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

REPORT REVISED,
replaces the original report.

NELAP ACCREDITED TNI LABORATORY
Utah ELCP CA00006

Date of Issue
12/09/2021
EUROFINS EATON ANALYTICAL, LLC

DEB: Debbie L Frank
Project Manager

Report: 972694
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**	Certified
Arkansas	Certified	**Nevada**	CA000062018
California	2813	**New Hampshire ***	2959
Colorado	Certified	**New Jersey ***	CA 008
Connecticut	PH-0107	**New Mexico**	Certified
Delaware	CA 006	**New York ***	11320
Florida *	E871024	**North Carolina**	06701
Georgia	947	**North Dakota**	R-009
Guam	18-005R	**Oregon ***	CA200003-005
Hawaii	Certified	**Pennsylvania ***	68-565
Idaho	Certified	**Puerto Rico**	Certified
Illinois *	200033	**Rhode Island**	LAO00326
Indiana	C-CA-01	**South Carolina**	87016
Iowa - Asbestos	413	**South Dakota**	Certified
Kansas *	E-10268	**Tennessee**	TN02839
Kentucky	90107	**Texas ***	T104704230-18-15
Louisiana *	LA180000	**Utah (Primary AB) ***	CA00006
Maine	CA0006	**Vermont**	VT0114
Maryland	224	**Virginia ***	460260
Commonwealth of Northern Marianas Is.	MP0004	**Washington**	C838
Massachusetts	M-CA006	**EPA Region 5**	Certified
Michigan	9906	**Los Angeles County Sanitation Districts**	10264
Mississippi	Certified		

* NELAP/TNI Recognized Accreditation Bodies

Eurofins Eaton Analytical, LLC
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
T | 626-386-1100
F | 866-988-3757
www.EurofinsUS.com/Eaton

The tests listed below are accredited and meet the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation Board/A2LA.
Refer to Certificate and scope of accreditation (5890) found at: https://www.eurofinsus.com/Eaton

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Environ-mental (Drinking Water)	Environ-mental (Waste Water)	Water as a Component of Food and Bev/Bev/ Bottled Water
1,2,3-TCP (5 PPT & 0.5 PPT)	CA SRL 524M-TCP	x		x
1,4-Dioxane	EPA 522	x		x
2,3,7,8-TCDD	Modified EPA 1613B	x		x
Acrylamide	In House Method (2440)	x		x
Algal Toxins/Microcystin	In House Method (3570)			
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x		x
Asbestos	EPA 100.2	x	x	
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method (2447)	x		x
Carbamates	EPA 531.2	x		x
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x		x
COD	EPA 410.4 / SM 5220D		x	
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x		x
Chlorinated Acids	EPA 555	x		x
Chlorine Dioxide	SM 4500-CLO2 D Palin Test	x		x
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1		x	
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x		x
Cyanide, Amenable	SM 4500-CN G	x	x	
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method (2470)	x		x
Diquat and Paraquat	EPA 549.2	x		x
DBP/HAA	SM 6251B	x		x
Dissolved Oxygen	SM 4500-O G		x	x
DOC	SM 5310C	x		x
E. Coli	(MTF/EC+MUG)	x		x
E. Coli	CFR 141.21(f)(6)(i)	x		x
E. Coli	SM 9223		x	
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x		x
E. Coli (Enumeration)	SM 9223B	x		x
EDB/DCBP	EPA 504.1	x		
EDB/DBCP and DBP	EPA 551.1	x		x
EDTA and NTA	In House Method (2454)	x		x
Endothall	EPA 548.1	x		x
Endothall	In-house Method (2445)	x		x
Enterococci	SM 9230B	x	x	
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221C, E (MTF/EC)		x	
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x		x
Fecal Coliform with Chlorine Present	SM 9221E		x	
Fecal Streptococci	SM 9230B	x	x	
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x		x
Glyphosate + AMPA	In House Method (3618)	x		x
Gross Alpha/Beta	EPA 900.0	x	x	x
Gross Alpha Coprecipitation	SM 7110 C	x	x	x
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method (2439)	x		x
Heterotrophic Bacteria	SM 9215 B	x		x
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x		x
Hexavalent Chromium	SM 3500-Cr B		x	
Hormones	EPA 539	x		x
Hydroxide as OH Calc.	SM 2330B	x		x
Kjeldahl Nitrogen	EPA 351.2		x	
Legionella	Legiolert	x		x
Mercury	EPA 200.8	x		x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA (2360)	x		x
Microcystin, Total	EPA 546	x		x
NDMA	EEA/Agilent 521.1 In house method (2425)	x		x
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x		x
Ortho Phosphate	EPA 365.1	x	x	x
Ortho Phosphorous	SM 4500P E	x		x
Oxyhalides Disinfection Byproducts	EPA 317.0	x		x
Perchlorate	EPA 331.0	x		x
Perchlorate (low and high)	EPA 314.0	x		x
Perfluorinated Alkyl Acids	EPA 537	x		x
Perfluorinated Polutant	In house Method (2434)	x		x
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method, based on EPA 532 (2448)	x		x
Pseudomonas	IDEXX Pseudalert (2461)	x		x
Radium-226	GA Institute of Tech	x		x
Radium-228	GA Institute of Tech	x		x
Radon-222	SM 7500RN	x		x
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D		x	
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4		x	
Semi-VOC	EPA 525.2	x		x
Silica	SM 4500-Si D	x	x	
Silica	SM 4500-SiO2 C	x	x	
Sulfide	SM 4500-$S^{=}$ D		x	
Sulfite	SM 4500-SO^{3}B	x	x	x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x		x
Total Coliform (P/A)	SM 9221 A, B	x		x
Total Coliform (Enumeration)	SM 9221 A, B, C	x		x
Total Coliform / E. coli	Colisure SM 9223	x		x
Total Coliform	SM 9221B		x	
Total Coliform with Chlorine Present	SM 9221B		x	
Total Coliform / E.coli (P/A and Enumeration)	SM 9223	x		x
TOC	SM 5310C	x	x	x
TOX	SM 5320B		x	
Total Phenols	EPA 420.1		x	
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P E		x	
Triazine Pesticides & Degradates	In House (3617)	x		x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x	x	
Uranium by ICP/MS	EPA 200.8	x		x
UV 254	SM 5910B	x		
VOC	EPA 524.2	x		x
VOC	In House Method (2411)	x		x
Yeast and Mold	SM 9610	x		x
Field Sampling	N/A			

eurofins | Eaton Analytical

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 #: 972694
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 02, 2021** at **1131**. 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
202112020116	HALAWA SHAFT-331-241-TP401	12/01/2021 0956

@ICPMS	@625A_Physis C	@625BN_Physis C
@625PAH_Physis_TICS_C	@8015 Ethanol_Subbed	@VOASDWA C plus plus TICs C
@VOA-TBA C	(SUB)Gas Fraction Hydrocarbons	Calcium Total ICAP
Magnesium Total ICAP	Mercury ICPMS	Potassium Total ICAP
Sodium Total ICAP	TPH 8015 Diesel and Motor Oil	TPH 8015 Jet Fuel 5
TPH 8015 Jef Fuel 8		

202112020117	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	12/01/2021 0956

@VOASDWA C plus plus TICs TBC	@VOA-TBA TB C	(SUB)Gas Fraction Hydrocarbons

202112090462	RUSH Kit 305992 Rush testing	12/01/2021 09:56

RUSH	RUSH Sample Kit

Test Description

@ICPMS -- ICPMS Metals
@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
@VOA-TBA C -- TBA by EPA 524.2 Modified
@VOA-TBA TB C -- TBA by EPA 524.2 Modified

CHAIN OF CUSTODY RECORD

4926m

eurofins | Eaton Analytical

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: L

SAMPLES LOGGED IN BY: LC

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

SAMPLE TEMP RECEIVED AT:

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

☒ Monrovia 1.0 °C (Compliance: 4 ± 2 °C)

CONDITION OF BLUE ICE: Frozen X 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:	EEA CLIENT CODE:	COC ID:	SAMPLE GROUP:
BWS HONOLULU	RED HILL			

COMPLIANCE SAMPLES (check for yes) ☐ - Requires state forms ☐

NON-COMPLIANCE SAMPLES (check for yes) X

REGULATION INVOLVED: _____

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)

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 by adv notice only 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 Dec 2021	SAMPLER COMMENTS
12/01/21	0956	Halawa Shaft	HI0000331-241	CFW			X	
								305992
								Temp Blank: ____ °C

* **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:		Lew Bailey	Honolulu Board of Water Supply	December 1, 2021	
RELINQUISHED BY:		Lew Bailey	Honolulu Board of Water Supply	01 Dec. 2021	1400
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED BY:		4/(1)1	EEN	12/2/21	11:31

eurofins | Eaton Analytical

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: 11/29/2021 1:03:05PM

Note: Sampler Please return this paper with your samples

Kit #: 305992

Client ID: HONOLULU

Created By: Debbie L Frank - [DEB]
Deliver By: 11/30/2021
STG: Bottle Orders
Ice Type: G
Pre Registered

Project Code: RED-HILL Bottle Orders
Group Name: Red-Hill Expanded List (Albuquerque+)
PO#/JOB#: C20525101 exp 05312023
Description: HALAWA SHAFT - Every 3 month:

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	Chloride, Nitrate as Nitrogen by IC, Nitrite Nitrogen by IC, Sulfate	1 - 125ml poly [no preservative]	1	
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	8 - 1L amber glass [1 ml Thio 8%]	8	
1	@525PLUS C PLUS TICS	3 - 1L amber glass [45mg Sulfite xls+1 vial 2 ml 6N HCl]	3	UN1789
1	Fluoride	1 - 250 ml poly [no preservative]	1	
1	Alkalinity in CaCO3 units, PH (H3=past HT not compliant), Specific Conductance	1 - 250ml poly [no preservative]	1	
1	@VOA-TBA C	4 - 40 ml VOA vial [25 mg AA + drop 2ml 1:1 HCL]	4	UN1789
1	@504MOD C	3 - 40ml amber glass vial [1 drop Thio (8%)]	3	
1	@505_EAL, @ML505	4 - 40ml amber glass vial [1 drop Thio (8%)]	4	
1	8015 Gas_C	3 - 40ml amber glass vial [1 drop Thio (8%)]	3	
1	@504MOD TB C	2 - 40ml amber glass vial [1 drop Thio (8%) + H20]	2	
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	
1	@VOA-TBA TB C	2 - 40ml amber glass vial [TBA_25mg AA+ H20+10 drop 1:1 HCL]	2	
1	@ICPMS, Calcium Total ICAP, Magnesium Total ICAP, Mercury ICPMS, Potassium Total ICAP, Sodium Total ICAP	1 - 500ml acid poly [2ml HNO3 (18%)]	1	UN2031
1	Total Dissolved Solid (TDS)	1 - 500ml poly [no preservative]	1	
1	Bromide by 300.0	1 - 60mL poly [0.3 mL 1% EDA solution]	1	

Sum Tests: 19

Sum Bottles: 55

Comments

eurofins | Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 97269

SAMPLE TEMP RECEIVED:
Note: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.
SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 618A (Observation= 1.1 °C) (Corr.Factor 0.1 °C) (Final = 1.0 °C)

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

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

Compliance Acceptance Criteria:

1) Chemistry: >0, ≤ 6°C, not frozen (NELAP) (If received after 24 hrs of sample collection)

2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)

3) Microbiology, Surface Water: < 10°C (If received after 2 hours of sample collection)

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

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

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

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

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

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

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

Exempt from headspace concerns: Methods 515.4, HAA(6251,552), 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

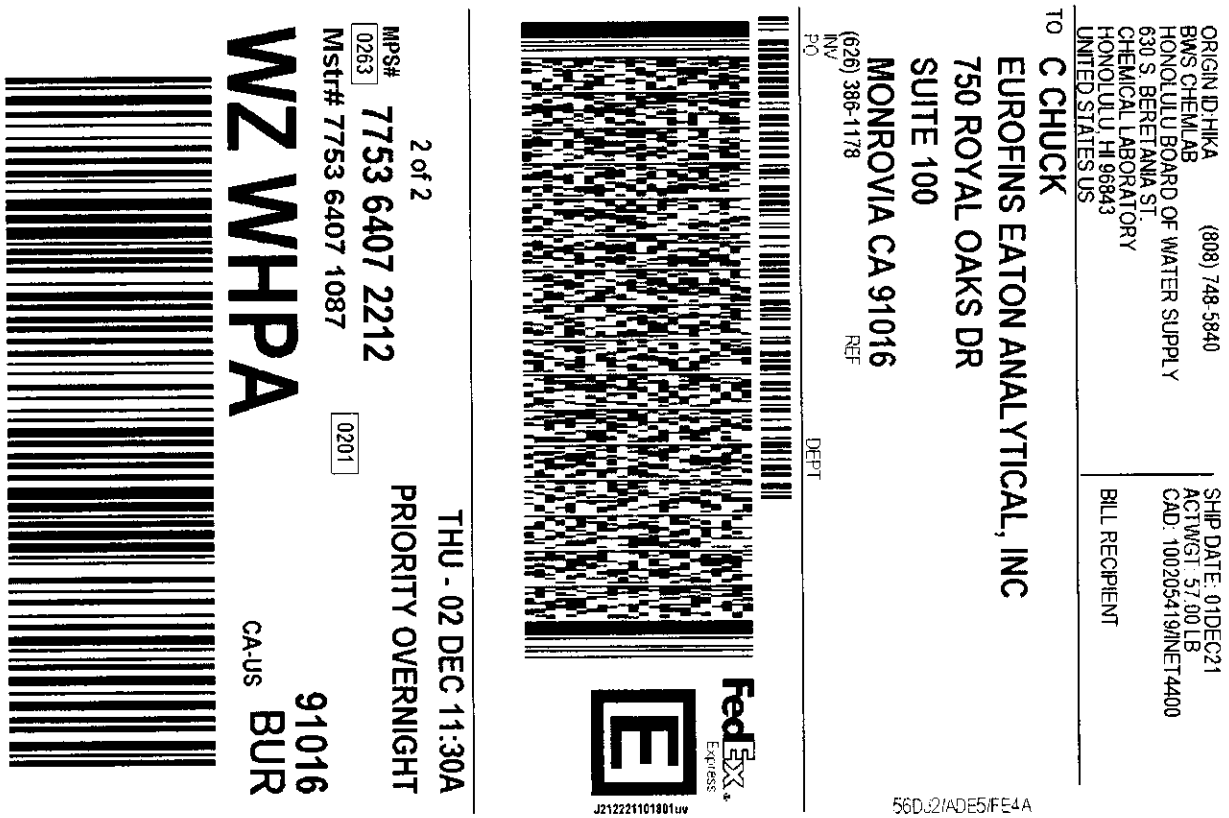
Samp ID	Bottle #	None/<6 mm	>6mm	Test

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

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RECEIVED BY:	[signature]	YVD1	Eurofins Eaton Analytical	12/2/21	11:31
SAMPLES CHECKED AGAINST COC BY:			Eurofins Eaton Analytical		

Page ___ of ___

QA FD-FRM5504 (9.20.21) Ver 9



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.

eurofins | Eaton Analytical

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

Laboratory Comments

Report: 972694
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, BNA and PAHs are submitted by Physis Environmental
Results for Ethanol, TPH Gasoline, TPH Diesel, Motor Oil and Jet Fuels 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)

202112020116	524.2	TICs	None detected
202112020117	524.2	TICs	

Compound Name	Estimated Retention Time	Estimated Concentration
Unknown compound	1.421 minutes	1.45 ug/L
Furfural	9.773 minutes	0.76 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

Report Revised
LCS associated with 8015 Diesel / Motor Oil, JP5, and JP8 is updated to show Matrix: Water, Date analyzed: and Calibration reference. deb120921

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

eurofins | Eaton Analytical

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

Laboratory Comments

Report: 972694
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

Flags Legend:

BM - Target analyte detected in method blank above the MDL, but below the minimum reporting limit (MRL) and anayte not present in the sample, no impact on data.
FB - Target analyte detected in TB > MRL but sample is ND.

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

eurofins | Eaton Analytical

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

Laboratory Hits

Report: 972694
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:
12/02/2021 1131

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
	202112020116	**HALAWA SHAFT-331-241-TP401**				
12/03/2021 11:44	Calcium Total ICAP		36		mg/L	1.0
12/08/2021 17:16	Chromium Total ICAP/MS		2.4	100	ug/L	1.0
12/08/2021 17:16	Copper Total ICAP/MS		3.1	1300	ug/L	2.0
12/03/2021 11:44	Magnesium Total ICAP		29		mg/L	0.10
12/03/2021 11:44	Potassium Total ICAP		3.0		mg/L	1.0
12/03/2021 11:44	Sodium Total ICAP		46		mg/L	1.0

SUMMARY OF POSITIVE DATA ONLY

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
HALAWA SHAFT-331-241-TP401 (202112020116)							**Sampled on 12/01/2021 0956**		
		EPA 200.8 - ICPMS Metals							
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Antimony Total ICAP/MS	ND	ug/L	1.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Arsenic Total ICAP/MS	ND	ug/L	1.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Beryllium Total ICAP/MS	ND	ug/L	1.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Cadmium Total ICAP/MS	ND	ug/L	0.50	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Chromium Total ICAP/MS	2.4	ug/L	1.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Copper Total ICAP/MS	3.1	ug/L	2.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Lead Total ICAP/MS	ND	ug/L	0.50	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Nickel Total ICAP/MS	ND	ug/L	5.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Selenium Total ICAP/MS	ND	ug/L	5.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Silver Total ICAP/MS	ND	ug/L	0.50	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Thallium Total ICAP/MS	ND	ug/L	1.0	1
12/02/21	12/08/21 17:16	1371163	1372082	(EPA 200.8)	Zinc Total ICAP/MS	ND	ug/L	20	1
		EPA 200.7 - ICP Metals							
12/02/21	12/03/21 11:44	1371163	1371266	(EPA 200.7)	Calcium Total ICAP	36	mg/L	1.0	1
12/02/21	12/03/21 11:44	1371163	1371266	(EPA 200.7)	Magnesium Total ICAP	29	mg/L	0.10	1
12/02/21	12/03/21 11:44	1371163	1371266	(EPA 200.7)	Potassium Total ICAP	3.0	mg/L	1.0	1
12/02/21	12/03/21 11:44	1371163	1371266	(EPA 200.7)	Sodium Total ICAP	46	mg/L	1.0	1
		EPA 200.8 - Mercury ICPMS							
12/02/21	12/08/21 17:16	1371163	1372083	(EPA 200.8)	Mercury ICPMS	ND	ug/L	0.20	1
		SW 8015B - (SUB)Gas Fraction Hydrocarbons							
12/03/21	12/03/21 14:19			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
		SW 8015B - TPH 8015 Diesel and Motor Oil							
12/06/21	12/07/21 15:59			(SW 8015B)	TPH Diesel	ND	mg/L	0.026	1
12/06/21	12/07/21 15:59			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.052	1
		EPA 8015 - Jet Fuel 5 C8-C18							
12/06/21	12/07/21 15:59			(EPA 8015)	Jet Fuel 5	ND	mg/L	0.052	1
		EPA 625 - 625PAH in ug/L							
12/03/21	12/05/21 00:00			(EPA 625)	1-Methylnaphthalene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	1-Methylphenanthrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	2,3,5-Trimethylnaphthalene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	2,6-Dimethylnaphthalene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	2-Methylnaphthalene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Acenaphthene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Acenaphthylene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Anthracene	ND	ug/L	0.005	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/03/21	12/05/21 00:00			(EPA 625)	Benz(a)Anthracene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzo(a)pyrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzo(b)fluoranthene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzo(e)pyrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzo(g,h,i)perylene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzo(k)fluoranthene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Biphenyl	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Chrysene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Dibenz(a,h)Anthracene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Dibenzo(a,l)pyrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Dibenzothiophene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Fluoranthene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Fluorene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Indeno(1,2,3,c,d)Pyrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Naphthalene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Perylene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Phenanthrene	ND	ug/L	0.005	1
12/03/21	12/05/21 00:00			(EPA 625)	Pyrene	ND	ug/L	0.005	1
	EPA 8015 - Jet Fuel 8 C8-C18								
	12/07/21 15:59			(EPA 8015)	Jet Fuel 8	ND	mg/L	0.052	1
	EPA 625 - 625 Acid Extractable in ug/L								
12/03/21	12/05/21 00:00			(EPA 625)	2,4,5-Trichlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2,4,6-Trichlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2,4-Dichlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2,4-Dinitrophenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	2,6-Dichlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2,6-Di-tert-butyl-4-methylphenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2,6-Di-tert-butylphenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2-Chlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2-Methylphenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	2-Nitrophenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	4,6-Dinitro-2-methylphenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Chloro-3-methyl phenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Methylphenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Nitrophenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	6-tert-Butyl-2,4-dimethylphenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzoic acid	ND	ug/L	0.2	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/03/21	12/05/21 00:00			(EPA 625)	Benzyl alcohol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	pentachlorophenol	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Phenol	ND	ug/L	0.2	1
12/03/21	12/05/21 00:00			(EPA 625)	p-tert-Butylphenol	ND	ug/L	0.1	1
		EPA 625 - 625 Base Neutral Extractable in ug/L							
12/03/21	12/05/21 00:00			(EPA 625)	2-Chloronaphthalene	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	2-Nitroaniline	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	3-Nitroaniline	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Bromophenylphenyl Ether	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Chlorophenylphenyl Ether	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	4-Nitroaniline	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Aniline	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Benzidine	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	bis(2-Chloroethoxy)methane	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	bis(2-Chloroethyl)ether	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	bis(2-Chloroisopropyl) ether	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Dibenzofuran	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Disalicylidenepropanediamine	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Hexachloroethane	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	Nitrobenzene	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	N-Nitrosodi-N-propylamine	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	N-Nitrosodiphenylamine	ND	ug/L	0.1	1
12/03/21	12/05/21 00:00			(EPA 625)	p-Chloroaniline	ND	ug/L	0.1	1
		SW8015C - Ethanol							
	12/03/21 15:22			(SW8015C)	Ethanol	ND	ug/L	2000	1
		EPA 524.2 - Volatile Organics by GCMS							
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.50	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5.0	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	2-Hexanone	ND	ug/L	10	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Acetone	ND (FB)	ug/L	500	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Benzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromoethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromoform	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Chloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Dibromomethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Dichloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3.0	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Naphthalene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.50	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	o-Xylene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Styrene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3.0	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3.0	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Total THM	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Total xylenes	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.50	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.30	1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	1,2-Dichloroethane-d4	102	%		1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	4-Bromofluorobenzene	102	%		1
12/07/21	12/07/21 17:45	1372297	1372302	(EPA 524.2)	Toluene-d8	91	%		1
		EPA 524.2 SIM - TBA by EPA 524.2 Modified							
12/09/21	12/09/21 01:01	1372522	1372525	(EPA 524.2 SIM)	t-Butyl Alcohol	ND	ug/L	2.0	1
12/09/21	12/09/21 01:01	1372522	1372525	(EPA 524.2 SIM)	1,2-Dichloroethane-d4	112	%		1
12/09/21	12/09/21 01:01	1372522	1372525	(EPA 524.2 SIM)	4-Bromofluorobenzene	92	%		1
12/09/21	12/09/21 01:01	1372522	1372525	(EPA 524.2 SIM)	Toluene-d8	102	%		1
TRAVEL BLANK::HALAWA SHAFT-331-241-TP401 (202112020117)							**Sampled on 12/01/2021 0956**		
		SW 8015B - (SUB)Gas Fraction Hydrocarbons							
12/03/21	12/03/21 13:41			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
		EPA 524.2 - Volatile Organics by GCMS							
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1-Dichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,1-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2,3-Trichlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2,3-Trichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2,4-Trimethylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,3,5-Trimethylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,3-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	2,2-Dichloropropane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	2-Butanone (MEK)	ND	ug/L	5.0	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	2-Hexanone	ND	ug/L	10	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Acetone	ND	ug/L	500	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Benzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromochloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromodichloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromoethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromoform	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Bromomethane (Methyl Bromide)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Carbon disulfide	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Chlorodibromomethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Chloroethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Chloroform (Trichloromethane)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Chloromethane(Methyl Chloride)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	cis-1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Dibromomethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Dichlorodifluoromethane	ND	ug/L	0.50	1

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Dichloromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Di-isopropyl ether	ND	ug/L	3.0	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Hexachlorobutadiene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Isopropylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Naphthalene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	n-Butylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	n-Propylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	o-Chlorotoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	o-Xylene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	p-Chlorotoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	p-Isopropyltoluene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	sec-Butylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Styrene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	tert-amyl Methyl Ether	ND	ug/L	3.0	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	tert-Butyl Ethyl Ether	ND	ug/L	3.0	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	tert-Butylbenzene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Total THM	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Total xylenes	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	trans-1,3-Dichloropropene	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Trichlorofluoromethane	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Trichlorotrifluoroethane(Freon 113)	ND	ug/L	0.50	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.30	1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	1,2-Dichloroethane-d4	103	%		1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	4-Bromofluorobenzene	94	%		1
12/07/21	12/07/21 18:06	1372297	1372302	(EPA 524.2)	Toluene-d8	89	%		1

EPA 524.2 SIM - TBA by EPA 524.2 Modified

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

eurofins | Eaton Analytical

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

Laboratory Data

Report: 972694
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:
12/02/2021 1131

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
12/09/21	12/09/21 01:24	1372522	1372525	(EPA 524.2 SIM)	t-Butyl Alcohol	ND	ug/L	2.0	1
12/09/21	12/09/21 01:24	1372522	1372525	(EPA 524.2 SIM)	1,2-Dichloroethane-d4	116	%		1
12/09/21	12/09/21 01:24	1372522	1372525	(EPA 524.2 SIM)	4-Bromofluorobenzene	94	%		1
12/09/21	12/09/21 01:24	1372522	1372525	(EPA 524.2 SIM)	Toluene-d8	102	%		1

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

eurofins | Eaton Analytical

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

Laboratory QC Summary

Report: 972694
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

Honolulu Board of Water Supply

ICP Metals

Prep Batch: 1371163 **Analytical Batch: 1371266** **Analysis Date: 12/03/2021**

202112020116	HALAWA SHAFT-331-241-TP401	Analyzed by: NINA

ICPMS Metals

Prep Batch: 1371163 **Analytical Batch: 1372082** **Analysis Date: 12/08/2021**

202112020116	HALAWA SHAFT-331-241-TP401	Analyzed by: DHX7

Mercury ICPMS

Prep Batch: 1371163 **Analytical Batch: 1372083** **Analysis Date: 12/08/2021**

202112020116	HALAWA SHAFT-331-241-TP401	Analyzed by: DHX7

Volatile Organics by GCMS

Prep Batch: 1372297 **Analytical Batch: 1372302** **Analysis Date: 12/07/2021**

202112020116	HALAWA SHAFT-331-241-TP401	Analyzed by: TG9W
202112020117	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	Analyzed by: TG9W

TBA by EPA 524.2 Modified

Prep Batch: 1372522 **Analytical Batch: 1372525** **Analysis Date: 12/09/2021**

202112020116	HALAWA SHAFT-331-241-TP401	Analyzed by: KCP
202112020117	TRAVEL BLANK::HALAWA SHAFT-331-241-TP401	Analyzed by: KCP

eurofins | Eaton Analytical

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

Laboratory QC

Report: 972694
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%
ICP Metals by EPA 200.7									
Analytical Batch: 1371266						**Analysis Date: 12/03/2021**			
LCS1	Calcium Total ICAP		50	50.8	mg/L	102	(85-115)		
LCS2	Calcium Total ICAP		50	50.9	mg/L	102	(85-115)	20	0.20
MBLK	Calcium Total ICAP			<0.043087	mg/L				
MRL_CHK	Calcium Total ICAP		1	1.00	mg/L	101	(50-150)		
MS_202112010490	Calcium Total ICAP	3.6	50	55.4	mg/L	104	(70-130)		
MS2_202112010340	Calcium Total ICAP	26	50	77.0	mg/L	101	(70-130)		
MSD_202112010490	Calcium Total ICAP	3.6	50	55.5	mg/L	104	(70-130)	20	0.095
MSD2_202112010340	Calcium Total ICAP	26	50	77.7	mg/L	103	(70-130)	20	0.83
LCS1	Magnesium Total ICAP		20	20.1	mg/L	101	(85-115)		
LCS2	Magnesium Total ICAP		20	20.2	mg/L	101	(85-115)	20	0.50
MBLK	Magnesium Total ICAP			<0.009606	mg/L				
MRL_CHK	Magnesium Total ICAP		0.1	0.0969	mg/L	97	(50-150)		
MS_202112010490	Magnesium Total ICAP	0.93	20	21.8	mg/L	104	(70-130)		
MS2_202112010340	Magnesium Total ICAP	4.5	20	25.3	mg/L	104	(70-130)		
MSD_202112010490	Magnesium Total ICAP	0.93	20	21.8	mg/L	104	(70-130)	20	0.20
MSD2_202112010340	Magnesium Total ICAP	4.5	20	25.4	mg/L	105	(70-130)	20	0.32
LCS1	Potassium Total ICAP		20	20.4	mg/L	102	(85-115)		
LCS2	Potassium Total ICAP		20	20.6	mg/L	103	(85-115)	20	0.97
MBLK	Potassium Total ICAP			<0.233312	mg/L				
MRL_CHK	Potassium Total ICAP		1	0.692	mg/L	69	(50-150)		
MS_202112010490	Potassium Total ICAP	1.7	20	23.5	mg/L	109	(70-130)		
MS2_202112010340	Potassium Total ICAP	1.9	20	24.4	mg/L	112	(70-130)		
MSD_202112010490	Potassium Total ICAP	1.7	20	23.6	mg/L	109	(70-130)	20	0.39
MSD2_202112010340	Potassium Total ICAP	1.9	20	24.7	mg/L	114	(70-130)	20	1.1
LCS1	Sodium Total ICAP		50	50.4	mg/L	101	(85-115)		
LCS2	Sodium Total ICAP		50	50.8	mg/L	102	(85-115)	20	0.79
MBLK	Sodium Total ICAP			<0.4255	mg/L				
MRL_CHK	Sodium Total ICAP		1	1.03	mg/L	103	(50-150)		
MS_202112010490	Sodium Total ICAP	16	50	65.9	mg/L	100	(70-130)		
MS2_202112010340	Sodium Total ICAP	50	50	98.6	mg/L	97	(70-130)		
MSD_202112010490	Sodium Total ICAP	16	50	66.0	mg/L	100	(70-130)	20	0.25
MSD2_202112010340	Sodium Total ICAP	50	50	99.8	mg/L	99	(70-130)	20	1.2
ICPMS Metals by EPA 200.8									
Analytical Batch: 1372082						**Analysis Date: 12/08/2021**			
LCS1	Antimony Total ICAP/MS		50	52.1	ug/L	104	(85-115)		

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)

Report: 972694
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	Antimony Total ICAP/MS		50	53.3	ug/L	107	(85-115)	20	2.3
MBLK	Antimony Total ICAP/MS			<0.2437	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1	1.04	ug/L	104	(50-150)		
MS_202112010542	Antimony Total ICAP/MS	ND	50	52.8	ug/L	105	(70-130)		
MSD_202112010542	Antimony Total ICAP/MS	ND	50	52.5	ug/L	105	(70-130)	20	0.57
LCS1	Arsenic Total ICAP/MS		50	51.3	ug/L	103	(85-115)		
LCS2	Arsenic Total ICAP/MS		50	51.1	ug/L	102	(85-115)	20	0.39
MBLK	Arsenic Total ICAP/MS			<0.4134	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1	1.02	ug/L	102	(50-150)		
MS_202112010542	Arsenic Total ICAP/MS	ND	50	52.3	ug/L	103	(70-130)		
MSD_202112010542	Arsenic Total ICAP/MS	ND	50	51.9	ug/L	102	(70-130)	20	0.72
LCS1	Beryllium Total ICAP/MS		25	25.7	ug/L	103	(85-115)		
LCS2	Beryllium Total ICAP/MS		25	25.8	ug/L	103	(85-115)	20	0.39
MBLK	Beryllium Total ICAP/MS			<0.1106	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1	0.993	ug/L	99	(50-150)		
MS_202112010542	Beryllium Total ICAP/MS	ND	25	25.4	ug/L	102	(70-130)		
MSD_202112010542	Beryllium Total ICAP/MS	ND	25	25.4	ug/L	101	(70-130)	20	0.039
LCS1	Cadmium Total ICAP/MS		25	25.4	ug/L	102	(85-115)		
LCS2	Cadmium Total ICAP/MS		25	25.5	ug/L	102	(85-115)	20	0.39
MBLK	Cadmium Total ICAP/MS			<0.0546	ug/L				
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.487	ug/L	97	(50-150)		
MS_202112010542	Cadmium Total ICAP/MS	ND	25	24.1	ug/L	96	(70-130)		
MSD_202112010542	Cadmium Total ICAP/MS	ND	25	23.9	ug/L	96	(70-130)	20	0.75
LCS1	Chromium Total ICAP/MS		50	51.8	ug/L	104	(85-115)		
LCS2	Chromium Total ICAP/MS		50	51.8	ug/L	104	(85-115)	20	0.19
MBLK	Chromium Total ICAP/MS			<0.580	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1	0.797	ug/L	80	(50-150)		
MS_202112010542	Chromium Total ICAP/MS	8.9	50	60.5	ug/L	103	(70-130)		
MSD_202112010542	Chromium Total ICAP/MS	8.9	50	59.6	ug/L	101	(70-130)	20	1.6
LCS1	Copper Total ICAP/MS		50	51.8	ug/L	104	(85-115)		
LCS2	Copper Total ICAP/MS		50	51.4	ug/L	103	(85-115)	20	0.78
MBLK	Copper Total ICAP/MS			<1.343	ug/L				
MRL_CHK	Copper Total ICAP/MS		2	2.01	ug/L	100	(50-150)		
MS_202112010542	Copper Total ICAP/MS	ND	50	46.0	ug/L	90	(70-130)		
MSD_202112010542	Copper Total ICAP/MS	ND	50	45.2	ug/L	89	(70-130)	20	1.8
LCS1	Lead Total ICAP/MS		50	51.2	ug/L	102	(85-115)		
LCS2	Lead Total ICAP/MS		50	51.1	ug/L	102	(85-115)	20	0.20
MBLK	Lead Total ICAP/MS			<0.0608	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.

