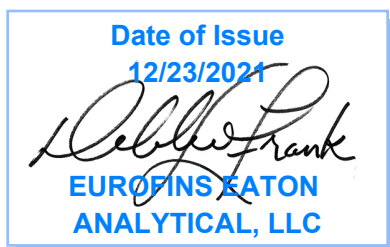


750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

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



Utah ELCP CA00006

DEB: Debbie L Frank
Project Manager

Report: 974328
Project: RED-HILL
Group: Red-Hill Expanded List (Albuquerque+)

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

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

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

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

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

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

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

STATE CERTIFICATION LIST

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

* NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025:2917 Accredited Method List

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

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

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

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

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

(+) In-House Method

Acknowledgement of Samples Received

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

Attn: Erwin Kawata
 Phone: 808-748-5091

Client ID: HONOLULU
 Folder #: 974328
 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 09, 2021 at 1145**. 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
202112100266	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	12/08/2021 0940
	Chloride	Fluoride
	Nitrite Nitrogen by IC	Sulfate
		Nitrate as Nitrogen by IC

Test Description



Eaton Analytical

CHAIN OF CUSTODY RECORD

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

EUROFINS EATON ANALYTICAL USE ONLY

LOGIN COMMENTS:

SAMPLES CHECKED AGAINST COC BY: JD

SAMPLES LOGGED IN BY: G

SAMPLE TEMP RECEIVED AT:

Colton / No. California / Arizona
 Monrovia

26 °C (Compliance: 4 ± 2 °C)
26 °C (Compliance: 4 ± 2 °C)

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

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

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

TO BE COMPLETED BY SAMPLER:

(check for yes) COMPLIANCE SAMPLES NON-COMPLIANCE SAMPLES (check for yes)

COMPLIANCE SAMPLES - Requires state forms

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

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

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

PROJECT CODE: **RED HILL**
 SAMPLE GROUP: **4Q2021**

STD ___ 1 wk ___ X ___ 3 day ___ 2 day ___ 1 day ___

CLIENT LAB ID: **HI0000331-202**
 MATRIX: **CFW**

SAMPLE DATE: **12/8/21**
 SAMPLE TIME: **0940**
 SAMPLE ID: **Aiea Gulch Wells P2**

TAT requested: **RUSH**

FIELD DATA

FIELD DATA

MATRIX

NO3

Anion

X

X

X

SAMPLER COMMENTS

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

SAMPLED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:		E Juagdan	BWS HONOLULU	12/8/21	0940
RECEIVED BY:		Joe Sanchez	BWS HONOLULU	12/8/21	1200
RECEIVED BY:			EEA	12/9/21	1145
RECEIVED BY:					



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 974328

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 = 631A (Observation = 2.8 °C) (Corr. Factor = -0.2 °C) (Final = 2.6 °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	>6mm	Test	Samp ID	Bottle #	None/<6	>6mm	Test

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

RECEIVED BY: _____ SIGNATURE _____ PRINT NAME _____ COMPANY/TITLE Eurofins Eaton Analytical DATE _____ TIME _____

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

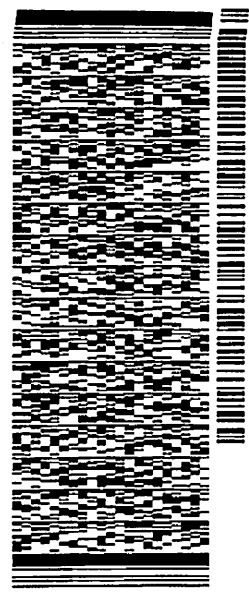
ORIGIN ID: HIKA (808) 748-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE: 08DEC21
ACTWGT: 12.00 LB
CAD: 100205419IN/NET/4400
BILL RECIPIENT

TO C CHUCK

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

56D.J3/E934/FE4A



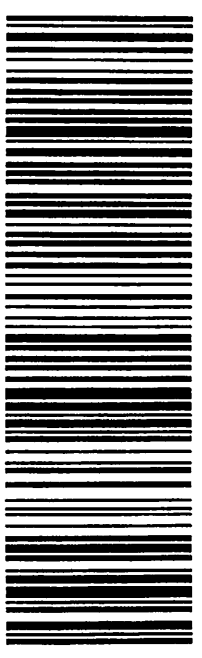
J212221101801LW

TRK# 7754 3475 3558
0201

THU - 09 DEC 11:30A
PRIORITY OVERNIGHT

WZ WHPA

91016
CAUS BUR



After printing this label:

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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

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

Laboratory Comments

Report: 974328
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

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

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

Samples Received on:
 12/09/2021 1145

Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
		202112100266				
		<u>AIEA GULCH WELLS PUMP 2 (331-202-TP072)</u>				
12/09/2021 16:35	Chloride		61	250	mg/L	1.0
12/09/2021 16:35	Nitrate as Nitrogen by IC		0.49	10	mg/L	0.10
12/09/2021 16:35	Sulfate		8.9	250	mg/L	0.025

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

Samples Received on:
 12/09/2021 1145

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
AIEA GULCH WELLS PUMP 2 (331-202-TP072) (202112100266)						Sampled on 12/08/2021 0940			
EPA 300.0 - Nitrate, Nitrite by EPA 300.0									
	12/09/21 16:35		1372720	(EPA 300.0)	Nitrate as Nitrogen by IC	0.49	mg/L	0.10	2
	12/09/21 16:35		1372720	(EPA 300.0)	Nitrite Nitrogen by IC	ND	mg/L	0.10	2
EPA 300.0 - Chloride, Sulfate by EPA 300.0									
	12/09/21 16:35		1372724	(EPA 300.0)	Chloride	61	mg/L	1.0	2
	12/09/21 16:35		1372724	(EPA 300.0)	Sulfate	8.9	mg/L	0.025	2
SM 4500F-C - Fluoride									
	12/16/21 22:38		1374195	(SM 4500F-C)	Fluoride	ND	mg/L	0.050	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.

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Report: 974328
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(Albuquerque+)

Honolulu Board of Water Supply

Nitrate, Nitrite by EPA 300.0

Analytical Batch: 1372720

202112100266 AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Analysis Date: 12/09/2021

Analyzed by: P6LW

Chloride, Sulfate by EPA 300.0

Analytical Batch: 1372724

202112100266 AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Analysis Date: 12/09/2021

Analyzed by: P6LW

Fluoride

Analytical Batch: 1374195

202112100266 AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Analysis Date: 12/16/2021

Analyzed by: D5MQ

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

Report: 974328
 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%
Nitrate, Nitrite by EPA 300.0 by EPA 300.0									
Analytical Batch: 1372720					Analysis Date: 12/09/2021				
LCS1	Nitrate as Nitrogen by IC		2.5	2.50	mg/L	100	(90-110)		
LCS2	Nitrate as Nitrogen by IC		2.5	2.47	mg/L	99	(90-110)	20	1.2
MBLK	Nitrate as Nitrogen by IC			<0.0042	mg/L				
MRL_CHK	Nitrate as Nitrogen by IC		0.05	0.0460	mg/L	92	(50-150)		
MS_202112090291	Nitrate as Nitrogen by IC	1.2	1.3	3.59	mg/L	94	(80-120)		
MS_202112090804	Nitrate as Nitrogen by IC	0.34	1.3	2.87	mg/L	101	(80-120)		
MSD_202112090291	Nitrate as Nitrogen by IC	1.2	1.3	3.80	mg/L	102	(80-120)	20	5.7
MSD_202112090804	Nitrate as Nitrogen by IC	0.34	1.3	2.92	mg/L	103	(80-120)	20	1.7
LCS1	Nitrite Nitrogen by IC		1	0.987	mg/L	99	(90-110)		
LCS2	Nitrite Nitrogen by IC		1	0.969	mg/L	97	(90-110)	20	1.8
MBLK	Nitrite Nitrogen by IC			<0.0050	mg/L				
MRL_CHK	Nitrite Nitrogen by IC		0.05	0.0494	mg/L	99	(50-150)		
MS_202112090291	Nitrite Nitrogen by IC	ND	0.5	0.818	mg/L	82	(80-120)		
MS_202112090804	Nitrite Nitrogen by IC	ND	0.5	0.963	mg/L	96	(80-120)		
MSD_202112090291	Nitrite Nitrogen by IC	ND	0.5	0.896	mg/L	90	(80-120)	20	9.1
MSD_202112090804	Nitrite Nitrogen by IC	ND	0.5	0.977	mg/L	98	(80-120)	20	1.5
Chloride, Sulfate by EPA 300.0 by EPA 300.0									
Analytical Batch: 1372724					Analysis Date: 12/09/2021				
LCS1	Chloride		25	26.0	mg/L	104	(90-110)		
LCS2	Chloride		25	25.8	mg/L	103	(90-110)	20	0.77
MBLK	Chloride			<0.1397	mg/L				
MRL_CHK	Chloride		0.5	0.457	mg/L	91	(50-150)		
MS_202112090291	Chloride	68	13	89.6	mg/L	87	(80-120)		
MS_202112090804	Chloride	16	13	43.7	mg/L	109	(80-120)		
MSD_202112090291	Chloride	68	13	91.6	mg/L	95	(80-120)	20	2.2
MSD_202112090804	Chloride	16	13	44.2	mg/L	111	(80-120)	20	1.1
LCS1	Sulfate		50	51.5	mg/L	103	(90-110)		
LCS2	Sulfate		50	51.0	mg/L	102	(90-110)	20	0.98
MBLK	Sulfate			<0.0614	mg/L				
MRL_CHK	Sulfate		1	0.976	mg/L	98	(50-150)		
MRLW	Sulfate		0.25	0.251	mg/L	101	(50-150)		
MS_202112090291	Sulfate	70	25	118	mg/L	97	(80-120)		
MS_202112090804	Sulfate	42	25	95.5	mg/L	106	(80-120)		
MSD_202112090291	Sulfate	70	25	123	mg/L	105	(80-120)	20	3.8
MSD_202112090804	Sulfate	42	25	96.5	mg/L	108	(80-120)	20	1.0

Spike recovery is already corrected for native results.

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

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

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

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

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 974328
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%
Fluoride by SM 4500F-C									
Analytical Batch: 1374195					Analysis Date: 12/16/2021				
LCS1	Fluoride		1	1.00	mg/L	100	(90-110)		
LCS2	Fluoride		1	1.00	mg/L	100	(90-110)	20	0.0
MBLK	Fluoride			<0.025	mg/L				
MRL_CHK	Fluoride		0.05	0.0494	mg/L	99	(50-150)		
MS_202112100736	Fluoride	0.68	1	1.72	mg/L	105	(80-120)		
MS_202112130293	Fluoride	0.32	1	1.32	mg/L	100	(80-120)		
MSD_202112100736	Fluoride	0.68	1	1.74	mg/L	107	(80-120)	20	0.98
MSD_202112130293	Fluoride	0.32	1	1.34	mg/L	102	(80-120)	20	1.2

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

Samples Received on:
 12/09/2021 1145

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		202112100266				
		<u>AIEA GULCH WELLS PUMP 2 (331-202-TP072)</u>				
12/09/2021 16:35	Chloride		61	250	mg/L	1.0
12/09/2021 16:35	Nitrate as Nitrogen by IC		0.49	10	mg/L	0.10
12/09/2021 16:35	Sulfate		8.9	250	mg/L	0.025