eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

Generated 8/8/2024 9:24:04 AM

JOB DESCRIPTION

RED-HILL

JOB NUMBER

380-104482-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

myEOL

Eurofins Eaton Analytical Pomona

Job Notes

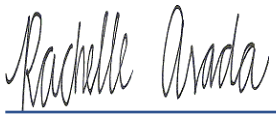
This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization



Generated
8/8/2024 9:24:04 AM

Authorized for release by
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106

Table of Contents

Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-104482-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/17/2024 10:06 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.1°C, 1.3°C, 1.4°C and 2.9°C.

GC/MS Semi VOA
Method 525.2_PREC: The matrix spike (MS) recovery for preparation batch 380-99826 and analytical batch 380-100060 were outside control limits for Anthracene. Non-homogeneity or matrix interferences is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Client Sample ID: MOANALUA WELLS — Lab Sample ID: 380-104482-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.024		0.0097		ug/L	1		525.2	Total/NA

Client Sample ID: TB: MOANALUA WELLS — Lab Sample ID: 380-104482-2

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 — Lab Sample ID: 380-104482-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dieldrin	0.041		0.0097		ug/L	1		525.2	Total/NA

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1 — Lab Sample ID: 380-104482-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Client Sample ID: MOANALUA WELLS

Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-1

Matrix: Drinking Water

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2,4'-DDD	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2,4'-DDE	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2,4'-DDT	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2,6-Dinitrotoluene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
2-Methylnaphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
4,4'-DDD	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
4,4'-DDE	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
4,4'-DDT	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Acenaphthene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Acenaphthylene	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Acetochlor	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Alachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
alpha-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
alpha-Chlordane	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Anthracene	<0.019	*1 F1	0.019		ug/L		07/21/24 11:17	07/22/24 11:57	1
Atrazine	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Benz(a)anthracene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Benzo[a]pyrene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 11:57	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 11:57	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 11:57	1
beta-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		07/21/24 11:17	07/22/24 11:57	1
Bromacil	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Butachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Butylbenzylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 11:57	1
Chlorobenzilate	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Chloroneb	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Chlorpyrifos	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Chrysene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 11:57	1
delta-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		07/21/24 11:17	07/22/24 11:57	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Dieldrin	**0.024**		0.0097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Diethylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 11:57	1
Dimethylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 11:57	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		07/21/24 11:17	07/22/24 11:57	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Endosulfan I (Alpha)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Endosulfan sulfate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Endrin	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Endrin aldehyde	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
EPTC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Fluoranthene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1

Client Sample ID: MOANALUA WELLS
Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-1
Matrix: Drinking Water

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
gamma-Chlordane	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Heptachlor	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Hexachlorobenzene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Isophorone	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Lindane	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Malathion	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Methoxychlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Metolachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Molinate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Naphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Parathion	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Phenanthrene	<0.039		0.039		ug/L		07/21/24 11:17	07/22/24 11:57	1
Propachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Pyrene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Simazine	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Terbacil	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Terbuthylazine	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Thiobencarb	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		07/21/24 11:17	07/22/24 11:57	1
trans-Nonachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 11:57	1
Trifluralin	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 11:57	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*07/21/24 11:17*	*07/22/24 11:57*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*91*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:57*	*1*
Perylene-d12	*92*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:57*	*1*
Triphenylphosphate	*99*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:57*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
2-Methylnaphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Acenaphthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Acenaphthylene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Benzo[a]anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Benzo[a]pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Benzo[b]fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Benzo[g,h,i]perylene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Benzo[k]fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Chrysene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Dibenz(a,h)anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1

Client Sample ID: MOANALUA WELLS

Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-1

Matrix: Drinking Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Naphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Phenanthrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1
Pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*75*		*28 - 127*	*07/22/24 05:34*	*07/24/24 14:23*	*1*
2-Fluorobiphenyl (Surr)	*60*		*31 - 120*	*07/22/24 05:34*	*07/24/24 14:23*	*1*
2-Fluorophenol (Surr)	*38*		*17 - 120*	*07/22/24 05:34*	*07/24/24 14:23*	*1*
Nitrobenzene-d5 (Surr)	*62*		*27 - 120*	*07/22/24 05:34*	*07/24/24 14:23*	*1*
Phenol-d6 (Surr)	*26*		*10 - 120*	*07/22/24 05:34*	*07/24/24 14:23*	*1*
p-Terphenyl-d14 (Surr)	*66*		*45 - 120*	*07/22/24 05:34*	*07/24/24 14:23*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane, 1-methyl-2-propyl-	*22*	*T J N*	*ug/L*		*3.17*	*4291-79-6*	*07/22/24 05:34*	*08/06/24 20:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*33 - 139*	*07/22/24 05:34*	*08/06/24 20:37*	*1*
2-Fluorobiphenyl (Surr)	*73*		*33 - 126*	*07/22/24 05:34*	*08/06/24 20:37*	*1*
2-Fluorophenol (Surr)	*53*		*12 - 120*	*07/22/24 05:34*	*08/06/24 20:37*	*1*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*	*07/22/24 05:34*	*08/06/24 20:37*	*1*
Phenol-d6 (Surr)	*32*		*10 - 120*	*07/22/24 05:34*	*08/06/24 20:37*	*1*
p-Terphenyl-d14 (Surr)	*77*		*47 - 131*	*07/22/24 05:34*	*08/06/24 20:37*	*1*

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			07/24/24 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*38 - 134*		*07/24/24 13:38*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26		ug/L		07/19/24 14:26	07/25/24 09:51	1
Motor Oil Range Organics [C24-C36]	<26		26		ug/L		07/19/24 14:26	07/25/24 09:51	1
C8-C18	<26		26		ug/L		07/19/24 14:26	07/25/24 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*102*		*60 - 130*	*07/19/24 14:26*	*07/25/24 09:51*	*1*

Client Sample ID: TB: MOANALUA WELLS

Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-2

Matrix: Water

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			07/24/24 19:34	1

Client Sample ID: TB: MOANALUA WELLS

Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*91*		*38 - 134*		*07/24/24 19:34*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-3
Matrix: Drinking Water

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2,4'-DDD	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2,4'-DDE	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2,4'-DDT	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2,4-Dinitrotoluene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2,6-Dinitrotoluene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
2-Methylnaphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
4,4'-DDD	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
4,4'-DDE	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
4,4'-DDT	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Acenaphthene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Acenaphthylene	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Acetochlor	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Alachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
alpha-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
alpha-Chlordane	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Anthracene	<0.019	*1	0.019		ug/L		07/21/24 11:17	07/22/24 12:37	1
Atrazine	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Benz(a)anthracene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Benzo[a]pyrene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 12:37	1
Benzo[b]fluoranthene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 12:37	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Benzo[k]fluoranthene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 12:37	1
beta-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Bis(2-ethylhexyl) phthalate	<0.58		0.58		ug/L		07/21/24 11:17	07/22/24 12:37	1
Bromacil	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Butachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Butylbenzylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 12:37	1
Chlorobenzilate	<0.097	*1	0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Chloroneb	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Chlorothalonil (Draconil, Bravo)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Chlorpyrifos	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Chrysene	<0.019		0.019		ug/L		07/21/24 11:17	07/22/24 12:37	1
delta-BHC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Di(2-ethylhexyl)adipate	<0.58		0.58		ug/L		07/21/24 11:17	07/22/24 12:37	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Dieldrin	**0.041**		0.0097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Diethylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 12:37	1
Dimethylphthalate	<0.49		0.49		ug/L		07/21/24 11:17	07/22/24 12:37	1
Di-n-butyl phthalate	<0.97		0.97		ug/L		07/21/24 11:17	07/22/24 12:37	1
Di-n-octyl phthalate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-3
Matrix: Drinking Water

Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I (Alpha)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Endosulfan II (Beta)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Endosulfan sulfate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Endrin	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Endrin aldehyde	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
EPTC	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Fluoranthene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Fluorene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
gamma-Chlordane	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Heptachlor	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Heptachlor epoxide (isomer B)	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Hexachlorobenzene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Isophorone	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Lindane	<0.0097		0.0097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Malathion	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Methoxychlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Metolachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Molinate	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Naphthalene	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Parathion	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Pendimethalin (Penoxaline)	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Phenanthrene	<0.039		0.039		ug/L		07/21/24 11:17	07/22/24 12:37	1
Propachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Pyrene	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Simazine	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Terbacil	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Terbuthylazine	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Thiobencarb	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1
Total Permethrin (mixed isomers)	<0.19		0.19		ug/L		07/21/24 11:17	07/22/24 12:37	1
trans-Nonachlor	<0.049		0.049		ug/L		07/21/24 11:17	07/22/24 12:37	1
Trifluralin	<0.097		0.097		ug/L		07/21/24 11:17	07/22/24 12:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*07/21/24 11:17*	*07/22/24 12:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*94*		*70 - 130*	*07/21/24 11:17*	*07/22/24 12:37*	*1*
Perylene-d12	*84*		*70 - 130*	*07/21/24 11:17*	*07/22/24 12:37*	*1*
Triphenylphosphate	*102*		*70 - 130*	*07/21/24 11:17*	*07/22/24 12:37*	*1*

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
2-Methylnaphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Acenaphthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Acenaphthylene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Benzo[a]anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-3
Matrix: Drinking Water

Method: EPA 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Benzo[b]fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Benzo[g,h,i]perylene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Benzo[k]fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Chrysene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Dibenz(a,h)anthracene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Fluoranthene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Fluorene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Indeno[1,2,3-cd]pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Naphthalene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Phenanthrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1
Pyrene	<0.19		0.19		ug/L		07/22/24 05:34	07/24/24 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*28 - 127*	*07/22/24 05:34*	*07/24/24 15:28*	*1*
2-Fluorobiphenyl (Surr)	*66*		*31 - 120*	*07/22/24 05:34*	*07/24/24 15:28*	*1*
2-Fluorophenol (Surr)	*41*		*17 - 120*	*07/22/24 05:34*	*07/24/24 15:28*	*1*
Nitrobenzene-d5 (Surr)	*66*		*27 - 120*	*07/22/24 05:34*	*07/24/24 15:28*	*1*
Phenol-d6 (Surr)	*26*		*10 - 120*	*07/22/24 05:34*	*07/24/24 15:28*	*1*
p-Terphenyl-d14 (Surr)	*66*		*45 - 120*	*07/22/24 05:34*	*07/24/24 15:28*	*1*

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*07/22/24 05:34*	*08/06/24 21:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*79*		*33 - 139*	*07/22/24 05:34*	*08/06/24 21:00*	*1*
2-Fluorobiphenyl (Surr)	*73*		*33 - 126*	*07/22/24 05:34*	*08/06/24 21:00*	*1*
2-Fluorophenol (Surr)	*53*		*12 - 120*	*07/22/24 05:34*	*08/06/24 21:00*	*1*
Nitrobenzene-d5 (Surr)	*76*		*36 - 120*	*07/22/24 05:34*	*08/06/24 21:00*	*1*
Phenol-d6 (Surr)	*33*		*10 - 120*	*07/22/24 05:34*	*08/06/24 21:00*	*1*
p-Terphenyl-d14 (Surr)	*75*		*47 - 131*	*07/22/24 05:34*	*08/06/24 21:00*	*1*

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			07/24/24 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*38 - 134*		*07/24/24 14:56*	*1*

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) Low Level

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<26		26		ug/L		07/19/24 14:26	07/25/24 10:53	1
Motor Oil Range Organics [C24-C36]	<26		26		ug/L		07/19/24 14:26	07/25/24 10:53	1
C8-C18	<26		26		ug/L		07/19/24 14:26	07/25/24 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*99*		*60 - 130*	*07/19/24 14:26*	*07/25/24 10:53*	*1*

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-4
Matrix: Water

Method: SW846 8015B GRO LL - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			07/24/24 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*38 - 134*		*07/24/24 20:00*	*1*

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Client Sample ID: MOANALUA WELLS — Lab Sample ID: 380-104482-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 — Lab Sample ID: 380-104482-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Alachlor	<0.049		ug/L	2	0.049	525.2	Total/NA
Atrazine	<0.049		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.019		ug/L	0.2	0.019	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.58		ug/L	6	0.58	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.58		ug/L	400	0.58	525.2	Total/NA
Endrin	<0.0097		ug/L	2	0.0097	525.2	Total/NA
Heptachlor	<0.0097		ug/L	0.4	0.0097	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Hexachlorobenzene	<0.049		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	<0.049		ug/L	50	0.049	525.2	Total/NA
Lindane	<0.0097		ug/L	0.2	0.0097	525.2	Total/NA
Methoxychlor	<0.049		ug/L	40	0.049	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA
Benzo[a]pyrene	<0.19		ug/L	0.2	0.19	625.1 SIM	Total/NA

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-104482-1	MOANALUA WELLS	91	92	99
380-104482-1 MS	MOANALUA WELLS	91	95	106
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	94	84	102

Surrogate Legend

2NMX 2 Nitro m xylene
PRY = Perylene-d12
TPP = Triphenylphosphate

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	PRY	TPP
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-104648-F-1-A DU	Duplicate	92	93	103
LCS 380-99826/23-A	Lab Control Sample	99	97	98
LCSD 380-99826/24-A	Lab Control Sample Dup	99	96	101
MB 380-99826/21-A	Method Blank	89	87	98
MRL 380-99826/22-A	Lab Control Sample	100	93	92

Surrogate Legend

2NMX = 2-Nitro-m-xylene
PRY = Perylene-d12
TPP = Triphenylphosphate

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
380-104482-1	MOANALUA WELLS	93	73	53	74	32	77
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	79	73	53	76	33	75

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(33-139)	(33-126)	(12-120)	(36-120)	(10-120)	(47-131)
MB 570-462447/1-A	Method Blank	104	84	61	81	38	101

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(28-127)	(31-120)	(17-120)	(27-120)	(10-120)	(45-120)
380-104482-1	MOANALUA WELLS	75	60	38	62	26	66
380-104482-1 MS	MOANALUA WELLS	71	62	39	51	27	70
380-104482-1 MSD	MOANALUA WELLS	79	64	41	52	29	77
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	76	66	41	66	26	66
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	75	63	42	53	29	75
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	75	66	48	58	32	73

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(28-127)	(31-120)	(17-120)	(27-120)	(10-120)	(45-120)
LCS 570-462447/2-A	Lab Control Sample	81	73	51	61	35	83
LCSD 570-462447/3-A	Lab Control Sample Dup	82	73	52	62	36	83
MB 570-462447/1-A	Method Blank	93	73	48	74	32	87

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(38-134)
380-104482-1	MOANALUA WELLS	75
380-104482-1 MS	MOANALUA WELLS	96
380-104482-1 MSD	MOANALUA WELLS	99

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-104482-3	HALAWA WELLS UNITS 1 & 2 F	82
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	98
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB1 (38-134)
380-104482-2	TB: MOANALUA WELLS	91
380-104482-4	TB: HALAWA WELLS UNITS 1 & 2 P1	83
LCS 570-463483/4	Lab Control Sample	101
LCSD 570-463483/5	Lab Control Sample Dup	97
MB 570-463483/6	Method Blank	92
MRL 570-463483/3	Lab Control Sample	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Drinking Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
380-104482-1	MOANALUA WELLS	102
380-104482-1 MS	MOANALUA WELLS	99
380-104482-1 MSD	MOANALUA WELLS	101
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	99
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	105
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	99

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTCSN1 (60-130)
LCS 570-462111/2-A	Lab Control Sample	97
LCSD 570-462111/3-A	Lab Control Sample Dup	101
MB 570-462111/1-A	Method Blank	97

Surrogate Summary

Client: City & County of Honolulu
Job ID: 380-104482-1
Project/Site: RED-HILL

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		OTCSN1							
Lab Sample ID	Client Sample ID	(60-130)							
MRL 570-462111/4-A	Lab Control Sample	101							

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 380-99826/21-A
Matrix: Water
Analysis Batch: 100060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99826

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2,4'-DDD	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2,4'-DDE	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2,4'-DDT	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
2-Methylnaphthalene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
4,4'-DDD	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
4,4'-DDE	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
4,4'-DDT	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Acenaphthene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Acenaphthylene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Acetochlor	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Alachlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
alpha-BHC	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
alpha-Chlordane	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Anthracene	<0.020		0.020		ug/L		07/21/24 11:17	07/22/24 11:37	1
Atrazine	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Benz(a)anthracene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Benzo[a]pyrene	<0.020		0.020		ug/L		07/21/24 11:17	07/22/24 11:37	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		07/21/24 11:17	07/22/24 11:37	1
Benzo[g,h,i]perylene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		07/21/24 11:17	07/22/24 11:37	1
beta-BHC	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60		ug/L		07/21/24 11:17	07/22/24 11:37	1
Bromacil	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Butachlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Butylbenzylphthalate	<0.50		0.50		ug/L		07/21/24 11:17	07/22/24 11:37	1
Chlorobenzilate	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Chloroneb	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Chlorothalonil (Draconil, Bravo)	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Chlorpyrifos	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Chrysene	<0.020		0.020		ug/L		07/21/24 11:17	07/22/24 11:37	1
delta-BHC	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Di(2-ethylhexyl)adipate	<0.60		0.60		ug/L		07/21/24 11:17	07/22/24 11:37	1
Dibenz(a,h)anthracene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Diclorvos (DDVP)	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Dieldrin	<0.0099		0.0099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Diethylphthalate	<0.50		0.50		ug/L		07/21/24 11:17	07/22/24 11:37	1
Dimethylphthalate	<0.50		0.50		ug/L		07/21/24 11:17	07/22/24 11:37	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		07/21/24 11:17	07/22/24 11:37	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Endosulfan sulfate	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Endrin	<0.0099		0.0099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Endrin aldehyde	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
EPTC	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 380-99826/21-A
Matrix: Water
Analysis Batch: 100060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 99826

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Fluorene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
gamma-Chlordane	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Heptachlor	<0.0099		0.0099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Heptachlor epoxide (isomer B)	<0.0099		0.0099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Hexachlorobenzene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Hexachlorocyclopentadiene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Isophorone	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Lindane	<0.0099		0.0099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Malathion	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Methoxychlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Metolachlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Molinate	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Naphthalene	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Parathion	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Phenanthrene	<0.040		0.040		ug/L		07/21/24 11:17	07/22/24 11:37	1
Propachlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Pyrene	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Simazine	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Terbacil	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Terbuthylazine	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Thiobencarb	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		07/21/24 11:17	07/22/24 11:37	1
trans-Nonachlor	<0.050		0.050		ug/L		07/21/24 11:17	07/22/24 11:37	1
Trifluralin	<0.099		0.099		ug/L		07/21/24 11:17	07/22/24 11:37	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.611*	*T J*	*ug/L*		*2.31*	*N/A*	*07/21/24 11:17*	*07/22/24 11:37*	*1*
Unknown	*0.579*	*T J*	*ug/L*		*2.40*	*N/A*	*07/21/24 11:17*	*07/22/24 11:37*	*1*
Decane	*1.89*	*T J N*	*ug/L*		*2.51*	*124-18-5*	*07/21/24 11:17*	*07/22/24 11:37*	*1*
Unknown	*1.33*	*T J*	*ug/L*		*11.45*	*N/A*	*07/21/24 11:17*	*07/22/24 11:37*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*89*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:37*	*1*
Perylene-d12	*87*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:37*	*1*
Triphenylphosphate	*98*		*70 - 130*	*07/21/24 11:17*	*07/22/24 11:37*	*1*

Lab Sample ID: LCS 380-99826/23-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.98	1.65		ug/L		83	70 - 130
2,4'-DDD	1.98	1.64		ug/L		83	70 - 130
2,4'-DDE	1.98	1.60		ug/L		81	70 - 130
2,4'-DDT	1.98	1.78		ug/L		90	70 - 130

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-99826/23-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.98	1.45		ug/L		73	70 - 130
2,6-Dinitrotoluene	1.98	1.48		ug/L		74	70 - 130
2-Methylnaphthalene	1.98	1.73		ug/L		87	70 - 130
4,4'-DDD	1.98	1.70		ug/L		86	70 - 130
4,4'-DDE	1.98	1.59		ug/L		80	70 - 130
4,4'-DDT	1.98	1.62		ug/L		82	70 - 130
Acenaphthene	1.98	1.60		ug/L		81	70 - 130
Acenaphthylene	1.98	1.58		ug/L		80	70 - 130
Acetochlor	1.98	1.91		ug/L		96	70 - 130
Alachlor	1.98	1.82		ug/L		92	70 - 130
alpha-BHC	1.98	1.70		ug/L		86	70 - 130
alpha-Chlordane	1.98	1.83		ug/L		92	70 - 130
Anthracene	1.98	1.67		ug/L		84	70 - 130
Atrazine	1.98	1.66		ug/L		84	70 - 130
Benz(a)anthracene	1.98	1.62		ug/L		82	70 - 130
Benzo[a]pyrene	1.98	1.83		ug/L		92	70 - 130
Benzo[b]fluoranthene	1.98	1.79		ug/L		90	70 - 130
Benzo[g,h,i]perylene	1.98	1.93		ug/L		97	70 - 130
Benzo[k]fluoranthene	1.98	1.86		ug/L		94	70 - 130
beta-BHC	1.98	1.68		ug/L		85	70 - 130
Bis(2-ethylhexyl) phthalate	1.98	2.15		ug/L		109	70 - 130
Bromacil	1.98	1.51		ug/L		76	70 - 130
Butachlor	1.98	1.78		ug/L		90	70 - 130
Butylbenzylphthalate	1.98	1.75		ug/L		88	70 - 130
Chlorobenzilate	1.98	1.63		ug/L		82	70 - 130
Chloroneb	1.98	1.61		ug/L		81	70 - 130
Chlorothalonil (Draconil, Bravo)	1.98	1.52		ug/L		77	70 - 130
Chlorpyrifos	1.98	1.76		ug/L		89	70 - 130
Chrysene	1.98	1.71		ug/L		86	70 - 130
delta-BHC	1.98	1.75		ug/L		88	70 - 130
Di(2-ethylhexyl)adipate	1.98	1.90		ug/L		96	70 - 130
Dibenz(a,h)anthracene	1.98	1.97		ug/L		99	70 - 130
Diclorvos (DDVP)	1.98	1.75		ug/L		88	70 - 130
Dieldrin	1.98	1.60		ug/L		81	70 - 130
Diethylphthalate	1.98	1.76		ug/L		89	70 - 130
Dimethylphthalate	1.98	1.82		ug/L		92	70 - 130
Di-n-butyl phthalate	3.96	3.48		ug/L		88	70 - 130
Di-n-octyl phthalate	1.98	1.91		ug/L		97	70 - 130
Endosulfan I (Alpha)	1.98	1.74		ug/L		88	70 - 130
Endosulfan II (Beta)	1.98	1.82		ug/L		92	70 - 130
Endosulfan sulfate	1.98	1.66		ug/L		84	70 - 130
Endrin	1.98	1.56		ug/L		79	70 - 130
Endrin aldehyde	1.98	1.19		ug/L		60	60 - 130
EPTC	1.98	1.82		ug/L		92	70 - 130
Fluoranthene	1.98	1.72		ug/L		87	70 - 130
Fluorene	1.98	1.69		ug/L		85	70 - 130
gamma-Chlordane	1.98	1.86		ug/L		94	70 - 130
Heptachlor	1.98	1.74		ug/L		88	70 - 130
Heptachlor epoxide (isomer B)	1.98	1.83		ug/L		92	70 - 130

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 380-99826/23-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.98	1.43		ug/L		72	70 - 130
Hexachlorocyclopentadiene	1.98	1.52		ug/L		77	70 - 130
Indeno[1,2,3-cd]pyrene	1.98	2.01		ug/L		101	70 - 130
Isophorone	1.98	1.80		ug/L		91	70 - 130
Lindane	1.98	1.67		ug/L		84	70 - 130
Malathion	1.98	1.76		ug/L		89	70 - 130
Methoxychlor	1.98	1.73		ug/L		87	70 - 130
Metolachlor	1.98	1.90		ug/L		96	70 - 130
Molinate	1.98	1.85		ug/L		93	70 - 130
Naphthalene	1.98	1.70		ug/L		86	70 - 130
Parathion	1.98	1.84		ug/L		93	70 - 130
Pendimethalin (Penoxaline)	1.98	1.53		ug/L		77	70 - 130
Phenanthrene	1.98	1.60		ug/L		81	70 - 130
Propachlor	1.98	1.68		ug/L		85	70 - 130
Pyrene	1.98	1.68		ug/L		85	70 - 130
Simazine	1.98	1.80		ug/L		91	70 - 130
Terbacil	1.98	1.82		ug/L		92	70 - 130
Terbuthylazine	1.98	1.83		ug/L		92	70 - 130
Thiobencarb	1.98	1.83		ug/L		92	70 - 130
trans-Nonachlor	1.98	1.82		ug/L		92	70 - 130
Trifluralin	1.98	1.45		ug/L		73	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*97*		*70 - 130*
Triphenylphosphate	*98*		*70 - 130*

Lab Sample ID: LCSD 380-99826/24-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	1.98	1.92		ug/L		97	70 - 130	15	20
2,4'-DDD	1.98	1.90		ug/L		96	70 - 130	15	20
2,4'-DDE	1.98	1.81		ug/L		91	70 - 130	12	20
2,4'-DDT	1.98	1.98		ug/L		100	70 - 130	11	20
2,4-Dinitrotoluene	1.98	1.72		ug/L		87	70 - 130	17	20
2,6-Dinitrotoluene	1.98	1.76		ug/L		89	70 - 130	18	20
2-Methylnaphthalene	1.98	2.02		ug/L		102	70 - 130	15	20
4,4'-DDD	1.98	1.99		ug/L		101	70 - 130	16	20
4,4'-DDE	1.98	1.81		ug/L		92	70 - 130	13	20
4,4'-DDT	1.98	1.82		ug/L		92	70 - 130	12	20
Acenaphthene	1.98	1.80		ug/L		91	70 - 130	12	20
Acenaphthylene	1.98	1.97	*1	ug/L		99	70 - 130	22	20
Acetochlor	1.98	2.19		ug/L		110	70 - 130	14	20
Alachlor	1.98	2.06		ug/L		104	70 - 130	13	20
alpha-BHC	1.98	1.94		ug/L		98	70 - 130	13	20
alpha-Chlordane	1.98	2.10		ug/L		106	70 - 130	14	20

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-99826/24-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	1.98	2.06	*1	ug/L		104	70 - 130	21	20
Atrazine	1.98	1.92		ug/L		97	70 - 130	15	20
Benz(a)anthracene	1.98	1.91		ug/L		96	70 - 130	16	20
Benzo[a]pyrene	1.98	2.13		ug/L		108	70 - 130	15	20
Benzo[b]fluoranthene	1.98	2.03		ug/L		103	70 - 130	13	20
Benzo[g,h,i]perylene	1.98	2.03		ug/L		103	70 - 130	5	20
Benzo[k]fluoranthene	1.98	2.14		ug/L		108	70 - 130	14	20
beta-BHC	1.98	1.95		ug/L		99	70 - 130	15	20
Bis(2-ethylhexyl) phthalate	1.98	2.17		ug/L		109	70 - 130	1	20
Bromacil	1.98	1.86	*1	ug/L		94	70 - 130	21	20
Butachlor	1.98	2.09		ug/L		105	70 - 130	16	20
Butylbenzylphthalate	1.98	2.07		ug/L		105	70 - 130	17	20
Chlorobenzilate	1.98	2.02	*1	ug/L		102	70 - 130	22	20
Chloroneb	1.98	1.89		ug/L		95	70 - 130	16	20
Chlorothalonil (Draconil, Bravo)	1.98	1.86		ug/L		94	70 - 130	20	20
Chlorpyrifos	1.98	1.98		ug/L		100	70 - 130	12	20
Chrysene	1.98	1.98		ug/L		100	70 - 130	15	20
delta-BHC	1.98	2.04		ug/L		103	70 - 130	15	20
Di(2-ethylhexyl)adipate	1.98	1.99		ug/L		101	70 - 130	5	20
Dibenz(a,h)anthracene	1.98	1.95		ug/L		98	70 - 130	1	20
Diclorvos (DDVP)	1.98	2.02		ug/L		102	70 - 130	14	20
Dieldrin	1.98	1.85		ug/L		93	70 - 130	15	20
Diethylphthalate	1.98	1.99		ug/L		101	70 - 130	13	20
Dimethylphthalate	1.98	2.09		ug/L		106	70 - 130	14	20
Di-n-butyl phthalate	3.96	3.96		ug/L		100	70 - 130	13	20
Di-n-octyl phthalate	1.98	1.91		ug/L		97	70 - 130	0	20
Endosulfan I (Alpha)	1.98	2.04		ug/L		103	70 - 130	15	20
Endosulfan II (Beta)	1.98	2.08		ug/L		105	70 - 130	13	20
Endosulfan sulfate	1.98	1.91		ug/L		97	70 - 130	14	20
Endrin	1.98	1.72		ug/L		87	70 - 130	10	20
Endrin aldehyde	1.98	1.23		ug/L		62	60 - 130	3	20
EPTC	1.98	2.08		ug/L		105	70 - 130	13	20
Fluoranthene	1.98	2.06		ug/L		104	70 - 130	18	20
Fluorene	1.98	1.95		ug/L		99	70 - 130	15	20
gamma-Chlordane	1.98	2.16		ug/L		109	70 - 130	15	20
Heptachlor	1.98	1.94		ug/L		98	70 - 130	11	20
Heptachlor epoxide (isomer B)	1.98	2.13		ug/L		107	70 - 130	15	20
Hexachlorobenzene	1.98	1.73		ug/L		87	70 - 130	19	20
Hexachlorocyclopentadiene	1.98	1.80		ug/L		91	70 - 130	17	20
Indeno[1,2,3-cd]pyrene	1.98	2.08		ug/L		105	70 - 130	4	20
Isophorone	1.98	2.04		ug/L		103	70 - 130	13	20
Lindane	1.98	1.92		ug/L		97	70 - 130	14	20
Malathion	1.98	2.03		ug/L		103	70 - 130	14	20
Methoxychlor	1.98	1.99		ug/L		101	70 - 130	14	20
Metolachlor	1.98	2.26		ug/L		114	70 - 130	17	20
Molinate	1.98	2.11		ug/L		107	70 - 130	13	20
Naphthalene	1.98	1.88		ug/L		95	70 - 130	10	20
Parathion	1.98	2.18		ug/L		110	70 - 130	17	20
Pendimethalin (Penoxaline)	1.98	1.80		ug/L		91	70 - 130	16	20

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 380-99826/24-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 99826

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene			1.98	1.86		ug/L		94	70 - 130	15	20
Propachlor			1.98	1.95		ug/L		98	70 - 130	14	20
Pyrene			1.98	2.01		ug/L		102	70 - 130	18	20
Simazine			1.98	2.07		ug/L		105	70 - 130	14	20
Terbacil			1.98	2.20		ug/L		111	70 - 130	19	20
Terbuthylazine			1.98	2.09		ug/L		106	70 - 130	14	20
Thiobencarb			1.98	2.11		ug/L		107	70 - 130	14	20
trans-Nonachlor			1.98	1.95		ug/L		98	70 - 130	7	20
Trifluralin			1.98	1.70		ug/L		86	70 - 130	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*96*		*70 - 130*
Triphenylphosphate	*101*		*70 - 130*

Lab Sample ID: MRL 380-99826/22-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
1-Methylnaphthalene			0.0992	0.110		ug/L		111	50 - 150		
2,4'-DDD			0.0992	0.103		ug/L		104	50 - 150		
2,4'-DDE			0.0992	0.103		ug/L		104	50 - 150		
2,4'-DDT			0.0992	0.101		ug/L		102	50 - 150		
2,4-Dinitrotoluene			0.0992	0.102		ug/L		103	50 - 150		
2,6-Dinitrotoluene			0.0992	0.102		ug/L		103	50 - 150		
2-Methylnaphthalene			0.0992	0.104		ug/L		105	50 - 150		
4,4'-DDD			0.0992	0.102		ug/L		103	50 - 150		
4,4'-DDE			0.0992	0.0909	J	ug/L		92	50 - 150		
4,4'-DDT			0.0992	0.0956	J	ug/L		96	50 - 150		
Acenaphthene			0.0992	0.0929	J	ug/L		94	50 - 150		
Acenaphthylene			0.0992	0.0794	J	ug/L		80	50 - 150		
Acetochlor			0.0992	0.117		ug/L		118	50 - 150		
Alachlor			0.0496	0.0620		ug/L		125	50 - 150		
alpha-BHC			0.0992	0.104		ug/L		105	50 - 150		
alpha-Chlordane			0.0248	<0.029		ug/L		83	50 - 150		
Anthracene			0.0198	0.0198	J	ug/L		100	50 - 150		
Atrazine			0.0496	<0.048		ug/L		96	50 - 150		
Benz(a)anthracene			0.0496	0.0534		ug/L		108	50 - 150		
Benzo[a]pyrene			0.0198	0.0188	J	ug/L		95	50 - 150		
Benzo[b]fluoranthene			0.0198	0.0195	J	ug/L		98	50 - 150		
Benzo[g,h,i]perylene			0.0496	0.0469	J	ug/L		95	50 - 150		
Benzo[k]fluoranthene			0.0198	0.0207		ug/L		105	50 - 150		
beta-BHC			0.0992	0.112		ug/L		112	50 - 150		
Bis(2-ethylhexyl) phthalate			0.595	0.618		ug/L		104	50 - 150		
Bromacil			0.0992	0.100		ug/L		101	50 - 150		
Butachlor			0.0496	0.0534		ug/L		108	50 - 150		
Butylbenzylphthalate			0.496	0.483	J	ug/L		97	50 - 150		

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-99826/22-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	0.0992	0.0922	J	ug/L		93	50 - 150
Chloroneb	0.0992	0.117		ug/L		118	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0992	0.106		ug/L		107	50 - 150
Chlorpyrifos	0.0496	0.0526		ug/L		106	50 - 150
Chrysene	0.0198	0.0215		ug/L		108	50 - 150
delta-BHC	0.0992	0.0970	J	ug/L		98	50 - 150
Di(2-ethylhexyl)adipate	0.595	0.608		ug/L		102	50 - 150
Dibenz(a,h)anthracene	0.0496	0.0561		ug/L		113	50 - 150
Diclorvos (DDVP)	0.0496	0.0524		ug/L		106	50 - 150
Dieldrin	0.00992	0.0137		ug/L		138	50 - 150
Diethylphthalate	0.496	0.522		ug/L		105	50 - 150
Dimethylphthalate	0.496	0.532		ug/L		107	50 - 150
Di-n-butyl phthalate	0.496	0.473	J	ug/L		95	49 - 243
Di-n-octyl phthalate	0.0992	0.104		ug/L		105	50 - 150
Endosulfan I (Alpha)	0.0992	0.0880	J	ug/L		89	50 - 150
Endosulfan II (Beta)	0.0992	0.144		ug/L		145	50 - 150
Endosulfan sulfate	0.0992	0.0986	J	ug/L		99	50 - 150
Endrin	0.00992	0.0107		ug/L		108	50 - 150
Endrin aldehyde	0.0992	0.0930	J	ug/L		94	50 - 150
EPTC	0.0992	0.0968	J	ug/L		98	50 - 150
Fluoranthene	0.0992	0.0945	J	ug/L		95	50 - 150
Fluorene	0.0496	<0.050		ug/L		98	50 - 150
gamma-Chlordane	0.0248	0.0211	J	ug/L		85	50 - 150
Heptachlor	0.00992	0.0110		ug/L		111	50 - 150
Heptachlor epoxide (isomer B)	0.00992	0.0127		ug/L		128	50 - 150
Hexachlorobenzene	0.0496	0.0467	J	ug/L		94	50 - 150
Hexachlorocyclopentadiene	0.0496	0.0470	J	ug/L		95	50 - 150
Indeno[1,2,3-cd]pyrene	0.0496	0.0562		ug/L		113	50 - 150
Isophorone	0.0992	0.121		ug/L		122	50 - 150
Lindane	0.00992	0.0119		ug/L		120	50 - 150
Malathion	0.0992	0.104		ug/L		105	50 - 150
Methoxychlor	0.0496	0.0600		ug/L		121	50 - 150
Metolachlor	0.0496	0.0580		ug/L		117	50 - 150
Molinate	0.0992	0.106		ug/L		107	50 - 150
Naphthalene	0.0992	0.105		ug/L		105	50 - 150
Parathion	0.0992	0.109		ug/L		110	50 - 150
Pendimethalin (Penoxaline)	0.0992	0.106		ug/L		107	50 - 150
Phenanthrene	0.0397	0.0387	J	ug/L		98	50 - 150
Propachlor	0.0496	0.0572		ug/L		115	50 - 150
Pyrene	0.0496	0.0477	J	ug/L		96	50 - 150
Simazine	0.0496	0.0469	J	ug/L		95	50 - 150
Terbacil	0.0992	0.106		ug/L		107	50 - 150
Terbuthylazine	0.0992	0.105		ug/L		105	50 - 150
Thiobencarb	0.0992	0.105		ug/L		106	50 - 150
trans-Nonachlor	0.0248	<0.026		ug/L		90	50 - 150
Trifluralin	0.0992	0.106		ug/L		107	50 - 150

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MRL 380-99826/22-A
Matrix: Water
Analysis Batch: 100076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 99826

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
2-Nitro-m-xylene	*100*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*92*		*70 - 130*

Lab Sample ID: 380-104482-1 MS
Matrix: Drinking Water
Analysis Batch: 100060

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.097		1.94	1.86		ug/L		96	70 - 130
2,4'-DDD	<0.097		1.94	1.98		ug/L		102	70 - 130
2,4'-DDE	<0.097		1.94	1.72		ug/L		89	70 - 130
2,4'-DDT	<0.097		1.94	2.05		ug/L		106	70 - 130
2,4-Dinitrotoluene	<0.097		1.94	1.77		ug/L		91	70 - 130
2,6-Dinitrotoluene	<0.097		1.94	1.87		ug/L		96	70 - 130
2-Methylnaphthalene	<0.097		1.94	1.86		ug/L		96	70 - 130
4,4'-DDD	<0.097		1.94	2.08		ug/L		107	70 - 130
4,4'-DDE	<0.097		1.94	2.03		ug/L		105	70 - 130
4,4'-DDT	<0.097		1.94	1.89		ug/L		98	70 - 130
Acenaphthene	<0.097		1.94	2.05		ug/L		106	70 - 130
Acenaphthylene	<0.097	*1	1.94	1.91		ug/L		99	70 - 130
Acetochlor	<0.097		1.94	2.15		ug/L		111	70 - 130
Alachlor	<0.049		1.94	2.20		ug/L		114	70 - 130
alpha-BHC	<0.097		1.94	1.82		ug/L		94	70 - 130
alpha-Chlordane	<0.049		1.94	2.15		ug/L		110	70 - 130
Anthracene	<0.019	*1 F1	1.94	1.18	F1	ug/L		61	70 - 130
Atrazine	<0.049		1.94	1.83		ug/L		95	70 - 130
Benz(a)anthracene	<0.049		1.94	1.80		ug/L		93	70 - 130
Benzo[a]pyrene	<0.019		1.94	1.72		ug/L		89	70 - 130
Benzo[b]fluoranthene	<0.019		1.94	1.96		ug/L		101	70 - 130
Benzo[g,h,i]perylene	<0.049		1.94	1.99		ug/L		102	70 - 130
Benzo[k]fluoranthene	<0.019		1.94	2.02		ug/L		104	70 - 130
beta-BHC	<0.097		1.94	1.70		ug/L		88	70 - 130
Bis(2-ethylhexyl) phthalate	<0.58		1.94	1.92		ug/L		99	70 - 130
Bromacil	<0.097	*1	1.94	2.10		ug/L		108	70 - 130
Butachlor	<0.049		1.94	2.10		ug/L		108	70 - 130
Butylbenzylphthalate	<0.49		1.94	2.09		ug/L		108	70 - 130
Chlorobenzilate	<0.097	*1	1.94	1.61		ug/L		83	70 - 130
Chloroneb	<0.097		1.94	1.83		ug/L		95	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.097		1.94	1.75		ug/L		90	70 - 130
Chlorpyrifos	<0.049		1.94	1.96		ug/L		101	70 - 130
Chrysene	<0.019		1.94	2.08		ug/L		107	70 - 130
delta-BHC	<0.097		1.94	1.92		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	<0.58		1.94	2.16		ug/L		111	70 - 130
Dibenz(a,h)anthracene	<0.049		1.94	1.89		ug/L		98	70 - 130
Diclorvos (DDVP)	<0.049		1.94	2.04		ug/L		105	70 - 130
Dieldrin	0.024		1.94	1.69		ug/L		86	70 - 130
Diethylphthalate	<0.49		1.94	2.01		ug/L		103	70 - 130

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-104482-1 MS
Matrix: Drinking Water
Analysis Batch: 100060

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dimethylphthalate	<0.49		1.94	2.07		ug/L		107	70 - 130
Di-n-butyl phthalate	<0.97		3.88	4.03		ug/L		104	70 - 130
Di-n-octyl phthalate	<0.097		1.94	1.76		ug/L		91	70 - 130
Endosulfan I (Alpha)	<0.097		1.94	1.85		ug/L		95	70 - 130
Endosulfan II (Beta)	<0.097		1.94	2.08		ug/L		107	70 - 130
Endosulfan sulfate	<0.097		1.94	1.82		ug/L		94	70 - 130
Endrin	<0.0097		1.94	1.90		ug/L		98	70 - 130
Endrin aldehyde	<0.097		1.94	1.62		ug/L		84	60 - 130
EPTC	<0.097		1.94	2.00		ug/L		103	70 - 130
Fluoranthene	<0.097		1.94	1.92		ug/L		99	70 - 130
Fluorene	<0.049		1.94	1.94		ug/L		100	70 - 130
gamma-Chlordane	<0.049		1.94	2.16		ug/L		110	70 - 130
Heptachlor	<0.0097		1.94	1.89		ug/L		98	70 - 130
Heptachlor epoxide (isomer B)	<0.0097		1.94	2.30		ug/L		118	70 - 130
Hexachlorobenzene	<0.049		1.94	1.77		ug/L		91	70 - 130
Hexachlorocyclopentadiene	<0.049		1.94	1.51		ug/L		78	70 - 130
Indeno[1,2,3-cd]pyrene	<0.049		1.94	1.95		ug/L		100	70 - 130
Isophorone	<0.097		1.94	1.80		ug/L		93	70 - 130
Lindane	<0.0097		1.94	1.71		ug/L		88	70 - 130
Malathion	<0.097		1.94	2.05		ug/L		106	70 - 130
Methoxychlor	<0.049		1.94	2.12		ug/L		109	70 - 130
Metolachlor	<0.049		1.94	2.36		ug/L		122	70 - 130
Molinate	<0.097		1.94	1.98		ug/L		102	70 - 130
Naphthalene	<0.097		1.94	1.52		ug/L		79	70 - 130
Parathion	<0.097		1.94	2.32		ug/L		119	70 - 130
Pendimethalin (Penoxaline)	<0.097		1.94	1.80		ug/L		93	70 - 130
Phenanthrene	<0.039		1.94	1.76		ug/L		91	70 - 130
Propachlor	<0.049		1.94	1.84		ug/L		95	70 - 130
Pyrene	<0.049		1.94	1.83		ug/L		94	70 - 130
Simazine	<0.049		1.94	1.72		ug/L		89	70 - 130
Terbacil	<0.097		1.94	2.10		ug/L		108	70 - 130
Terbuthylazine	<0.097		1.94	1.78		ug/L		92	70 - 130
Thiobencarb	<0.097		1.94	1.93		ug/L		100	70 - 130
trans-Nonachlor	<0.049		1.94	1.90		ug/L		97	70 - 130
Trifluralin	<0.097		1.94	1.60		ug/L		83	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*91*		*70 - 130*
Perylene-d12	*95*		*70 - 130*
Triphenylphosphate	*106*		*70 - 130*

Lab Sample ID: 380-104648-F-1-A DU
Matrix: Water
Analysis Batch: 100060

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.097		<0.098		ug/L		NC	20
2,4'-DDD	<0.097		<0.098		ug/L		NC	20

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-104648-F-1-A DU
Matrix: Water
Analysis Batch: 100060

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
2,4'-DDE	<0.097			<0.098		ug/L				NC	20
2,4'-DDT	<0.097			<0.098		ug/L				NC	20
2,4-Dinitrotoluene	<0.097			<0.098		ug/L				NC	20
2,6-Dinitrotoluene	<0.097			<0.098		ug/L				NC	20
2-Methylnaphthalene	<0.097			<0.098		ug/L				NC	20
4,4'-DDD	<0.097			<0.098		ug/L				NC	20
4,4'-DDE	<0.097			<0.098		ug/L				NC	20
4,4'-DDT	<0.097			<0.098		ug/L				NC	20
Acenaphthene	<0.097			<0.098		ug/L				NC	20
Acenaphthylene	<0.097	*1		<0.098	*1	ug/L				NC	20
Acetochlor	<0.097			<0.098		ug/L				NC	20
Alachlor	<0.049			<0.049		ug/L				NC	20
alpha-BHC	<0.097			<0.098		ug/L				NC	20
alpha-Chlordane	<0.049			<0.049		ug/L				NC	20
Anthracene	<0.019	*1		<0.020	*1	ug/L				NC	20
Atrazine	<0.049			<0.049		ug/L				NC	20
Benz(a)anthracene	<0.049			<0.049		ug/L				NC	20
Benzo[a]pyrene	<0.019			<0.020		ug/L				NC	20
Benzo[b]fluoranthene	<0.019			<0.020		ug/L				NC	20
Benzo[g,h,i]perylene	<0.049			<0.049		ug/L				NC	20
Benzo[k]fluoranthene	<0.019			<0.020		ug/L				NC	20
beta-BHC	<0.097			<0.098		ug/L				NC	20
Bis(2-ethylhexyl) phthalate	<0.58			<0.59		ug/L				NC	20
Bromacil	<0.097	*1		<0.098	*1	ug/L				NC	20
Butachlor	<0.049			<0.049		ug/L				NC	20
Butylbenzylphthalate	<0.49			<0.49		ug/L				NC	20
Chlorobenzilate	<0.097	*1		<0.098	*1	ug/L				NC	20
Chloroneb	<0.097			<0.098		ug/L				NC	20
Chlorothalonil (Draconil, Bravo)	<0.097			<0.098		ug/L				NC	20
Chlorpyrifos	<0.049			<0.049		ug/L				NC	20
Chrysene	<0.019			<0.020		ug/L				NC	20
delta-BHC	<0.097			<0.098		ug/L				NC	20
Di(2-ethylhexyl)adipate	<0.58			<0.59		ug/L				NC	20
Dibenz(a,h)anthracene	<0.049			<0.049		ug/L				NC	20
Diclorvos (DDVP)	<0.049			<0.049		ug/L				NC	20
Dieldrin	<0.0097			<0.0098		ug/L				NC	20
Diethylphthalate	<0.49			<0.49		ug/L				NC	20
Dimethylphthalate	<0.49			<0.49		ug/L				NC	20
Di-n-butyl phthalate	<0.97			<0.98		ug/L				NC	20
Di-n-octyl phthalate	<0.097			<0.098		ug/L				NC	20
Endosulfan I (Alpha)	<0.097			<0.098		ug/L				NC	20
Endosulfan II (Beta)	<0.097			<0.098		ug/L				NC	20
Endosulfan sulfate	<0.097			<0.098		ug/L				NC	20
Endrin	<0.0097			<0.0098		ug/L				NC	20
Endrin aldehyde	<0.097			<0.098		ug/L				NC	20
EPTC	<0.097			<0.098		ug/L				NC	20
Fluoranthene	<0.097			<0.098		ug/L				NC	20
Fluorene	<0.049			<0.049		ug/L				NC	20
gamma-Chlordane	<0.049			<0.049		ug/L				NC	20

Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 380-104648-F-1-A DU
Matrix: Water
Analysis Batch: 100060

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 99826

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Heptachlor	<0.0097			<0.0098		ug/L				NC	20
Heptachlor epoxide (isomer B)	<0.0097			<0.0098		ug/L				NC	20
Hexachlorobenzene	<0.049			<0.049		ug/L				NC	20
Hexachlorocyclopentadiene	<0.049			<0.049		ug/L				NC	20
Indeno[1,2,3-cd]pyrene	<0.049			<0.049		ug/L				NC	20
Isophorone	<0.097			<0.098		ug/L				NC	20
Lindane	<0.0097			<0.0098		ug/L				NC	20
Malathion	<0.097			<0.098		ug/L				NC	20
Methoxychlor	<0.049			<0.049		ug/L				NC	20
Metolachlor	<0.049			<0.049		ug/L				NC	20
Molinate	<0.097			<0.098		ug/L				NC	20
Naphthalene	<0.097			<0.098		ug/L				NC	20
Parathion	<0.097			<0.098		ug/L				NC	20
Pendimethalin (Penoxaline)	<0.097			<0.098		ug/L				NC	20
Phenanthrene	<0.039			<0.039		ug/L				NC	20
Propachlor	<0.049			<0.049		ug/L				NC	20
Pyrene	<0.049			<0.049		ug/L				NC	20
Simazine	<0.049			<0.049		ug/L				NC	20
Terbacil	<0.097			<0.098		ug/L				NC	20
Terbuthylazine	<0.097			<0.098		ug/L				NC	20
Thiobencarb	<0.097			<0.098		ug/L				NC	20
Total Permethrin (mixed isomers)	<0.19			<0.20		ug/L				NC	20
trans-Nonachlor	<0.049			<0.049		ug/L				NC	20
Trifluralin	<0.097			<0.098		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*92*		*70 - 130*
Perylene-d12	*93*		*70 - 130*
Triphenylphosphate	*103*		*70 - 130*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-462447/1-A
Matrix: Water
Analysis Batch: 467915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462447

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*07/22/24 05:34*	*08/06/24 20:14*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*104*		*33 - 139*	*07/22/24 05:34*	*08/06/24 20:14*	*1*
2-Fluorobiphenyl (Surr)	*84*		*33 - 126*	*07/22/24 05:34*	*08/06/24 20:14*	*1*
2-Fluorophenol (Surr)	*61*		*12 - 120*	*07/22/24 05:34*	*08/06/24 20:14*	*1*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*07/22/24 05:34*	*08/06/24 20:14*	*1*
Phenol-d6 (Surr)	*38*		*10 - 120*	*07/22/24 05:34*	*08/06/24 20:14*	*1*
p-Terphenyl-d14 (Surr)	*101*		*47 - 131*	*07/22/24 05:34*	*08/06/24 20:14*	*1*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-462447/1-A
Matrix: Water
Analysis Batch: 463551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462447

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
2-Methylnaphthalene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Acenaphthene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Acenaphthylene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Anthracene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Benzo[a]anthracene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Benzo[a]pyrene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Benzo[b]fluoranthene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Benzo[g,h,i]perylene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Benzo[k]fluoranthene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Chrysene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Dibenz(a,h)anthracene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Fluoranthene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Fluorene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Indeno[1,2,3-cd]pyrene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Naphthalene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Phenanthrene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1
Pyrene	<0.20		0.20		ug/L		07/22/24 05:34	07/24/24 12:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*28 - 127*	*07/22/24 05:34*	*07/24/24 12:34*	*1*
2-Fluorobiphenyl (Surr)	*73*		*31 - 120*	*07/22/24 05:34*	*07/24/24 12:34*	*1*
2-Fluorophenol (Surr)	*48*		*17 - 120*	*07/22/24 05:34*	*07/24/24 12:34*	*1*
Nitrobenzene-d5 (Surr)	*74*		*27 - 120*	*07/22/24 05:34*	*07/24/24 12:34*	*1*
Phenol-d6 (Surr)	*32*		*10 - 120*	*07/22/24 05:34*	*07/24/24 12:34*	*1*
p-Terphenyl-d14 (Surr)	*87*		*45 - 120*	*07/22/24 05:34*	*07/24/24 12:34*	*1*

Lab Sample ID: LCS 570-462447/2-A
Matrix: Water
Analysis Batch: 463551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	20.0	12.7		ug/L		63	47 - 120
2-Methylnaphthalene	20.0	12.7		ug/L		64	43 - 120
Acenaphthene	20.0	15.2		ug/L		76	60 - 132
Acenaphthylene	20.0	16.1		ug/L		81	54 - 126
Anthracene	20.0	16.2		ug/L		81	43 - 120
Benzo[a]anthracene	20.0	17.1		ug/L		85	42 - 133
Benzo[a]pyrene	20.0	17.6		ug/L		88	32 - 148
Benzo[b]fluoranthene	20.0	17.1		ug/L		85	42 - 140
Benzo[g,h,i]perylene	20.0	17.0		ug/L		85	1 - 195
Benzo[k]fluoranthene	20.0	17.3		ug/L		86	25 - 146
Chrysene	20.0	16.6		ug/L		83	44 - 140
Dibenz(a,h)anthracene	20.0	17.4		ug/L		87	1 - 200
Fluoranthene	20.0	16.7		ug/L		83	43 - 121
Fluorene	20.0	16.1		ug/L		81	70 - 120
Indeno[1,2,3-cd]pyrene	20.0	17.2		ug/L		86	1 - 151
Naphthalene	20.0	12.1		ug/L		60	36 - 120

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 570-462447/2-A
Matrix: Water
Analysis Batch: 463551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462447

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Phenanthrene			20.0	15.9		ug/L		80	65 - 120		
Pyrene			20.0	17.3		ug/L		86	70 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*81*		*28 - 127*
2-Fluorobiphenyl (Surr)	*73*		*31 - 120*
2-Fluorophenol (Surr)	*51*		*17 120*
Nitrobenzene-d5 (Surr)	*61*		*27 - 120*
Phenol-d6 (Surr)	*35*		*10 - 120*
p-Terphenyl-d14 (Surr)	*83*		*45 - 120*

Lab Sample ID: LCSD 570-462447/3-A
Matrix: Water
Analysis Batch: 463551

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 462447

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			20.0	13.1		ug/L		66	47 - 120	3	20
2-Methylnaphthalene			20.0	13.1		ug/L		66	43 - 120	3	20
Acenaphthene			20.0	15.5		ug/L		78	60 - 132	2	29
Acenaphthylene			20.0	16.6		ug/L		83	54 - 126	3	45
Anthracene			20.0	16.3		ug/L		81	43 - 120	1	40
Benzo[a]anthracene			20.0	17.1		ug/L		85	42 - 133	0	32
Benzo[a]pyrene			20.0	17.6		ug/L		88	32 - 148	0	43
Benzo[b]fluoranthene			20.0	17.4		ug/L		87	42 - 140	2	43
Benzo[g,h,i]perylene			20.0	17.2		ug/L		86	1 - 195	1	61
Benzo[k]fluoranthene			20.0	17.0		ug/L		85	25 - 146	2	38
Chrysene			20.0	16.6		ug/L		83	44 - 140	0	53
Dibenz(a,h)anthracene			20.0	17.7		ug/L		89	1 - 200	2	75
Fluoranthene			20.0	16.6		ug/L		83	43 - 121	0	40
Fluorene			20.0	16.2		ug/L		81	70 - 120	0	23
Indeno[1,2,3-cd]pyrene			20.0	17.4		ug/L		87	1 - 151	1	60
Naphthalene			20.0	12.3		ug/L		62	36 - 120	2	39
Phenanthrene			20.0	16.3		ug/L		81	65 - 120	2	24
Pyrene			20.0	17.1		ug/L		86	70 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*82*		*28 - 127*
2-Fluorobiphenyl (Surr)	*73*		*31 - 120*
2-Fluorophenol (Surr)	*52*		*17 - 120*
Nitrobenzene-d5 (Surr)	*62*		*27 - 120*
Phenol-d6 (Surr)	*36*		*10 - 120*
p-Terphenyl-d14 (Surr)	*83*		*45 - 120*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: 380-104482-1 MS
Matrix: Drinking Water
Analysis Batch: 463551

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.3	10.6		ug/L		55	36 - 120
2-Methylnaphthalene	<0.19		19.3	10.6		ug/L		55	32 - 124
Acenaphthene	<0.19		19.3	12.8		ug/L		67	47 - 145
Acenaphthylene	<0.19		19.3	13.5		ug/L		70	33 - 145
Anthracene	<0.19		19.3	13.9		ug/L		72	27 - 133
Benzo[a]anthracene	<0.19		19.3	14.4		ug/L		75	33 - 143
Benzo[a]pyrene	<0.19		19.3	14.5		ug/L		75	17 - 163
Benzo[b]fluoranthene	<0.19		19.3	14.2		ug/L		74	24 - 159
Benzo[g,h,i]perylene	<0.19		19.3	14.0		ug/L		73	1 - 219
Benzo[k]fluoranthene	<0.19		19.3	14.3		ug/L		74	11 - 162
Chrysene	<0.19		19.3	14.1		ug/L		73	17 - 168
Dibenz(a,h)anthracene	<0.19		19.3	14.3		ug/L		74	1 - 227
Fluoranthene	<0.19		19.3	14.5		ug/L		75	26 - 137
Fluorene	<0.19		19.3	13.7		ug/L		71	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.3	14.1		ug/L		73	1 - 171
Naphthalene	<0.19		19.3	9.95		ug/L		52	21 - 133
Phenanthrene	<0.19		19.3	13.7		ug/L		71	54 - 120
Pyrene	<0.19		19.3	14.3		ug/L		74	52 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*71*		*28 - 127*
2-Fluorobiphenyl (Surr)	*62*		*31 - 120*
2-Fluorophenol (Surr)	*39*		*17 - 120*
Nitrobenzene-d5 (Surr)	*51*		*27 - 120*
Phenol-d6 (Surr)	*27*		*10 - 120*
p-Terphenyl-d14 (Surr)	*70*		*45 - 120*

Lab Sample ID: 380-104482-1 MSD
Matrix: Drinking Water
Analysis Batch: 463551

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.19		19.5	11.2		ug/L		58	36 - 120	5	30
2-Methylnaphthalene	<0.19		19.5	11.1		ug/L		57	32 - 124	5	30
Acenaphthene	<0.19		19.5	13.7		ug/L		71	47 - 145	7	48
Acenaphthylene	<0.19		19.5	14.5		ug/L		74	33 - 145	7	74
Anthracene	<0.19		19.5	15.1		ug/L		78	27 - 133	9	66
Benzo[a]anthracene	<0.19		19.5	16.0		ug/L		82	33 - 143	10	53
Benzo[a]pyrene	<0.19		19.5	16.3		ug/L		84	17 - 163	12	72
Benzo[b]fluoranthene	<0.19		19.5	15.8		ug/L		81	24 - 159	11	71
Benzo[g,h,i]perylene	<0.19		19.5	15.4		ug/L		79	1 - 219	9	97
Benzo[k]fluoranthene	<0.19		19.5	16.1		ug/L		83	11 - 162	12	63
Chrysene	<0.19		19.5	15.7		ug/L		81	17 - 168	11	87
Dibenz(a,h)anthracene	<0.19		19.5	15.8		ug/L		81	1 - 227	10	126
Fluoranthene	<0.19		19.5	15.8		ug/L		81	26 - 137	9	66
Fluorene	<0.19		19.5	14.7		ug/L		75	59 - 121	6	38
Indeno[1,2,3-cd]pyrene	<0.19		19.5	15.5		ug/L		80	1 - 171	10	99
Naphthalene	<0.19		19.5	10.3		ug/L		53	21 - 133	3	65

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: 380-104482-1 MSD
Matrix: Drinking Water
Analysis Batch: 463551

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	<0.19		19.5	15.0		ug/L		77	54 - 120	10	39
Pyrene	<0.19		19.5	16.0		ug/L		82	52 - 120	11	49

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*79*		*28 - 127*
2-Fluorobiphenyl (Surr)	*64*		*31 - 120*
2-Fluorophenol (Surr)	*41*		*17 120*
Nitrobenzene-d5 (Surr)	*52*		*27 - 120*
Phenol-d6 (Surr)	*29*		*10 - 120*
p-Terphenyl-d14 (Surr)	*77*		*45 - 120*

Lab Sample ID: 380-104482-3 MS
Matrix: Drinking Water
Analysis Batch: 463551

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.19		19.1	11.0		ug/L		57	36 - 120
2-Methylnaphthalene	<0.19		19.1	10.8		ug/L		56	32 - 124
Acenaphthene	<0.19		19.1	12.9		ug/L		67	47 - 145
Acenaphthylene	<0.19		19.1	13.6		ug/L		71	33 - 145
Anthracene	<0.19		19.1	14.3		ug/L		75	27 - 133
Benzo[a]anthracene	<0.19		19.1	15.1		ug/L		79	33 - 143
Benzo[a]pyrene	<0.19		19.1	15.4		ug/L		80	17 - 163
Benzo[b]fluoranthene	<0.19		19.1	15.0		ug/L		78	24 - 159
Benzo[g,h,i]perylene	<0.19		19.1	14.5		ug/L		76	1 - 219
Benzo[k]fluoranthene	<0.19		19.1	15.2		ug/L		79	11 - 162
Chrysene	<0.19		19.1	14.7		ug/L		77	17 - 168
Dibenz(a,h)anthracene	<0.19		19.1	15.1		ug/L		79	1 - 227
Fluoranthene	<0.19		19.1	14.9		ug/L		78	26 - 137
Fluorene	<0.19		19.1	13.6		ug/L		71	59 - 121
Indeno[1,2,3-cd]pyrene	<0.19		19.1	14.6		ug/L		76	1 - 171
Naphthalene	<0.19		19.1	10.3		ug/L		54	21 - 133
Phenanthrene	<0.19		19.1	14.1		ug/L		74	54 - 120
Pyrene	<0.19		19.1	15.0		ug/L		78	52 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*75*		*28 - 127*
2-Fluorobiphenyl (Surr)	*63*		*31 - 120*
2-Fluorophenol (Surr)	*42*		*17 - 120*
Nitrobenzene-d5 (Surr)	*53*		*27 - 120*
Phenol-d6 (Surr)	*29*		*10 - 120*
p-Terphenyl-d14 (Surr)	*75*		*45 - 120*

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: 380-104482-3 MSD
Matrix: Drinking Water
Analysis Batch: 463551

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 462447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	<0.19		19.2	11.7		ug/L		61	36 - 120	7	30
2-Methylnaphthalene	<0.19		19.2	11.8		ug/L		61	32 - 124	9	30
Acenaphthene	<0.19		19.2	13.8		ug/L		72	47 - 145	7	48
Acenaphthylene	<0.19		19.2	14.6		ug/L		76	33 - 145	7	74
Anthracene	<0.19		19.2	14.8		ug/L		77	27 - 133	3	66
Benzo[a]anthracene	<0.19		19.2	15.4		ug/L		80	33 - 143	2	53
Benzo[a]pyrene	<0.19		19.2	15.5		ug/L		81	17 - 163	1	72
Benzo[b]fluoranthene	<0.19		19.2	15.3		ug/L		80	24 - 159	2	71
Benzo[g,h,i]perylene	<0.19		19.2	14.9		ug/L		78	1 - 219	3	97
Benzo[k]fluoranthene	<0.19		19.2	15.2		ug/L		79	11 - 162	0	63
Chrysene	<0.19		19.2	15.1		ug/L		79	17 - 168	2	87
Dibenz(a,h)anthracene	<0.19		19.2	15.3		ug/L		80	1 - 227	1	126
Fluoranthene	<0.19		19.2	15.3		ug/L		80	26 - 137	3	66
Fluorene	<0.19		19.2	14.4		ug/L		75	59 - 121	6	38
Indeno[1,2,3-cd]pyrene	<0.19		19.2	14.9		ug/L		78	1 - 171	2	99
Naphthalene	<0.19		19.2	11.3		ug/L		59	21 - 133	9	65
Phenanthrene	<0.19		19.2	14.5		ug/L		75	54 - 120	3	39
Pyrene	<0.19		19.2	15.2		ug/L		79	52 - 120	1	49

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*75*		*28 - 127*
2-Fluorobiphenyl (Surr)	*66*		*31 - 120*
2-Fluorophenol (Surr)	*48*		*17 - 120*
Nitrobenzene-d5 (Surr)	*58*		*27 - 120*
Phenol-d6 (Surr)	*32*		*10 - 120*
p-Terphenyl-d14 (Surr)	*73*		*45 - 120*

Method: 8015B GRO LL - Gasoline Range Organics - (GC)

Lab Sample ID: MB 570-463483/6
Matrix: Water
Analysis Batch: 463483

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	<10		10		ug/L			07/24/24 12:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*38 - 134*		*07/24/24 12:51*	*1*

Lab Sample ID: LCS 570-463483/4
Matrix: Water
Analysis Batch: 463483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	400	317		ug/L		79	78 - 120

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCS 570-463483/4
Matrix: Water
Analysis Batch: 463483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		38 - 134

Lab Sample ID: LCSD 570-463483/5
Matrix: Water
Analysis Batch: 463483

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)			400	315		ug/L		79	78 - 120	1	10

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		38 - 134

Lab Sample ID: MRL 570-463483/3
Matrix: Water
Analysis Batch: 463483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)			10.0	11.8		ug/L		118	50 - 150		

Surrogate	MRL %Recovery	MRL Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		38 - 134

Lab Sample ID: 380-104482-1 MS
Matrix: Drinking Water
Analysis Batch: 463483

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (C4-C13)	<10		400	432		ug/L		108	68 - 122		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		38 - 134

Lab Sample ID: 380-104482-1 MSD
Matrix: Drinking Water
Analysis Batch: 463483

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	427		ug/L		107	68 - 122	1	18

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		38 - 134

Method: 8015B GRO LL - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 380-104482-3 MS
Matrix: Drinking Water
Analysis Batch: 463483

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (C4-C13)	<10		400	434		ug/L		108	68 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*38 - 134*

Lab Sample ID: 380-104482-3 MSD
Matrix: Drinking Water
Analysis Batch: 463483

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (C4-C13)	<10		400	423		ug/L		106	68 - 122	2	18

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*38 - 134*

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level

Lab Sample ID: MB 570-462111/1-A
Matrix: Water
Analysis Batch: 463793

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462111

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (C10-C24)	<25		25		ug/L		07/19/24 14:26	07/25/24 08:49	1
Motor Oil Range Organics [C24-C36]	<25		25		ug/L		07/19/24 14:26	07/25/24 08:49	1
C8-C18	<25		25		ug/L		07/19/24 14:26	07/25/24 08:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*97*		*60 - 130*	*07/19/24 14:26*	*07/25/24 08:49*	*1*

Lab Sample ID: LCS 570-462111/2-A
Matrix: Water
Analysis Batch: 463793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462111

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C10-C28			1600	1440		ug/L		90	56 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*97*		*60 - 130*

Lab Sample ID: LCSD 570-462111/3-A
Matrix: Water
Analysis Batch: 463793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 462111

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28			1600	1560		ug/L		97	56 - 127	8	23

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)

Lab Sample ID: LCSD 570-462111/3-A
Matrix: Water
Analysis Batch: 463793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 462111

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	101		60 - 130

Lab Sample ID: MRL 570-462111/4-A
Matrix: Water
Analysis Batch: 463793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462111

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28			0.0200	<0.020		mg/L		76	50 - 150		

Surrogate	MRL %Recovery	MRL Qualifier	Limits
n-Octacosane (Surr)	101		60 - 130

Lab Sample ID: 380-104482-1 MS
Matrix: Drinking Water
Analysis Batch: 463793

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 462111

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	<26		1680	1630		ug/L		97	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane (Surr)	99		60 - 130

Lab Sample ID: 380-104482-1 MSD
Matrix: Drinking Water
Analysis Batch: 463793

Client Sample ID: MOANALUA WELLS
Prep Type: Total/NA
Prep Batch: 462111

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1670	1630		ug/L		98	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane (Surr)	101		60 - 130

Lab Sample ID: 380-104482-3 MS
Matrix: Drinking Water
Analysis Batch: 463793

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 462111

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
C10-C28	<26		1670	1790		ug/L		107	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane (Surr)	105		60 - 130

Method: 8015B - Diesel Range Organics (DRO) (GC) Low Level (Continued)

Lab Sample ID: 380-104482-3 MSD
Matrix: Drinking Water
Analysis Batch: 463793

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 462111

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
C10-C28	<26		1650	1650		ug/L		100	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane (Surr)	*99*		*60 - 130*

GC/MS Semi VOA

Prep Batch: 99826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	
MB 380-99826/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-99826/23-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-99826/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-99826/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	525.2	
380-104648-F-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 100060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	525.2	99826
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	525.2	99826
MB 380-99826/21-A	Method Blank	Total/NA	Water	525.2	99826
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	525.2	99826
380-104648-F-1-A DU	Duplicate	Total/NA	Water	525.2	99826

Analysis Batch: 100076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 380-99826/23-A	Lab Control Sample	Total/NA	Water	525.2	99826
LCSD 380-99826/24-A	Lab Control Sample Dup	Total/NA	Water	525.2	99826
MRL 380-99826/22-A	Lab Control Sample	Total/NA	Water	525.2	99826

Prep Batch: 462447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	625.1	
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	
MB 570-462447/1-A	Method Blank	Total/NA	Water	625.1	
LCS 570-462447/2-A	Lab Control Sample	Total/NA	Water	625.1	
LCSD 570-462447/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	625.1	
380-104482-1 MSD	MOANALUA WELLS	Total/NA	Drinking Water	625.1	
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	

Analysis Batch: 463551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	625.1 SIM	462447
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1 SIM	462447
MB 570-462447/1-A	Method Blank	Total/NA	Water	625.1 SIM	462447
LCS 570-462447/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	462447
LCSD 570-462447/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	462447
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	625.1 SIM	462447
380-104482-1 MSD	MOANALUA WELLS	Total/NA	Drinking Water	625.1 SIM	462447
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1 SIM	462447
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1 SIM	462447

Analysis Batch: 467915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	625.1	462447
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	625.1	462447

GC/MS Semi VOA (Continued)

Analysis Batch: 467915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-462447/1-A	Method Blank	Total/NA	Water	625.1	462447

GC VOA

Analysis Batch: 463483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	8015B GRO LL	
380-104482-2	TB: MOANALUA WELLS	Total/NA	Water	8015B GRO LL	
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B GRO LL	
380-104482-4	TB: HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Water	8015B GRO LL	
MB 570-463483/6	Method Blank	Total/NA	Water	8015B GRO LL	
LCS 570-463483/4	Lab Control Sample	Total/NA	Water	8015B GRO LL	
LCSD 570-463483/5	Lab Control Sample Dup	Total/NA	Water	8015B GRO LL	
MRL 570-463483/3	Lab Control Sample	Total/NA	Water	8015B GRO LL	
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	8015B GRO LL	
380-104482-1 MSD	MOANALUA WELLS	Total/NA	Drinking Water	8015B GRO LL	
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B GRO LL	
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B GRO LL	

GC Semi VOA

Prep Batch: 462111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	3510C	
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	3510C	
MB 570-462111/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-462111/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-462111/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MRL 570-462111/4-A	Lab Control Sample	Total/NA	Water	3510C	
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	3510C	
380-104482-1 MSD	MOANALUA WELLS	Total/NA	Drinking Water	3510C	
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	3510C	
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	3510C	

Analysis Batch: 463793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-104482-1	MOANALUA WELLS	Total/NA	Drinking Water	8015B	462111
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B	462111
MB 570-462111/1-A	Method Blank	Total/NA	Water	8015B	462111
LCS 570-462111/2-A	Lab Control Sample	Total/NA	Water	8015B	462111
LCSD 570-462111/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	462111
MRL 570-462111/4-A	Lab Control Sample	Total/NA	Water	8015B	462111
380-104482-1 MS	MOANALUA WELLS	Total/NA	Drinking Water	8015B	462111
380-104482-1 MSD	MOANALUA WELLS	Total/NA	Drinking Water	8015B	462111
380-104482-3 MS	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B	462111
380-104482-3 MSD	HALAWA WELLS UNITS 1 & 2 P1	Total/NA	Drinking Water	8015B	462111

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Client Sample ID: MOANALUA WELLS
Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			99826	KRD3	EA POM	07/21/24 11:17
Total/NA	Analysis	525.2		1	100060	Q8LA	EA POM	07/22/24 11:57
Total/NA	Prep	625.1			462447	H1SH	EET CAL 4	07/22/24 05:34
Total/NA	Analysis	625.1		1	467915	CG	EET CAL 4	08/06/24 20:37
Total/NA	Prep	625.1			462447	H1SH	EET CAL 4	07/22/24 05:34
Total/NA	Analysis	625.1 SIM		1	463551	PQS1	EET CAL 4	07/24/24 14:23
Total/NA	Analysis	8015B GRO LL		1	463483	A9VE	EET CAL 4	07/24/24 13:38
Total/NA	Prep	3510C			462111	H6FE	EET CAL 4	07/19/24 14:26
Total/NA	Analysis	8015B		1	463793	SP9M	EET CAL 4	07/25/24 09:51

Client Sample ID: TB: MOANALUA WELLS
Date Collected: 07/15/24 09:58
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	463483	A9VE	EET CAL 4	07/24/24 19:34

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-3
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			99826	KRD3	EA POM	07/21/24 11:17
Total/NA	Analysis	525.2		1	100060	Q8LA	EA POM	07/22/24 12:37
Total/NA	Prep	625.1			462447	H1SH	EET CAL 4	07/22/24 05:34
Total/NA	Analysis	625.1		1	467915	CG	EET CAL 4	08/06/24 21:00
Total/NA	Prep	625.1			462447	H1SH	EET CAL 4	07/22/24 05:34
Total/NA	Analysis	625.1 SIM		1	463551	PQS1	EET CAL 4	07/24/24 15:28
Total/NA	Analysis	8015B GRO LL		1	463483	A9VE	EET CAL 4	07/24/24 14:56
Total/NA	Prep	3510C			462111	H6FE	EET CAL 4	07/19/24 14:26
Total/NA	Analysis	8015B		1	463793	SP9M	EET CAL 4	07/25/24 10:53

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 P1
Date Collected: 07/15/24 10:26
Date Received: 07/17/24 10:06

Lab Sample ID: 380-104482-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015B GRO LL		1	463483	A9VE	EET CAL 4	07/24/24 20:00

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Laboratory: Eurofins Eaton Analytical Pomona

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
525.2	525.2	Drinking Water	1-Methylnaphthalene
525.2	525.2	Drinking Water	2,4'-DDD
525.2	525.2	Drinking Water	2,4'-DDE
525.2	525.2	Drinking Water	2,4'-DDT
525.2	525.2	Drinking Water	2,4-Dinitrotoluene
525.2	525.2	Drinking Water	2,6-Dinitrotoluene
525.2	525.2	Drinking Water	2-Methylnaphthalene
525.2	525.2	Drinking Water	4,4'-DDD
525.2	525.2	Drinking Water	4,4'-DDE
525 2	525 2	Drinking Water	4,4' DDT
525.2	525.2	Drinking Water	Acetochlor
525.2	525.2	Drinking Water	alpha-BHC
525.2	525.2	Drinking Water	alpha-Chlordane
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Chlorobenzilate
525.2	525.2	Drinking Water	Chloroneb
525.2	525.2	Drinking Water	Chlorothalonil (Draconil, Bravo)
525.2	525.2	Drinking Water	Chlorpyrifos
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Endosulfan I (Alpha)
525.2	525.2	Drinking Water	Endosulfan II (Beta)
525.2	525.2	Drinking Water	Endosulfan sulfate
525.2	525.2	Drinking Water	Endrin aldehyde
525.2	525.2	Drinking Water	EPTC
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Isophorone
525.2	525.2	Drinking Water	Malathion
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbuthylazine
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	10-31-24
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Laboratory: Eurofins Calscience (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C916-18	10-11-24

Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET CAL 4
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	EPA	EET CAL 4
8015B GRO LL	Gasoline Range Organics - (GC)	SW846	EET CAL 4
8015B	Diesel Range Organics (DRO) (GC) Low Level	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
525.2	Extraction of Semivolatile Compounds	EPA	EA POM
625.1	Liquid-Liquid Extraction	40CFR136A	EET CAL 4

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100
EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-104482-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-104482-1	MOANALUA WELLS	Drinking Water	07/15/24 09:58	07/17/24 10:06
380-104482-2	TB: MOANALUA WELLS	Water	07/15/24 09:58	07/17/24 10:06
380-104482-3	HALAWA WELLS UNITS 1 & 2 P1	Drinking Water	07/15/24 10:26	07/17/24 10:06
380-104482-4	TB: HALAWA WELLS UNITS 1 & 2 P1	Water	07/15/24 10:26	07/17/24 10:06

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: bailey	Lab PM: Arada Rachelle	Carrier Tracking No(s):	COC No: 380-28005-2757 1
Client Contact: Dr Ron Fenstemacher	Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested			
City: Honolulu	TAT Requested (days):			
State Zip: HI 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes
R - NaThioSO4
RA - NaThio/HCl
Q - Na2SO3
QA Na2SO3/HCl
Y - Trizma
I - NH4 Acetate

Other:

380-104482 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625.1, 625.1_SIM	8015B_GRO_LL (MOD) GRO	8015B_DRO_LL_CS HNL Ranges C10-C24/C24-C36/C8-C18	525.2_PREC - (MOD) 525plus Plus TICs	537 1_DW_PREC 537 1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	RA	Q	QA	Y	I		
Moanalua Wells	15-Jul-2024	0958	G	Water		x	3	4	3	2				
Moanalua Wells (Matrix Spike)	15-Jul-2024			Water			X	X	X	X				
Moanalua Wells (Matrix Spike Duplicate)	15-Jul-2024			Water			X	X	X	X				
TB Moanalua Wells	15-Jul-2024	0958		Water				2						
Halawa Wells Units 1 & 2 P1	15-Jul-2024	1026	G	Water		x	3	4	3	2				① 77742980 6309 (751A) 1.5°-0.1°=1.4°
Halawa Wells Units 1 & 2 (Matrix Spike)	15-Jul-2024			Water			X	X	X	X				② 77742980 6310 (751A) 1.2°-0.1°=1.1°
Halawa Wells Units 1 & 2 (Matrix Spike Duplicate)	15-Jul-2024			Water			X	X	X	X				③ 77742980 6320 (751A) 1.4°-0.1°=1.3°
TB Halawa Wells Units 1 & 2	15-Jul-2024	1026		Water				2						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment: FED EX ④ 7774 2980 6331

	Relinquished [redacted]	Date/Time: 16 JUL 2024 1430	Company HBWS	Received by: B. RETTIER	Date/Time: 07/17/2024 10:06	Company EEAP
	Relinquished	Date/Time:	Company	Received by	Date/Time:	Company
	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: ④ (751A) 3.0°-0.1°=2.9° GEL-FROZEN

Ver: 04/02/2024

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | En

Loc: 380
104482

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-138865.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Hawaii		Job #: 380-104482-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 8/6/2024	Analysis Requested		Preservation Codes:
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:	380-104482 Chain of Custody		
Project Name: RED-HILL	Project #: 38001111			Other:
Site: Honolulu BWS Sites	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015B_DRO_LL_CS/3510C_LL HNL Ranges: C10-C24/C24-C36/C8-C18	8015B_GRO_LL/5030C (MOD) GRO	625.1_SIM/625_Prep (MOD) Extended PAH List	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
MOANALUA WELLS (380-104482-1)	7/15/24	09:58 Hawaiian		Water			X	X	X	4	initial volume (500ml) and final volume (2ml). MRLs are needed.
MOANALUA WELLS (380-104482-1MS)	7/15/24	09:58 Hawaiian	MS	Water			X	X	X	3	initial volume (500ml) and final volume (2ml). MRLs are needed.
MOANALUA WELLS (380-104482-1MSD)	7/15/24	09:58 Hawaiian	MSD	Water			X	X	X	3	initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: MOANALUA WELLS (380-104482-2)	7/15/24	09:58 Hawaiian		Water				X		2	MRLs are needed.
HALAWA WELLS UNITS 1 & 2 (380-104482-3)	7/15/24	10:26 Hawaiian		Water			X	X	X	4	initial volume (500ml) and final volume (2ml). MRLs are needed.
HALAWA WELLS UNITS 1 & 2 (380-104482-3MS)	7/15/24	10:26 Hawaiian	MS	Water			X	X	X	3	initial volume (500ml) and final volume (2ml). MRLs are needed.
HALAWA WELLS UNITS 1 & 2 (380-104482-3MSD)	7/15/24	10:26 Hawaiian	MSD	Water			X	X	X	3	initial volume (500ml) and final volume (2ml). MRLs are needed.
TB: HALAWA WELLS UNITS 1 & 2 (380-104482-4)	7/15/24	10:26 Hawaiian		Water				X		2	MRLs are needed.

Note: Since laboratory accreditations are subject to change, Eurofins Eaton Analytical, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Eaton Analytical, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Eaton Analytical, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
4UDI	7/18/24 15:30	EEAP	[signature]	7/18 1530	DCS
[signature]	7/18 1635	DCS	[signature]	7-18-24 16:35	EC

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.3/1.3 SC12

Ver: 04/02/2024

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-104482-1

Login Number: 104482
List Number: 1
Creator: Do, Michelle

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Insufficient volume received for 525 MS/MSD.
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-104482-1

Login Number: 104482
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 07/18/24 06:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	