eurofins | Eaton Analytical

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

Report: 972694
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	Lead Total ICAP/MS		0.5	0.499	ug/L	100	(50-150)		
MS_202112010542	Lead Total ICAP/MS	ND	50	47.6	ug/L	95	(70-130)		
MSD_202112010542	Lead Total ICAP/MS	ND	50	47.3	ug/L	94	(70-130)	20	0.56
LCS1	Nickel Total ICAP/MS		50	50.9	ug/L	102	(85-115)		
LCS2	Nickel Total ICAP/MS		50	50.4	ug/L	101	(85-115)	20	0.99
MBLK	Nickel Total ICAP/MS			<0.4959	ug/L				
MRL_CHK	Nickel Total ICAP/MS		5	4.69	ug/L	94	(50-150)		
MS_202112010542	Nickel Total ICAP/MS	ND	50	50.3	ug/L	93	(70-130)		
MSD_202112010542	Nickel Total ICAP/MS	ND	50	49.5	ug/L	91	(70-130)	20	1.6
LCS1	Selenium Total ICAP/MS		50	51.8	ug/L	104	(85-115)		
LCS2	Selenium Total ICAP/MS		50	52.5	ug/L	105	(85-115)	20	1.3
MBLK	Selenium Total ICAP/MS			<0.6224	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5	4.90	ug/L	98	(50-150)		
MS_202112010542	Selenium Total ICAP/MS	26	50	74.3	ug/L	97	(70-130)		
MSD_202112010542	Selenium Total ICAP/MS	26	50	74.4	ug/L	97	(70-130)	20	0.097
LCS1	Silver Total ICAP/MS		25	24.8	ug/L	99	(85-115)		
LCS2	Silver Total ICAP/MS		25	24.8	ug/L	99	(85-115)	20	0.0
MBLK	Silver Total ICAP/MS			<0.1929	ug/L				
MRL_CHK	Silver Total ICAP/MS		0.5	0.420	ug/L	84	(50-150)		
MS_202112010542	Silver Total ICAP/MS	ND	25	22.8	ug/L	91	(70-130)		
MSD_202112010542	Silver Total ICAP/MS	ND	25	22.7	ug/L	91	(70-130)	20	0.64
LCS1	Thallium Total ICAP/MS		50	50.3	ug/L	101	(85-115)		
LCS2	Thallium Total ICAP/MS		50	50.0	ug/L	100	(85-115)	20	0.60
MBLK	Thallium Total ICAP/MS			<0.1449	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1	0.960	ug/L	96	(50-150)		
MS_202112010542	Thallium Total ICAP/MS	ND	50	47.5	ug/L	95	(70-130)		
MSD_202112010542	Thallium Total ICAP/MS	ND	50	46.9	ug/L	94	(70-130)	20	1.2
LCS1	Zinc Total ICAP/MS		50	52.9	ug/L	106	(85-115)		
LCS2	Zinc Total ICAP/MS		50	52.4	ug/L	105	(85-115)	20	0.95
MBLK	Zinc Total ICAP/MS			<10.62	ug/L				
MRL_CHK	Zinc Total ICAP/MS		20	20.5	ug/L	102	(50-150)		
MS_202112010542	Zinc Total ICAP/MS	ND	50	48.9	ug/L	92	(70-130)		
MSD_202112010542	Zinc Total ICAP/MS	ND	50	48.2	ug/L	90	(70-130)	20	1.4

Mercury ICPMS by EPA 200.8

Analytical Batch: 1372083 **Analysis Date: 12/08/2021**

LCS1	Mercury ICPMS		0.75	0.742	ug/L	99	(85-115)		
LCS2	Mercury ICPMS		0.75	0.744	ug/L	99	(85-115)	20	0.27

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)

Report: 972694
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%
MBLK	Mercury ICPMS			<0.1	ug/L				
MRL_CHK	Mercury ICPMS		0.2	0.186	ug/L	93	(50-150)		
MS_202112080942	Mercury ICPMS	ND	0.75	0.740	ug/L	97	(70-130)		
MSD_202112080942	Mercury ICPMS	ND	0.75	0.769	ug/L	101	(70-130)	20	3.8
Volatile Organics by GCMS by EPA 524.2									
Analytical Batch: 1372302						**Analysis Date: 12/07/2021**			
LCS1	1,1,1,2-Tetrachloroethane		5	4.84	ug/L	97	(70-130)		
LCS2	1,1,1,2-Tetrachloroethane		5	4.51	ug/L	90	(70-130)	20	7.1
MBLK	1,1,1,2-Tetrachloroethane			<0.5	ug/L				
MRL_CHK	1,1,1,2-Tetrachloroethane		0.5	0.420	ug/L	84	(50-150)		
LCS1	1,1,1-Trichloroethane		5	4.76	ug/L	95	(70-130)		
LCS2	1,1,1-Trichloroethane		5	4.42	ug/L	88	(70-130)	20	7.4
MBLK	1,1,1-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,1-Trichloroethane		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,1,2,2-Tetrachloroethane		5	5.01	ug/L	100	(70-130)		
LCS2	1,1,2,2-Tetrachloroethane		5	4.84	ug/L	97	(70-130)	20	3.5
MBLK	1,1,2,2-Tetrachloroethane			<0.5	ug/L				
MRL_CHK	1,1,2,2-Tetrachloroethane		0.5	0.500	ug/L	100	(50-150)		
LCS1	1,1,2-Trichloroethane		5	4.73	ug/L	95	(70-130)		
LCS2	1,1,2-Trichloroethane		5	4.40	ug/L	88	(70-130)	20	7.2
MBLK	1,1,2-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,2-Trichloroethane		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,1-Dichloroethane		5	4.70	ug/L	94	(70-130)		
LCS2	1,1-Dichloroethane		5	4.47	ug/L	89	(70-130)	20	5.0
MBLK	1,1-Dichloroethane			<0.5	ug/L				
MRL_CHK	1,1-Dichloroethane		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,1-Dichloroethylene		5	4.65	ug/L	93	(70-130)		
LCS2	1,1-Dichloroethylene		5	4.38	ug/L	88	(70-130)	20	6.0
MBLK	1,1-Dichloroethylene			<0.5	ug/L				
MRL_CHK	1,1-Dichloroethylene		0.5	0.410	ug/L	82	(50-150)		
LCS1	1,1-Dichloropropene		5	4.73	ug/L	95	(70-130)		
LCS2	1,1-Dichloropropene		5	4.30	ug/L	86	(70-130)	20	9.5
MBLK	1,1-Dichloropropene			<0.5	ug/L				
MRL_CHK	1,1-Dichloropropene		0.5	0.470	ug/L	94	(50-150)		
LCS1	1,2,3-Trichlorobenzene		5	4.85	ug/L	97	(70-130)		
LCS2	1,2,3-Trichlorobenzene		5	4.53	ug/L	91	(70-130)	20	6.8
MBLK	1,2,3-Trichlorobenzene			<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.

eurofins | Eaton Analytical

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

Report: 972694
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-Trichlorobenzene		0.5	0.640	ug/L	128	(50-150)		
LCS1	1,2,3-Trichloropropane		5	4.69	ug/L	94	(70-130)		
LCS2	1,2,3-Trichloropropane		5	4.50	ug/L	90	(70-130)	20	4.1
MBLK	1,2,3-Trichloropropane			<0.5	ug/L				
MRL_CHK	1,2,3-Trichloropropane		0.5	0.500	ug/L	100	(50-150)		
LCS1	1,2,4-Trichlorobenzene		5	5.00	ug/L	100	(70-130)		
LCS2	1,2,4-Trichlorobenzene		5	4.58	ug/L	92	(70-130)	20	8.8
MBLK	1,2,4-Trichlorobenzene			<0.5	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene		0.5	0.580	ug/L	116	(50-150)		
LCS1	1,2,4-Trimethylbenzene		5	4.68	ug/L	94	(70-130)		
LCS2	1,2,4-Trimethylbenzene		5	4.44	ug/L	89	(70-130)	20	5.3
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	4.85	ug/L	97	(70-130)		
LCS2	1,2-Dichloroethane		5	4.64	ug/L	93	(70-130)	20	4.4
MBLK	1,2-Dichloroethane			<0.5	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.500	ug/L	100	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)		5	101	%	101	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)		5	99.2	%	99	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			106	%	106	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)		5	99.2	%	99	(70-130)		
MRLLW	1,2-Dichloroethane-d4 (S)		5	98.0	%	98	(70-130)		
LCS1	1,2-Dichloropropane		5	4.99	ug/L	100	(70-130)		
LCS2	1,2-Dichloropropane		5	4.72	ug/L	94	(70-130)	20	5.6
MBLK	1,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.490	ug/L	98	(50-150)		
LCS1	1,3,5-Trimethylbenzene		5	4.74	ug/L	95	(70-130)		
LCS2	1,3,5-Trimethylbenzene		5	4.48	ug/L	90	(70-130)	20	5.6
MBLK	1,3,5-Trimethylbenzene			<0.5	ug/L				
MRL_CHK	1,3,5-Trimethylbenzene		0.5	0.370	ug/L	74	(50-150)		
LCS1	1,3-Dichloropropane		5	4.96	ug/L	99	(70-130)		
LCS2	1,3-Dichloropropane		5	4.54	ug/L	91	(70-130)	20	8.8
MBLK	1,3-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,3-Dichloropropane		0.5	0.480	ug/L	96	(50-150)		
LCS1	2,2-Dichloropropane		5	4.73	ug/L	95	(70-130)		
LCS2	2,2-Dichloropropane		5	4.36	ug/L	87	(70-130)	20	8.1
MBLK	2,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	2,2-Dichloropropane		0.5	0.430	ug/L	86	(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)

Report: 972694
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%
LCS1	2-Butanone (MEK)		50	47.6	ug/L	95	(70-130)		
LCS2	2-Butanone (MEK)		50	45.6	ug/L	91	(70-130)	20	4.3
MBLK	2-Butanone (MEK)			<5.0	ug/L				
MRL_CHK	2-Butanone (MEK)		5	5.28	ug/L	106	(50-150)		
LCS1	2-Hexanone		50	51.1	ug/L	102	(70-130)		
LCS2	2-Hexanone		50	47.5	ug/L	95	(70-130)	20	7.3
MBLK	2-Hexanone			<5.0	ug/L				
MRL_CHK	2-Hexanone		5	4.62	ug/L	92	(50-150)		
LCS1	4-Bromofluorobenzene (S)		5	95.4	%	95	(70-130)		
LCS2	4-Bromofluorobenzene (S)		5	95.2	%	95	(70-130)		
MBLK	4-Bromofluorobenzene (S)			95.8	%	96	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)		5	93.2	%	93	(70-130)		
MRLLW	4-Bromofluorobenzene (S)		5	96.2	%	96	(70-130)		
LCS1	4-Methyl-2-Pentanone (MIBK)		50	51.8	ug/L	104	(70-130)		
LCS2	4-Methyl-2-Pentanone (MIBK)		50	48.2	ug/L	97	(70-130)	20	7.2
MBLK	4-Methyl-2-Pentanone (MIBK)			<5.0	ug/L				
MRL_CHK	4-Methyl-2-Pentanone (MIBK)		5	4.72	ug/L	94	(50-150)		
LCS1	Acetone		50	44.2	ug/L	88	(70-130)		
LCS2	Acetone		50	43.3	ug/L	87	(70-130)	20	2.1
MBLK	Acetone			<10	ug/L				
MRL_CHK	Acetone		5	5.71	ug/L	114	(50-150)		
LCS1	Benzene		5	4.99	ug/L	100	(70-130)		
LCS2	Benzene		5	4.70	ug/L	94	(70-130)	20	6.0
MBLK	Benzene			<0.5	ug/L				
MRL_CHK	Benzene		0.5	0.500	ug/L	100	(50-150)		
LCS1	Bromobenzene		5	4.65	ug/L	93	(70-130)		
LCS2	Bromobenzene		5	4.48	ug/L	90	(70-130)	20	3.7
MBLK	Bromobenzene			<0.5	ug/L				
MRL_CHK	Bromobenzene		0.5	0.460	ug/L	92	(50-150)		
LCS1	Bromochloromethane		5	4.90	ug/L	98	(70-130)		
LCS2	Bromochloromethane		5	4.41	ug/L	88	(70-130)	20	11
MBLK	Bromochloromethane			<0.5	ug/L				
MRL_CHK	Bromochloromethane		0.5	0.470	ug/L	94	(50-150)		
LCS1	Bromodichloromethane		5	4.82	ug/L	96	(70-130)		
LCS2	Bromodichloromethane		5	4.40	ug/L	88	(70-130)	20	9.1
MBLK	Bromodichloromethane			<0.5	ug/L				
MRL_CHK	Bromodichloromethane		0.5	0.460	ug/L	92	(50-150)		
LCS1	Bromoethane		5	4.78	ug/L	96	(70-130)		

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

eurofins | Eaton Analytical

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

Report: 972694
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	Bromoethane		5	4.32	ug/L	86	(70-130)	20	10
MBLK	Bromoethane			<0.5	ug/L				
MRL_CHK	Bromoethane		0.5	0.480	ug/L	96	(50-150)		
LCS1	Bromoform		5	4.19	ug/L	84	(70-130)		
LCS2	Bromoform		5	3.99	ug/L	80	(70-130)	20	4.9
MBLK	Bromoform			<0.5	ug/L				
MRL_CHK	Bromoform		0.5	0.730	ug/L	146	(50-150)		
LCS1	Bromomethane (Methyl Bromide)		5	4.87	ug/L	97	(70-130)		
LCS2	Bromomethane (Methyl Bromide)		5	4.45	ug/L	89	(70-130)	20	9.0
MBLK	Bromomethane (Methyl Bromide)			<0.5	ug/L				
MRL_CHK	Bromomethane (Methyl Bromide)		0.5	0.460	ug/L	92	(50-150)		
LCS1	Carbon disulfide		5	4.79	ug/L	96	(70-130)		
LCS2	Carbon disulfide		5	4.45	ug/L	89	(70-130)	20	7.4
MBLK	Carbon disulfide			<0.5	ug/L				
MRL_CHK	Carbon disulfide		0.5	0.470	ug/L	94	(50-150)		
LCS1	Carbon Tetrachloride		5	4.45	ug/L	89	(70-130)		
LCS2	Carbon Tetrachloride		5	4.24	ug/L	85	(70-130)	20	4.8
MBLK	Carbon Tetrachloride			<0.5	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.430	ug/L	86	(50-150)		
LCS1	Chlorobenzene		5	5.26	ug/L	105	(70-130)		
LCS2	Chlorobenzene		5	4.84	ug/L	97	(70-130)	20	8.3
MBLK	Chlorobenzene			<0.5	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.480	ug/L	96	(50-150)		
LCS1	Chlorodibromomethane		5	4.61	ug/L	92	(70-130)		
LCS2	Chlorodibromomethane		5	4.31	ug/L	86	(70-130)	20	6.7
MBLK	Chlorodibromomethane			<0.5	ug/L				
MRL_CHK	Chlorodibromomethane		0.5	0.450	ug/L	90	(50-150)		
LCS1	Chloroethane		5	5.10	ug/L	102	(70-130)		
LCS2	Chloroethane		5	4.48	ug/L	90	(70-130)	20	13
MBLK	Chloroethane			<0.5	ug/L				
MRL_CHK	Chloroethane		0.5	0.570	ug/L	114	(50-150)		
LCS1	Chloroform (Trichloromethane)		5	4.69	ug/L	94	(70-130)		
LCS2	Chloroform (Trichloromethane)		5	4.40	ug/L	88	(70-130)	20	6.4
MBLK	Chloroform (Trichloromethane)			<0.5	ug/L				
MRL_CHK	Chloroform (Trichloromethane)		0.5	0.500	ug/L	100	(50-150)		
LCS1	Chloromethane(Methyl Chloride)		5	5.19	ug/L	104	(70-130)		
LCS2	Chloromethane(Methyl Chloride)		5	4.86	ug/L	97	(70-130)	20	6.6
MBLK	Chloromethane(Methyl Chloride)			<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.

eurofins | Eaton Analytical

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

Report: 972694
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	Chloromethane(Methyl Chloride)		0.5	0.560	ug/L	112	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5	4.88	ug/L	98	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5	4.48	ug/L	90	(70-130)	20	8.6
MBLK	cis-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.490	ug/L	98	(50-150)		
LCS1	cis-1,3-Dichloropropene		5	4.76	ug/L	95	(70-130)		
LCS2	cis-1,3-Dichloropropene		5	4.49	ug/L	90	(70-130)	20	5.8
MBLK	cis-1,3-Dichloropropene			<0.5	ug/L				
MRL_CHK	cis-1,3-Dichloropropene		0.5	0.420	ug/L	84	(50-150)		
LCS1	Dibromomethane		5	4.53	ug/L	91	(70-130)		
LCS2	Dibromomethane		5	4.30	ug/L	86	(70-130)	20	5.2
MBLK	Dibromomethane			<0.5	ug/L				
MRL_CHK	Dibromomethane		0.5	0.450	ug/L	90	(50-150)		
LCS1	Dichlorodifluoromethane		5	6.12	ug/L	122	(70-130)		
LCS2	Dichlorodifluoromethane		5	5.72	ug/L	114	(70-130)	20	6.8
MBLK	Dichlorodifluoromethane			<0.5	ug/L				
MRL_CHK	Dichlorodifluoromethane		0.5	0.510	ug/L	102	(50-150)		
LCS1	Dichloromethane		5	4.65	ug/L	93	(70-130)		
LCS2	Dichloromethane		5	4.43	ug/L	89	(70-130)	20	4.8
MBLK	Dichloromethane			<0.5	ug/L				
MRL_CHK	Dichloromethane		0.5	0.600	ug/L	120	(50-150)		
LCS1	Di-isopropyl ether		5	4.73	ug/L	95	(70-130)		
LCS2	Di-isopropyl ether		5	4.44	ug/L	89	(70-130)	20	6.3
MBLK	Di-isopropyl ether			<3.0	ug/L				
MRL_CHK	Di-isopropyl ether		0.5	0.450	ug/L	90	(50-150)		
LCS1	Ethyl benzene		5	5.12	ug/L	102	(70-130)		
LCS2	Ethyl benzene		5	4.74	ug/L	95	(70-130)	20	7.7
MBLK	Ethyl benzene			<0.5	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.440	ug/L	88	(50-150)		
LCS1	Hexachlorobutadiene		5	4.89	ug/L	98	(70-130)		
LCS2	Hexachlorobutadiene		5	4.45	ug/L	89	(70-130)	20	9.4
MBLK	Hexachlorobutadiene			<0.5	ug/L				
MRL_CHK	Hexachlorobutadiene		0.5	0.580	ug/L	116	(50-150)		
LCS1	Isopropylbenzene		5	4.82	ug/L	96	(70-130)		
LCS2	Isopropylbenzene		5	4.59	ug/L	92	(70-130)	20	4.9
MBLK	Isopropylbenzene			<0.5	ug/L				
MRL_CHK	Isopropylbenzene		0.5	0.410	ug/L	82	(50-150)		
LCS1	m,p-Xylenes		10	10.1	ug/L	101	(70-130)		

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

eurofins | Eaton Analytical

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

Report: 972694
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	m,p-Xylenes		10	9.34	ug/L	93	(70-130)	20	7.8
MBLK	m,p-Xylenes			<0.5	ug/L				
MRL_CHK	m,p-Xylenes		1	0.850	ug/L	85	(50-150)		
MRLLW	m,p-Xylenes		0.5	0.650	ug/L	130	(50-150)		
LCS1	m-Dichlorobenzene (1,3-DCB)		5	4.74	ug/L	95	(70-130)		
LCS2	m-Dichlorobenzene (1,3-DCB)		5	4.50	ug/L	90	(70-130)	20	5.2
MBLK	m-Dichlorobenzene (1,3-DCB)			<0.5	ug/L				
MRL_CHK	m-Dichlorobenzene (1,3-DCB)		0.5	0.460	ug/L	92	(50-150)		
LCS1	Methyl Tert-butyl ether (MTBE)		5	4.64	ug/L	93	(70-130)		
LCS2	Methyl Tert-butyl ether (MTBE)		5	4.31	ug/L	86	(70-130)	20	7.4
MBLK	Methyl Tert-butyl ether (MTBE)			<0.5	ug/L				
MRL_CHK	Methyl Tert-butyl ether (MTBE)		0.5	0.520	ug/L	104	(50-150)		
LCS1	Naphthalene		5	4.73	ug/L	95	(70-130)		
LCS2	Naphthalene		5	4.48	ug/L	90	(70-130)	20	5.4
MBLK	Naphthalene			<0.5	ug/L				
MRL_CHK	Naphthalene		0.5	0.620	ug/L	124	(50-150)		
LCS1	n-Butylbenzene		5	4.56	ug/L	91	(70-130)		
LCS2	n-Butylbenzene		5	4.29	ug/L	86	(70-130)	20	6.1
MBLK	n-Butylbenzene			<0.5	ug/L				
MRL_CHK	n-Butylbenzene		0.5	0.460	ug/L	92	(50-150)		
LCS1	n-Propylbenzene		5	4.53	ug/L	91	(70-130)		
LCS2	n-Propylbenzene		5	4.32	ug/L	86	(70-130)	20	4.8
MBLK	n-Propylbenzene			<0.5	ug/L				
MRL_CHK	n-Propylbenzene		0.5	0.420	ug/L	84	(50-150)		
LCS1	o-Chlorotoluene		5	4.87	ug/L	97	(70-130)		
LCS2	o-Chlorotoluene		5	4.61	ug/L	92	(70-130)	20	5.5
MBLK	o-Chlorotoluene			<0.5	ug/L				
MRL_CHK	o-Chlorotoluene		0.5	0.440	ug/L	88	(50-150)		
LCS1	o-Dichlorobenzene (1,2-DCB)		5	4.87	ug/L	97	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5	4.72	ug/L	94	(70-130)	20	3.1
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.5	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.540	ug/L	108	(50-150)		
LCS1	o-Xylene		5	4.79	ug/L	96	(70-130)		
LCS2	o-Xylene		5	4.53	ug/L	91	(70-130)	20	5.6
MBLK	o-Xylene			<0.5	ug/L				
MRL_CHK	o-Xylene		0.5	0.380	ug/L	76	(50-150)		
LCS1	p-Chlorotoluene		5	4.82	ug/L	96	(70-130)		
LCS2	p-Chlorotoluene		5	4.67	ug/L	93	(70-130)	20	3.2

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)

Report: 972694
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%
MBLK	p-Chlorotoluene			<0.5	ug/L				
MRL_CHK	p-Chlorotoluene		0.5	0.470	ug/L	94	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5	4.83	ug/L	97	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5	4.48	ug/L	90	(70-130)	20	7.5
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	4.83	ug/L	97	(70-130)		
LCS2	p-Isopropyltoluene		5	4.61	ug/L	92	(70-130)	20	4.7
MBLK	p-Isopropyltoluene			<0.5	ug/L				
MRL_CHK	p-Isopropyltoluene		0.5	0.380	ug/L	76	(50-150)		
LCS1	sec-Butylbenzene		5	4.81	ug/L	96	(70-130)		
LCS2	sec-Butylbenzene		5	4.56	ug/L	91	(70-130)	20	5.3
MBLK	sec-Butylbenzene			<0.5	ug/L				
MRL_CHK	sec-Butylbenzene		0.5	0.430	ug/L	86	(50-150)		
LCS1	Styrene		5	4.97	ug/L	99	(70-130)		
LCS2	Styrene		5	4.53	ug/L	91	(70-130)	20	9.3
MBLK	Styrene			<0.5	ug/L				
MRL_CHK	Styrene		0.5	0.360	ug/L	72	(50-150)		
LCS1	tert-amyl Methyl Ether		5	5.10	ug/L	102	(70-130)		
LCS2	tert-amyl Methyl Ether		5	4.66	ug/L	93	(70-130)	20	9.0
MBLK	tert-amyl Methyl Ether			<3.0	ug/L				
MRL_CHK	tert-amyl Methyl Ether		0.5	0.460	ug/L	92	(50-150)		
LCS1	tert-Butyl Ethyl Ether		5	5.05	ug/L	101	(70-130)		
LCS2	tert-Butyl Ethyl Ether		5	4.65	ug/L	93	(70-130)	20	8.3
MBLK	tert-Butyl Ethyl Ether			<3.0	ug/L				
MRL_CHK	tert-Butyl Ethyl Ether		0.5	0.470	ug/L	94	(50-150)		
LCS1	tert-Butylbenzene		5	4.71	ug/L	94	(70-130)		
LCS2	tert-Butylbenzene		5	4.40	ug/L	88	(70-130)	20	6.8
MBLK	tert-Butylbenzene			<0.5	ug/L				
MRL_CHK	tert-Butylbenzene		0.5	0.430	ug/L	86	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5	4.74	ug/L	95	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5	4.33	ug/L	87	(70-130)	20	9.0
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.500	ug/L	100	(50-150)		
LCS1	Toluene		5	4.74	ug/L	95	(70-130)		
LCS2	Toluene		5	4.28	ug/L	86	(70-130)	20	10
MBLK	Toluene			<0.5	ug/L				
MRL_CHK	Toluene		0.5	0.700	ug/L	140	(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)

Report: 972694
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%
LCS1	Toluene-d8 (S)		5	101	%	101	(70-130)		
LCS2	Toluene-d8 (S)		5	98.2	%	98	(70-130)		
MBLK	Toluene-d8 (S)			92.4	%	92	(70-130)		
MRL_CHK	Toluene-d8 (S)		5	94.6	%	95	(70-130)		
MRLLW	Toluene-d8 (S)		5	95.0	%	95	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5	4.53	ug/L	91	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5	4.04	ug/L	81	(70-130)	20	11
MBLK	trans-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.490	ug/L	98	(50-150)		
LCS1	trans-1,3-Dichloropropene		5	4.68	ug/L	94	(70-130)		
LCS2	trans-1,3-Dichloropropene		5	4.39	ug/L	88	(70-130)	20	6.4
MBLK	trans-1,3-Dichloropropene			<0.5	ug/L				
MRL_CHK	trans-1,3-Dichloropropene		0.5	0.450	ug/L	90	(50-150)		
LCS1	Trichloroethylene (TCE)		5	4.97	ug/L	99	(70-130)		
LCS2	Trichloroethylene (TCE)		5	4.69	ug/L	94	(70-130)	20	5.8
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.480	ug/L	96	(50-150)		
LCS1	Trichlorofluoromethane		5	4.46	ug/L	89	(70-130)		
LCS2	Trichlorofluoromethane		5	4.16	ug/L	83	(70-130)	20	7.0
MBLK	Trichlorofluoromethane			<0.5	ug/L				
MRL_CHK	Trichlorofluoromethane		0.5	0.400	ug/L	80	(50-150)		
LCS1	Trichlorotrifluoroethane(Freon		5	4.61	ug/L	92	(70-130)		
LCS2	Trichlorotrifluoroethane(Freon		5	4.24	ug/L	85	(70-130)	20	8.4
MBLK	Trichlorotrifluoroethane(Freon			<0.5	ug/L				
MRL_CHK	Trichlorotrifluoroethane(Freon		0.5	0.470	ug/L	94	(50-150)		
LCS1	Vinyl chloride (VC)		5	5.13	ug/L	103	(70-130)		
LCS2	Vinyl chloride (VC)		5	4.72	ug/L	94	(70-130)	20	8.3
MBLK	Vinyl chloride (VC)			<0.3	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.470	ug/L	94	(50-150)		
MRLLW	Vinyl chloride (VC)		0.25	0.260	ug/L	104	(50-150)		

TBA by EPA 524.2 Modified by EPA 524.2 SIM

Analytical Batch: 1372525 **Analysis Date: 12/08/2021**

LCS1	1,2-Dichloroethane-d4 (S)			112	%	112	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			110	%	110	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			114	%	114	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			114	%	114	(70-130)		
LCS1	4-Bromofluorobenzene (S)			94.0	%	94	(70-130)		

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

eurofins | Eaton Analytical

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

Report: 972694
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	4-Bromofluorobenzene (S)			94.0	%	94	(70-130)		
MBLK	4-Bromofluorobenzene (S)			90.0	%	90	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			94.0	%	94	(70-130)		
LCS1	t-Butyl Alcohol		5	6.45	ug/L	129	(70-130)		
LCS2	t-Butyl Alcohol		5	6.18	ug/L	123	(70-130)	20	4.3
MBLK	t-Butyl Alcohol			<2	ug/L				
MRL_CHK	t-Butyl Alcohol		2	2.56	ug/L	128	(50-150)		
LCS1	Toluene-d8 (S)			98.0	%	98	(70-130)		
LCS2	Toluene-d8 (S)			100	%	100	(70-130)		
MBLK	Toluene-d8 (S)			102	%	102	(70-130)		
MRL_CHK	Toluene-d8 (S)			102	%	102	(70-130)		

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

eurofins | Eaton Analytical

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

Laboratory Hits

Report: 972694
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:
12/02/2021 1131

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202112020116	**HALAWA SHAFT-331-241-TP401**				
12/03/2021 11:44	Calcium Total ICAP		36		mg/L	1.0
12/08/2021 17:16	Chromium Total ICAP/MS		2.4	100	ug/L	1.0
12/08/2021 17:16	Copper Total ICAP/MS		3.1	1300	ug/L	2.0
12/03/2021 11:44	Magnesium Total ICAP		29		mg/L	0.10
12/03/2021 11:44	Potassium Total ICAP		3.0		mg/L	1.0
12/03/2021 11:44	Sodium Total ICAP		46		mg/L	1.0

SUMMARY OF POSITIVE DATA ONLY

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

Date: 12-08-2021
EMAX Batch No.: 21L027

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 972694

Enclosed is the Laboratory report for samples received on 12/02/21.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202112020116	L027-01	12/01/21	WATER	ETHANOL
				TPH GASOLINE
				TPH
202112020117	L027-02	12/01/21	WATER	TPH GASOLINE
202112020116MS	L027-01M	12/01/21	WATER	ETHANOL
				TPH GASOLINE
				TPH
202112020116MSD	L027-01S	12/01/21	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 21L027

Date: 12/2/2021

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

Torrance, CA 90505

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

*REPORTING REQUIRMENTS: *Do Not Combine Reports with any other samples submitted under different Folder Numbers!*
Report & Invoice must have the Folder# **972694** 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**

4 or 3 containers per sample for MS/MSD batch QC. Low level RL reporting only
RUSH needed

Folder #: **972694**
Report Due: **01/03/2022**

1

Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID	
202112020116	HALAWA SHAFT-331-241-TP401	12/01/21 0956	DW			JLS
Sample type:	**Sample Event:**	**Facility ID:**	**Sample Point ID:**		**Static ID:**	

Method	Prep Method	Analysis Requested
SW8015C		Ethanol
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

2

Sample ID	Client Sample ID for reference onl	Sample Date & Time	Matrix	Clip Code	PWSID	
202112020117	TRAVEL BLANK: HALAWA SHAFT-331-241-TP401	12/01/21 0956	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 12/2/21 Time 1633

Received by: Date Time

Relinquished by: Sample Control Date Time

Received by: Date 12/2/21 Time

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

Temp. 1.4

Type of Delivery	Airbill / Tracking Number	ECN 21L027
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Andy
☐ EMAX Courier ☑ Client Delivery		Date 12/2/21 Time 1940

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 Plastic		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 1.4 °C	☐ Cooler 2_____ °C	☐ Cooler 3_____ °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~~ 210191064	(B) S/N 210271396	C - S/N 210271379	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	8-15	D22		R8
1	1-3	D1	SUB Gas Analysis not requested in COC for sample #1	Analyze TPH-Gas

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. NB 12/6/21

NOTES/OBSERVATIONS:

LEGEND:

☐ **Continue to next page.**

Code	Description- Sample Management	Code	Description-Sample Management	Code	Description-Sample Management
(D1)	Analysis is not indicated in COC	D13	Out of Holding Time	R1	Proceed as indicated in ☐ COC ☐ Label
D2	Analysis mismatch COC vs label	D14	Bubble is >6mm	R2	Refer to attached instruction
D3	Sample ID mismatch COC vs label	D15	No trip blank in cooler	R3	Cancel the analysis
D4	Sample ID is not indicated in _____	D16	Preservation not indicated in _____	R4	Use vial with smallest bubble first
D5	Container -[improper] [leaking] [broken]	D17	Preservation mismatch COC vs label	R5	Log-in with latest sampling date and time+1 min
D6	Date/Time is not indicated in _____	D18	Insufficient chemical preservative	R6	Adjust pH as necessary
D7	Date/Time mismatch COC vs label	D19	Insufficient Sample	R7	Filter and preserved as necessary
D8	Sample listed in COC is not received	D20	No filtration info for dissolved analysis	R8	Informed Client.
D9	Sample received is not listed in COC	D21	No sample for moisture determination	R9	
D10	No initial/date on corrections in COC/label	(D22)	Jet Fuel 8 not indicated on label	R10	
D11	Container count mismatch COC vs received	D23		R11	
D12	Container size mismatch COC vs received	D24		R12	

REVIEWS:

Sample Labeling Johanna Ramirez / Maria
Date 12/3/21 / 12/03/21

SRF
Date 12/03/21

PM NB
Date 12/6/21

RE: TPH-gas

Contreras, Jacylyn <Jaclyn.contreras@eurofinset.com>
Mon 12/6/2021 1:45 PM
To: Richard Beauvil <RBeauvil@emaxlabs.com>; Frank, Debbie <Debbie.Frank@eurofinset.com>

Yes, please add the gas to the 1st sample.

From: Richard Beauvil <RBeauvil@emaxlabs.com>
Sent: Monday, December 06, 2021 12:41 PM
To: Contreras, Jacylyn <Jaclyn.contreras@eurofinset.com>; Frank, Debbie <Debbie.Frank@eurofinset.com>
Subject: TPH-gas

EXTERNAL EMAIL*

Hi Jaclyn and Debbie,

TPH-gas is missing from the COC for sample #1. I'm assuming that you need TPH-gas?

New Address Below

Richard M. Beauvil
Project Manager/Safety Officer
3051 Fujita Street
Torrance, CA 90505
Tel: 310-618-8889 X118
rbeauvil@emaxlabs.com

EMAX is interested in your feedback; please provide your comments to:
customerservice@emaxlabs.com

EMAX Holidays Schedule Update:

Thanksgiving Day - Thursday, November 25, 2021
Day after Thanksgiving Day - Friday, November 26, 2021
Christmas Day - Thursday, Friday, Monday December 23, 24, 27, 2021
New Year's Day - Friday, December 31,2021

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

972694

METHOD SW8015C
ALCOHOLS BY GC

SDG#: 21L027

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 972694

SDG : 21L027

METHOD SW8015C
ALCOHOLS BY GC

One(1) water sample was received on 12/02/21 to be analyzed for Alcohols by GC in accordance with Method SW8015C and project specific requirements.

Holding Time
The sample was analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. MEL001WB - 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. MEL001WL/MEL001WC 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. Ethanol was within MS QC limits in L027-01M/L027-01S. Refer to Matrix QC summary form for details.

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

LAB CHRONICLE
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL
Project : 972694

SDG NO. : 21L027
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	MEL001WB	1	NA	12/03/2114:41	NA	TL03013A	TL03011A	MEL001W	Method Blank
LCS1W	MEL001WL	1	NA	12/03/2114:54	NA	TL03014A	TL03011A	MEL001W	Lab Control Sample (LCS)
LCD1W	MEL001WC	1	NA	12/03/2115:07	NA	TL03015A	TL03011A	MEL001W	LCS Duplicate
202112020116	L027-01	1	NA	12/03/2115:22	NA	TL03016A	TL03011A	MEL001W	Field Sample
202112020116MS	L027-01M	1	NA	12/03/2115:36	NA	TL03017A	TL03011A	MEL001W	Matrix Spike Sample (MS)
202112020116MSD	L027-01S	1	NA	12/03/2115:49	NA	TL03018A	TL03011A	MEL001W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD SW8015C
ALCOHOLS BY GC

Client : EUROFINS EATON ANALYTICAL	Date Collected: 12/01/21
Project : 972694	Date Received: 12/02/21
Batch No. : 21L027	Date Extracted: NA
Sample ID: 202112020116	Date Analyzed: 12/03/21 15:22
Lab Samp ID: L027-01	Dilution Factor: 1
Lab File ID: TL03016A	Matrix : WATER
Ext Btch ID: MEL001W	% Moisture : NA
Calib. Ref.: TL03011A	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 : 972694	Date Received: NA
Batch No. : 21L027	Date Extracted: NA
Sample ID: MBLK1W	Date Analyzed: 12/03/21 14:41
Lab Samp ID: MEL001WB	Dilution Factor: 1
Lab File ID: TL03013A	Matrix : WATER
Ext Btch ID: MEL001W	% Moisture : NA
Calib. Ref.: TL03011A	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: 972694
BATCH NO.: 21L027
METHOD: METHOD SW8015C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	MEL001WB	MEL001WL	MEL001WC		
LAB FILE ID:	TL03013A	TL03014A	TL03015A		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	NA
DATE ANALYZED:	12/03/2114:41	12/03/2114:54	12/03/2115:07	DATE RECEIVED:	NA
PREP. BATCH:	MEL001W	MEL001W	MEL001W		
CALIB. REF:	TL03011A	TL03011A	TL03011A		

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	9490	95	10000	9380	94	1	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 972694
BATCH NO.: 21L027
METHOD: METHOD SW8015C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	202112020116				
LAB SAMP ID:	L027-01	L027-01M	L027-01S		
LAB FILE ID:	TL03016A	TL03017A	TL03018A		
DATE EXTRACTED:	NA	NA	NA	DATE COLLECTED:	12/01/21
DATE ANALYZED:	12/03/2115:22	12/03/2115:36	12/03/2115:49	DATE RECEIVED:	12/02/21
PREP. BATCH:	MEL001W	MEL001W	MEL001W		
CALIB. REF:	TL03011A	TL03011A	TL03011A		

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	9470	95	10000	9810	98	4	60-130	30

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

972694

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

SDG#: 21L027

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 972694

SDG : 21L027

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

A total of two(2) water samples were received on 12/02/21 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. VG39L02B - 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. VG39L02L/VG39L02C 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 L027-01M/L027-01S. 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 : 972694

SDG NO. : 21L027
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	VG39L02B	1	NA	12/03/2111:45	12/03/2111:45	EL03005A	EL03003A	21VG39L02	Method Blank
LCS1W	VG39L02L	1	NA	12/03/2112:24	12/03/2112:24	EL03006A	EL03003A	21VG39L02	Lab Control Sample (LCS)
LCD1W	VG39L02C	1	NA	12/03/2113:02	12/03/2113:02	EL03007A	EL03003A	21VG39L02	LCS Duplicate
202112020117	L027-02	1	NA	12/03/2113:41	12/03/2113:41	EL03008A	EL03003A	21VG39L02	Field Sample
202112020116	L027-01	1	NA	12/03/2114:19	12/03/2114:19	EL03009A	EL03003A	21VG39L02	Field Sample
202112020116MS	L027-01M	1	NA	12/03/2115:36	12/03/2115:36	EL03011A	EL03003A	21VG39L02	Matrix Spike Sample (MS)
202112020116MSD	L027-01S	1	NA	12/03/2116:15	12/03/2116:15	EL03012A	EL03003A	21VG39L02	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/01/21 09:56
Project	: 972694	Date Received:	12/02/21
Batch No.	: 21L027	Date Extracted:	12/03/21 14:19
Sample ID	: 202112020116	Date Analyzed:	12/03/21 14:19
Lab Samp ID:	L027-01	Dilution Factor:	1
Lab File ID:	EL03009A	Matrix:	WATER
Ext Btch ID:	21VG39L02	% Moisture:	NA
Calib. Ref.:	EL03003A	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	0.0347	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:	12/01/21 09:56
Project	: 972694	Date Received:	12/02/21
Batch No.	: 21L027	Date Extracted:	12/03/21 13:41
Sample ID	: 202112020117	Date Analyzed:	12/03/21 13:41
Lab Samp ID:	L027-02	Dilution Factor:	1
Lab File ID:	EL03008A	Matrix:	WATER
Ext Btch ID:	21VG39L02	% Moisture:	NA
Calib. Ref.:	EL03003A	Instrument ID:	39

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0341	0.0400	85	60-140

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

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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/03/21 11:45
Project	: 972694	Date Received:	12/03/21
Batch No.	: 21L027	Date Extracted:	12/03/21 11:45
Sample ID	: MBLK1W	Date Analyzed:	12/03/21 11:45
Lab Samp ID:	VG39L02B	Dilution Factor:	1
Lab File ID:	EL03005A	Matrix:	WATER
Ext Btch ID:	21VG39L02	% Moisture:	NA
Calib. Ref.:	EL03003A	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	0.0337	0.0400	84	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VG39L02B	VG39L02L	VG39L02C
LAB FILE ID	: EL03005A	EL03006A	EL03007A
DATE PREPARED	: 12/03/21 11:45	12/03/21 12:24	12/03/21 13:02
DATE ANALYZED	: 12/03/21 11:45	12/03/21 12:24	12/03/21 13:02
PREP BATCH	: 21VG39L02	21VG39L02	21VG39L02
CALIBRATION REF	: EL03003A	EL03003A	EL03003A

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	0.435	87	0.500	0.445	89	2	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0443	111	0.0400	0.0444	111	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 : 972694
BATCH NO. : 21L027
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112020116	202112020116MS	202112020116MSD
LAB SAMPLE ID	: L027-01	L027-01M	L027-01S
LAB FILE ID	: EL03009A	EL03011A	EL03012A
DATE PREPARED	: 12/03/21 14:19	12/03/21 15:36	12/03/21 16:15
DATE ANALYZED	: 12/03/21 14:19	12/03/21 15:36	12/03/21 16:15
PREP BATCH	: 21VG39L02	21VG39L02	21VG39L02
CALIBRATION REF	: EL03003A	EL03003A	EL03003A

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	0.471	94	0.500	0.443	89	6	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0459	115	0.0400	0.0449	112	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

972694

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 21L027

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 972694

SDG : 21L027

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 12/02/21 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL003WB - 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 DSL003WL. 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 21L027-01M/21L027-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 972694

SDG : 21L027

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 12/02/21 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL003WB - 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 J5L003WL. 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 21L027-01M/21L027-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 972694

SDG : 21L027

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 12/02/21 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
The sample was analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSL003WB - 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 J8L003WL. 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 21L027-01M/21L027-01S. Refer to Matrix QC summary form for details.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 972694

SDG NO. : 21L027
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	DSL003WB	1	NA	12/07/2114:48	12/06/2110:00	LL07009A	LL07003A	21DSL003W	Method Blank
LCS1W	DSL003WL	1	NA	12/07/2115:06	12/06/2110:00	LL07010A	LL07003A	21DSL003W	Lab Control Sample (LCS)
202112020116	L027-01	1	NA	12/07/2115:59	12/06/2110:00	LL07013A	LL07003A	21DSL003W	Field Sample
202112020116MS	L027-01M	1	NA	12/07/2116:17	12/06/2110:00	LL07014A	LL07003A	21DSL003W	Matrix Spike Sample (MS)
202112020116MSD	L027-01S	1	NA	12/07/2116:35	12/06/2110:00	LL07015A	LL07003A	21DSL003W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 972694

SDG NO. : 21L027
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	DSL003WB	1	NA	12/07/2114:48	12/06/2110:00	LL07009A	LL07004A	21DSL003W	Method Blank
LCS1W	J5L003WL	1	NA	12/07/2115:24	12/06/2110:00	LL07011A	LL07004A	21DSL003W	Lab Control Sample (LCS)
202112020116	L027-01	1	NA	12/07/2115:59	12/06/2110:00	LL07013A	LL07004A	21DSL003W	Field Sample
202112020116MS	L027-01M	1	NA	12/07/2116:52	12/06/2110:00	LL07016A	LL07004A	21DSL003W	Matrix Spike Sample (MS)
202112020116MSD	L027-01S	1	NA	12/07/2117:10	12/06/2110:00	LL07017A	LL07004A	21DSL003W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 972694

SDG NO. : 21L027
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	DSL003WB	1	NA	12/07/2114:48	12/06/2110:00	LL07009A	LL07005A	21DSL003W	Method Blank
LCS1W	J8L003WL	1	NA	12/07/2115:41	12/06/2110:00	LL07012A	LL07005A	21DSL003W	Lab Control Sample (LCS)
202112020116	L027-01	1	NA	12/07/2115:59	12/06/2110:00	LL07013A	LL07005A	21DSL003W	Field Sample
202112020116MS	L027-01M	1	NA	12/07/2117:28	12/06/2110:00	LL07018A	LL07005A	21DSL003W	Matrix Spike Sample (MS)
202112020116MSD	L027-01S	1	NA	12/07/2117:46	12/06/2110:00	LL07019A	LL07005A	21DSL003W	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/01/21 09:56
Project	: 972694	Date Received:	12/02/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: 202112020116	Date Analyzed:	12/07/21 15:59
Lab Samp ID:	21L027-01	Dilution Factor:	1
Lab File ID:	LL07013A	Matrix:	WATER
Ext Btch ID:	21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07003A	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	0.471	0.525	90	60-130
Hexacosane	0.111	0.131	84	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	: 950ml	Final Volume :	5ml
Prepared by	: HWang	Analyzed by :	SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/01/21 09:56
Project	: 972694	Date Received:	12/02/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: 202112020116	Date Analyzed:	12/07/21 15:59
Lab Samp ID:	21L027-01	Dilution Factor:	1
Lab File ID:	LL07013A	Matrix:	WATER
Ext Btch ID:	21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07004A	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	0.471	0.525	90	60-130
Hexacosane	0.111	0.131	84	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 : 950ml Final Volume : 5ml
Prepared by : HWang Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/01/21 09:56
Project	: 972694	Date Received:	12/02/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: 202112020116	Date Analyzed:	12/07/21 15:59
Lab Samp ID:	21L027-01	Dilution Factor:	1
Lab File ID:	LL07013A	Matrix:	WATER
Ext Btch ID:	21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07005A	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	0.471	0.525	90	60-130
Hexacosane	0.111	0.131	84	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 : 950ml Final Volume : 5ml
Prepared by : HWang Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/06/21 10:00
Project	: 972694	Date Received:	12/06/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: MBLK1W	Date Analyzed:	12/07/21 14:48
Lab Samp ID	: DSL003WB	Dilution Factor:	1
Lab File ID	: LL07009A	Matrix:	WATER
Ext Btch ID	: 21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07003A	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	0.411	0.500	82	60-130
Hexacosane	0.113	0.125	90	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL003WB	DSL003WL
LAB FILE ID	: LL07009A	LL07010A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 14:48	12/07/21 15:06
PREP BATCH	: 21DSL003W	21DSL003W
CALIBRATION REF	: LL07003A	LL07003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.11	84	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.426	85	60-130
Hexacosane	0.125	0.115	92	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/06/21 10:00
Project	: 972694	Date Received:	12/06/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: MBLK1W	Date Analyzed:	12/07/21 14:48
Lab Samp ID:	DSL003WB	Dilution Factor:	1
Lab File ID:	LL07009A	Matrix:	WATER
Ext Btch ID:	21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07004A	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	0.411	0.500	82	60-130
Hexacosane	0.113	0.125	90	60-130

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL003WB	DSL003WL
LAB FILE ID	: LL07009A	LL07010A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 14:48	12/07/21 15:06
PREP BATCH	: 21DSL003W	21DSL003W
CALIBRATION REF	: LL07003A	LL07003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.11	84	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.426	85	60-130
Hexacosane	0.125	0.115	92	60-130

MB: Method Blank sample LCS: Lab Control Sample

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	12/06/21 10:00
Project	: 972694	Date Received:	12/06/21
Batch No.	: 21L027	Date Extracted:	12/06/21 10:00
Sample ID	: MBLK1W	Date Analyzed:	12/07/21 14:48
Lab Samp ID	: DSL003WB	Dilution Factor:	1
Lab File ID	: LL07009A	Matrix:	WATER
Ext Btch ID	: 21DSL003W	% Moisture:	NA
Calib. Ref.:	LL07005A	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	0.411	0.500	82	60-130
Hexacosane	0.113	0.125	90	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP8	C8-C18

Reported ND at RL quantitated per pattern recognition.

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSL003WB	DSL003WL
LAB FILE ID	: LL07009A	LL07010A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 14:48	12/07/21 15:06
PREP BATCH	: 21DSL003W	21DSL003W
CALIBRATION REF	: LL07003A	LL07003A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.11	84	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.426	85	60-130
Hexacosane	0.125	0.115	92	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112020116	202112020116MS	202112020116MSD
LAB SAMPLE ID	: 21L027-01	21L027-01M	21L027-01S
LAB FILE ID	: LL07013A	LL07014A	LL07015A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 15:59	12/07/21 16:17	12/07/21 16:35
PREP BATCH	: 21DSL003W	21DSL003W	21DSL003W
CALIBRATION REF	: LL07003A	LL07003A	LL07003A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.22	89	2.53	2.26	90	2	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.481	96	0.505	0.467	92	60-130
Hexacosane	0.125	0.119	95	0.126	0.117	93	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112020116	202112020116MS	202112020116MSD
LAB SAMPLE ID	: 21L027-01	21L027-01M	21L027-01S
LAB FILE ID	: LL07013A	LL07016A	LL07017A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 15:59	12/07/21 16:52	12/07/21 17:10
PREP BATCH	: 21DSL003W	21DSL003W	21DSL003W
CALIBRATION REF	: LL07004A	LL07004A	LL07004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.53	2.10	83	2.53	2.06	82	2	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.505	0.506	100	0.505	0.482	95	60-130
Hexacosane	0.126	0.111	88	0.126	0.111	88	60-130

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

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 972694
BATCH NO. : 21L027
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 202112020116	202112020116MS	202112020116MSD
LAB SAMPLE ID	: 21L027-01	21L027-01M	21L027-01S
LAB FILE ID	: LL07013A	LL07018A	LL07019A
DATE PREPARED	: 12/06/21 10:00	12/06/21 10:00	12/06/21 10:00
DATE ANALYZED	: 12/07/21 15:59	12/07/21 17:28	12/07/21 17:46
PREP BATCH	: 21DSL003W	21DSL003W	21DSL003W
CALIBRATION REF	: LL07005A	LL07005A	LL07005A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.70	2.25	83	2.70	2.38	88	6	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.540	0.512	95	0.540	0.527	98	60-130
Hexacosane	0.135	0.122	90	0.135	0.126	93	60-130

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

December 06, 2021

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

Project Name: Folder # 972694 Job # 1000014
Physis Project ID: 1407003-194

Dear Debbie,

Enclosed are the analytical results for the sample submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 12/2/2021. 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,

Misty Mercier
714 602-5320
Extension 202
mistymercier@physislabs.com

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

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-194

Folder # 972694 Job # 1000014

Total Samples: 1

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
92996	202112020116	HALAWA SHAFT-331-241-TP401	12/1/2021	9:56	Samplewater	Not Specified

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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.

SURROGATES: A surrogate is a pure analyte unlikely to be found in any project sample, behaves similarly to

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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.

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

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 MDL
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

1904 E. Wright Circle Anaheim, CA 92806 (714) 602-5320 fax (714) 602-5321 www.physislabs.com CA ELAP #2769

CASE NARRATIVE

QUALIFIER NOTES

In addition to the use of analyte specific Physis Qualifier Codes where applicable, the following were also noted.

ND

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

ANALYTICAL REPORT

Acid Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 92996-R1	**202112020116 HALAWA SHAFT-331-**		**Matrix: Samplewater**				**Sampled:**	**01-Dec-21**	**9:56**	**Received:**	**02-Dec-21**
(2,4,6-Tribromophenol)	EPA 625.1	% Recovery	64	1			Total		O-35006	03-Dec-21	05-Dec-21
(d5-Phenol)	EPA 625.1	% Recovery	27	1			Total		O-35006	03-Dec-21	05-Dec-21
2,4,5-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2,4,6-Trichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2,4-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2,4-Dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
2,6-Dichlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2,6-Di-tert-butyl-4-methylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2,6-Di-tert-butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2-Chlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2-Methyl-4,6-dinitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
2-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
2-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
3+4-Methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
4-Chloro-3-methylphenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
4-Nitrophenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
6-tert-butyl-2,4-dimethylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Benzoic Acid	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
Benzyl Alcohol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
Pentachlorophenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Phenol	EPA 625.1	µg/L	ND	1	0.1	0.2	Total		O-35006	03-Dec-21	05-Dec-21
p-tert-Butylphenol	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 92996-R1	**202112020116 HALAWA SHAFT-331-**		**Matrix: Samplewater**				**Sampled:**	**01-Dec-21**	**9:56**	**Received:**	**02-Dec-21**
(d4-1,4-Dichlorobenzene)	EPA 625.1	% Recovery	76	1			Total		O-35006	03-Dec-21	05-Dec-21
2-Chloronaphthalene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
2-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
3-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
4-Bromophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
4-Chloroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
4-Chlorophenylphenyl ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
4-Nitroaniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Aniline	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Benzidine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Bis(2-Chloroethoxy) methane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Bis(2-Chloroethyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Bis(2-Chloroisopropyl) ether	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Dibenzofuran	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Hexachloroethane	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
Nitrobenzene	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
N-Nitrosodi-n-propylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21
N-Nitrosodiphenylamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-35006	03-Dec-21	05-Dec-21

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 92996-R1	**202112020116 HALAWA SHAFT-331-**		**Matrix: Samplewater**				**Sampled:**	**01-Dec-21**	**9:56**	**Received:**	**02-Dec-21**
(d10-Acenaphthene)	EPA 625.1	% Recovery	95	1			Total		O-35006	03-Dec-21	05-Dec-21
(d10-Phenanthrene)	EPA 625.1	% Recovery	95	1			Total		O-35006	03-Dec-21	05-Dec-21
(d12-Chrysene)	EPA 625.1	% Recovery	97	1			Total		O-35006	03-Dec-21	05-Dec-21
(d12-Perylene)	EPA 625.1	% Recovery	89	1			Total		O-35006	03-Dec-21	05-Dec-21
(d8-Naphthalene)	EPA 625.1	% Recovery	90	1			Total		O-35006	03-Dec-21	05-Dec-21
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21

PHYSIS Project ID: 1407003-194
Client: Eurofins Eaton Analytical
Project: Folder # 972694 Job # 1000014

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-35006	03-Dec-21	05-Dec-21
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-35006	03-Dec-21	05-Dec-21

1904 E. Wright Circle, Anaheim CA 92806 main: (714) 602-5320 fax: (714) 602-5321 www.physislabs.com info@physislabs.com CA ELAP #2769

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: 92995-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(2,4,6-Tribromophenol)	Total	54	1			% Recovery	100	54	44 - 159%	PASS			
(d5-Phenol)	Total	84	1			% Recovery	100	84	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: 92995-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(2,4,6-Tribromophenol)	Total	60	1			% Recovery	100	0	60	44 - 159%		PASS	
(d5-Phenol)	Total	82	1			% Recovery	100	0	82	20 - 121%		PASS	
2,4,5-Trichlorophenol	Total	0.764	1	0.05	0.1	µg/L	1	0	76	57 - 116%		PASS	
2,4,6-Trichlorophenol	Total	0.862	1	0.05	0.1	µg/L	1	0	86	56 - 118%		PASS	
2,4-Dichlorophenol	Total	0.874	1	0.05	0.1	µg/L	1	0	87	51 - 117%		PASS	
2,4-Dinitrophenol	Total	0.109	1	0.1	0.2	µg/L	0.25	0	44	0 - 152%		PASS	
2,6-Dichlorophenol	Total	0.462	1	0.05	0.1	µg/L	0.5	0	92	30 - 130%		PASS	
2,6-Di-tert-butyl-4-methylphenol	Total	0.742	1	0.05	0.1	µg/L	1	0	74	50 - 150%		PASS	
2,6-Di-tert-butylphenol	Total	0.798	1	0.05	0.1	µg/L	1	0	80	50 - 150%		PASS	
2-Chlorophenol	Total	0.908	1	0.05	0.1	µg/L	1	0	91	41 - 110%		PASS	
2-Methyl-4,6-dinitrophenol	Total	0.626	1	0.1	0.2	µg/L	1	0	63	0 - 141%		PASS	
2-Methylphenol	Total	0.905	1	0.1	0.2	µg/L	1	0	90	40 - 117%		PASS	
2-Nitrophenol	Total	0.887	1	0.1	0.2	µg/L	1	0	89	40 - 117%		PASS	
3+4-Methylphenol	Total	0.876	1	0.1	0.2	µg/L	1	0	88	0 - 130%		PASS	
4-Chloro-3-methylphenol	Total	0.913	1	0.1	0.2	µg/L	1	0	91	51 - 128%		PASS	
4-Nitrophenol	Total	0.692	1	0.1	0.2	µg/L	1	0	69	10 - 164%		PASS	
6-tert-butyl-2,4-dimethylphenol	Total	0.973	1	0.05	0.1	µg/L	1	0	97	50 - 150%		PASS	
Benzoic Acid	Total	0.558	1	0.1	0.2	µg/L	1	0	56	2 - 145%		PASS	
Benzyl Alcohol	Total	0.894	1	0.1	0.2	µg/L	1	0	89	43 - 148%		PASS	
Pentachlorophenol	Total	0.389	1	0.05	0.1	µg/L	0.5	0	78	36 - 111%		PASS	
Phenol	Total	0.83	1	0.1	0.2	µg/L	1	0	83	29 - 114%		PASS	
p-tert-Butylphenol	Total	1.01	1	0.05	0.1	µg/L	1	0	101	50 - 150%		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: 92995-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21		
(2,4,6-Tribromophenol)	Total	59	1			% Recovery	100	0	59	44 - 159%	PASS	2	30	PASS
(d5-Phenol)	Total	83	1			% Recovery	100	0	83	20 - 121%	PASS	1	30	PASS
2,4,5-Trichlorophenol	Total	0.767	1	0.05	0.1	µg/L	1	0	77	57 - 116%	PASS	1	30	PASS
2,4,6-Trichlorophenol	Total	0.88	1	0.05	0.1	µg/L	1	0	88	56 - 118%	PASS	2	30	PASS
2,4-Dichlorophenol	Total	0.909	1	0.05	0.1	µg/L	1	0	91	51 - 117%	PASS	4	30	PASS
2,4-Dinitrophenol	Total	0.116	1	0.1	0.2	µg/L	0.25	0	46	0 - 152%	PASS	4	30	PASS
2,6-Dichlorophenol	Total	0.478	1	0.05	0.1	µg/L	0.5	0	96	30 - 130%	PASS	4	30	PASS
2,6-Di-tert-butyl-4-methylphenol	Total	0.751	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	1	30	PASS
2,6-Di-tert-butylphenol	Total	0.826	1	0.05	0.1	µg/L	1	0	83	50 - 150%	PASS	4	30	PASS
2-Chlorophenol	Total	0.918	1	0.05	0.1	µg/L	1	0	92	41 - 110%	PASS	1	30	PASS
2-Methyl-4,6-dinitrophenol	Total	0.528	1	0.1	0.2	µg/L	1	0	53	0 - 141%	PASS	17	30	PASS
2-Methylphenol	Total	0.839	1	0.1	0.2	µg/L	1	0	84	40 - 117%	PASS	7	30	PASS
2-Nitrophenol	Total	0.894	1	0.1	0.2	µg/L	1	0	89	40 - 117%	PASS	0	30	PASS
3+4-Methylphenol	Total	0.91	1	0.1	0.2	µg/L	1	0	91	0 - 130%	PASS	3	30	PASS
4-Chloro-3-methylphenol	Total	0.957	1	0.1	0.2	µg/L	1	0	96	51 - 128%	PASS	5	30	PASS
4-Nitrophenol	Total	0.608	1	0.1	0.2	µg/L	1	0	61	10 - 164%	PASS	12	30	PASS
6-tert-butyl-2,4-dimethylphenol	Total	1.01	1	0.05	0.1	µg/L	1	0	101	50 - 150%	PASS	4	30	PASS
Benzoic Acid	Total	0.644	1	0.1	0.2	µg/L	1	0	64	2 - 145%	PASS	13	30	PASS
Benzyl Alcohol	Total	0.971	1	0.1	0.2	µg/L	1	0	97	43 - 148%	PASS	9	30	PASS
Pentachlorophenol	Total	0.298	1	0.05	0.1	µg/L	0.5	0	60	36 - 111%	PASS	26	30	PASS
Phenol	Total	0.785	1	0.1	0.2	µg/L	1	0	79	29 - 114%	PASS	6	30	PASS
p-tert-Butylphenol	Total	1.07	1	0.05	0.1	µg/L	1	0	107	50 - 150%	PASS	6	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: 92996-MS1	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**			**Received: 02-Dec-21**	
		Method: EPA 625.1				Batch ID: O-35006			Prepared: 03-Dec-21			Analyzed: 05-Dec-21	
(2,4,6-Tribromophenol)	Total	64	1			% Recovery	100	0	64	31 - 143%	PASS		
(d5-Phenol)	Total	37	1			% Recovery	100	0	37	0 - 85%	PASS		
2,4,5-Trichlorophenol	Total	0.596	1	0.05	0.1	µg/L	0.714	0	83	47 - 115%	PASS		
2,4,6-Trichlorophenol	Total	0.639	1	0.05	0.1	µg/L	0.714	0	89	41 - 120%	PASS		
2,4-Dichlorophenol	Total	0.649	1	0.05	0.1	µg/L	0.714	0	91	24 - 110%	PASS		
2,4-Dinitrophenol	Total	0.0445	1	0.1	0.2	µg/L	0.179	0	25	24 - 188%	PASS		
2,6-Dichlorophenol	Total	0.33	1	0.05	0.1	µg/L	0.357	0	92	21 - 119%	PASS		
2,6-Di-tert-butyl-4-methylphenol	Total	0.5	1	0.05	0.1	µg/L	0.714	0	70	50 - 150%	PASS		
2,6-Di-tert-butylphenol	Total	0.544	1	0.05	0.1	µg/L	0.714	0	76	50 - 150%	PASS		
2-Chlorophenol	Total	0.636	1	0.05	0.1	µg/L	0.714	0	89	0 - 102%	PASS		
2-Methyl-4,6-dinitrophenol	Total	0.498	1	0.1	0.2	µg/L	0.714	0	70	29 - 154%	PASS		
2-Methylphenol	Total	0.474	1	0.1	0.2	µg/L	0.714	0	66	9 - 98%	PASS		
2-Nitrophenol	Total	0.677	1	0.1	0.2	µg/L	0.714	0	95	0 - 132%	PASS		
3+4-Methylphenol	Total	0.542	1	0.1	0.2	µg/L	0.714	0	76	0 - 130%	PASS		
4-Chloro-3-methylphenol	Total	0.667	1	0.1	0.2	µg/L	0.714	0	93	38 - 120%	PASS		
4-Nitrophenol	Total	0.141	1	0.1	0.2	µg/L	0.714	0	20	0 - 144%	PASS		
6-tert-butyl-2,4-dimethylphenol	Total	0.696	1	0.05	0.1	µg/L	0.714	0	97	50 - 150%	PASS		
Benzoic Acid	Total	0.217	1	0.1	0.2	µg/L	0.714	0	30	0 - 140%	PASS		
Benzyl Alcohol	Total	0.48	1	0.1	0.2	µg/L	0.714	0	67	0 - 99%	PASS		
Pentachlorophenol	Total	0.214	1	0.05	0.1	µg/L	0.357	0	60	35 - 154%	PASS		
Phenol	Total	0.619	1	0.1	0.2	µg/L	0.714	0	87	0 - 130%	PASS		
p-tert-Butylphenol	Total	0.719	1	0.05	0.1	µg/L	0.714	0	101	50 - 150%	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: 92996-MS2	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35006			Prepared: 03-Dec-21				Analyzed: 05-Dec-21	
(2,4,6-Tribromophenol)	Total	61	1			% Recovery	100	0	61	31 - 143%	PASS	5	30	PASS
(d5-Phenol)	Total	31	1			% Recovery	100	0	31	0 - 85%	PASS	18	30	PASS
2,4,5-Trichlorophenol	Total	0.617	1	0.05	0.1	µg/L	0.833	0	74	47 - 115%	PASS	11	30	PASS
2,4,6-Trichlorophenol	Total	0.726	1	0.05	0.1	µg/L	0.833	0	87	41 - 120%	PASS	2	30	PASS
2,4-Dichlorophenol	Total	0.746	1	0.05	0.1	µg/L	0.833	0	90	24 - 110%	PASS	1	30	PASS
2,4-Dinitrophenol	Total	0.0507	1	0.1	0.2	µg/L	0.208	0	24	24 - 188%	PASS	4	30	PASS
2,6-Dichlorophenol	Total	0.387	1	0.05	0.1	µg/L	0.417	0	93	21 - 119%	PASS	1	30	PASS
2,6-Di-tert-butyl-4-methylphenol	Total	0.585	1	0.05	0.1	µg/L	0.833	0	70	50 - 150%	PASS	0	30	PASS
2,6-Di-tert-butylphenol	Total	0.626	1	0.05	0.1	µg/L	0.833	0	75	50 - 150%	PASS	1	30	PASS
2-Chlorophenol	Total	0.706	1	0.05	0.1	µg/L	0.833	0	85	0 - 102%	PASS	5	30	PASS
2-Methyl-4,6-dinitrophenol	Total	0.439	1	0.1	0.2	µg/L	0.833	0	53	29 - 154%	PASS	28	30	PASS
2-Methylphenol	Total	0.534	1	0.1	0.2	µg/L	0.833	0	64	9 - 98%	PASS	3	30	PASS
2-Nitrophenol	Total	0.759	1	0.1	0.2	µg/L	0.833	0	91	0 - 132%	PASS	4	30	PASS
3+4-Methylphenol	Total	0.612	1	0.1	0.2	µg/L	0.833	0	73	0 - 130%	PASS	4	30	PASS
4-Chloro-3-methylphenol	Total	0.786	1	0.1	0.2	µg/L	0.833	0	94	38 - 120%	PASS	1	30	PASS
4-Nitrophenol	Total	0.126	1	0.1	0.2	µg/L	0.833	0	15	0 - 144%	PASS	29	30	PASS
6-tert-butyl-2,4-dimethylphenol	Total	0.837	1	0.05	0.1	µg/L	0.833	0	100	50 - 150%	PASS	3	30	PASS
Benzoic Acid	Total	0.276	1	0.1	0.2	µg/L	0.833	0	33	0 - 140%	PASS	10	30	PASS
Benzyl Alcohol	Total	0.527	1	0.1	0.2	µg/L	0.833	0	63	0 - 99%	PASS	6	30	PASS
Pentachlorophenol	Total	0.188	1	0.05	0.1	µg/L	0.417	0	45	35 - 154%	PASS	29	30	PASS
Phenol	Total	0.592	1	0.1	0.2	µg/L	0.833	0	71	0 - 130%	PASS	20	30	PASS
p-tert-Butylphenol	Total	0.891	1	0.05	0.1	µg/L	0.833	0	107	50 - 150%	PASS	6	30	PASS

1904 E. Wright Circle, Anaheim CA 92806 main: (714) 602-5320 fax: (714) 602-5321 www.physislabs.com info@physislabs.com CA ELAP #2769

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: 92996-R2	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**		**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**		
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 05-Dec-21		
(2,4,6-Tribromophenol)	Total	65	1			% Recovery	100	65	31 - 143%	PASS		2	30	PASS
(d5-Phenol)	Total	22	1			% Recovery	100	22	0 - 85%	PASS		20	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	ND	1	0.1	0.2	µg/L						0	30	PASS
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: 92995-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	90	1			% Recovery	100	90	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							
Disalicylidenepropanediamin e	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: 92995-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	91	1			% Recovery	100	0	91	30 - 130%	PASS		
2-Chloronaphthalene	Total	1.02	1	0.05	0.1	µg/L	1	0	102	53 - 130%	PASS		
2-Nitroaniline	Total	0.934	1	0.05	0.1	µg/L	1	0	93	69 - 114%	PASS		
3-Nitroaniline	Total	0.938	1	0.05	0.1	µg/L	1	0	94	23 - 137%	PASS		
4-Bromophenylphenyl ether	Total	1.05	1	0.05	0.1	µg/L	1	0	105	61 - 132%	PASS		
4-Chloroaniline	Total	0.83	1	0.05	0.1	µg/L	1	0	83	50 - 150%	PASS		
4-Chlorophenylphenyl ether	Total	1.06	1	0.05	0.1	µg/L	1	0	106	63 - 130%	PASS		
4-Nitroaniline	Total	0.714	1	0.05	0.1	µg/L	1	0	71	10 - 159%	PASS		
Aniline	Total	0.921	1	0.05	0.1	µg/L	1	0	92	50 - 150%	PASS		
Benzidine	Total	1.25	1	0.05	0.1	µg/L	1	0	125	0 - 125%	PASS		
Bis(2-Chloroethoxy) methane	Total	1.01	1	0.05	0.1	µg/L	1	0	101	66 - 122%	PASS		
Bis(2-Chloroethyl) ether	Total	0.538	1	0.05	0.1	µg/L	1	0	54	43 - 127%	PASS		
Bis(2-Chloroisopropyl) ether	Total	1.37	1	0.05	0.1	µg/L	2	0	69	49 - 128%	PASS		
Dibenzofuran	Total	1.03	1	0.05	0.1	µg/L	1	0	103	50 - 150%	PASS		
Disalicylidenepropanediamin	Total	27.5	1	0.05	0.1	µg/L	50	0	55	50 - 150%	PASS		
Hexachloroethane	Total	0.935	1	0.05	0.1	µg/L	1	0	94	27 - 130%	PASS		
Nitrobenzene	Total	0.926	1	0.05	0.1	µg/L	1	0	93	54 - 111%	PASS		
N-Nitrosodi-n-propylamine	Total	0.936	1	0.05	0.1	µg/L	1	0	94	61 - 152%	PASS		
N-Nitrosodiphenylamine	Total	1.02	1	0.05	0.1	µg/L	1	0	102	49 - 142%	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: 92995-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21		
(d4-1,4-Dichlorobenzene)	Total	91	1			% Recovery	100	0	91	30 - 130%	PASS	0	30	PASS
2-Chloronaphthalene	Total	1.02	1	0.05	0.1	µg/L	1	0	102	53 - 130%	PASS	0	30	PASS
2-Nitroaniline	Total	0.941	1	0.05	0.1	µg/L	1	0	94	69 - 114%	PASS	1	30	PASS
3-Nitroaniline	Total	0.855	1	0.05	0.1	µg/L	1	0	86	23 - 137%	PASS	9	30	PASS
4-Bromophenylphenyl ether	Total	1.05	1	0.05	0.1	µg/L	1	0	105	61 - 132%	PASS	0	30	PASS
4-Chloroaniline	Total	0.752	1	0.05	0.1	µg/L	1	0	75	50 - 150%	PASS	10	30	PASS
4-Chlorophenylphenyl ether	Total	1.07	1	0.05	0.1	µg/L	1	0	107	63 - 130%	PASS	1	30	PASS
4-Nitroaniline	Total	0.692	1	0.05	0.1	µg/L	1	0	69	10 - 159%	PASS	3	30	PASS
Aniline	Total	0.91	1	0.05	0.1	µg/L	1	0	91	50 - 150%	PASS	1	30	PASS
Benzidine	Total	1.16	1	0.05	0.1	µg/L	1	0	116	0 - 125%	PASS	7	30	PASS
Bis(2-Chloroethoxy) methane	Total	1.05	1	0.05	0.1	µg/L	1	0	105	66 - 122%	PASS	4	30	PASS
Bis(2-Chloroethyl) ether	Total	0.505	1	0.05	0.1	µg/L	1	0	50	43 - 127%	PASS	8	30	PASS
Bis(2-Chloroisopropyl) ether	Total	1.35	1	0.05	0.1	µg/L	2	0	68	49 - 128%	PASS	0	30	PASS
Dibenzofuran	Total	1.04	1	0.05	0.1	µg/L	1	0	104	50 - 150%	PASS	1	30	PASS
Disalicylidenepropanediamin e	Total	29.7	1	0.05	0.1	µg/L	50	0	59	50 - 150%	PASS	7	30	PASS
Hexachloroethane	Total	0.955	1	0.05	0.1	µg/L	1	0	95	27 - 130%	PASS	2	30	PASS
Nitrobenzene	Total	0.943	1	0.05	0.1	µg/L	1	0	94	54 - 111%	PASS	1	30	PASS
N-Nitrosodi-n-propylamine	Total	1.03	1	0.05	0.1	µg/L	1	0	103	61 - 152%	PASS	9	30	PASS
N-Nitrosodiphenylamine	Total	1.02	1	0.05	0.1	µg/L	1	0	102	49 - 142%	PASS	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: 92996-MS1	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**		**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**	
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 05-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	82	1			% Recovery	100	0	82	30 - 130%			PASS
2-Chloronaphthalene	Total	0.686	1	0.05	0.1	µg/L	0.714	0	96	30 - 108%			PASS
2-Nitroaniline	Total	0.693	1	0.05	0.1	µg/L	0.714	0	97	40 - 136%			PASS
3-Nitroaniline	Total	0.596	1	0.05	0.1	µg/L	0.714	0	83	0 - 143%			PASS
4-Bromophenylphenyl ether	Total	0.726	1	0.05	0.1	µg/L	0.714	0	102	50 - 150%			PASS
4-Chloroaniline	Total	0.525	1	0.05	0.1	µg/L	0.714	0	74	21 - 144%			PASS
4-Chlorophenylphenyl ether	Total	0.717	1	0.05	0.1	µg/L	0.714	0	100	50 - 150%			PASS
4-Nitroaniline	Total	0.43	1	0.05	0.1	µg/L	0.714	0	60	10 - 154%			PASS
Aniline	Total	0.615	1	0.05	0.1	µg/L	0.714	0	86	50 - 150%			PASS
Benzidine	Total	0.614	1	0.05	0.1	µg/L	0.714	0	86	0 - 125%			PASS
Bis(2-Chloroethoxy) methane	Total	0.705	1	0.05	0.1	µg/L	0.714	0	99	25 - 119%			PASS
Bis(2-Chloroethyl) ether	Total	0.298	1	0.05	0.1	µg/L	0.714	0	42	14 - 110%			PASS
Bis(2-Chloroisopropyl) ether	Total	1.68	1	0.05	0.1	µg/L	1.43	0	117	0 - 138%			PASS
Dibenzofuran	Total	0.709	1	0.05	0.1	µg/L	0.714	0	99	48 - 103%			PASS
Disalicylidenepropanediamin	Total	18.4	1	0.05	0.1	µg/L	35.7	0	52	50 - 150%			PASS
Hexachloroethane	Total	0.511	1	0.05	0.1	µg/L	0.714	0	72	0 - 94%			PASS
Nitrobenzene	Total	0.658	1	0.05	0.1	µg/L	0.714	0	92	4 - 116%			PASS
N-Nitrosodi-n-propylamine	Total	0.706	1	0.05	0.1	µg/L	0.714	0	99	0 - 164%			PASS
N-Nitrosodiphenylamine	Total	0.727	1	0.05	0.1	µg/L	0.714	0	102	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: 92996-MS2	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**	
		Method: EPA 625.1				Batch ID: O-35006			Prepared: 03-Dec-21				Analyzed: 05-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	83	1			% Recovery	100	0	83	30 - 130%	PASS	1	30	PASS
2-Chloronaphthalene	Total	0.822	1	0.05	0.1	µg/L	0.833	0	99	30 - 108%	PASS	3	30	PASS
2-Nitroaniline	Total	0.8	1	0.05	0.1	µg/L	0.833	0	96	40 - 136%	PASS	1	30	PASS
3-Nitroaniline	Total	0.763	1	0.05	0.1	µg/L	0.833	0	92	0 - 143%	PASS	10	30	PASS
4-Bromophenylphenyl ether	Total	0.858	1	0.05	0.1	µg/L	0.833	0	103	50 - 150%	PASS	1	30	PASS
4-Chloroaniline	Total	0.776	1	0.05	0.1	µg/L	0.833	0	93	21 - 144%	PASS	23	30	PASS
4-Chlorophenylphenyl ether	Total	0.864	1	0.05	0.1	µg/L	0.833	0	104	50 - 150%	PASS	4	30	PASS
4-Nitroaniline	Total	0.617	1	0.05	0.1	µg/L	0.833	0	74	10 - 154%	PASS	21	30	PASS
Aniline	Total	0.719	1	0.05	0.1	µg/L	0.833	0	86	50 - 150%	PASS	0	30	PASS
Benzidine	Total	0.696	1	0.05	0.1	µg/L	0.833	0	84	0 - 125%	PASS	2	30	PASS
Bis(2-Chloroethoxy) methane	Total	0.838	1	0.05	0.1	µg/L	0.833	0	101	25 - 119%	PASS	2	30	PASS
Bis(2-Chloroethyl) ether	Total	0.4	1	0.05	0.1	µg/L	0.833	0	48	14 - 110%	PASS	13	30	PASS
Bis(2-Chloroisopropyl) ether	Total	1.79	1	0.05	0.1	µg/L	1.67	0	107	0 - 138%	PASS	9	30	PASS
Dibenzofuran	Total	0.839	1	0.05	0.1	µg/L	0.833	0	101	48 - 103%	PASS	2	30	PASS
Disalicylidenepropanediamin	Total	21.6	1	0.05	0.1	µg/L	41.7	0	52	50 - 150%	PASS	0	30	PASS
Hexachloroethane	Total	0.655	1	0.05	0.1	µg/L	0.833	0	79	0 - 94%	PASS	9	30	PASS
Nitrobenzene	Total	0.748	1	0.05	0.1	µg/L	0.833	0	90	4 - 116%	PASS	2	30	PASS
N-Nitrosodi-n-propylamine	Total	0.804	1	0.05	0.1	µg/L	0.833	0	97	0 - 164%	PASS	2	30	PASS
N-Nitrosodiphenylamine	Total	0.843	1	0.05	0.1	µg/L	0.833	0	101	52 - 112%	PASS	1	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: 92996-R2	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**		**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 05-Dec-21	
(d4-1,4-Dichlorobenzene)	Total	84	1			% Recovery	100	84	30 - 130%	PASS	10	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
Disalicylidenepropanediamin e	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

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: 92995-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(d10-Acenaphthene)	Total	99	1			% Recovery	100	99		65 - 113%		PASS	
(d10-Phenanthrene)	Total	97	1			% Recovery	100	97		80 - 111%		PASS	
(d12-Chrysene)	Total	84	1			% Recovery	100	84		60 - 139%		PASS	
(d12-Perylene)	Total	93	1			% Recovery	100	93		36 - 161%		PASS	
(d8-Naphthalene)	Total	96	1			% Recovery	100	96		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: 92995-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21	
(d10-Acenaphthene)	Total	91	1			% Recovery	100	0	91	65 - 113%	PASS		
(d10-Phenanthrene)	Total	98	1			% Recovery	100	0	98	80 - 111%	PASS		
(d12-Chrysene)	Total	129	1			% Recovery	100	0	129	60 - 139%	PASS		
(d12-Perylene)	Total	96	1			% Recovery	100	0	96	36 - 161%	PASS		
(d8-Naphthalene)	Total	87	1			% Recovery	100	0	87	44 - 119%	PASS		
1-Methylnaphthalene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	49 - 117%	PASS		
1-Methylphenanthrene	Total	0.514	1	0.001	0.005	µg/L	0.5	0	103	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.445	1	0.001	0.005	µg/L	0.5	0	89	57 - 120%	PASS		
2,6-Dimethylnaphthalene	Total	0.444	1	0.001	0.005	µg/L	0.5	0	89	54 - 117%	PASS		
2-Methylnaphthalene	Total	1.33	1	0.001	0.005	µg/L	1.5	0	89	47 - 130%	PASS		
Acenaphthene	Total	1.3	1	0.001	0.005	µg/L	1.5	0	87	53 - 131%	PASS		
Acenaphthylene	Total	1.37	1	0.001	0.005	µg/L	1.5	0	91	43 - 140%	PASS		
Anthracene	Total	1.45	1	0.001	0.005	µg/L	1.5	0	97	58 - 135%	PASS		
Benz[a]anthracene	Total	1.64	1	0.001	0.005	µg/L	1.5	0	109	55 - 145%	PASS		
Benzo[a]pyrene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	1.58	1	0.001	0.005	µg/L	1.5	0	105	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.486	1	0.001	0.005	µg/L	0.5	0	97	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	1.49	1	0.001	0.005	µg/L	1.5	0	99	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	1.57	1	0.001	0.005	µg/L	1.5	0	105	56 - 145%	PASS		
Biphenyl	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	56 - 119%	PASS		
Chrysene	Total	1.5	1	0.001	0.005	µg/L	1.5	0	100	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	1.53	1	0.001	0.005	µg/L	1.5	0	102	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	0.504	1	0.001	0.005	µg/L	0.5	0	101	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	0.492	1	0.001	0.005	µg/L	0.5	0	98	75 - 113%	PASS			
Fluoranthene	Total	1.69	1	0.001	0.005	µg/L	1.5	0	113	60 - 146%	PASS			
Fluorene	Total	1.41	1	0.001	0.005	µg/L	1.5	0	94	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	1.51	1	0.001	0.005	µg/L	1.5	0	101	50 - 151%	PASS			
Naphthalene	Total	1.26	1	0.001	0.005	µg/L	1.5	0	84	41 - 126%	PASS			
Perylene	Total	0.489	1	0.001	0.005	µg/L	0.5	0	98	48 - 141%	PASS			
Phenanthrene	Total	1.45	1	0.001	0.005	µg/L	1.5	0	97	67 - 127%	PASS			
Pyrene	Total	1.72	1	0.001	0.005	µg/L	1.5	0	115	54 - 156%	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: 92995-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21				Analyzed: 04-Dec-21		
(d10-Acenaphthene)	Total	94	1			% Recovery	100	0	94	65 - 113%	PASS	3	30	PASS
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	80 - 111%	PASS	3	30	PASS
(d12-Chrysene)	Total	104	1			% Recovery	100	0	104	60 - 139%	PASS	21	30	PASS
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%	PASS	4	30	PASS
(d8-Naphthalene)	Total	87	1			% Recovery	100	0	87	44 - 119%	PASS	0	30	PASS
1-Methylnaphthalene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	49 - 117%	PASS	2	30	PASS
1-Methylphenanthrene	Total	0.487	1	0.001	0.005	µg/L	0.5	0	97	66 - 127%	PASS	6	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	57 - 120%	PASS	2	30	PASS
2,6-Dimethylnaphthalene	Total	0.453	1	0.001	0.005	µg/L	0.5	0	91	54 - 117%	PASS	2	30	PASS
2-Methylnaphthalene	Total	1.34	1	0.001	0.005	µg/L	1.5	0	89	47 - 130%	PASS	0	30	PASS
Acenaphthene	Total	1.32	1	0.001	0.005	µg/L	1.5	0	88	53 - 131%	PASS	1	30	PASS
Acenaphthylene	Total	1.4	1	0.001	0.005	µg/L	1.5	0	93	43 - 140%	PASS	2	30	PASS
Anthracene	Total	1.38	1	0.001	0.005	µg/L	1.5	0	92	58 - 135%	PASS	5	30	PASS
Benz[a]anthracene	Total	1.63	1	0.001	0.005	µg/L	1.5	0	109	55 - 145%	PASS	0	30	PASS
Benzo[a]pyrene	Total	1.48	1	0.001	0.005	µg/L	1.5	0	99	51 - 143%	PASS	4	30	PASS
Benzo[b]fluoranthene	Total	1.54	1	0.001	0.005	µg/L	1.5	0	103	46 - 165%	PASS	2	30	PASS
Benzo[e]pyrene	Total	0.477	1	0.001	0.005	µg/L	0.5	0	95	42 - 152%	PASS	2	30	PASS
Benzo[g,h,i]perylene	Total	1.43	1	0.001	0.005	µg/L	1.5	0	95	63 - 133%	PASS	4	30	PASS
Benzo[k]fluoranthene	Total	1.51	1	0.001	0.005	µg/L	1.5	0	101	56 - 145%	PASS	4	30	PASS
Biphenyl	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	56 - 119%	PASS	2	30	PASS
Chrysene	Total	1.53	1	0.001	0.005	µg/L	1.5	0	102	56 - 141%	PASS	2	30	PASS
Dibenz[a,h]anthracene	Total	1.42	1	0.001	0.005	µg/L	1.5	0	95	55 - 150%	PASS	7	30	PASS
Dibenzo[a,l]pyrene	Total	0.488	1	0.001	0.005	µg/L	0.5	0	98	50 - 150%	PASS	3	30	PASS

PHYSIS Project ID: 1407003-194
Client: Eurofins Eaton Analytical
Project: Folder # 972694 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
Dibenzothiophene	Total	0.48	1	0.001	0.005	µg/L	0.5	0	96	75 - 113%	PASS	2	30	PASS	
Fluoranthene	Total	1.54	1	0.001	0.005	µg/L	1.5	0	103	60 - 146%	PASS	9	30	PASS	
Fluorene	Total	1.42	1	0.001	0.005	µg/L	1.5	0	95	58 - 131%	PASS	1	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	1.41	1	0.001	0.005	µg/L	1.5	0	94	50 - 151%	PASS	7	30	PASS	
Naphthalene	Total	1.26	1	0.001	0.005	µg/L	1.5	0	84	41 - 126%	PASS	0	30	PASS	
Perylene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	48 - 141%	PASS	7	30	PASS	
Phenanthrene	Total	1.42	1	0.001	0.005	µg/L	1.5	0	95	67 - 127%	PASS	2	30	PASS	
Pyrene	Total	1.55	1	0.001	0.005	µg/L	1.5	0	103	54 - 156%	PASS	11	30	PASS	

1904 E. Wright Circle, Anaheim CA 92806 main: (714) 602-5320 fax: (714) 602-5321 www.physislabs.com info@physislabs.com CA ELAP #2769

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: 92996-MS1	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**			**Received: 02-Dec-21**	
	Method: EPA 625.1					Batch ID: O-35006			Prepared: 03-Dec-21			Analyzed: 05-Dec-21	
(d10-Acenaphthene)	Total	87	1			% Recovery	100	0	87	45 - 118%	PASS		
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	56 - 123%	PASS		
(d12-Chrysene)	Total	92	1			% Recovery	100	0	92	36 - 142%	PASS		
(d12-Perylene)	Total	95	1			% Recovery	100	0	95	36 - 161%	PASS		
(d8-Naphthalene)	Total	82	1			% Recovery	100	0	82	20 - 112%	PASS		
1-Methylnaphthalene	Total	0.286	1	0.001	0.005	µg/L	0.357	0	80	39 - 104%	PASS		
1-Methylphenanthrene	Total	0.339	1	0.001	0.005	µg/L	0.357	0	95	62 - 136%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.29	1	0.001	0.005	µg/L	0.357	0	81	47 - 132%	PASS		
2,6-Dimethylnaphthalene	Total	0.285	1	0.001	0.005	µg/L	0.357	0	80	37 - 118%	PASS		
2-Methylnaphthalene	Total	0.871	1	0.001	0.005	µg/L	1.07	0	81	33 - 113%	PASS		
Acenaphthene	Total	0.878	1	0.001	0.005	µg/L	1.07	0	82	51 - 116%	PASS		
Acenaphthylene	Total	0.954	1	0.001	0.005	µg/L	1.07	0	89	53 - 127%	PASS		
Anthracene	Total	1	1	0.001	0.005	µg/L	1.07	0	93	60 - 126%	PASS		
Benz[a]anthracene	Total	1.28	1	0.001	0.005	µg/L	1.07	0	120	51 - 165%	PASS		
Benzo[a]pyrene	Total	1.08	1	0.001	0.005	µg/L	1.07	0	101	24 - 170%	PASS		
Benzo[b]fluoranthene	Total	1.15	1	0.001	0.005	µg/L	1.07	0	107	38 - 158%	PASS		
Benzo[e]pyrene	Total	0.348	1	0.001	0.005	µg/L	0.357	0	97	26 - 157%	PASS		
Benzo[g,h,i]perylene	Total	1.03	1	0.001	0.005	µg/L	1.07	0	96	57 - 133%	PASS		
Benzo[k]fluoranthene	Total	1.12	1	0.001	0.005	µg/L	1.07	0	105	27 - 167%	PASS		
Biphenyl	Total	0.294	1	0.001	0.005	µg/L	0.357	0	82	41 - 111%	PASS		
Chrysene	Total	1.24	1	0.001	0.005	µg/L	1.07	0	116	58 - 136%	PASS		
Dibenz[a,h]anthracene	Total	1.02	1	0.001	0.005	µg/L	1.07	0	95	53 - 156%	PASS		
Dibenzo[a,l]pyrene	Total	0.303	1	0.001	0.005	µg/L	0.357	0	85	50 - 150%	PASS		

PHYSIS Project ID: 1407003-194
Client: Eurofins Eaton Analytical
Project: Folder # 972694 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
Dibenzothiophene	Total	0.335	1	0.001	0.005	µg/L	0.357	0	94	69 - 112%	PASS			
Fluoranthene	Total	1.1	1	0.001	0.005	µg/L	1.07	0	103	61 - 147%	PASS			
Fluorene	Total	0.973	1	0.001	0.005	µg/L	1.07	0	91	62 - 120%	PASS			
Indeno[1,2,3-cd]pyrene	Total	1.01	1	0.001	0.005	µg/L	1.07	0	94	58 - 147%	PASS			
Naphthalene	Total	0.836	1	0.001	0.005	µg/L	1.07	0	78	22 - 110%	PASS			
Perylene	Total	0.324	1	0.001	0.005	µg/L	0.357	0	91	34 - 147%	PASS			
Phenanthrene	Total	1.01	1	0.001	0.005	µg/L	1.07	0	94	64 - 121%	PASS			
Pyrene	Total	1.1	1	0.001	0.005	µg/L	1.07	0	103	65 - 146%	PASS			

1904 E. Wright Circle, Anaheim CA 92806 main: (714) 602-5320 fax: (714) 602-5321 www.physislabs.com info@physislabs.com CA ELAP #2769

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: 92996-MS2	**202112020116 HALAWA SHAFT-331-241-T**					**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**				**Received: 02-Dec-21**	
		Method: EPA 625.1				Batch ID: O-35006			Prepared: 03-Dec-21				Analyzed: 05-Dec-21	
(d10-Acenaphthene)	Total	91	1			% Recovery	100	0	91	45 - 118%	PASS	4	30 PASS	
(d10-Phenanthrene)	Total	95	1			% Recovery	100	0	95	56 - 123%	PASS	0	30 PASS	
(d12-Chrysene)	Total	98	1			% Recovery	100	0	98	36 - 142%	PASS	6	30 PASS	
(d12-Perylene)	Total	93	1			% Recovery	100	0	93	36 - 161%	PASS	2	30 PASS	
(d8-Naphthalene)	Total	84	1			% Recovery	100	0	84	20 - 112%	PASS	2	30 PASS	
1-Methylnaphthalene	Total	0.346	1	0.001	0.005	µg/L	0.417	0	83	39 - 104%	PASS	4	30 PASS	
1-Methylphenanthrene	Total	0.386	1	0.001	0.005	µg/L	0.417	0	93	62 - 136%	PASS	2	30 PASS	
2,3,5-Trimethylnaphthalene	Total	0.35	1	0.001	0.005	µg/L	0.417	0	84	47 - 132%	PASS	4	30 PASS	
2,6-Dimethylnaphthalene	Total	0.34	1	0.001	0.005	µg/L	0.417	0	82	37 - 118%	PASS	2	30 PASS	
2-Methylnaphthalene	Total	1.05	1	0.001	0.005	µg/L	1.25	0	84	33 - 113%	PASS	4	30 PASS	
Acenaphthene	Total	1.07	1	0.001	0.005	µg/L	1.25	0	86	51 - 116%	PASS	5	30 PASS	
Acenaphthylene	Total	1.14	1	0.001	0.005	µg/L	1.25	0	91	53 - 127%	PASS	2	30 PASS	
Anthracene	Total	1.13	1	0.001	0.005	µg/L	1.25	0	90	60 - 126%	PASS	3	30 PASS	
Benz[a]anthracene	Total	1.32	1	0.001	0.005	µg/L	1.25	0	106	51 - 165%	PASS	12	30 PASS	
Benzo[a]pyrene	Total	1.22	1	0.001	0.005	µg/L	1.25	0	98	24 - 170%	PASS	3	30 PASS	
Benzo[b]fluoranthene	Total	1.32	1	0.001	0.005	µg/L	1.25	0	106	38 - 158%	PASS	1	30 PASS	
Benzo[e]pyrene	Total	0.391	1	0.001	0.005	µg/L	0.417	0	94	26 - 157%	PASS	3	30 PASS	
Benzo[g,h,i]perylene	Total	1.2	1	0.001	0.005	µg/L	1.25	0	96	57 - 133%	PASS	0	30 PASS	
Benzo[k]fluoranthene	Total	1.28	1	0.001	0.005	µg/L	1.25	0	102	27 - 167%	PASS	3	30 PASS	
Biphenyl	Total	0.355	1	0.001	0.005	µg/L	0.417	0	85	41 - 111%	PASS	4	30 PASS	
Chrysene	Total	1.3	1	0.001	0.005	µg/L	1.25	0	104	58 - 136%	PASS	11	30 PASS	
Dibenz[a,h]anthracene	Total	1.11	1	0.001	0.005	µg/L	1.25	0	89	53 - 156%	PASS	7	30 PASS	
Dibenzo[a,l]pyrene	Total	0.371	1	0.001	0.005	µg/L	0.417	0	89	50 - 150%	PASS	5	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	0.385	1	0.001	0.005	µg/L	0.417	0	92	69 - 112%	PASS	2	30	PASS	
Fluoranthene	Total	1.26	1	0.001	0.005	µg/L	1.25	0	101	61 - 147%	PASS	2	30	PASS	
Fluorene	Total	1.15	1	0.001	0.005	µg/L	1.25	0	92	62 - 120%	PASS	1	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	1.14	1	0.001	0.005	µg/L	1.25	0	91	58 - 147%	PASS	3	30	PASS	
Naphthalene	Total	1.01	1	0.001	0.005	µg/L	1.25	0	81	22 - 110%	PASS	4	30	PASS	
Perylene	Total	0.378	1	0.001	0.005	µg/L	0.417	0	91	34 - 147%	PASS	0	30	PASS	
Phenanthrene	Total	1.18	1	0.001	0.005	µg/L	1.25	0	94	64 - 121%	PASS	0	30	PASS	
Pyrene	Total	1.28	1	0.001	0.005	µg/L	1.25	0	102	65 - 146%	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: 92996-R2	**202112020116 HALAWA SHAFT-331-241-T**		**Matrix: Samplewater**			**Sampled: 01-Dec-21 9:56**					**Received: 02-Dec-21**			
		Method: EPA 625.1				Batch ID: O-35006		Prepared: 03-Dec-21			Analyzed: 05-Dec-21			
(d10-Acenaphthene)	Total	102	1			% Recovery	100	102	45 - 118%	PASS	7	30	PASS	
(d10-Phenanthrene)	Total	100	1			% Recovery	100	100	56 - 123%	PASS	5	30	PASS	
(d12-Chrysene)	Total	96	1			% Recovery	100	96	36 - 142%	PASS	1	30	PASS	
(d12-Perylene)	Total	96	1			% Recovery	100	96	36 - 161%	PASS	8	30	PASS	
(d8-Naphthalene)	Total	96	1			% Recovery	100	96	20 - 112%	PASS	6	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

1904 E. Wright Circle, Anaheim CA 92806 main: (714) 602-5320 fax: (714) 602-5321 www.physislabs.com info@physislabs.com CA ELAP #2769

Total Ion Chromatogram REPORT

Sample ID: 92996-R1

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
34.3793	4.2671	1111	Anthracene-D10-	1719-06-8	97
10.0719	9.6472	2512	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	93
10.0165	3.2428	844	Octane, 3-methyl-6-methylene-	74630-07-2	85
15.9860	0.7012	183	Cyclohexane, 1,2,4,5-tetraethyl-, (1.alpha.,2.alpha.,4.alpha.,5.alpha.)-	61142-24-3	81
15.9865	0.7004	182	3-Hexene, 3-ethyl-2,5-dimethyl-	62338-08-3	81
10.2639	0.5972	155	Cyclobutanecarboxylic acid, 2-propenyl ester	1000282-60-3	83
10.2637	0.4087	106	3-Methyl-2-butenoic acid, cyclobutyl ester	1000282-89-1	86

Concentration estimated using the response for Anthracene-d10

Sample ID: 92996-R2

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
33.9646	2.5361	1111	Anthracene-D10-	1719-06-8	97
10.0725	10.0515	4404	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	93
10.0165	3.4565	1514	Octane, 3-methyl-6-methylene-	74630-07-2	85
10.1258	0.7264	318	Pyrrolidine	123-75-1	80
15.9872	0.6815	299	Cyclohexane, 1,2,4,5-tetraethyl-, (1.alpha.,2.alpha.,4.alpha.,5.alpha.)-	61142-24-3	82
42.4871	0.4845	212	Acenaphthylene	208-96-8	81
11.6025	0.3812	167	Heptane, 4,4-dimethyl-	1068-19-5	85
15.8153	0.3477	152	3-Hexene, 3-ethyl-2,5-dimethyl-	62338-08-3	84
10.2630	0.3431	150	3-Methyl-2-butenoic acid, cyclobutyl ester	1000282-89-1	87
10.2630	0.3421	150	4H-1,2,4-Triazole, 4-methyl-	10570-40-8	85
16.7640	0.2863	125	3-Octene, 2,2-dimethyl-	86869-76-3	85
12.5544	0.2824	124	Octane, 4,5-diethyl-	1636-41-5	84

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank Batch O-35006

RT	Area Pct	Concentration (ng/L)	Library/ID	Qual	Cas Number
34.3883	4.6720	1111	Anthracene-D10-	1517-22-2	95
10.0732	9.0513	2153	Cyclohexane, 1-methyl-2-propyl-	4291-79-6	93
10.0172	3.1540	750	Octane, 3-methyl-6-methylene-	74630-07-2	83
10.0172	3.0455	724	1-Hexene, 4,5-dimethyl-	16106-59-5	88
27.9883	0.8027	191	Benzene, 1,2,3,5-tetrachloro-4,6-dimethyl-	877-09-8	99
15.9887	0.6571	156	Cyclohexane, 1,2,4,5-tetraethyl-, (1.alpha.,2.alpha.,4.alpha.,5.alpha.)-	61142-24-3	84
10.2653	0.6060	144	Oxalic acid, cyclohexyl pentyl ester	1000309-30-6	89
10.3789	0.4604	109	4H-1,2,4-Triazol-3-amine, 4-methyl-	16681-76-8	83

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

eurofins | Eaton Analytical

Submittal Form

Date: 12/2/2021

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

Anaheim, CA 92806-6028

Phone: 714-602-5320 Fax:

Folder #: 972694
Report Due: 12/27/2021

*REPORTING REQUIRMENTS: *Do Not Combine Reports with any other samples submitted under different Folder Numbers!*
Report & Invoice must have the Folder # 972694 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**

- 8 containers per sample for MS/MSD batch QC. Only report to RL and place a comment in the report stating RL reporting only

RUSH needed

Sample ID	*Client Sample ID for reference onl*	Sample Date & Time	Matrix	Clip Code	PWSID
202112020116	HALAWA SHAFT-331-241-TP401	12/01/21 0956	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 12/2/21 Time 1633

Received by: Arturo Vargas Date 12/2/21 Time 16533

Relinquished by: Sample Control Arturo Vargas Date 12/2/21 Time 18.00

Received by: Meagan Rivera Date 12/2/21 Time 18:00

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn: Jackie Contreras

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: 1407003-194
Client Name: Eurofins Eaton Analytical
Project Name: Folder # 972694 Job # 1000014
COC Page Number: 2 of 2
Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: MVR
2. Date Received: 12/2/21
3. Time Received: 18:00
4. Client Name: DCS
5. Courier Information: (Please circle)
   - Client • UPS • Area Fast • DRS
   - FedEx • GSO/GLS • Ontrac • PAMS
   - PHYSIS Driver:
     i. Start Time:_____ iii. Total Mileage:_____
     ii. End Time:_____ iv. Number of Pickups:_____
6. Container Information: (Please put the # of containers or circle none)
   - 1 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 Used I/R Thermometer # 1-2

Inspection Info

1. Initials Inspected By: RGH

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: