluene		0.5	0.410	ug/L	82	(50-150)		
LCS1	o-Dichlorobenzene (1,2-DCB)		5	5.07	ug/L	101	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5	5.26	ug/L	105	(70-130)	20	3.7
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.5	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.480	ug/L	96	(50-150)		
LCS1	o-Xylene		5	4.78	ug/L	96	(70-130)		
LCS2	o-Xylene		5	4.90	ug/L	98	(70-130)	20	2.5
MBLK	o-Xylene			<0.5	ug/L				
MRL_CHK	o-Xylene		0.5	0.410	ug/L	82	(50-150)		
LCS1	p-Chlorotoluene		5	4.79	ug/L	96	(70-130)		
LCS2	p-Chlorotoluene		5	5.01	ug/L	100	(70-130)	20	4.5
MBLK	p-Chlorotoluene			<0.5	ug/L				
MRL_CHK	p-Chlorotoluene		0.5	0.440	ug/L	88	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5	4.72	ug/L	94	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5	4.68	ug/L	94	(70-130)	20	0.85

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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).
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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.5	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.460	ug/L	92	(50-150)		
LCS1	p-Isopropyltoluene		5	4.51	ug/L	90	(70-130)		
LCS2	p-Isopropyltoluene		5	4.54	ug/L	91	(70-130)	20	0.66
MBLK	p-Isopropyltoluene			<0.5	ug/L				
MRL_CHK	p-Isopropyltoluene		0.5	0.380	ug/L	76	(50-150)		
LCS1	sec-Butylbenzene		5	4.62	ug/L	92	(70-130)		
LCS2	sec-Butylbenzene		5	4.72	ug/L	94	(70-130)	20	2.1
MBLK	sec-Butylbenzene			<0.5	ug/L				
MRL_CHK	sec-Butylbenzene		0.5	0.390	ug/L	78	(50-150)		
LCS1	Styrene		5	4.81	ug/L	96	(70-130)		
LCS2	Styrene		5	4.95	ug/L	99	(70-130)	20	2.9
MBLK	Styrene			<0.5	ug/L				
MRL_CHK	Styrene		0.5	0.360	ug/L	72	(50-150)		
LCS1	tert-amyl Methyl Ether		5	4.70	ug/L	94	(70-130)		
LCS2	tert-amyl Methyl Ether		5	4.86	ug/L	97	(70-130)	20	3.4
MBLK	tert-amyl Methyl Ether			<3.0	ug/L				
MRL_CHK	tert-amyl Methyl Ether		0.5	0.450	ug/L	90	(50-150)		
LCS1	tert-Butyl Ethyl Ether		5	4.98	ug/L	100	(70-130)		
LCS2	tert-Butyl Ethyl Ether		5	5.03	ug/L	101	(70-130)	20	1
MBLK	tert-Butyl Ethyl Ether			<3.0	ug/L				
MRL_CHK	tert-Butyl Ethyl Ether		0.5	0.510	ug/L	102	(50-150)		
LCS1	tert-Butylbenzene		5	4.55	ug/L	91	(70-130)		
LCS2	tert-Butylbenzene		5	4.73	ug/L	95	(70-130)	20	3.9
MBLK	tert-Butylbenzene			<0.5	ug/L				
MRL_CHK	tert-Butylbenzene		0.5	0.390	ug/L	78	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5	5.06	ug/L	101	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5	5.01	ug/L	100	(70-130)	20	0.99
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.480	ug/L	96	(50-150)		
LCS1	Toluene		5	5.29	ug/L	106	(70-130)		
LCS2	Toluene		5	5.34	ug/L	107	(70-130)	20	0.94
MBLK	Toluene			<0.5	ug/L				
MRL_CHK	Toluene		0.5	0.630	ug/L	126	(50-150)		
LCS1	Toluene-d8 (S)		5	103	%	103	(70-130)		
LCS2	Toluene-d8 (S)		5	103	%	103	(70-130)		
MBLK	Toluene-d8 (S)			92.8	%	93	(70-130)		
MRL_CHK	Toluene-d8 (S)		5	97.4	%	97	(70-130)		

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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%
MRLLW	Toluene-d8 (S)		5	97.4	%	97	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5	5.16	ug/L	103	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5	5.17	ug/L	103	(70-130)	20	0.19
MBLK	trans-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	trans-1,3-Dichloropropene		5	4.33	ug/L	87	(70-130)		
LCS2	trans-1,3-Dichloropropene		5	4.42	ug/L	88	(70-130)	20	2.1
MBLK	trans-1,3-Dichloropropene			<0.5	ug/L				
MRL_CHK	trans-1,3-Dichloropropene		0.5	0.710	ug/L	142	(50-150)		
LCS1	Trichloroethylene (TCE)		5	5.11	ug/L	102	(70-130)		
LCS2	Trichloroethylene (TCE)		5	5.10	ug/L	102	(70-130)	20	0.20
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.460	ug/L	92	(50-150)		
LCS1	Trichlorofluoromethane		5	4.88	ug/L	98	(70-130)		
LCS2	Trichlorofluoromethane		5	5.11	ug/L	102	(70-130)	20	4.6
MBLK	Trichlorofluoromethane			<0.5	ug/L				
MRL_CHK	Trichlorofluoromethane		0.5	0.480	ug/L	96	(50-150)		
LCS1	Trichlorotrifluoroethane(Freon		5	5.15	ug/L	103	(70-130)		
LCS2	Trichlorotrifluoroethane(Freon		5	5.15	ug/L	103	(70-130)	20	0.0
MBLK	Trichlorotrifluoroethane(Freon			<0.5	ug/L				
MRL_CHK	Trichlorotrifluoroethane(Freon		0.5	0.500	ug/L	100	(50-150)		
LCS1	Vinyl chloride (VC)		5	5.52	ug/L	110	(70-130)		
LCS2	Vinyl chloride (VC)		5	5.53	ug/L	111	(70-130)	20	0.18
MBLK	Vinyl chloride (VC)			<0.3	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.480	ug/L	96	(50-150)		
MRLLW	Vinyl chloride (VC)		0.25	0.260	ug/L	104	(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.

eurofins | Eaton Analytical

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

Laboratory Hits

Report: 976353
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

Samples Received on:
12/21/2021 1310

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202112210151	**HALAWA SHAFT-331-241-TP401**				
12/25/2021 00:00	Benzoic acid		2.14		ug/L	0.2

SUMMARY OF POSITIVE DATA ONLY

EMAX
LABORATORIES, INC.
3051 Fujita Street
Torrance, CA 90505
Tel: (310)-618-8889

Date: 01-03-2022
EMAX Batch No.: 21L251

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 976353

Enclosed is the Laboratory report for samples received on 12/21/21.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202112210151	L251-01	12/20/21	WATER	ETHANOL
				TPH GASOLINE
				TPH
202112210152	L251-02	12/20/21	WATER	TPH GASOLINE
202112210136	L251-03	12/19/21	WATER	ETHANOL
				TPH GASOLINE
				TPH
202112210137	L251-04	12/19/21	WATER	TPH GASOLINE
202112210151MS	L251-01M	12/20/21	WATER	ETHANOL
				TPH GASOLINE
				TPH
202112210151MSD	L251-01S	12/20/21	WATER	ETHANOL
				TPH GASOLINE
				TPH

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

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

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

eurofins | Eaton Analytical

Submittal Form

21L251

Date: 12/21/2021

REPORTING REQUIRMENTS:** ***Do Not Combine Reports with any other samples submitted under different Folder Numbers!
Report & Invoice must have the Folder # **976353** 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.

Ship To:
`EMAX Laboratories, Inc.
3051 Fujita St.

Torrance, CA 90505

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

Reports: Jackie Contreras Sub-Contracting Administrator
EMAIL TO: Eaton-MonroviaSubContract@eurofinset.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 StateCertification # and Exp Date for requested tests + matrix.

Samples from: **HAWAII**

rush

Folder #: 976353
Report Due: 12/28/2021

	Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID
1	202112210151	HALAWA SHAFT-331-241-TP401	12/20/21 0933	DW		JLS

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

Method	Prep Method	Analysis Requested
SW8015C		Ethanol
SW 8015B	EPA 5030C	(SUB)Gas Fraction Hydrocarbons
SW 8015B	EPA 3550B	TPH 8015 Diesel and Motor Oil
EPA 8015	EPA 8015	Jet Fuel 5 C8-C18
EPA 8015		Jet Fuel 8 C8-C18

	Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID
2	202112210152	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	12/20/21 0933	DW		JLS

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

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

Relinquished by: Sample Control Date 12.21.21 Time 1411
Received by: John T Date 12/21/21 Time 1412
Relinquished by: Sample Control Date _____ Time _____
Received by: John T Date 12/21/21 Time 16:25
Received: Jocelyne Solis-Ramos 12/21/21 16:25

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS
An Acknowledgement of Receipt is requested to attn: Jackie Contreras
Temp: ① 3.6 ② 5.4 ③ 4.5

21L251

Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID
3 202112210136	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	12/19/21 1005	DW		JLS

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

Method	Prep Method	Analysis Requested
SW8015C		Ethanol
SW 8015B	EPA 5030C	(SUB)Gas Fraction Hydrocarbons
SW 8015B	EPA 3550B	TPH 8015 Diesel and Motor Oil
EPA 8015	EPA 8015	Jet Fuel 5 C8-C18
EPA 8015		Jet Fuel 8 C8-C18

Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID
3 202112210137	TRAVEL BLANK::AIEA GULCH WELLS PUMP 2 -331-202-TP072	12/19/21 1005	DW		JLS

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

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

Relinquished by: Sample Control Date 12.21.21 Time 1414

Received by: Date 12/21/21 Time 14:20

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

Relinquished by: Sample Control Date Time

Received by: Date 12/21/21 Time 16:25

received: Jocelyne Solis-Ramos 12/21/21 16:25

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 www.EurofinsUS.com/Eaton

SAMPLE RECEIPT FORM 1

Reference: Addendum SM02.11.1
Form: SM02F1

Type of Delivery	Airbill / Tracking Number	ECN 21L251
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Jocelyne Solis-Ramos
☐ EMAX Courier ☑ Client Delivery		Date 12/21/21 Time 16:25

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☐ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☐ Courier Signature	☑ Analysis Required	☐ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☐ Rad screening required		

Note: _____

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 3.6 °C	☑ Cooler 2 5.4 °C	☑ Cooler 3 4.5 °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C
Thermometer:	*A - S/N* ~~210191066~~ a 14/14	(B) *S/N* 210271396	*C - S/N* 210271399	*D - S/N* _____	

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1,3	8-16, 26-34	D2	Jet Fuel B is not indicated on label	R8

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

NB 12/22/21

NOTES/OBSERVATIONS:

LEGEND:

☐ **Continue to next page.**

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

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

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

REVIEWS:

Sample Labeling Jocelyne Solis-Ramos — Date 12/21/21 — 12/21/21

SRF — Date 12/21/21

PM — Date 12/22/21

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

976353

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

SDG#: 21L251

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 976353

SDG : 21L251

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

A total of four(4) water samples were received on 12/21/21 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. VG39L11B - 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. VG39L11L/VG39L11C 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 L251-01M/L251-01S. Refer to Matrix QC summary form for details.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
Project : 976353

SDG NO. : 21L251
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VG39L11B	1	NA	12/22/2112:36	12/22/2112:36	EL22005A	EL22003A	21VG39L11	Method Blank
LCS1W	VG39L11L	1	NA	12/22/2113:13	12/22/2113:13	EL22006A	EL22003A	21VG39L11	Lab Control Sample (LCS)
LCD1W	VG39L11C	1	NA	12/22/2113:49	12/22/2113:49	EL22007A	EL22003A	21VG39L11	LCS Duplicate
202112210151	L251-01	1	NA	12/22/2115:39	12/22/2115:39	EL22010A	EL22003A	21VG39L11	Field Sample
202112210151MS	L251-01M	1	NA	12/22/2116:15	12/22/2116:15	EL22011A	EL22003A	21VG39L11	Matrix Spike Sample (MS)
202112210151MSD	L251-01S	1	NA	12/22/2116:51	12/22/2116:51	EL22012A	EL22003A	21VG39L11	MS Duplicate (MSD)
202112210152	L251-02	1	NA	12/22/2118:05	12/22/2118:05	EL22014A	EL22013A	21VG39L11	Field Sample
202112210136	L251-03	1	NA	12/22/2118:41	12/22/2118:41	EL22015A	EL22013A	21VG39L11	Field Sample
202112210137	L251-04	1	NA	12/22/2119:17	12/22/2119:17	EL22016A	EL22013A	21VG39L11	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/20/21 09:33
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/22/21 15:39
Sample ID	: 202112210151	Date Analyzed:	12/22/21 15:39
Lab Samp ID:	L251-01	Dilution Factor:	1
Lab File ID:	EL22010A	Matrix:	WATER
Ext Btch ID:	21VG39L11	% Moisture:	NA
Calib. Ref.:	EL22003A	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	0.0349	0.0400	87	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:	12/20/21 09:33
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/22/21 18:05
Sample ID	: 202112210152	Date Analyzed:	12/22/21 18:05
Lab Samp ID:	L251-02	Dilution Factor:	1
Lab File ID:	EL22014A	Matrix:	WATER
Ext Btch ID:	21VG39L11	% Moisture:	NA
Calib. Ref.:	EL22013A	Instrument ID:	39

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0334	0.0400	84	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 5ml	Final Volume :	5ml
Prepared by	: SCerva	Analyzed by :	SCerva

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/19/21 10:05
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/22/21 18:41
Sample ID	: 202112210136	Date Analyzed:	12/22/21 18:41
Lab Samp ID:	L251-03	Dilution Factor:	1
Lab File ID:	EL22015A	Matrix:	WATER
Ext Btch ID:	21VG39L11	% Moisture:	NA
Calib. Ref.:	EL22013A	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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/19/21 10:05
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/22/21 19:17
Sample ID	: 202112210137	Date Analyzed:	12/22/21 19:17
Lab Samp ID:	L251-04	Dilution Factor:	1
Lab File ID:	EL22016A	Matrix:	WATER
Ext Btch ID:	21VG39L11	% Moisture:	NA
Calib. Ref.:	EL22013A	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	0.0327	0.0400	82	60-140

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

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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/22/21 12:36
Project	: 976353	Date Received:	12/22/21
Batch No.	: 21L251	Date Extracted:	12/22/21 12:36
Sample ID	: MBLK1W	Date Analyzed:	12/22/21 12:36
Lab Samp ID:	VG39L11B	Dilution Factor:	1
Lab File ID:	EL22005A	Matrix:	WATER
Ext Btch ID:	21VG39L11	% Moisture:	NA
Calib. Ref.:	EL22003A	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	0.0325	0.0400	81	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 5ml	Final Volume	: 5ml
Prepared by	: SCerva	Analyzed by	: SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VG39L11B	VG39L11L	VG39L11C
LAB FILE ID	: EL22005A	EL22006A	EL22007A
DATE PREPARED	: 12/22/21 12:36	12/22/21 13:13	12/22/21 13:49
DATE ANALYZED	: 12/22/21 12:36	12/22/21 13:13	12/22/21 13:49
PREP BATCH	: 21VG39L11	21VG39L11	21VG39L11
CALIBRATION REF	: EL22003A	EL22003A	EL22003A

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	0.445	89	0.500	0.481	96	8	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0418	105	0.0400	0.0439	110	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 : 976353
BATCH NO. : 21L251
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112210151	202112210151MS	202112210151MSD
LAB SAMPLE ID	: L251-01	L251-01M	L251-01S
LAB FILE ID	: EL22010A	EL22011A	EL22012A
DATE PREPARED	: 12/22/21 15:39	12/22/21 16:15	12/22/21 16:51
DATE ANALYZED	: 12/22/21 15:39	12/22/21 16:15	12/22/21 16:51
PREP BATCH	: 21VG39L11	21VG39L11	21VG39L11
CALIBRATION REF	: EL22003A	EL22003A	EL22003A

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	0.469	94	0.500	0.478	96	2	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0427	107	0.0400	0.0437	109	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

976353

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 21L251

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 976353

SDG : 21L251

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 12/21/21 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. DSL021WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSL021WL. 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 21L251-01M/21L251-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 976353

SDG : 21L251

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 12/21/21 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL021WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP5 was within LCS QC limits in J5L021WL. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP5 was within MS QC limits in 21L251-01M/21L251-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 976353

SDG : 21L251

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of two(2) water samples were received on 12/21/21 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL021WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP8 was within LCS QC limits in J8L021WL. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP8 was within MS QC limits in 21L251-01M/21L251-01S. 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.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 976353

SDG NO. : 21L251
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSL021WB	1	NA	12/22/2115:41	12/21/2117:45	LL21068A	LL21057A	21DSL021W	Method Blank
LCS1W	DSL021WL	1	NA	12/22/2115:59	12/21/2117:45	LL21069A	LL21057A	21DSL021W	Lab Control Sample (LCS)
202112210151	L251-01	1	NA	12/22/2117:10	12/21/2117:45	LL21073A	LL21057A	21DSL021W	Field Sample
202112210151MS	L251-01M	1	NA	12/22/2117:28	12/21/2117:45	LL21074A	LL21057A	21DSL021W	Matrix Spike Sample (MS)
202112210151MSD	L251-01S	1	NA	12/22/2117:45	12/21/2117:45	LL21075A	LL21057A	21DSL021W	MS Duplicate (MSD)
202112210136	L251-03	1	NA	12/22/2120:25	12/21/2117:45	LL21084A	LL21077A	21DSL021W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 976353

SDG NO. : 21L251
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSL021WB	1	NA	12/22/2115:41	12/21/2117:45	LL21068A	LL21058A	21DSL021W	Method Blank
LCS1W	J5L021WL	1	NA	12/22/2116:17	12/21/2117:45	LL21070A	LL21058A	21DSL021W	Lab Control Sample (LCS)
202112210151	L251-01	1	NA	12/22/2117:10	12/21/2117:45	LL21073A	LL21058A	21DSL021W	Field Sample
202112210151MS	L251-01M	1	NA	12/22/2119:14	12/21/2117:45	LL21080A	LL21078A	21DSL021W	Matrix Spike Sample (MS)
202112210151MSD	L251-01S	1	NA	12/22/2119:31	12/21/2117:45	LL21081A	LL21078A	21DSL021W	MS Duplicate (MSD)
202112210136	L251-03	1	NA	12/22/2120:25	12/21/2117:45	LL21084A	LL21078A	21DSL021W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 976353

SDG NO. : 21L251
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSL021WB	1	NA	12/22/2115:41	12/21/2117:45	LL21068A	LL21059A	21DSL021W	Method Blank
LCS1W	J8L021WL	1	NA	12/22/2116:35	12/21/2117:45	LL21071A	LL21059A	21DSL021W	Lab Control Sample (LCS)
202112210151	L251-01	1	NA	12/22/2117:10	12/21/2117:45	LL21073A	LL21059A	21DSL021W	Field Sample
202112210151MS	L251-01M	1	NA	12/22/2119:49	12/21/2117:45	LL21082A	LL21079A	21DSL021W	Matrix Spike Sample (MS)
202112210151MSD	L251-01S	1	NA	12/22/2120:07	12/21/2117:45	LL21083A	LL21079A	21DSL021W	MS Duplicate (MSD)
202112210136	L251-03	1	NA	12/22/2120:25	12/21/2117:45	LL21084A	LL21079A	21DSL021W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/20/21 09:33
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210151	Date Analyzed:	12/22/21 17:10
Lab Samp ID:	21L251-01	Dilution Factor:	1
Lab File ID:	LL21073A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21057A	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	0.438	0.480	91	60-130
Hexacosane	0.106	0.120	88	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	: 1040ml	Final Volume :	5ml
Prepared by	: HWang/JMuert	Analyzed by :	SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/20/21 09:33
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210151	Date Analyzed:	12/22/21 17:10
Lab Samp ID:	21L251-01	Dilution Factor:	1
Lab File ID:	LL21073A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21058A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.048	0.024

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.438	0.480	91	60-130
Hexacosane	0.106	0.120	88	60-130

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

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1040ml Final Volume : 5ml
Prepared by : HWang/JMuert Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/20/21 09:33
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210151	Date Analyzed:	12/22/21 17:10
Lab Samp ID:	21L251-01	Dilution Factor:	1
Lab File ID:	LL21073A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21059A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.048	0.024

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.438	0.480	91	60-130
Hexacosane	0.106	0.120	88	60-130

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

Detection limits are reported relative to sample result significant figures.
Sample Amount : 1040ml Final Volume : 5ml
Prepared by : HWang/JMuert Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/19/21 10:05
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210136	Date Analyzed:	12/22/21 20:25
Lab Samp ID:	21L251-03	Dilution Factor:	1
Lab File ID:	LL21084A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21077A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.026	0.013
Motor Oil	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.486	0.520	93	60-130
Hexacosane	0.111	0.130	85	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	: 960ml	Final Volume :	5ml
Prepared by	: HWang/JMuert	Analyzed by :	SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/19/21 10:05
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210136	Date Analyzed:	12/22/21 20:25
Lab Samp ID:	21L251-03	Dilution Factor:	1
Lab File ID:	LL21084A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21078A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.486	0.520	93	60-130
Hexacosane	0.111	0.130	85	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 960ml Final Volume : 5ml
Prepared by : HWang/JMuert Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/19/21 10:05
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: 202112210136	Date Analyzed:	12/22/21 20:25
Lab Samp ID:	21L251-03	Dilution Factor:	1
Lab File ID:	LL21084A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21079A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.052	0.026

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.486	0.520	93	60-130
Hexacosane	0.111	0.130	85	60-130

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

Detection limits are reported relative to sample result significant figures.
Sample Amount : 960ml Final Volume : 5ml
Prepared by : HWang/JMuert Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/21/21 17:45
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: MBLK1W	Date Analyzed:	12/22/21 15:41
Lab Samp ID:	DSL021WB	Dilution Factor:	1
Lab File ID:	LL21068A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21057A	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	0.453	0.500	91	60-130
Hexacosane	0.107	0.125	86	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL021WB	DSL021WL
LAB FILE ID	: LL21068A	LL21069A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 15:41	12/22/21 15:59
PREP BATCH	: 21DSL021W	21DSL021W
CALIBRATION REF	: LL21057A	LL21057A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.21	88	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.474	95	60-130
Hexacosane	0.125	0.110	88	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/21/21 17:45
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: MBLK1W	Date Analyzed:	12/22/21 15:41
Lab Samp ID:	DSL021WB	Dilution Factor:	1
Lab File ID:	LL21068A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21058A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.453	0.500	91	60-130
Hexacosane	0.107	0.125	86	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL021WB	J5L021WL
LAB FILE ID	: LL21068A	LL21070A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 15:41	12/22/21 16:17
PREP BATCH	: 21DSL021W	21DSL021W
CALIBRATION REF	: LL21058A	LL21058A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP5	ND	2.50	2.05	82	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.476	95	60-130
Hexacosane	0.125	0.107	86	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/21/21 17:45
Project	: 976353	Date Received:	12/21/21
Batch No.	: 21L251	Date Extracted:	12/21/21 17:45
Sample ID	: MBLK1W	Date Analyzed:	12/22/21 15:41
Lab Samp ID:	DSL021WB	Dilution Factor:	1
Lab File ID:	LL21068A	Matrix:	WATER
Ext Btch ID:	21DSL021W	% Moisture:	NA
Calib. Ref.:	LL21059A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.453	0.500	91	60-130
Hexacosane	0.107	0.125	86	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP8	C8-C18

Reported ND at RL quantitated per pattern recognition.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL021WB	J8L021WL
LAB FILE ID	: LL21068A	LL21071A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 15:41	12/22/21 16:35
PREP BATCH	: 21DSL021W	21DSL021W
CALIBRATION REF	: LL21059A	LL21059A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.31	92	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.505	101	60-130
Hexacosane	0.125	0.104	83	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112210151	202112210151MS	202112210151MSD
LAB SAMPLE ID	: 21L251-01	21L251-01M	21L251-01S
LAB FILE ID	: LL21073A	LL21074A	LL21075A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 17:10	12/22/21 17:28	12/22/21 17:45
PREP BATCH	: 21DSL021W	21DSL021W	21DSL021W
CALIBRATION REF	: LL21057A	LL21057A	LL21057A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.72	2.38	87	2.72	2.41	88	1	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.545	0.482	88	0.545	0.503	92	60-130
Hexacosane	0.136	0.121	89	0.136	0.117	86	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112210151	202112210151MS	202112210151MSD
LAB SAMPLE ID	: 21L251-01	21L251-01M	21L251-01S
LAB FILE ID	: LL21073A	LL21080A	LL21081A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 17:10	12/22/21 19:14	12/22/21 19:31
PREP BATCH	: 21DSL021W	21DSL021W	21DSL021W
CALIBRATION REF	: LL21058A	LL21078A	LL21078A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.50	2.04	82	2.53	2.26	90	10	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.467	93	0.505	0.481	95	60-130
Hexacosane	0.125	0.104	83	0.126	0.105	83	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 976353
BATCH NO. : 21L251
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112210151	202112210151MS	202112210151MSD
LAB SAMPLE ID	: 21L251-01	21L251-01M	21L251-01S
LAB FILE ID	: LL21073A	LL21082A	LL21083A
DATE PREPARED	: 12/21/21 17:45	12/21/21 17:45	12/21/21 17:45
DATE ANALYZED	: 12/22/21 17:10	12/22/21 19:49	12/22/21 20:07
PREP BATCH	: 21DSL021W	21DSL021W	21DSL021W
CALIBRATION REF	: LL21059A	LL21079A	LL21079A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.60	2.73	105	2.62	2.69	102	1	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.520	0.530	102	0.525	0.576	110	60-130
Hexacosane	0.130	0.107	82	0.131	0.106	81	60-130

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

976353

METHOD SW8015C
ALCOHOLS BY GC

SDG#: 21L251

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 976353

SDG : 21L251

METHOD SW8015C
ALCOHOLS BY GC

A total of two(2) water samples were received on 12/21/21 to be analyzed for Alcohols by GC in accordance with Method SW8015C 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. MEL008WB - 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. MEL008WL/MEL008WC 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. Ethanol was within MS QC limits in L250-01M/L250-01S. Refer to Matrix QC summary form for details.

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

LAB CHRONICLE
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL
Project : 976353

SDG NO. : 21L251
Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	MEL008WB	1	NA	12/21/2117:48	NA	TL21004A	TL21002A	MEL008W	Method Blank
LCS1W	MEL008WL	1	NA	12/21/2118:01	NA	TL21005A	TL21002A	MEL008W	Lab Control Sample (LCS)
LCD1W	MEL008WC	1	NA	12/21/2118:15	NA	TL21006A	TL21002A	MEL008W	LCS Duplicate
202112210151	L251-01	1	NA	12/21/2119:09	NA	TL21010A	TL21002A	MEL008W	Field Sample
202112210136	L251-03	1	NA	12/21/2119:22	NA	TL21011A	TL21002A	MEL008W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD SW8015C
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL	Date Collected: 12/20/21
Project : 976353	Date Received: 12/21/21
Batch No. : 21L251	Date Extracted: NA
Sample ID: 202112210151	Date Analyzed: 12/21/21 19:09
Lab Samp ID: L251-01	Dilution Factor: 1
Lab File ID: TL21010A	Matrix : WATER
Ext Btch ID: MEL008W	% Moisture : NA
Calib. Ref.: TL21002A	Instrument ID : GCT050

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit

METHOD SW8015C
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL	Date Collected: 12/19/21
Project : 976353	Date Received: 12/21/21
Batch No. : 21L251	Date Extracted: NA
Sample ID: 202112210136	Date Analyzed: 12/21/21 19:22
Lab Samp ID: L251-03	Dilution Factor: 1
Lab File ID: TL21011A	Matrix : WATER
Ext Btch ID: MEL008W	% Moisture : NA
Calib. Ref.: TL21002A	Instrument ID : GCT050

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit

QC SUMMARIES

METHOD SW8015C
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL	Date Collected: NA
Project : 976353	Date Received: NA
Batch No. : 21L251	Date Extracted: NA
Sample ID: MBLK1W	Date Analyzed: 12/21/21 17:48
Lab Samp ID: MEL008WB	Dilution Factor: 1
Lab File ID: TL21004A	Matrix : WATER
Ext Btch ID: MEL008W	% Moisture : NA
Calib. Ref.: TL21002A	Instrument ID : GCT050

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 976353
BATCH NO.: 21L251
METHOD: METHOD SW8015C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	MEL008WB	MEL008WL	MEL008WC		
LAB FILE ID:	TL21004A	TL21005A	TL21006A		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	12/21/2117:48	12/21/2118:01	12/21/2118:15	DATE RECEIVED:	NA
PREP. BATCH:	MEL008W	MEL008W	MEL008W		
CALIB. REF:	TL21002A	TL21002A	TL21002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9380	94	10000	9060	91	3	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 976357
BATCH NO.: 21L250
METHOD: METHOD SW8015C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	202112210160				
LAB SAMP ID:	L250-01	L250-01M	L250-01S		
LAB FILE ID:	TL21007A	TL21008A	TL21009A		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	12/19/21
DATE ANALYZED:	12/21/2118:29	12/21/2118:43	12/21/2118:56	DATE RECEIVED:	12/21/21
PREP. BATCH:	MEL008W	MEL008W	MEL008W		
CALIB. REF:	TL21002A	TL21002A	TL21002A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	9400	94	10000	9440	94	0	60-130	30

December 28, 2021

Debbie Frank
Eurofins Eaton Analytical
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016-

Project Name: Folder # 976353 Job # 1000014
Physis Project ID: 1407003-209

Dear Debbie,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 12/21/2021. A total of 1 sample was received for analysis in accordance with the attached chain of custody (COC). Per the COC, the sample was analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1
Base/Neutral Extractable Compounds by EPA 625.1
Acid Extractable Compounds w/ PAHs by EPA 625.1
6-tert-Butyl-2,4-dimethylphenol by EPA 625.1
2,6-Di-tert-butylphenol by EPA 625.1
2,6-Di-tert-butyl-4-methylphenol by EPA 625.1
p-tert-Butylphenol by EPA 625.1

Analytical results in this report apply only to samples submitted to PHYSIS in accordance with the COC and are intended to be considered in their entirety.

Please feel free to contact me at any time with any questions. PHYSIS appreciates the opportunity to provide you with our analytical and support services.

Regards,

Rachel Hansen
714 602-5320
Extension 203
rachelhansen@physislabs.com

PHYSIS
TERRA FAUNA FLORA AQUA AURA
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-209

Folder # 976353 Job # 1000014

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
94700	202112210151	HALAWA SHAFT-331-241-TP401	12/20/2021	9:33	Samplewater	Not Specified

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ABBREVIATIONS and ACRONYMS

QM	Quality Manual
QA	Quality Assurance
QC	Quality Control
MDL	method detection limit
RL	reporting limit
R1	project sample
R2	project sample replicate
MS1	matrix spike
MS2	matrix spike replicate
B1	procedural blank
B2	procedural blank replicate
BS1	blank spike
BS2	blank spike replicate
LCS1	laboratory control spike
LCS2	laboratory control spike replicate
LCM1	laboratory control material
LCM2	laboratory control material replicate
CRM1	certified reference material
CRM2	certified reference material replicate
RPD	relative percent difference
LMW	low molecular weight
HMW	high molecular weight

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QUALITY ASSURANCE SUMMARY

LABORATORY BATCH: Physis' QM defines a laboratory batch as a group of 20 or fewer project samples of similar matrix, processed together under the same conditions and with the same reagents. QC samples are associated with each batch and were used to assess the validity of the sample analyses.

PROCEDURAL BLANK: Laboratory contamination introduced during method use is assessed through the preparation and analysis of procedural blanks is provided at a minimum frequency of one per batch.

ACCURACY: Accuracy of analytical measurements is the degree of closeness based on percent recovery calculations between measured values and the actual or true value and includes a combination of reproducibility error and systematic bias due to sampling and analytical operations. Accuracy of the project data was indicated by analysis of MS, BS, LCS, LCM, CRM, and/or surrogate spikes on a minimum frequency of one per batch. Physis' QM requires that 95% of the target compounds greater than 10 times the MDL be within the specified acceptance limits.

PRECISION: Precision is the agreement among a set of replicate measurements without assumption of knowledge of the true value and is based on RPD calculations between repeated values. Precision of the project data was determined by analysis of replicate MS1/MS2, BS1/BS2, LCS1/LCS2, LCM1/LCM2, CRM1/CRM2, surrogate spikes and/or replicate project sample analysis (R1/R2) on a minimum frequency of one per batch. Physis' QM requires that for 95% of the compounds greater than 10 times the MDL, the percent RPD should be within the specified acceptance range.

BLANK SPIKES: BS is the introduction of a known concentration of analyte into the procedural blank. BS demonstrates performance of the preparation and analytical methods on a clean matrix void of potential matrix related interferences. The BS is performed in laboratory deionized water, making these recoveries a better indicator of the efficiency of the laboratory method per se.

MATRIX SPIKES: MS is the introduction of a known concentration of analyte into a sample. MS samples demonstrate the effect a particular project sample matrix has on the accuracy of a measurement. Individually, MS samples also indicate the bias of analytical measurements due to chemical interferences inherent in the in the specific project sample spiked. Intrinsic target analyte concentration in the specific project sample can also significantly impact MS recovery.

CERTIFIED REFERENCE MATERIALS: CRMs are materials of various matrices for which analytical information has been determined and certified by a recognized authority. These are used to provide a quantitative assessment of the accuracy of an analytical method. CRMs provide evidence that the laboratory preparation and analysis produces results that are comparable to those obtained by an independent organization.

LABORATORY CONTROL MATERIAL: LCM is provided because a suitable natural seawater CRM is not available and can be used to indicate accuracy of the method. Physis' internal LCM is seawater collected at ~800 meters in the Southern California San Pedro Basin and can be used as a reference for background concentrations in clean, natural seawater for comparison to project samples.

LABORATORY CONTROL SPIKES: LCS is the introduction of a known concentration of analyte into Physis' LCM. LCS samples were employed to assess the effect the seawater matrix has on the accuracy of a measurement. LCS also indicate the bias of this method due to chemical interferences inherent in the in the seawater matrix. Intrinsic LCM concentration can also significantly impact LCS recovery.

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SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

HOLDING TIME: Method recommended holding times are the length of time a project sample can be stored under specific conditions after collection and prior to analysis without significantly affecting the analyte's concentration. Holding times can be extended if preservation techniques are employed to reduce biodegradation, volatilization, oxidation, sorption, precipitation, and other physical and chemical processes.

SAMPLE STORAGE/RETENTION: In order to maintain chemical integrity prior to analysis, all samples submitted to Physis are refrigerated (liquids) or frozen (solids) upon receipt unless otherwise recommended by applicable methods. Solid samples are retained for 1 year from collection while liquid samples are retained until method recommended holding times elapse.

TOTAL/DISSOLVED FRACTION: In some instances, the results for the dissolved fraction may be higher than the total fraction for a particular analyte (e.g. trace metals). This is typically caused by the analytical variation for each result and indicates that the target analyte is primarily in the dissolved phase, within the sample.

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PHYSIS QUALIFIER CODES

CODE	DEFINITION
#	see Case Narrative
ND	analyte not detected at or above the MDL
B	analyte was detected in the procedural blank greater than 10 times the MD
E	analyte concentration exceeds the upper limit of the linear calibration range, reported value is estimated
H	sample received and/or analyzed past the recommended holding time
J	analyte was detected at a concentration below the RL and above the MDL, reported value is estimated
N	insufficient sample, analysis could not be performed
M	analyte was outside the specified accuracy and/or precision acceptance limits due to matrix interference. The associated B/BS were within limits, therefore the sample data was reported without further clarification
SH	analyte concentration in the project sample exceeded the spike concentration, therefore accuracy and/or precision acceptance limits do not apply
SL	analyte results were lower than 10 times the MDL, therefore accuracy and/or precision acceptance limits do not apply
NH	project sample was heterogeneous and sample homogeneity could not be readily achieved using routine laboratory practices, therefore accuracy and/or precision acceptance limits do not apply
Q	analyte was outside the specified QAPP acceptance limits for precision and/or accuracy but within Physis derived acceptance limits, therefore the sample data was reported without further clarification
R	Physis' QM allows for 5% of the target compounds greater than 10 times the MDL to be outside the specified acceptance limits for precision and/or accuracy. This is often due to random error and does not indicate any significant problems with the analysis of these project samples

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ANALYTICAL REPORT

Acid Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 94700-R1	**202112210151 HALAWA SHAFT-331-2**	**Matrix: Samplewater**					**Sampled:**	**20-Dec-21**	**9:33**	**Received:**	**21-Dec-21**
(2,4,6-Tribromophenol)	EPA 625.1	% Recovery	50	1			Total		O-35024	22-Dec-21	25-Dec-21
(d5-Phenol)	EPA 625.1	% Recovery	23	1			Total		O-35024	22-Dec-21	25-Dec-21
2,4,5-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2,4,6-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2,4-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2,4-Dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
2,6-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2,6-Di-tert-butyl-4-methylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2,6-Di-tert-butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2-Chlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2-Methyl-4,6-dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
2-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
2-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
3+4-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
4-Chloro-3-methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
4-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
6-tert-butyl-2,4-dimethylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Benzoic Acid	EPA 625.1	µg/L	2.14	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
Benzyl Alcohol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
Pentachlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Phenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35024	22-Dec-21	25-Dec-21
p-tert-Butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 94700-R1	**202112210151 HALAWA SHAFT-331-2**	**Matrix: Samplewater**					**Sampled:**	**20-Dec-21**	**9:33**	**Received:**	**21-Dec-21**
(d4-1,4-Dichlorobenzene)	EPA 625.1	% Recovery	57	1			Total		O-35024	22-Dec-21	25-Dec-21
2-Chloronaphthalene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
2-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
3-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
4-Bromophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
4-Chloroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
4-Chlorophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
4-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Aniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Benzidine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Bis(2-Chloroethoxy) methane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Bis(2-Chloroethyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Bis(2-Chloroisopropyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Dibenzofuran	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Hexachloroethane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
Nitrobenzene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
N-Nitrosodi-n-propylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21
N-Nitrosodiphenylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35024	22-Dec-21	25-Dec-21

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 94700-R1	**202112210151 HALAWA SHAFT-331-2**	**Matrix: Samplewater**					**Sampled:**	**20-Dec-21**	**9:33**	**Received:**	**21-Dec-21**
(d10-Acenaphthene)	EPA 625.1	% Recovery	79	1			Total		O-35024	22-Dec-21	25-Dec-21
(d10-Phenanthrene)	EPA 625.1	% Recovery	87	1			Total		O-35024	22-Dec-21	25-Dec-21
(d12-Chrysene)	EPA 625.1	% Recovery	86	1			Total		O-35024	22-Dec-21	25-Dec-21
(d12-Perylene)	EPA 625.1	% Recovery	92	1			Total		O-35024	22-Dec-21	25-Dec-21
(d8-Naphthalene)	EPA 625.1	% Recovery	69	1			Total		O-35024	22-Dec-21	25-Dec-21
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35024	22-Dec-21	25-Dec-21

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QUALITY CONTROL REPORT

Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(2,4,6-Tribromophenol)	Total	59	1			% Recovery	100	59	44 - 159%	PASS			
(d5-Phenol)	Total	87	1			% Recovery	100	87	20 - 121%	PASS			
2,4,5-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L							
2,4,6-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L							
2,4-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L							
2,4-Dinitrophenol	Total	ND	1	0.1	0.2	µg/L							
2,6-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L							
2,6-Di-tert-butyl-4-methylphenol	Total	ND	1	0.05	0.1	µg/L							
2,6-Di-tert-butylphenol	Total	ND	1	0.05	0.1	µg/L							
2-Chlorophenol	Total	ND	1	0.05	0.1	µg/L							
2-Methyl-4,6-dinitrophenol	Total	ND	1	0.1	0.2	µg/L							
2-Methylphenol	Total	ND	1	0.1	0.2	µg/L							
2-Nitrophenol	Total	ND	1	0.1	0.2	µg/L							
3+4-Methylphenol	Total	ND	1	0.1	0.2	µg/L							
4-Chloro-3-methylphenol	Total	ND	1	0.1	0.2	µg/L							
4-Nitrophenol	Total	ND	1	0.1	0.2	µg/L							
6-tert-butyl-2,4-dimethylphenol	Total	ND	1	0.05	0.1	µg/L							
Benzoic Acid	Total	ND	1	0.1	0.2	µg/L							
Benzyl Alcohol	Total	ND	1	0.1	0.2	µg/L							
Pentachlorophenol	Total	ND	1	0.05	0.1	µg/L							
Phenol	Total	ND	1	0.1	0.2	µg/L							
p-tert-Butylphenol	Total	ND	1	0.05	0.1	µg/L							

Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(2,4,6-Tribromophenol)	Total	61	1			% Recovery	100	0	61	44 - 159%	PASS		
(d5-Phenol)	Total	71	1			% Recovery	100	0	71	20 - 121%	PASS		
2,4,5-Trichlorophenol	Total	0.917	1	0.05	0.1	µg/L	1	0	92	57 - 116%	PASS		
2,4,6-Trichlorophenol	Total	0.982	1	0.05	0.1	µg/L	1	0	98	56 - 118%	PASS		
2,4-Dichlorophenol	Total	0.855	1	0.05	0.1	µg/L	1	0	86	51 - 117%	PASS		
2,4-Dinitrophenol	Total	0.847	1	0.1	0.2	µg/L	1	0	85	0 - 152%	PASS		
2,6-Dichlorophenol	Total	0.443	1	0.05	0.1	µg/L	0.5	0	89	30 - 130%	PASS		
2,6-Di-tert-butyl-4-methylphenol	Total	0.784	1	0.05	0.1	µg/L	1	0	78	50 - 150%	PASS		
2,6-Di-tert-butylphenol	Total	0.848	1	0.05	0.1	µg/L	1	0	85	50 - 150%	PASS		
2-Chlorophenol	Total	0.781	1	0.05	0.1	µg/L	1	0	78	41 - 110%	PASS		
2-Methyl-4,6-dinitrophenol	Total	0.958	1	0.1	0.2	µg/L	1	0	96	0 - 141%	PASS		
2-Methylphenol	Total	0.855	1	0.1	0.2	µg/L	1	0	86	40 - 117%	PASS		
2-Nitrophenol	Total	1.01	1	0.1	0.2	µg/L	1	0	101	40 - 117%	PASS		
3+4-Methylphenol	Total	0.84	1	0.1	0.2	µg/L	1	0	84	0 - 130%	PASS		
4-Chloro-3-methylphenol	Total	0.893	1	0.1	0.2	µg/L	1	0	89	51 - 128%	PASS		
4-Nitrophenol	Total	0.906	1	0.1	0.2	µg/L	1	0	91	10 - 164%	PASS		
6-tert-butyl-2,4-dimethylphenol	Total	0.956	1	0.05	0.1	µg/L	1	0	96	50 - 150%	PASS		
Benzoic Acid	Total	0.728	1	0.1	0.2	µg/L	1	0	73	2 - 145%	PASS		
Benzyl Alcohol	Total	0.85	1	0.1	0.2	µg/L	1	0	85	43 - 148%	PASS		
Pentachlorophenol	Total	1.03	1	0.05	0.1	µg/L	1	0	103	36 - 111%	PASS		
Phenol	Total	0.763	1	0.1	0.2	µg/L	1	0	76	29 - 114%	PASS		
p-tert-Butylphenol	Total	0.96	1	0.05	0.1	µg/L	1	0	96	50 - 150%	PASS		

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Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21		
(2,4,6-Tribromophenol)	Total	61	1			% Recovery	100	0	61	44 - 159%	PASS	0	30	PASS
(d5-Phenol)	Total	70	1			% Recovery	100	0	70	20 - 121%	PASS	1	30	PASS
2,4,5-Trichlorophenol	Total	0.925	1	0.05	0.1	µg/L	1	0	93	57 - 116%	PASS	0	30	PASS
2,4,6-Trichlorophenol	Total	0.973	1	0.05	0.1	µg/L	1	0	97	56 - 118%	PASS	1	30	PASS
2,4-Dichlorophenol	Total	0.844	1	0.05	0.1	µg/L	1	0	84	51 - 117%	PASS	2	30	PASS
2,4-Dinitrophenol	Total	0.783	1	0.1	0.2	µg/L	1	0	78	0 - 152%	PASS	9	30	PASS
2,6-Dichlorophenol	Total	0.444	1	0.05	0.1	µg/L	0.5	0	89	30 - 130%	PASS	0	30	PASS
2,6-Di-tert-butyl-4-methylphenol	Total	0.701	1	0.05	0.1	µg/L	1	0	70	50 - 150%	PASS	11	30	PASS
2,6-Di-tert-butylphenol	Total	0.812	1	0.05	0.1	µg/L	1	0	81	50 - 150%	PASS	5	30	PASS
2-Chlorophenol	Total	0.792	1	0.05	0.1	µg/L	1	0	79	41 - 110%	PASS	1	30	PASS
2-Methyl-4,6-dinitrophenol	Total	0.99	1	0.1	0.2	µg/L	1	0	99	0 - 141%	PASS	3	30	PASS
2-Methylphenol	Total	0.842	1	0.1	0.2	µg/L	1	0	84	40 - 117%	PASS	2	30	PASS
2-Nitrophenol	Total	0.987	1	0.1	0.2	µg/L	1	0	99	40 - 117%	PASS	2	30	PASS
3+4-Methylphenol	Total	0.845	1	0.1	0.2	µg/L	1	0	85	0 - 130%	PASS	0	30	PASS
4-Chloro-3-methylphenol	Total	0.88	1	0.1	0.2	µg/L	1	0	88	51 - 128%	PASS	1	30	PASS
4-Nitrophenol	Total	0.924	1	0.1	0.2	µg/L	1	0	92	10 - 164%	PASS	1	30	PASS
6-tert-butyl-2,4-dimethylphenol	Total	0.929	1	0.05	0.1	µg/L	1	0	93	50 - 150%	PASS	3	30	PASS
Benzoic Acid	Total	0.921	1	0.1	0.2	µg/L	1	0	92	2 - 145%	PASS	23	30	PASS
Benzyl Alcohol	Total	0.866	1	0.1	0.2	µg/L	1	0	87	43 - 148%	PASS	2	30	PASS
Pentachlorophenol	Total	1.01	1	0.05	0.1	µg/L	1	0	101	36 - 111%	PASS	2	30	PASS
Phenol	Total	0.755	1	0.1	0.2	µg/L	1	0	75	29 - 114%	PASS	0	30	PASS
p-tert-Butylphenol	Total	0.937	1	0.05	0.1	µg/L	1	0	94	50 - 150%	PASS	2	30	PASS

Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-MS1	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(2,4,6-Tribromophenol)	Total	62	1			% Recovery	100	0	62	31 - 143%	PASS		
(d5-Phenol)	Total	31	1			% Recovery	100	0	31	0 - 85%	PASS		
2,4,5-Trichlorophenol	Total	0.816	1	0.05	0.1	µg/L	0.833	0	98	47 - 115%	PASS		
2,4,6-Trichlorophenol	Total	0.83	1	0.05	0.1	µg/L	0.833	0	100	41 - 120%	PASS		
2,4-Dichlorophenol	Total	0.707	1	0.05	0.1	µg/L	0.833	0	85	24 - 110%	PASS		
2,4-Dinitrophenol	Total	0.941	1	0.1	0.2	µg/L	0.833	0	113	24 - 188%	PASS		
2,6-Dichlorophenol	Total	0.365	1	0.05	0.1	µg/L	0.417	0	88	21 - 119%	PASS		
2,6-Di-tert-butyl-4-methylphenol	Total	0.529	1	0.05	0.1	µg/L	0.833	0	64	50 - 150%	PASS		
2,6-Di-tert-butylphenol	Total	0.611	1	0.05	0.1	µg/L	0.833	0	73	50 - 150%	PASS		
2-Chlorophenol	Total	0.607	1	0.05	0.1	µg/L	0.833	0	73	0 - 102%	PASS		
2-Methyl-4,6-dinitrophenol	Total	1.01	1	0.1	0.2	µg/L	0.833	0	121	29 - 154%	PASS		
2-Methylphenol	Total	0.563	1	0.1	0.2	µg/L	0.833	0	68	9 - 98%	PASS		
2-Nitrophenol	Total	0.721	1	0.1	0.2	µg/L	0.833	0	87	0 - 132%	PASS		
3+4-Methylphenol	Total	0.583	1	0.1	0.2	µg/L	0.833	0	70	0 - 130%	PASS		
4-Chloro-3-methylphenol	Total	0.737	1	0.1	0.2	µg/L	0.833	0	88	38 - 120%	PASS		
4-Nitrophenol	Total	0.26	1	0.1	0.2	µg/L	0.833	0	31	0 - 144%	PASS		
6-tert-butyl-2,4-dimethylphenol	Total	0.765	1	0.05	0.1	µg/L	0.833	0	92	50 - 150%	PASS		
Benzoic Acid	Total	4.17	1	0.1	0.2	µg/L	0.833	2.14	244	0 - 140%	FAIL		M
Benzyl Alcohol	Total	0.452	1	0.1	0.2	µg/L	0.833	0	54	0 - 99%	PASS		
Pentachlorophenol	Total	2.32	1	0.05	0.1	µg/L	0.833	0	279	35 - 154%	FAIL		M
Phenol	Total	0.288	1	0.1	0.2	µg/L	0.833	0	35	0 - 130%	PASS		
p-tert-Butylphenol	Total	0.821	1	0.05	0.1	µg/L	0.833	0	99	50 - 150%	PASS		

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Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Sample ID: 94700-MS2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**					**Received: 21-Dec-21**		
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21			
(2,4,6-Tribromophenol)	Total	68	1			% Recovery	100	0	68	31 - 143%	PASS	9	30	PASS	
(d5-Phenol)	Total	30	1			% Recovery	100	0	30	0 - 85%	PASS	3	30	PASS	
2,4,5-Trichlorophenol	Total	0.878	1	0.05	0.1	µg/L	0.909	0	97	47 - 115%	PASS	1	30	PASS	
2,4,6-Trichlorophenol	Total	0.882	1	0.05	0.1	µg/L	0.909	0	97	41 - 120%	PASS	3	30	PASS	
2,4-Dichlorophenol	Total	0.741	1	0.05	0.1	µg/L	0.909	0	82	24 - 110%	PASS	4	30	PASS	
2,4-Dinitrophenol	Total	1.12	1	0.1	0.2	µg/L	0.909	0	123	24 - 188%	PASS	8	30	PASS	
2,6-Dichlorophenol	Total	0.379	1	0.05	0.1	µg/L	0.455	0	83	21 - 119%	PASS	6	30	PASS	
2,6-Di-tert-butyl-4-methylphenol	Total	0.617	1	0.05	0.1	µg/L	0.909	0	68	50 - 150%	PASS	6	30	PASS	
2,6-Di-tert-butylphenol	Total	0.66	1	0.05	0.1	µg/L	0.909	0	73	50 - 150%	PASS	0	30	PASS	
2-Chlorophenol	Total	0.631	1	0.05	0.1	µg/L	0.909	0	69	0 - 102%	PASS	6	30	PASS	
2-Methyl-4,6-dinitrophenol	Total	1.12	1	0.1	0.2	µg/L	0.909	0	123	29 - 154%	PASS	2	30	PASS	
2-Methylphenol	Total	0.586	1	0.1	0.2	µg/L	0.909	0	64	9 - 98%	PASS	6	30	PASS	
2-Nitrophenol	Total	0.756	1	0.1	0.2	µg/L	0.909	0	83	0 - 132%	PASS	5	30	PASS	
3+4-Methylphenol	Total	0.608	1	0.1	0.2	µg/L	0.909	0	67	0 - 130%	PASS	4	30	PASS	
4-Chloro-3-methylphenol	Total	0.775	1	0.1	0.2	µg/L	0.909	0	85	38 - 120%	PASS	3	30	PASS	
4-Nitrophenol	Total	0.289	1	0.1	0.2	µg/L	0.909	0	32	0 - 144%	PASS	3	30	PASS	
6-tert-butyl-2,4-dimethylphenol	Total	0.817	1	0.05	0.1	µg/L	0.909	0	90	50 - 150%	PASS	2	30	PASS	
Benzoic Acid	Total	6.56	1	0.1	0.2	µg/L	0.909	2.14	486	0 - 140%	FAIL	66	30	FAIL	M
Benzyl Alcohol	Total	0.463	1	0.1	0.2	µg/L	0.909	0	51	0 - 99%	PASS	6	30	PASS	
Pentachlorophenol	Total	2.9	1	0.05	0.1	µg/L	0.909	0	319	35 - 154%	FAIL	13	30	PASS	M
Phenol	Total	0.319	1	0.1	0.2	µg/L	0.909	0	35	0 - 130%	PASS	0	30	PASS	
p-tert-Butylphenol	Total	0.858	1	0.05	0.1	µg/L	0.909	0	94	50 - 150%	PASS	5	30	PASS	

Acid Extractable Compounds — QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Sample ID: 94700-R2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**					**Received: 21-Dec-21**		
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21					Analyzed: 25-Dec-21		
(2,4,6-Tribromophenol)	Total	65	1			% Recovery	100	65	31 - 143%	PASS		26	30	PASS	
(d5-Phenol)	Total	24	1			% Recovery	100	24	0 - 85%	PASS		4	30	PASS	
2,4,5-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2,4,6-Trichlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2,4-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2,4-Dinitrophenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
2,6-Dichlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2,6-Di-tert-butyl-4-methylphenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2,6-Di-tert-butylphenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2-Chlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
2-Methyl-4,6-dinitrophenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
2-Methylphenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
2-Nitrophenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
3+4-Methylphenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
4-Chloro-3-methylphenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
4-Nitrophenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
6-tert-butyl-2,4-dimethylphenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
Benzoic Acid	Total	3.15	1	0.1	0.2	µg/L						38	30	FAIL	M
Benzyl Alcohol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
Pentachlorophenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	
Phenol	Total	ND	1	0.1	0.2	µg/L						0	30	PASS	
p-tert-Butylphenol	Total	ND	1	0.05	0.1	µg/L						0	30	PASS	

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	85	1			% Recovery	100	85	30 - 130%	PASS			
2-Chloronaphthalene	Total	ND	1	0.05	0.1	µg/L							
2-Nitroaniline	Total	ND	1	0.05	0.1	µg/L							
3-Nitroaniline	Total	ND	1	0.05	0.1	µg/L							
4-Bromophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L							
4-Chloroaniline	Total	ND	1	0.05	0.1	µg/L							
4-Chlorophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L							
4-Nitroaniline	Total	ND	1	0.05	0.1	µg/L							
Aniline	Total	ND	1	0.05	0.1	µg/L							
Benzidine	Total	ND	1	0.05	0.1	µg/L							
Bis(2-Chloroethoxy) methane	Total	ND	1	0.05	0.1	µg/L							
Bis(2-Chloroethyl) ether	Total	ND	1	0.05	0.1	µg/L							
Bis(2-Chloroisopropyl) ether	Total	ND	1	0.05	0.1	µg/L							
Dibenzofuran	Total	ND	1	0.05	0.1	µg/L							
Disalicylidenepropanediamine	Total	ND	1	0.05	0.1	µg/L							
Hexachloroethane	Total	ND	1	0.05	0.1	µg/L							
Nitrobenzene	Total	ND	1	0.05	0.1	µg/L							
N-Nitrosodi-n-propylamine	Total	ND	1	0.05	0.1	µg/L							
N-Nitrosodiphenylamine	Total	ND	1	0.05	0.1	µg/L							

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	76	1			% Recovery	100	0	76	30 - 130%	PASS		
2-Chloronaphthalene	Total	0.919	1	0.05	0.1	µg/L	1	0	92	53 - 130%	PASS		
2-Nitroaniline	Total	0.9	1	0.05	0.1	µg/L	1	0	90	69 - 114%	PASS		
3-Nitroaniline	Total	0.565	1	0.05	0.1	µg/L	1	0	56	23 - 137%	PASS		
4-Bromophenylphenyl ether	Total	0.999	1	0.05	0.1	µg/L	1	0	100	61 - 132%	PASS		
4-Chloroaniline	Total	0.502	1	0.05	0.1	µg/L	1	0	50	50 - 150%	PASS		
4-Chlorophenylphenyl ether	Total	0.975	1	0.05	0.1	µg/L	1	0	98	63 - 130%	PASS		
4-Nitroaniline	Total	0.744	1	0.05	0.1	µg/L	1	0	74	10 - 159%	PASS		
Aniline	Total	0.813	1	0.05	0.1	µg/L	1	0	81	50 - 150%	PASS		
Benzidine	Total	0.827	1	0.05	0.1	µg/L	1	0	83	0 - 125%	PASS		
Bis(2-Chloroethoxy) methane	Total	0.943	1	0.05	0.1	µg/L	1	0	94	66 - 122%	PASS		
Bis(2-Chloroethyl) ether	Total	0.477	1	0.05	0.1	µg/L	1	0	48	43 - 127%	PASS		
Bis(2-Chloroisopropyl) ether	Total	1.02	1	0.05	0.1	µg/L	1	0	102	49 - 128%	PASS		
Dibenzofuran	Total	0.928	1	0.05	0.1	µg/L	1	0	93	50 - 150%	PASS		
Disalicylidenepropanediamine	Total	36	1	0.05	0.1	µg/L	50	0	72	50 - 150%	PASS		
Hexachloroethane	Total	0.824	1	0.05	0.1	µg/L	1	0	82	27 - 130%	PASS		
Nitrobenzene	Total	0.826	1	0.05	0.1	µg/L	1	0	83	54 - 111%	PASS		
N-Nitrosodi-n-propylamine	Total	1	1	0.05	0.1	µg/L	1	0	100	61 - 152%	PASS		
N-Nitrosodiphenylamine	Total	0.892	1	0.05	0.1	µg/L	1	0	89	49 - 142%	PASS		

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Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21		
(d4-1,4-Dichlorobenzene)	Total	76	1			% Recovery	100	0	76	30 - 130%	PASS	0	30	PASS
2-Chloronaphthalene	Total	0.913	1	0.05	0.1	µg/L	1	0	91	53 - 130%	PASS	1	30	PASS
2-Nitroaniline	Total	0.92	1	0.05	0.1	µg/L	1	0	92	69 - 114%	PASS	2	30	PASS
3-Nitroaniline	Total	0.624	1	0.05	0.1	µg/L	1	0	62	23 - 137%	PASS	10	30	PASS
4-Bromophenylphenyl ether	Total	0.994	1	0.05	0.1	µg/L	1	0	99	61 - 132%	PASS	1	30	PASS
4-Chloroaniline	Total	0.519	1	0.05	0.1	µg/L	1	0	52	50 - 150%	PASS	4	30	PASS
4-Chlorophenylphenyl ether	Total	0.949	1	0.05	0.1	µg/L	1	0	95	63 - 130%	PASS	3	30	PASS
4-Nitroaniline	Total	0.744	1	0.05	0.1	µg/L	1	0	74	10 - 159%	PASS	0	30	PASS
Aniline	Total	0.766	1	0.05	0.1	µg/L	1	0	77	50 - 150%	PASS	5	30	PASS
Benzidine	Total	0.941	1	0.05	0.1	µg/L	1	0	94	0 - 125%	PASS	12	30	PASS
Bis(2-Chloroethoxy) methane	Total	0.915	1	0.05	0.1	µg/L	1	0	92	66 - 122%	PASS	2	30	PASS
Bis(2-Chloroethyl) ether	Total	0.44	1	0.05	0.1	µg/L	1	0	44	43 - 127%	PASS	9	30	PASS
Bis(2-Chloroisopropyl) ether	Total	0.942	1	0.05	0.1	µg/L	1	0	94	49 - 128%	PASS	8	30	PASS
Dibenzofuran	Total	0.923	1	0.05	0.1	µg/L	1	0	92	50 - 150%	PASS	1	30	PASS
Disalicylidenepropanediamine	Total	39.5	1	0.05	0.1	µg/L	50	0	79	50 - 150%	PASS	9	30	PASS
Hexachloroethane	Total	0.821	1	0.05	0.1	µg/L	1	0	82	27 - 130%	PASS	0	30	PASS
Nitrobenzene	Total	0.826	1	0.05	0.1	µg/L	1	0	83	54 - 111%	PASS	0	30	PASS
N-Nitrosodi-n-propylamine	Total	0.979	1	0.05	0.1	µg/L	1	0	98	61 - 152%	PASS	2	30	PASS
N-Nitrosodiphenylamine	Total	0.895	1	0.05	0.1	µg/L	1	0	89	49 - 142%	PASS	1	30	PASS

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Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-MS1	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**			**Sampled: 20-Dec-21 9:33**			**Received: 21-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35024			Prepared: 22-Dec-21			Analyzed: 25-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	61	1			% Recovery	100	0	61	30 - 130%		PASS	
2-Chloronaphthalene	Total	0.724	1	0.05	0.1	µg/L	0.833	0	87	30 - 108%		PASS	
2-Nitroaniline	Total	0.796	1	0.05	0.1	µg/L	0.833	0	96	40 - 136%		PASS	
3-Nitroaniline	Total	0.421	1	0.05	0.1	µg/L	0.833	0	51	0 - 143%		PASS	
4-Bromophenylphenyl ether	Total	0.823	1	0.05	0.1	µg/L	0.833	0	99	50 - 150%		PASS	
4-Chloroaniline	Total	0.425	1	0.05	0.1	µg/L	0.833	0	51	21 - 144%		PASS	
4-Chlorophenylphenyl ether	Total	0.795	1	0.05	0.1	µg/L	0.833	0	95	50 - 150%		PASS	
4-Nitroaniline	Total	0.449	1	0.05	0.1	µg/L	0.833	0	54	10 - 154%		PASS	
Aniline	Total	0.775	1	0.05	0.1	µg/L	0.833	0	93	50 - 150%		PASS	
Benzidine	Total	0.887	1	0.05	0.1	µg/L	0.833	0	106	0 - 125%		PASS	
Bis(2-Chloroethoxy) methane	Total	0.766	1	0.05	0.1	µg/L	0.833	0	92	25 - 119%		PASS	
Bis(2-Chloroethyl) ether	Total	0.773	1	0.05	0.1	µg/L	0.833	0	93	14 - 110%		PASS	
Bis(2-Chloroisopropyl) ether	Total	0.944	1	0.05	0.1	µg/L	0.833	0	113	0 - 138%		PASS	
Dibenzofuran	Total	0.758	1	0.05	0.1	µg/L	0.833	0	91	48 - 103%		PASS	
Disalicylidenepropanediamine	Total	21.8	1	0.05	0.1	µg/L	41.7	0	52	50 - 150%		PASS	
Hexachloroethane	Total	0.535	1	0.05	0.1	µg/L	0.833	0	64	0 - 94%		PASS	
Nitrobenzene	Total	0.668	1	0.05	0.1	µg/L	0.833	0	80	4 - 116%		PASS	
N-Nitrosodi-n-propylamine	Total	0.82	1	0.05	0.1	µg/L	0.833	0	98	0 - 164%		PASS	
N-Nitrosodiphenylamine	Total	0.778	1	0.05	0.1	µg/L	0.833	0	93	52 - 112%		PASS	

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-MS2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**			**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35024			Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	60	1			% Recovery	100	0	60	30 - 130%	PASS	2	30	PASS
2-Chloronaphthalene	Total	0.759	1	0.05	0.1	µg/L	0.909	0	83	30 - 108%	PASS	5	30	PASS
2-Nitroaniline	Total	0.846	1	0.05	0.1	µg/L	0.909	0	93	40 - 136%	PASS	3	30	PASS
3-Nitroaniline	Total	0.497	1	0.05	0.1	µg/L	0.909	0	55	0 - 143%	PASS	8	30	PASS
4-Bromophenylphenyl ether	Total	0.874	1	0.05	0.1	µg/L	0.909	0	96	50 - 150%	PASS	3	30	PASS
4-Chloroaniline	Total	0.465	1	0.05	0.1	µg/L	0.909	0	51	21 - 144%	PASS	0	30	PASS
4-Chlorophenylphenyl ether	Total	0.828	1	0.05	0.1	µg/L	0.909	0	91	50 - 150%	PASS	4	30	PASS
4-Nitroaniline	Total	0.474	1	0.05	0.1	µg/L	0.909	0	52	10 - 154%	PASS	4	30	PASS
Aniline	Total	0.892	1	0.05	0.1	µg/L	0.909	0	98	50 - 150%	PASS	5	30	PASS
Benzidine	Total	0.987	1	0.05	0.1	µg/L	0.909	0	109	0 - 125%	PASS	3	30	PASS
Bis(2-Chloroethoxy) methane	Total	0.785	1	0.05	0.1	µg/L	0.909	0	86	25 - 119%	PASS	7	30	PASS
Bis(2-Chloroethyl) ether	Total	0.887	1	0.05	0.1	µg/L	0.909	0	98	14 - 110%	PASS	5	30	PASS
Bis(2-Chloroisopropyl) ether	Total	0.774	1	0.05	0.1	µg/L	0.909	0	85	0 - 138%	PASS	28	30	PASS
Dibenzofuran	Total	0.797	1	0.05	0.1	µg/L	0.909	0	88	48 - 103%	PASS	3	30	PASS
Disalicylidenepropanediamine	Total	22.9	1	0.05	0.1	µg/L	45.5	0	50	50 - 150%	PASS	4	30	PASS
Hexachloroethane	Total	0.567	1	0.05	0.1	µg/L	0.909	0	62	0 - 94%	PASS	3	30	PASS
Nitrobenzene	Total	0.71	1	0.05	0.1	µg/L	0.909	0	78	4 - 116%	PASS	3	30	PASS
N-Nitrosodi-n-propylamine	Total	0.823	1	0.05	0.1	µg/L	0.909	0	91	0 - 164%	PASS	7	30	PASS
N-Nitrosodiphenylamine	Total	0.818	1	0.05	0.1	µg/L	0.909	0	90	52 - 112%	PASS	3	30	PASS

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Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-R2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	59	1			% Recovery	100	59	30 - 130%	PASS	3	30	PASS
2-Chloronaphthalene	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
2-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
3-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
4-Bromophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
4-Chloroaniline	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
4-Chlorophenylphenyl ether	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
4-Nitroaniline	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Aniline	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Benzidine	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Bis(2-Chloroethoxy) methane	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Bis(2-Chloroethyl) ether	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Bis(2-Chloroisopropyl) ether	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Dibenzofuran	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Disalicylidenepropanediamine	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Hexachloroethane	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
Nitrobenzene	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
N-Nitrosodi-n-propylamine	Total	ND	1	0.05	0.1	µg/L					0	30	PASS
N-Nitrosodiphenylamine	Total	ND	1	0.05	0.1	µg/L					0	30	PASS

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Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d10-Acenaphthene)	Total	97	1			% Recovery	100	97		65 - 113%		PASS	
(d10-Phenanthrene)	Total	97	1			% Recovery	100	97		80 - 111%		PASS	
(d12-Chrysene)	Total	80	1			% Recovery	100	80		60 - 139%		PASS	
(d12-Perylene)	Total	87	1			% Recovery	100	87		36 - 161%		PASS	
(d8-Naphthalene)	Total	91	1			% Recovery	100	91		44 - 119%		PASS	
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L							
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
Acenaphthene	Total	ND	1	0.001	0.005	µg/L							
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L							
Anthracene	Total	ND	1	0.001	0.005	µg/L							
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L							
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L							
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L							
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L							
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Biphenyl	Total	ND	1	0.001	0.005	µg/L							
Chrysene	Total	ND	1	0.001	0.005	µg/L							
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L							
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L							

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							
Fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Fluorene	Total	ND	1	0.001	0.005	µg/L							
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L							
Naphthalene	Total	ND	1	0.001	0.005	µg/L							
Perylene	Total	ND	1	0.001	0.005	µg/L							
Phenanthrene	Total	ND	1	0.001	0.005	µg/L							
Pyrene	Total	ND	1	0.001	0.005	µg/L							

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d10-Acenaphthene)	Total	86	1			% Recovery	100	0	86	65 - 113%	PASS		
(d10-Phenanthrene)	Total	96	1			% Recovery	100	0	96	80 - 111%	PASS		
(d12-Chrysene)	Total	104	1			% Recovery	100	0	104	60 - 139%	PASS		
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%	PASS		
(d8-Naphthalene)	Total	77	1			% Recovery	100	0	77	44 - 119%	PASS		
1-Methylnaphthalene	Total	0.435	1	0.001	0.005	µg/L	0.5	0	87	49 - 117%	PASS		
1-Methylphenanthrene	Total	0.516	1	0.001	0.005	µg/L	0.5	0	103	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.474	1	0.001	0.005	µg/L	0.5	0	95	57 - 120%	PASS		
2,6-Dimethylnaphthalene	Total	0.452	1	0.001	0.005	µg/L	0.5	0	90	54 - 117%	PASS		
2-Methylnaphthalene	Total	1.32	1	0.001	0.005	µg/L	1.5	0	88	47 - 130%	PASS		
Acenaphthene	Total	1.33	1	0.001	0.005	µg/L	1.5	0	89	53 - 131%	PASS		
Acenaphthylene	Total	1.4	1	0.001	0.005	µg/L	1.5	0	93	43 - 140%	PASS		
Anthracene	Total	1.46	1	0.001	0.005	µg/L	1.5	0	97	58 - 135%	PASS		
Benz[a]anthracene	Total	1.79	1	0.001	0.005	µg/L	1.5	0	119	55 - 145%	PASS		
Benzo[a]pyrene	Total	1.54	1	0.001	0.005	µg/L	1.5	0	103	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	1.85	1	0.001	0.005	µg/L	1.5	0	123	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.516	1	0.001	0.005	µg/L	0.5	0	103	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	1.62	1	0.001	0.005	µg/L	1.5	0	108	56 - 145%	PASS		
Biphenyl	Total	0.45	1	0.001	0.005	µg/L	0.5	0	90	56 - 119%	PASS		
Chrysene	Total	1.67	1	0.001	0.005	µg/L	1.5	0	111	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	1.8	1	0.001	0.005	µg/L	1.5	0	120	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	0.358	1	0.001	0.005	µg/L	0.5	0	72	50 - 150%	PASS		

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	0.504	1	0.001	0.005	µg/L	0.5	0	101	75 - 113%	PASS			
Fluoranthene	Total	1.64	1	0.001	0.005	µg/L	1.5	0	109	60 - 146%	PASS			
Fluorene	Total	1.5	1	0.001	0.005	µg/L	1.5	0	100	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	1.9	1	0.001	0.005	µg/L	1.5	0	127	50 - 151%	PASS			
Naphthalene	Total	1.19	1	0.001	0.005	µg/L	1.5	0	79	41 - 126%	PASS			
Perylene	Total	0.486	1	0.001	0.005	µg/L	0.5	0	97	48 - 141%	PASS			
Phenanthrene	Total	1.49	1	0.001	0.005	µg/L	1.5	0	99	67 - 127%	PASS			
Pyrene	Total	1.65	1	0.001	0.005	µg/L	1.5	0	110	54 - 156%	PASS			

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Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94699-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21		
(d10-Acenaphthene)	Total	83	1			% Recovery	100	0	83	65 - 113%	PASS	4	30 PASS	
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	80 - 111%	PASS	1	30 PASS	
(d12-Chrysene)	Total	97	1			% Recovery	100	0	97	60 - 139%	PASS	7	30 PASS	
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%	PASS	0	30 PASS	
(d8-Naphthalene)	Total	76	1			% Recovery	100	0	76	44 - 119%	PASS	1	30 PASS	
1-Methylnaphthalene	Total	0.426	1	0.001	0.005	µg/L	0.5	0	85	49 - 117%	PASS	2	30 PASS	
1-Methylphenanthrene	Total	0.518	1	0.001	0.005	µg/L	0.5	0	104	66 - 127%	PASS	1	30 PASS	
2,3,5-Trimethylnaphthalene	Total	0.462	1	0.001	0.005	µg/L	0.5	0	92	57 - 120%	PASS	3	30 PASS	
2,6-Dimethylnaphthalene	Total	0.439	1	0.001	0.005	µg/L	0.5	0	88	54 - 117%	PASS	2	30 PASS	
2-Methylnaphthalene	Total	1.29	1	0.001	0.005	µg/L	1.5	0	86	47 - 130%	PASS	2	30 PASS	
Acenaphthene	Total	1.31	1	0.001	0.005	µg/L	1.5	0	87	53 - 131%	PASS	2	30 PASS	
Acenaphthylene	Total	1.38	1	0.001	0.005	µg/L	1.5	0	92	43 - 140%	PASS	1	30 PASS	
Anthracene	Total	1.47	1	0.001	0.005	µg/L	1.5	0	98	58 - 135%	PASS	1	30 PASS	
Benz[a]anthracene	Total	1.8	1	0.001	0.005	µg/L	1.5	0	120	55 - 145%	PASS	1	30 PASS	
Benzo[a]pyrene	Total	1.53	1	0.001	0.005	µg/L	1.5	0	102	51 - 143%	PASS	1	30 PASS	
Benzo[b]fluoranthene	Total	1.86	1	0.001	0.005	µg/L	1.5	0	124	46 - 165%	PASS	1	30 PASS	
Benzo[e]pyrene	Total	0.514	1	0.001	0.005	µg/L	0.5	0	103	42 - 152%	PASS	0	30 PASS	
Benzo[g,h,i]perylene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	63 - 133%	PASS	0	30 PASS	
Benzo[k]fluoranthene	Total	1.6	1	0.001	0.005	µg/L	1.5	0	107	56 - 145%	PASS	1	30 PASS	
Biphenyl	Total	0.44	1	0.001	0.005	µg/L	0.5	0	88	56 - 119%	PASS	2	30 PASS	
Chrysene	Total	1.68	1	0.001	0.005	µg/L	1.5	0	112	56 - 141%	PASS	1	30 PASS	
Dibenz[a,h]anthracene	Total	1.7	1	0.001	0.005	µg/L	1.5	0	113	55 - 150%	PASS	6	30 PASS	
Dibenzo[a,l]pyrene	Total	0.372	1	0.001	0.005	µg/L	0.5	0	74	50 - 150%	PASS	3	30 PASS	

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Dibenzothiophene	Total	0.503	1	0.001	0.005	µg/L	0.5	0	101	75 - 113%	PASS	0	30	PASS	
Fluoranthene	Total	1.64	1	0.001	0.005	µg/L	1.5	0	109	60 - 146%	PASS	0	30	PASS	
Fluorene	Total	1.47	1	0.001	0.005	µg/L	1.5	0	98	58 - 131%	PASS	2	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	1.88	1	0.001	0.005	µg/L	1.5	0	125	50 - 151%	PASS	2	30	PASS	
Naphthalene	Total	1.18	1	0.001	0.005	µg/L	1.5	0	79	41 - 126%	PASS	0	30	PASS	
Perylene	Total	0.485	1	0.001	0.005	µg/L	0.5	0	97	48 - 141%	PASS	0	30	PASS	
Phenanthrene	Total	1.48	1	0.001	0.005	µg/L	1.5	0	99	67 - 127%	PASS	0	30	PASS	
Pyrene	Total	1.64	1	0.001	0.005	µg/L	1.5	0	109	54 - 156%	PASS	1	30	PASS	

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-MS1	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21	
(d10-Acenaphthene)	Total	83	1			% Recovery	100	0	83	45 - 118%			PASS
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	56 - 123%			PASS
(d12-Chrysene)	Total	98	1			% Recovery	100	0	98	36 - 142%			PASS
(d12-Perylene)	Total	95	1			% Recovery	100	0	95	36 - 161%			PASS
(d8-Naphthalene)	Total	71	1			% Recovery	100	0	71	20 - 112%			PASS
1-Methylnaphthalene	Total	0.341	1	0.001	0.005	µg/L	0.417	0	82	39 - 104%			PASS
1-Methylphenanthrene	Total	0.44	1	0.001	0.005	µg/L	0.417	0	106	62 - 136%			PASS
2,3,5-Trimethylnaphthalene	Total	0.376	1	0.001	0.005	µg/L	0.417	0	90	47 - 132%			PASS
2,6-Dimethylnaphthalene	Total	0.349	1	0.001	0.005	µg/L	0.417	0	84	37 - 118%			PASS
2-Methylnaphthalene	Total	1.02	1	0.001	0.005	µg/L	1.25	0	82	33 - 113%			PASS
Acenaphthene	Total	1.08	1	0.001	0.005	µg/L	1.25	0	86	51 - 116%			PASS
Acenaphthylene	Total	1.14	1	0.001	0.005	µg/L	1.25	0	91	53 - 127%			PASS
Anthracene	Total	1.22	1	0.001	0.005	µg/L	1.25	0	98	60 - 126%			PASS
Benz[a]anthracene	Total	1.56	1	0.001	0.005	µg/L	1.25	0	125	51 - 165%			PASS
Benzo[a]pyrene	Total	1.29	1	0.001	0.005	µg/L	1.25	0	103	24 - 170%			PASS
Benzo[b]fluoranthene	Total	1.55	1	0.001	0.005	µg/L	1.25	0	124	38 - 158%			PASS
Benzo[e]pyrene	Total	0.426	1	0.001	0.005	µg/L	0.417	0	102	26 - 157%			PASS
Benzo[g,h,i]perylene	Total	1.32	1	0.001	0.005	µg/L	1.25	0	106	57 - 133%			PASS
Benzo[k]fluoranthene	Total	1.34	1	0.001	0.005	µg/L	1.25	0	107	27 - 167%			PASS
Biphenyl	Total	0.357	1	0.001	0.005	µg/L	0.417	0	86	41 - 111%			PASS
Chrysene	Total	1.43	1	0.001	0.005	µg/L	1.25	0	114	58 - 136%			PASS
Dibenz[a,h]anthracene	Total	1.51	1	0.001	0.005	µg/L	1.25	0	121	53 - 156%			PASS
Dibenzo[a,l]pyrene	Total	0.304	1	0.001	0.005	µg/L	0.417	0	73	50 - 150%			PASS

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	0.417	1	0.001	0.005	µg/L	0.417	0	100	69 - 112%	PASS			
Fluoranthene	Total	1.38	1	0.001	0.005	µg/L	1.25	0	110	61 - 147%	PASS			
Fluorene	Total	1.23	1	0.001	0.005	µg/L	1.25	0	98	62 - 120%	PASS			
Indeno[1,2,3-cd]pyrene	Total	1.58	1	0.001	0.005	µg/L	1.25	0	126	58 - 147%	PASS			
Naphthalene	Total	0.936	1	0.001	0.005	µg/L	1.25	0	75	22 - 110%	PASS			
Perylene	Total	0.418	1	0.001	0.005	µg/L	0.417	0	100	34 - 147%	PASS			
Phenanthrene	Total	1.24	1	0.001	0.005	µg/L	1.25	0	99	64 - 121%	PASS			
Pyrene	Total	1.38	1	0.001	0.005	µg/L	1.25	0	110	65 - 146%	PASS			

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Innovative Solutions for Nature

PHYSIS Project ID: 1407003-209
Client: Eurofins Eaton Analytical
Project: Folder # 976353 Job # 1000014

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-MS2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**		
	Method: EPA 625.1					Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21		
(d10-Acenaphthene)	Total	77	1			% Recovery	100	0	77	45 - 118%	PASS	8	30	PASS
(d10-Phenanthrene)	Total	92	1			% Recovery	100	0	92	56 - 123%	PASS	3	30	PASS
(d12-Chrysene)	Total	87	1			% Recovery	100	0	87	36 - 142%	PASS	12	30	PASS
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%	PASS	3	30	PASS
(d8-Naphthalene)	Total	68	1			% Recovery	100	0	68	20 - 112%	PASS	4	30	PASS
1-Methylnaphthalene	Total	0.355	1	0.001	0.005	µg/L	0.455	0	78	39 - 104%	PASS	5	30	PASS
1-Methylphenanthrene	Total	0.472	1	0.001	0.005	µg/L	0.455	0	104	62 - 136%	PASS	2	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.399	1	0.001	0.005	µg/L	0.455	0	88	47 - 132%	PASS	2	30	PASS
2,6-Dimethylnaphthalene	Total	0.368	1	0.001	0.005	µg/L	0.455	0	81	37 - 118%	PASS	4	30	PASS
2-Methylnaphthalene	Total	1.06	1	0.001	0.005	µg/L	1.36	0	78	33 - 113%	PASS	5	30	PASS
Acenaphthene	Total	1.11	1	0.001	0.005	µg/L	1.36	0	82	51 - 116%	PASS	5	30	PASS
Acenaphthylene	Total	1.19	1	0.001	0.005	µg/L	1.36	0	88	53 - 127%	PASS	3	30	PASS
Anthracene	Total	1.3	1	0.001	0.005	µg/L	1.36	0	96	60 - 126%	PASS	2	30	PASS
Benz[a]anthracene	Total	1.71	1	0.001	0.005	µg/L	1.36	0	126	51 - 165%	PASS	1	30	PASS
Benzo[a]pyrene	Total	1.37	1	0.001	0.005	µg/L	1.36	0	101	24 - 170%	PASS	2	30	PASS
Benzo[b]fluoranthene	Total	1.64	1	0.001	0.005	µg/L	1.36	0	121	38 - 158%	PASS	2	30	PASS
Benzo[e]pyrene	Total	0.463	1	0.001	0.005	µg/L	0.455	0	102	26 - 157%	PASS	0	30	PASS
Benzo[g,h,i]perylene	Total	1.4	1	0.001	0.005	µg/L	1.36	0	103	57 - 133%	PASS	3	30	PASS
Benzo[k]fluoranthene	Total	1.47	1	0.001	0.005	µg/L	1.36	0	108	27 - 167%	PASS	1	30	PASS
Biphenyl	Total	0.374	1	0.001	0.005	µg/L	0.455	0	82	41 - 111%	PASS	5	30	PASS
Chrysene	Total	1.58	1	0.001	0.005	µg/L	1.36	0	116	58 - 136%	PASS	2	30	PASS
Dibenz[a,h]anthracene	Total	1.46	1	0.001	0.005	µg/L	1.36	0	107	53 - 156%	PASS	12	30	PASS
Dibenzo[a,l]pyrene	Total	0.312	1	0.001	0.005	µg/L	0.455	0	69	50 - 150%	PASS	6	30	PASS

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Dibenzothiophene	Total	0.451	1	0.001	0.005	µg/L	0.455	0	99	69 - 112%	PASS	1	30	PASS	
Fluoranthene	Total	1.47	1	0.001	0.005	µg/L	1.36	0	108	61 - 147%	PASS	2	30	PASS	
Fluorene	Total	1.29	1	0.001	0.005	µg/L	1.36	0	95	62 - 120%	PASS	3	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	1.6	1	0.001	0.005	µg/L	1.36	0	118	58 - 147%	PASS	7	30	PASS	
Naphthalene	Total	0.975	1	0.001	0.005	µg/L	1.36	0	72	22 - 110%	PASS	4	30	PASS	
Perylene	Total	0.447	1	0.001	0.005	µg/L	0.455	0	98	34 - 147%	PASS	2	30	PASS	
Phenanthrene	Total	1.33	1	0.001	0.005	µg/L	1.36	0	98	64 - 121%	PASS	1	30	PASS	
Pyrene	Total	1.47	1	0.001	0.005	µg/L	1.36	0	108	65 - 146%	PASS	3	30	PASS	

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 94700-R2	**202112210151 HALAWA SHAFT-331-241-TP**					**Matrix: Samplewater**		**Sampled: 20-Dec-21 9:33**				**Received: 21-Dec-21**		
		Method: EPA 625.1				Batch ID: O-35024		Prepared: 22-Dec-21				Analyzed: 25-Dec-21		
(d10-Acenaphthene)	Total	88	1			% Recovery	100	88	45 - 118%	PASS		11	30	PASS
(d10-Phenanthrene)	Total	95	1			% Recovery	100	95	56 - 123%	PASS		9	30	PASS
(d12-Chrysene)	Total	84	1			% Recovery	100	84	36 - 142%	PASS		2	30	PASS
(d12-Perylene)	Total	98	1			% Recovery	100	98	36 - 161%	PASS		6	30	PASS
(d8-Naphthalene)	Total	76	1			% Recovery	100	76	20 - 112%	PASS		10	30	PASS
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Acenaphthene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Anthracene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Biphenyl	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Chrysene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L						0	30	PASS

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Fluoranthene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Fluorene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Indeno[1,2,3-cd]pyrene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Naphthalene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Perylene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Phenanthrene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS
Pyrene	Total	ND	1	0.001	0.005	µg/L					0	30	PASS

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Total Ion Chromatogram REPORT

Sample ID: 94700-R1

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
35.1140	5.4327	1111	Anthracene-D10-	1719-06-8	96
10.3423	4.5232	925	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	92
10.2834	2.3413	479	2-Nonene, 3-methyl-, (E)-	17003-99-5	85
10.5301	1.5311	313	3-Methyl-2-butenoic acid, cyclobutyl ester	1000282-89-1	91
10.1033	1.3165	269	2,3,3-Trimethyl-1-hexene	1000113-52-1	90
10.1726	0.7370	151	Hydroperoxide, 1-ethylbutyl	24254-56-6	87
10.0744	0.5934	121	1H-Tetrazole	288-94-8	86
44.5121	0.5917	121	Cyclic octaatomic sulfur	10544-50-0	96
10.5270	0.5087	104	Cyclopentanol, 1-methyl-	1462-03-9	85

Concentration estimated using the response for Anthracene-d10

Sample ID: 94700-R2

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
35.1115	4.2741	1111	Anthracene-D10-	1719-06-8	95
10.3430	3.7866	984	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	92
10.2840	2.0448	532	2-Octene, 3,7-dimethyl-, (Z)-	6874-32-4	85
10.5303	1.4985	390	Oxalic acid, cyclohexyl propyl ester	1000309-30-3	91
44.5169	1.3599	354	Cyclic octaatomic sulfur	10544-50-0	97
10.1052	0.9022	235	2,3,3-Trimethyl-1-hexene	1000113-52-1	89
10.1727	0.6952	181	Hydroperoxide, 1-ethylbutyl	24254-56-6	90
10.5270	0.5671	147	Cyclopentanol, 1-methyl-	1462-03-9	88
10.0776	0.4841	126	1H-Tetrazole	288-94-8	87
10.8658	0.4772	124	Cyclopropane, 1,1,2,3-tetramethyl-	74752-93-5	84
10.8677	0.4317	112	3,3-Diethoxy-1-propyne	10160-87-9	88

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank B1_35024

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
35.1159	4.3876	1111	Anthracene-D10-	1719-06-8	96
10.3435	6.0893	1542	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	92
10.2843	3.1069	787	Octane, 3-methyl-6-methylene-	74630-07-2	85
10.5310	1.5778	400	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	91
10.1054	1.4624	370	2,3,3-Trimethyl-1-hexene	1000113-52-1	88
10.1731	0.8169	207	Hydroperoxide, 1-ethylbutyl	24254-56-6	86
10.0780	0.7711	195	1H-Tetrazole	288-94-8	86
10.2268	0.7315	185	Sulfurous acid, di(cyclohexylmethyl) ester	1010309-22-7	81

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

eurofins | Eaton Analytical

Submittal Form

Date: 12/21/2021

Ship To:
`Physis Environmental Laboratories, Inc
1904 East Wright Circle

Anaheim, CA 92806-6028

Phone: 714-602-5320 Fax:

*REPORTING REQUIRMENTS: ***Do Not Combine Reports with any other samples submitted under different Folder Numbers!***
Report & Invoice must have the Folder # **976353** 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@eurofinset.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 StateCertification # and Exp Date for requested tests + matrix.

Samples from: **HAWAII**

Folder #: **976353**
Report Due: **12/28/2021**

rush

Sample ID	*Client Sample ID for reference onl*	Sample Date & Time	Matrix	Clip Code	PWSID
202112210151	HALAWA SHAFT-331-241-TP401	12/20/21 0933	DW		JLS

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

Method	Prep Method	Analysis Requested
EPA 625	EPA 625	625 Acid Extractable in ug/L
EPA 625	EPA 625	625 Base Neutral Extractable in ug/L
EPA 625	EPA 625m	625PAH in ug/L

Relinquished by: Sample Control Date 12-21-21 Time 1402

Received by: John J Date 12/21/21 Time 14:21

Relinquished by: Sample Control Date ____ Time ____

Received by: John J Date 12/21/21 Time 1511

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

Physis 12/21/21 1815

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (866) 988-3757 www.EurofinsUS.com/Eaton

PHYSIS
TERRA FAUNA FLORA AQUA AURA
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Project Iteration ID: 1407003-209
Client Name: Eurofins Eaton Analytical
Project Name: Folder # 976353 Job # 1000014
COC Page Number: 2 of 2
Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: [redacted]
2. Date Received: 12/21/21
3. Time Received: 1815
4. Client Name: Eurofins
5. Courier Information: (Please circle)
   - Client
   - UPS
   - Area Fast
   - DRS
   - FedEx
   - GSO/GLS
   - Ontrac
   - PAMS
   - PHYSIS Driver:
     i. Start Time: _____
     ii. End Time: _____
     iii. Total Mileage: _____
     iv. Number of Pickups: _____
6. Container Information: (Please put the # of containers or circle none)
   - 3 Cooler
   - __ Styrofoam Cooler
   - ____ Boxes
   - None
   - ___ Carboy(s)
   - __Carboy Trash Can(s)
   - ____ Carboy Cap(s)
   - Other _____
7. What type of ice was used: (Please circle any that apply)
   - Wet Ice
   - Blue Ice
   - Dry Ice
   - Water
   - None
8. Randomly Selected Samples Temperature (°C): 2.5 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: [redacted]

Sample Integrity Upon Receipt:

1. COC(s) included and completely filled out..... Yes / No
2. All sample containers arrived intact..... Yes / No
3. All samples listed on COC(s) are present..... Yes / No
4. Information on containers consistent with information on COC(s)..... Yes / No
5. Correct containers and volume for all analyses indicated..... Yes / No
6. All samples received within method holding time..... Yes / No
7. Correct preservation used for all analyses indicated..... Yes / No
8. Name of sampler included on COC(s)..... Yes / No

Notes: