eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-68501-1

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

See page two for job notes and contact information.

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

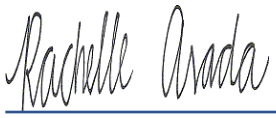

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Table of Contents

Definitions/Glossary

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

Job ID: 380-68501-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
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.

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

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

Case Narrative

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

Job ID: 380-68501-1

Job ID: 380-68501-1

Laboratory: Eurofins Eaton Analytical Pomona

Narrative

Job Narrative
380-68501-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample 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 10/25/2023 10:09 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.3°C and 5.4°C

Subcontract Work
Methods 8015 Gas (Purgeable) LL (EAL), 8015 LL DRO/MRO: These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method 625 PAH Physis LL (EAL) + TICs: This method was subcontracted to Physis Environmental Laboratories. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

GC/MS Semi VOA
Method 525.2_PREC: The continuing calibration verification (CCV) associated with batch 380-61603 recovered above the upper control limit for 2,4'-DDT, 4,4'-DDT, Endrin and Parathion. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: MOANALUA WELLS (331-223-TP202) (380-68501-1), AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-68501-2), AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2 (380-68501-3) and HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1 (380-68501-4).

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: 380-68501-1

Client Sample ID: MOANALUA WELLS (331-223-TP202) **Lab Sample ID: 380-68501-1**

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072) **Lab Sample ID: 380-68501-2**

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2 **Lab Sample ID: 380-68501-3**

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1 **Lab Sample ID: 380-68501-4**

No Detections.

Client Sample ID: TB: MOANALUA WELLS (331-223-TP202) **Lab Sample ID: 380-68501-5**

No Detections.

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072) **Lab Sample ID: 380-68501-6**

No Detections.

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2 **Lab Sample ID: 380-68501-7**

No Detections.

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1 **Lab Sample ID: 380-68501-8**

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-68501-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-1
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2,4'-DDD	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
2-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
4,4'-DDD	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
4,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
4,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Acenaphthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Acenaphthylene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Acetochlor	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Alachlor	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
alpha-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
alpha-Chlordane	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Anthracene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:32	1
Atrazine	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Benz(a)anthracene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Benzo[a]pyrene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:32	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:32	1
Benzo[g,h,i]perylene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:32	1
beta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Bis(2-ethylhexyl) phthalate	<0.60		0.60		ug/L		10/28/23 17:55	10/30/23 16:32	1
Bromacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Butachlor	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Butylbenzylphthalate	<0.50		0.50		ug/L		10/28/23 17:55	10/30/23 16:32	1
Chlorobenzilate	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Chloroneb	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Chlorpyrifos	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Chrysene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:32	1
delta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Di(2-ethylhexyl)adipate	<0.60	^3+	0.60		ug/L		10/28/23 17:55	10/30/23 16:32	1
Dibenz(a,h)anthracene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Diclorvos (DDVP)	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Dieldrin	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:32	1
Diethylphthalate	<0.50		0.50		ug/L		10/28/23 17:55	10/30/23 16:32	1
Dimethylphthalate	<0.50		0.50		ug/L		10/28/23 17:55	10/30/23 16:32	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		10/28/23 17:55	10/30/23 16:32	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Endosulfan sulfate	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Endrin	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Endrin aldehyde	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
EPTC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Fluoranthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-1
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
gamma-Chlordane	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Heptachlor	<0.040		0.040		ug/L		10/28/23 17:55	10/30/23 16:32	1
Heptachlor epoxide (isomer B)	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Hexachlorobenzene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Hexachlorocyclopentadiene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Indeno[1,2,3-cd]pyrene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Isophorone	<0.50		0.50		ug/L		10/28/23 17:55	10/30/23 16:32	1
Lindane	<0.040		0.040		ug/L		10/28/23 17:55	10/30/23 16:32	1
Malathion	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Methoxychlor	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Metolachlor	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Molinate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Naphthalene	<0.30		0.30		ug/L		10/28/23 17:55	10/30/23 16:32	1
Parathion	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Phenanthrene	<0.040		0.040		ug/L		10/28/23 17:55	10/30/23 16:32	1
Propachlor	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Pyrene	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Simazine	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Terbacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Terbuthylazine	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1
Thiobencarb	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:32	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:32	1
trans-Nonachlor	<0.050		0.050		ug/L		10/28/23 17:55	10/30/23 16:32	1
Trifluralin	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*19*	*T J*	*ug/L*		*13.74*	*N/A*	*10/28/23 17:55*	*10/30/23 16:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*99*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:32*	*1*
Perylene-d12	*98*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:32*	*1*
Triphenylphosphate	*120*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:32*	*1*

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Acenaphthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-68501-1

Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Biphenyl	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Chrysene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/30/23 00:00	11/18/23 22:57	1
Fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Fluorene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Naphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Phenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1
Pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*94*		*27 - 133*	*10/30/23 00:00*	*11/18/23 22:57*	*1*
(d10-Phenanthrene)	*101*		*43 - 129*	*10/30/23 00:00*	*11/18/23 22:57*	*1*
(d12-Chrysene)	*94*		*52 - 144*	*10/30/23 00:00*	*11/18/23 22:57*	*1*
(d12-Perylene)	*88*		*36 - 161*	*10/30/23 00:00*	*11/18/23 22:57*	*1*
(d8-Naphthalene)	*93*		*25 - 125*	*10/30/23 00:00*	*11/18/23 22:57*	*1*

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/26/23 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*88*		*60 - 140*		*10/26/23 19:27*	*1*

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			10/27/23 21:49	1
MOTOR OIL	ND	U	0.053		mg/L			10/27/23 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*61*		*60 - 130*		*10/27/23 21:49*	*1*
HEXACOSANE	*73*		*60 - 130*		*10/27/23 21:49*	*1*

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-68501-2

Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
2,4'-DDD	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
2,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
2,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1

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

Job ID: 380-68501-1

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-2
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
4,4'-DDD	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
4,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
4,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Acenaphthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Acenaphthylene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Acetochlor	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Alachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
alpha-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
alpha-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Anthracene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:52	1
Atrazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Benz(a)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Benzo[a]pyrene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:52	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:52	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:52	1
beta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		10/28/23 17:55	10/30/23 16:52	1
Bromacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Butachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Butylbenzylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 16:52	1
Chlorobenzilate	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Chloroneb	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Chlorpyrifos	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Chrysene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 16:52	1
delta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Di(2-ethylhexyl)adipate	<0.59	^3+	0.59		ug/L		10/28/23 17:55	10/30/23 16:52	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Dieldrin	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:52	1
Diethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 16:52	1
Dimethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 16:52	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		10/28/23 17:55	10/30/23 16:52	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Endosulfan sulfate	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Endrin	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Endrin aldehyde	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
EPTC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Fluoranthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Fluorene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
gamma-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Heptachlor	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 16:52	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Hexachlorobenzene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-2
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Isophorone	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 16:52	1
Lindane	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 16:52	1
Malathion	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Methoxychlor	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Metolachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Molinate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Naphthalene	<0.30		0.30		ug/L		10/28/23 17:55	10/30/23 16:52	1
Parathion	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Phenanthrene	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 16:52	1
Propachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Simazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Terbacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Terbuthylazine	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1
Thiobencarb	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:52	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 16:52	1
trans-Nonachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 16:52	1
Trifluralin	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 16:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*10/28/23 17:55*	*10/30/23 16:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*99*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:52*	*1*
Perylene-d12	*98*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:52*	*1*
Triphenylphosphate	*121*		*70 - 130*	*10/28/23 17:55*	*10/30/23 16:52*	*1*

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Acenaphthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Biphenyl	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Chrysene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-68501-2

Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/30/23 00:00	11/19/23 00:42	1
Fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Fluorene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Naphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Phenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1
Pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*95*		*27 - 133*	*10/30/23 00:00*	*11/19/23 00:42*	*1*
(d10-Phenanthrene)	*104*		*43 - 129*	*10/30/23 00:00*	*11/19/23 00:42*	*1*
(d12-Chrysene)	*101*		*52 - 144*	*10/30/23 00:00*	*11/19/23 00:42*	*1*
(d12-Perylene)	*95*		*36 - 161*	*10/30/23 00:00*	*11/19/23 00:42*	*1*
(d8-Naphthalene)	*94*		*25 - 125*	*10/30/23 00:00*	*11/19/23 00:42*	*1*

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/26/23 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*90*		*60 - 140*		*10/26/23 21:25*	*1*

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.028		mg/L			10/27/23 22:08	1
MOTOR OIL	ND	U	0.057		mg/L			10/27/23 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*70*		*60 - 130*		*10/27/23 22:08*	*1*
HEXACOSANE	*88*		*60 - 130*		*10/27/23 22:08*	*1*

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2

Lab Sample ID: 380-68501-3

Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2,4'-DDD	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2,4'-DDE	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2,4'-DDT	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2,4-Dinitrotoluene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2,6-Dinitrotoluene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
2-Methylnaphthalene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
4,4'-DDD	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
4,4'-DDE	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2
Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-3
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Acenaphthene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Acenaphthylene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Acetochlor	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Alachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
alpha-BHC	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
alpha-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Anthracene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:12	1
Atrazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Benz(a)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Benzo[a]pyrene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:12	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:12	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:12	1
beta-BHC	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		10/28/23 17:55	10/30/23 17:12	1
Bromacil	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Butachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Butylbenzylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:12	1
Chlorobenzilate	<0.098	^3+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Chloroneb	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Chlorothalonil (Draconil, Bravo)	<0.098	^3+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Chlorpyrifos	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Chrysene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:12	1
delta-BHC	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Di(2-ethylhexyl)adipate	<0.59	^3+	0.59		ug/L		10/28/23 17:55	10/30/23 17:12	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Dieldrin	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:12	1
Diethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:12	1
Dimethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:12	1
Di-n-butyl phthalate	<0.98		0.98		ug/L		10/28/23 17:55	10/30/23 17:12	1
Di-n-octyl phthalate	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Endosulfan I (Alpha)	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Endosulfan II (Beta)	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Endosulfan sulfate	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Endrin	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Endrin aldehyde	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
EPTC	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Fluoranthene	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Fluorene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
gamma-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Heptachlor	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:12	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Hexachlorobenzene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Isophorone	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:12	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2
Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-3
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lindane	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:12	1
Malathion	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Methoxychlor	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Metolachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Molinate	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Naphthalene	<0.30		0.30		ug/L		10/28/23 17:55	10/30/23 17:12	1
Parathion	<0.098	*+	0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Pendimethalin (Penoxaline)	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Phenanthrene	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:12	1
Propachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Simazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Terbacil	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Terbuthylazine	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1
Thiobencarb	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:12	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:12	1
trans-Nonachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:12	1
Trifluralin	<0.098		0.098		ug/L		10/28/23 17:55	10/30/23 17:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*			*N/A*	*10/28/23 17:55*	*10/30/23 17:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*98*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:12*	*1*
Perylene-d12	*98*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:12*	*1*
Triphenylphosphate	*121*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:12*	*1*

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Acenaphthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Biphenyl	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Chrysene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/30/23 00:00	11/19/23 02:27	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2

Lab Sample ID: 380-68501-3

Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Fluorene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Naphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Phenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1
Pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*92*		*27 - 133*	*10/30/23 00:00*	*11/19/23 02:27*	*1*
(d10-Phenanthrene)	*99*		*43 - 129*	*10/30/23 00:00*	*11/19/23 02:27*	*1*
(d12-Chrysene)	*93*		*52 - 144*	*10/30/23 00:00*	*11/19/23 02:27*	*1*
(d12-Perylene)	*89*		*36 - 161*	*10/30/23 00:00*	*11/19/23 02:27*	*1*
(d8-Naphthalene)	*92*		*25 - 125*	*10/30/23 00:00*	*11/19/23 02:27*	*1*

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/26/23 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*89*		*60 - 140*		*10/26/23 22:05*	*1*

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.03		mg/L			10/27/23 22:27	1
MOTOR OIL	ND	U	0.059		mg/L			10/27/23 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*71*		*60 - 130*		*10/27/23 22:27*	*1*
HEXACOSANE	*93*		*60 - 130*		*10/27/23 22:27*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-4

Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2,4'-DDD	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2,4-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2,6-Dinitrotoluene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
2-Methylnaphthalene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
4,4'-DDD	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
4,4'-DDE	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
4,4'-DDT	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Acenaphthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Acenaphthylene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1

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

Job ID: 380-68501-1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1
Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-4
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetochlor	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Alachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
alpha-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
alpha-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Anthracene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:33	1
Atrazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Benz(a)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Benzo[a]pyrene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:33	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:33	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:33	1
beta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		10/28/23 17:55	10/30/23 17:33	1
Bromacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Butachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Butylbenzylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:33	1
Chlorobenzilate	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Chloroneb	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Chlorpyrifos	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Chrysene	<0.020		0.020		ug/L		10/28/23 17:55	10/30/23 17:33	1
delta-BHC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Di(2-ethylhexyl)adipate	<0.59	^3+	0.59		ug/L		10/28/23 17:55	10/30/23 17:33	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Dieldrin	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:33	1
Diethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:33	1
Dimethylphthalate	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:33	1
Di-n-butyl phthalate	<0.99		0.99		ug/L		10/28/23 17:55	10/30/23 17:33	1
Di-n-octyl phthalate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Endosulfan I (Alpha)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Endosulfan II (Beta)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Endosulfan sulfate	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Endrin	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Endrin aldehyde	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
EPTC	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Fluoranthene	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Fluorene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
gamma-Chlordane	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Heptachlor	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:33	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Hexachlorobenzene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Isophorone	<0.49		0.49		ug/L		10/28/23 17:55	10/30/23 17:33	1
Lindane	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:33	1
Malathion	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Methoxychlor	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1
Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Lab Sample ID: 380-68501-4
Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Metolachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Molinate	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Naphthalene	<0.30		0.30		ug/L		10/28/23 17:55	10/30/23 17:33	1
Parathion	<0.099	*+	0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Pendimethalin (Penoxaline)	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Phenanthrene	<0.039		0.039		ug/L		10/28/23 17:55	10/30/23 17:33	1
Propachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Pyrene	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Simazine	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Terbacil	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Terbuthylazine	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1
Thiobencarb	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:33	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		10/28/23 17:55	10/30/23 17:33	1
trans-Nonachlor	<0.049		0.049		ug/L		10/28/23 17:55	10/30/23 17:33	1
Trifluralin	<0.099		0.099		ug/L		10/28/23 17:55	10/30/23 17:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.1*	*T J*	*ug/L*		*15.70*	*N/A*	*10/28/23 17:55*	*10/30/23 17:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*101*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:33*	*1*
Perylene-d12	*98*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:33*	*1*
Triphenylphosphate	*117*		*70 - 130*	*10/28/23 17:55*	*10/30/23 17:33*	*1*

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Acenaphthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Biphenyl	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Chrysene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/30/23 00:00	11/19/23 04:12	1
Fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Fluorene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-4

Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Phenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1
Pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/19/23 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*90*		*27 - 133*	*10/30/23 00:00*	*11/19/23 04:12*	*1*
(d10-Phenanthrene)	*99*		*43 - 129*	*10/30/23 00:00*	*11/19/23 04:12*	*1*
(d12-Chrysene)	*93*		*52 - 144*	*10/30/23 00:00*	*11/19/23 04:12*	*1*
(d12-Perylene)	*87*		*36 - 161*	*10/30/23 00:00*	*11/19/23 04:12*	*1*
(d8-Naphthalene)	*86*		*25 - 125*	*10/30/23 00:00*	*11/19/23 04:12*	*1*

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/26/23 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*85*		*60 - 140*		*10/26/23 23:24*	*1*

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.028		mg/L			10/27/23 22:45	1
MOTOR OIL	ND	U	0.056		mg/L			10/27/23 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*70*		*60 - 130*		*10/27/23 22:45*	*1*
HEXACOSANE	*91*		*60 - 130*		*10/27/23 22:45*	*1*

Client Sample ID: TB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-68501-5

Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Matrix: Water

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/27/23 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*89*		*60 - 140*		*10/27/23 00:03*	*1*

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-68501-6

Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Matrix: Water

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/27/23 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*85*		*60 - 140*		*10/27/23 00:43*	*1*

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

Job ID: 380-68501-1

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2

Lab Sample ID: 380-68501-7

Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Matrix: Water

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/27/23 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*88*		*60 - 140*		*10/27/23 01:23*	*1*

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-8

Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Matrix: Water

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/27/23 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*87*		*60 - 140*		*10/27/23 02:03*	*1*

Action Limit Summary

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

Job ID: 380-68501-1

Client Sample ID: MOANALUA WELLS (331-223-TP202) — Lab Sample ID: 380-68501-1

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	<0.050		ug/L	2	0.050	525.2	Total/NA
Atrazine	<0.050		ug/L	3	0.050	525.2	Total/NA
Benzo[a]pyrene	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.60		ug/L	6	0.60	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.60	^3+	ug/L	400	0.60	525.2	Total/NA
Endrin	<0.099	*+	ug/L	2	0.099	525.2	Total/NA
Heptachlor	<0.040		ug/L	0.4	0.040	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.050		ug/L	0.2	0.050	525.2	Total/NA
Hexachlorobenzene	<0.050		ug/L	1	0.050	525.2	Total/NA
Hexachlorocyclopentadiene	<0.050		ug/L	50	0.050	525.2	Total/NA
Lindane	<0.040		ug/L	0.2	0.040	525.2	Total/NA
Methoxychlor	<0.099	*+	ug/L	40	0.099	525.2	Total/NA
Simazine	<0.050		ug/L	4	0.050	525.2	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072) — Lab Sample ID: 380-68501-2

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	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	^3+	ug/L	400	0.59	525.2	Total/NA
Endrin	<0.099	*+	ug/L	2	0.099	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	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	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.099	*+	ug/L	40	0.099	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2 — Lab Sample ID: 380-68501-3

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	<0.020		ug/L	0.2	0.020	525.2	Total/NA

Action Limit Summary

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

Job ID: 380-68501-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2 (Continued)

Lab Sample ID: 380-68501-3

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
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	^3+	ug/L	400	0.59	525.2	Total/NA
Endrin	<0.098	*+	ug/L	2	0.098	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	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	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.098	*+	ug/L	40	0.098	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-4

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	<0.020		ug/L	0.2	0.020	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	<0.59		ug/L	6	0.59	525.2	Total/NA
Di(2-ethylhexyl)adipate	<0.59	^3+	ug/L	400	0.59	525.2	Total/NA
Endrin	<0.099	*+	ug/L	2	0.099	525.2	Total/NA
Heptachlor	<0.039		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	<0.049		ug/L	0.2	0.049	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	<0.039		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	<0.099	*+	ug/L	40	0.099	525.2	Total/NA
Simazine	<0.049		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-68501-1

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)
380-68501-1	MOANALUA WELLS (331-223-T	99	98	120
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	99	98	121
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	98	98	121
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	101	98	117

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)
380-68110-G-1-A MS	Matrix Spike	99	98	111
380-68277-U-1-A DU	Duplicate	97	95	123
LCS 380-61488/23-A	Lab Control Sample	97	97	114
MB 380-61488/21-A	Method Blank	99	92	113
MRL 380-61488/22-A	Lab Control Sample	99	98	107

Surrogate Legend

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

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

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

		Percent Surrogate Recovery (Acceptance Limits)				
		Acenapht	Phenanth	CRY	NPT	PRY
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)
112337-B1	Method Blank	97	103	99	99	94
112337-BS1	Lab Control Sample	95	102	99	94	92
112337-BS2	Lab Control Sample Dup	94	100	96	94	92

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)
(d10-Phenanthrene) = (d10-Phenanthrene)
CRY = (d12-Chrysene)
NPT = (d8-Naphthalene)
PRY = (d12-Perylene)

Surrogate Summary

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

Job ID: 380-68501-1

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

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

		Percent Surrogate Recovery (Acceptance Limits)							
		Acenapht	Phenanth	CRY	NPT	PRY			
Lab Sample ID	Client Sample ID	(27-133)	(43-129)	(52-144)	(25-125)	(36-161)			
380-68501-1	MOANALUA WELLS (331-223-T	94	101	94	93	88			
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	95	104	101	94	95			
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	92	99	93	92	89			
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	90	99	93	86	87			

Surrogate Legend

(d10-Acenaphthene) = (d10-Acenaphthene)
(d10-Phenanthrene) = (d10-Phenanthrene)
CRY = (d12-Chrysene)
NPT = (d8-Naphthalene)
PRY = (d12-Perylene)

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

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

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(60-140)							
380-68501-1	MOANALUA WELLS (331-223-T	88							
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	90							
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	89							
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	85							

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

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

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID								
23VGH7J07B	Method Blank								

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

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

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(70-130)							
23VGH7J07C	LCD	112							
23VGH7J07L	Lab Control Sample	102							

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

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

Job ID: 380-68501-1

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
380-68501-5	TB: MOANALUA WELLS (331-2	89
380-68501-6	TB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	85
380-68501-7	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	88
380-68501-8	TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	87

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(60-140)
23J237-01M	Matrix Spike	108
23J237-01S	Matrix Spike Duplicate	109

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSAI
Lab Sample ID	Client Sample ID	(60-130)	(60-130)
380-68501-1	MOANALUA WELLS (331-223-T	61	73
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	70	88
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	71	93
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	70	91

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BB	XACOSAI
Lab Sample ID	Client Sample ID		
23DSJ033WB	Method Blank		

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

Surrogate Summary

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

Job ID: 380-68501-1

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		BB	XACOSA								
Lab Sample ID	Client Sample ID	(60-130)	(60-130)								
23DSJ033WC	LCD	75	103								
23DSJ033WL	Lab Control Sample	70	98								

Surrogate Legend

BB = BROMOBENZENE

HEXACOSANE = HEXACOSANE

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

Lab Sample ID: MB 380-61488/21-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61488

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2,4'-DDD	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2,4'-DDE	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2,4'-DDT	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2,4-Dinitrotoluene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2,6-Dinitrotoluene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
2-Methylnaphthalene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
4,4'-DDD	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
4,4'-DDE	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
4,4'-DDT	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Acenaphthene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Acenaphthylene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Acetochlor	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Alachlor	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
alpha-BHC	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
alpha-Chlordane	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Anthracene	<0.020		0.020		ug/L		10/28/23 16:25	10/30/23 11:49	1
Atrazine	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Benz(a)anthracene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Benzo[a]pyrene	<0.020		0.020		ug/L		10/28/23 16:25	10/30/23 11:49	1
Benzo[b]fluoranthene	<0.020		0.020		ug/L		10/28/23 16:25	10/30/23 11:49	1
Benzo[g,h,i]perylene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Benzo[k]fluoranthene	<0.020		0.020		ug/L		10/28/23 16:25	10/30/23 11:49	1
beta-BHC	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Bis(2-ethylhexyl) phthalate	<0.59		0.59		ug/L		10/28/23 16:25	10/30/23 11:49	1
Bromacil	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Butachlor	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Butylbenzylphthalate	<0.49		0.49		ug/L		10/28/23 16:25	10/30/23 11:49	1
Chlorobenzilate	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Chloroneb	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Chlorothalonil (Draconil, Bravo)	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Chlorpyrifos	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Chrysene	<0.020		0.020		ug/L		10/28/23 16:25	10/30/23 11:49	1
delta-BHC	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Di(2-ethylhexyl)adipate	<0.59		0.59		ug/L		10/28/23 16:25	10/30/23 11:49	1
Dibenz(a,h)anthracene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Diclorvos (DDVP)	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Dieldrin	<0.20		0.20		ug/L		10/28/23 16:25	10/30/23 11:49	1
Diethylphthalate	<0.49		0.49		ug/L		10/28/23 16:25	10/30/23 11:49	1
Dimethylphthalate	<0.49		0.49		ug/L		10/28/23 16:25	10/30/23 11:49	1
Di-n-butyl phthalate	<0.98		0.98		ug/L		10/28/23 16:25	10/30/23 11:49	1
Di-n-octyl phthalate	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Endosulfan I (Alpha)	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Endosulfan II (Beta)	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Endosulfan sulfate	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Endrin	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Endrin aldehyde	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
EPTC	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1

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

Lab Sample ID: MB 380-61488/21-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 61488

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Fluorene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
gamma-Chlordane	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Heptachlor	<0.039		0.039		ug/L		10/28/23 16:25	10/30/23 11:49	1
Heptachlor epoxide (isomer B)	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Hexachlorobenzene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Hexachlorocyclopentadiene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Indeno[1,2,3-cd]pyrene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Isophorone	<0.49		0.49		ug/L		10/28/23 16:25	10/30/23 11:49	1
Lindane	<0.039		0.039		ug/L		10/28/23 16:25	10/30/23 11:49	1
Malathion	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Methoxychlor	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Metolachlor	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Molinate	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Naphthalene	<0.29		0.29		ug/L		10/28/23 16:25	10/30/23 11:49	1
Parathion	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Pendimethalin (Penoxaline)	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Phenanthrene	<0.039		0.039		ug/L		10/28/23 16:25	10/30/23 11:49	1
Propachlor	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Pyrene	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Simazine	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Terbacil	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Terbuthylazine	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1
Thiobencarb	<0.20		0.20		ug/L		10/28/23 16:25	10/30/23 11:49	1
Total Permethrin (mixed isomers)	<0.20		0.20		ug/L		10/28/23 16:25	10/30/23 11:49	1
trans-Nonachlor	<0.049		0.049		ug/L		10/28/23 16:25	10/30/23 11:49	1
Trifluralin	<0.098		0.098		ug/L		10/28/23 16:25	10/30/23 11:49	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Bacchotricuneatin c	*0.678*	*T J N*	*ug/L*		*2.54*	*66563-30-2*	*10/28/23 16:25*	*10/30/23 11:49*	*1*
n-Hexadecanoic acid	*0.848*	*T J N*	*ug/L*		*5.77*	*57-10-3*	*10/28/23 16:25*	*10/30/23 11:49*	*1*
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	*0.833*	*T J N*	*ug/L*		*9.73*	*6422-86-2*	*10/28/23 16:25*	*10/30/23 11:49*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*99*		*70 - 130*	*10/28/23 16:25*	*10/30/23 11:49*	*1*
Perylene-d12	*92*		*70 - 130*	*10/28/23 16:25*	*10/30/23 11:49*	*1*
Triphenylphosphate	*113*		*70 - 130*	*10/28/23 16:25*	*10/30/23 11:49*	*1*

Lab Sample ID: LCS 380-61488/23-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	1.97	1.96		ug/L		100	70 - 130
2,4'-DDD	1.97	2.39		ug/L		121	70 - 130
2,4'-DDE	1.97	2.22		ug/L		113	70 - 130
2,4'-DDT	1.97	2.73	*+	ug/L		139	70 - 130

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

Lab Sample ID: LCS 380-61488/23-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrotoluene	1.97	1.87		ug/L		95	70 - 130
2,6-Dinitrotoluene	1.97	1.88		ug/L		96	70 - 130
2-Methylnaphthalene	1.97	1.97		ug/L		100	70 - 130
4,4'-DDD	1.97	2.63	*+	ug/L		134	70 - 130
4,4'-DDE	1.97	2.20		ug/L		112	70 - 130
4,4'-DDT	1.97	2.66	*+	ug/L		135	70 - 130
Acenaphthene	1.97	1.95		ug/L		99	70 - 130
Acenaphthylene	1.97	1.85		ug/L		94	70 - 130
Acetochlor	1.97	2.27		ug/L		115	70 - 130
Alachlor	1.97	2.24		ug/L		114	70 - 130
alpha-BHC	1.97	2.14		ug/L		109	70 - 130
alpha-Chlordane	1.97	2.22		ug/L		113	70 - 130
Anthracene	1.97	1.99		ug/L		101	70 - 130
Atrazine	1.97	2.08		ug/L		106	70 - 130
Benz(a)anthracene	1.97	2.42		ug/L		123	70 - 130
Benzo[a]pyrene	1.97	2.24		ug/L		114	70 - 130
Benzo[b]fluoranthene	1.97	2.24		ug/L		114	70 - 130
Benzo[g,h,i]perylene	1.97	2.24		ug/L		114	70 - 130
Benzo[k]fluoranthene	1.97	2.40		ug/L		122	70 - 130
beta-BHC	1.97	2.09		ug/L		106	70 - 130
Bis(2-ethylhexyl) phthalate	1.97	2.22		ug/L		113	70 - 130
Bromacil	1.97	2.45		ug/L		124	70 - 130
Butachlor	1.97	2.31		ug/L		117	70 - 130
Butylbenzylphthalate	1.97	2.41		ug/L		123	70 - 130
Chlorobenzilate	1.97	2.41		ug/L		123	70 - 130
Chloroneb	1.97	2.09		ug/L		106	70 - 130
Chlorothalonil (Draconil, Bravo)	1.97	2.12		ug/L		108	70 - 130
Chlorpyrifos	1.97	2.45		ug/L		125	70 - 130
Chrysene	1.97	2.27		ug/L		115	70 - 130
delta-BHC	1.97	2.19		ug/L		111	70 - 130
Di(2-ethylhexyl)adipate	1.97	2.55		ug/L		130	70 - 130
Dibenz(a,h)anthracene	1.97	2.11		ug/L		107	70 - 130
Diclorvos (DDVP)	1.97	2.13		ug/L		108	70 - 130
Dieldrin	1.97	2.23		ug/L		113	70 - 130
Diethylphthalate	1.97	2.05		ug/L		104	70 - 130
Dimethylphthalate	1.97	2.03		ug/L		103	70 - 130
Di-n-butyl phthalate	3.94	4.58		ug/L		116	70 - 130
Di-n-octyl phthalate	1.97	2.03		ug/L		103	70 - 130
Endosulfan I (Alpha)	1.97	2.17		ug/L		110	70 - 130
Endosulfan II (Beta)	1.97	2.47		ug/L		126	70 - 130
Endosulfan sulfate	1.97	2.60	*+	ug/L		132	70 - 130
Endrin	1.97	2.60	*+	ug/L		132	70 - 130
Endrin aldehyde	1.97	1.76		ug/L		89	70 - 130
EPTC	1.97	2.49		ug/L		126	70 - 130
Fluoranthene	1.97	2.14		ug/L		109	70 - 130
Fluorene	1.97	1.94		ug/L		99	70 - 130
gamma-Chlordane	1.97	2.21		ug/L		112	70 - 130
Heptachlor	1.97	2.32		ug/L		118	70 - 130
Heptachlor epoxide (isomer B)	1.97	2.15		ug/L		109	70 - 130

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

Lab Sample ID: LCS 380-61488/23-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobenzene	1.97	1.98		ug/L		101	70 - 130
Hexachlorocyclopentadiene	1.97	2.39		ug/L		122	70 - 130
Indeno[1,2,3-cd]pyrene	1.97	2.29		ug/L		116	70 - 130
Isophorone	1.97	1.80		ug/L		91	70 - 130
Lindane	1.97	2.19		ug/L		111	70 - 130
Malathion	1.97	2.42		ug/L		123	70 - 130
Methoxychlor	1.97	2.65	*+	ug/L		135	70 - 130
Metolachlor	1.97	2.31		ug/L		118	70 - 130
Molinate	1.97	2.29		ug/L		116	70 - 130
Naphthalene	1.97	1.83		ug/L		93	70 - 130
Parathion	1.97	2.78	*+	ug/L		141	70 - 130
Pendimethalin (Penoxaline)	1.97	2.18		ug/L		111	70 - 130
Phenanthrene	1.97	1.96		ug/L		100	70 - 130
Propachlor	1.97	2.08		ug/L		106	70 - 130
Pyrene	1.97	2.16		ug/L		110	70 - 130
Simazine	1.97	2.12		ug/L		108	70 - 130
Terbacil	1.97	2.28		ug/L		116	70 - 130
Terbuthylazine	1.97	2.23		ug/L		113	70 - 130
Thiobencarb	1.97	2.11		ug/L		107	70 - 130
trans-Nonachlor	1.97	2.39		ug/L		122	70 - 130
Trifluralin	1.97	2.29		ug/L		116	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*97*		*70 - 130*
Perylene-d12	*97*		*70 - 130*
Triphenylphosphate	*114*		*70 - 130*

Lab Sample ID: MRL 380-61488/22-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.0986	0.110		ug/L		112	50 - 150
2,4'-DDD	0.0986	0.127		ug/L		129	50 - 150
2,4'-DDE	0.0986	0.122		ug/L		124	50 - 150
2,4'-DDT	0.0986	0.112		ug/L		114	50 - 150
2,4-Dinitrotoluene	0.0986	0.108		ug/L		110	50 - 150
2,6-Dinitrotoluene	0.0986	0.106		ug/L		108	50 - 150
2-Methylnaphthalene	0.0986	0.103		ug/L		104	50 - 150
4,4'-DDD	0.0986	0.109		ug/L		111	50 - 150
4,4'-DDE	0.0986	0.108		ug/L		109	50 - 150
4,4'-DDT	0.0986	0.132		ug/L		134	50 - 150
Acenaphthene	0.0986	0.0960	J	ug/L		97	50 - 150
Acenaphthylene	0.0986	0.0793	J	ug/L		80	50 - 150
Acetochlor	0.0493	0.0449	J	ug/L		91	50 - 150
Alachlor	0.0493	0.0564		ug/L		114	50 - 150
alpha-BHC	0.0986	0.106		ug/L		108	50 - 150
alpha-Chlordane	0.0247	<0.029		ug/L		114	50 - 150

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

Lab Sample ID: MRL 380-61488/22-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	0.0197	<0.019		ug/L		92	50 - 150
Atrazine	0.0493	0.0483	J	ug/L		98	50 - 150
Benz(a)anthracene	0.0493	0.0553		ug/L		112	50 - 150
Benzo[a]pyrene	0.0197	0.0210		ug/L		106	50 - 150
Benzo[b]fluoranthene	0.0197	0.0231		ug/L		117	50 - 150
Benzo[g,h,i]perylene	0.0493	0.0493		ug/L		100	50 - 150
Benzo[k]fluoranthene	0.0197	0.0242		ug/L		123	50 - 150
beta-BHC	0.0986	0.103		ug/L		104	50 - 150
Bis(2-ethylhexyl) phthalate	0.592	0.698		ug/L		118	50 - 150
Bromacil	0.0986	0.130		ug/L		132	50 - 150
Butachlor	0.0493	0.0630		ug/L		128	50 - 150
Butylbenzylphthalate	0.148	0.163	J	ug/L		110	50 - 150
Chlorobenzilate	0.0986	0.151	^3+	ug/L		153	50 - 150
Chloroneb	0.0986	0.133		ug/L		135	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0986	0.200	^3+	ug/L		203	50 - 150
Chlorpyrifos	0.0493	0.0635		ug/L		129	50 - 150
Chrysene	0.0197	0.0244		ug/L		124	50 - 150
delta-BHC	0.0986	0.122		ug/L		124	50 - 150
Di(2-ethylhexyl)adipate	0.296	0.476	J ^3+	ug/L		161	50 - 150
Dibenz(a,h)anthracene	0.0493	0.0592		ug/L		120	50 - 150
Diclorvos (DDVP)	0.0493	0.0679		ug/L		138	50 - 150
Dieldrin	0.0986	0.124	J	ug/L		126	50 - 150
Diethylphthalate	0.148	0.178	J	ug/L		121	50 - 150
Dimethylphthalate	0.296	0.288	J	ug/L		97	50 - 150
Di-n-butyl phthalate	0.296	0.398	J	ug/L		135	49 - 243
Di-n-octyl phthalate	0.0986	0.0817	J	ug/L		83	50 - 150
Endosulfan I (Alpha)	0.0986	0.102		ug/L		103	50 - 150
Endosulfan II (Beta)	0.0986	0.132		ug/L		134	50 - 150
Endosulfan sulfate	0.0986	0.121		ug/L		123	50 - 150
Endrin	0.0986	0.126		ug/L		127	50 - 150
Endrin aldehyde	0.0986	0.103		ug/L		105	50 - 150
EPTC	0.0986	0.134		ug/L		136	50 - 150
Fluoranthene	0.0493	0.0550	J	ug/L		111	50 - 150
Fluorene	0.0493	<0.049		ug/L		91	50 - 150
gamma-Chlordane	0.0247	0.0292	J	ug/L		118	50 - 150
Heptachlor	0.0394	0.0488		ug/L		124	50 - 150
Heptachlor epoxide (isomer B)	0.0493	0.0567		ug/L		115	50 - 150
Hexachlorobenzene	0.0493	0.0580		ug/L		118	50 - 150
Hexachlorocyclopentadiene	0.0493	0.0566		ug/L		115	50 - 150
Indeno[1,2,3-cd]pyrene	0.0493	0.0503		ug/L		102	50 - 150
Isophorone	0.0986	0.0903	J	ug/L		92	50 - 150
Lindane	0.0394	0.0441		ug/L		112	50 - 150
Malathion	0.0986	0.114		ug/L		115	50 - 150
Methoxychlor	0.0986	0.113		ug/L		115	50 - 150
Metolachlor	0.0493	0.0560		ug/L		114	50 - 150
Molinate	0.0986	0.139		ug/L		141	50 - 150
Naphthalene	0.0986	0.118	J	ug/L		120	50 - 150
Parathion	0.0986	0.136		ug/L		138	50 - 150
Pendimethalin (Penoxaline)	0.0986	0.122		ug/L		123	50 - 150

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

Lab Sample ID: MRL 380-61488/22-A
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	0.0197	0.0235	J	ug/L		119	50 - 150
Propachlor	0.0493	0.0551		ug/L		112	50 - 150
Pyrene	0.0493	0.0564		ug/L		114	50 - 150
Simazine	0.0493	0.0505		ug/L		102	50 - 150
Terbacil	0.0986	0.112		ug/L		114	50 - 150
Terbuthylazine	0.0986	0.104		ug/L		105	50 - 150
Thiobencarb	0.0986	0.123	J	ug/L		124	50 - 150
trans-Nonachlor	0.0247	0.0315	J	ug/L		128	50 - 150
Trifluralin	0.0986	0.104		ug/L		105	50 - 150

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*98*		*70 - 130*
Triphenylphosphate	*107*		*70 - 130*

Lab Sample ID: 380-68110-G-1-A MS
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	<0.099		1.97	1.99		ug/L		101	70 - 130
2,4'-DDD	<0.099		1.97	2.32		ug/L		118	70 - 130
2,4'-DDE	<0.099		1.97	2.09		ug/L		106	70 - 130
2,4'-DDT	<0.099	*+ F1	1.97	2.60	F1	ug/L		132	70 - 130
2,4-Dinitrotoluene	<0.099		1.97	2.11		ug/L		107	70 - 130
2,6-Dinitrotoluene	<0.099		1.97	2.11		ug/L		107	70 - 130
2-Methylnaphthalene	<0.099		1.97	1.99		ug/L		101	70 - 130
4,4'-DDD	<0.099	*+	1.97	2.55		ug/L		129	70 - 130
4,4'-DDE	<0.099		1.97	2.09		ug/L		106	70 - 130
4,4'-DDT	<0.099	*+	1.97	2.50		ug/L		127	70 - 130
Acenaphthene	<0.099		1.97	1.96		ug/L		100	70 - 130
Acenaphthylene	<0.099		1.97	1.94		ug/L		98	70 - 130
Acetochlor	<0.099		1.97	2.29		ug/L		116	70 - 130
Alachlor	<0.050		1.97	2.28		ug/L		115	70 - 130
alpha-BHC	<0.099		1.97	2.17		ug/L		110	70 - 130
alpha-Chlordane	<0.050		1.97	2.17		ug/L		110	70 - 130
Anthracene	<0.020		1.97	2.00		ug/L		101	70 - 130
Atrazine	<0.050		1.97	2.12		ug/L		107	70 - 130
Benz(a)anthracene	<0.050		1.97	2.31		ug/L		117	70 - 130
Benzo[a]pyrene	<0.020		1.97	2.25		ug/L		114	70 - 130
Benzo[b]fluoranthene	<0.020		1.97	2.23		ug/L		113	70 - 130
Benzo[g,h,i]perylene	<0.050		1.97	2.23		ug/L		113	70 - 130
Benzo[k]fluoranthene	<0.020		1.97	2.39		ug/L		121	70 - 130
beta-BHC	<0.099		1.97	2.14		ug/L		109	70 - 130
Bis(2-ethylhexyl) phthalate	<0.60		1.97	2.16		ug/L		110	70 - 130
Bromacil	<0.099	F1	1.97	2.62	F1	ug/L		133	70 - 130
Butachlor	<0.050		1.97	2.29		ug/L		116	70 - 130
Butylbenzylphthalate	<0.50		1.97	2.36		ug/L		120	70 - 130

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

Lab Sample ID: 380-68110-G-1-A MS
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobenzilate	<0.099	^3+	1.97	2.36		ug/L		120	70 - 130
Chloroneb	<0.099		1.97	2.08		ug/L		105	70 - 130
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	1.97	2.13		ug/L		108	70 - 130
Chlorpyrifos	<0.050		1.97	2.43		ug/L		123	70 - 130
Chrysene	<0.020		1.97	2.21		ug/L		112	70 - 130
delta-BHC	<0.099		1.97	2.21		ug/L		112	70 - 130
Di(2-ethylhexyl)adipate	<0.60	^3+	1.97	2.33		ug/L		112	70 - 130
Dibenz(a,h)anthracene	<0.050		1.97	2.07		ug/L		105	70 - 130
Diclorvos (DDVP)	<0.050		1.97	2.21		ug/L		112	70 - 130
Dieldrin	<0.20		1.97	2.22		ug/L		112	70 - 130
Diethylphthalate	<0.50		1.97	2.08		ug/L		105	70 - 130
Dimethylphthalate	<0.50		1.97	2.14		ug/L		108	70 - 130
Di-n-butyl phthalate	<0.99		3.94	4.50		ug/L		114	70 - 130
Di-n-octyl phthalate	<0.099		1.97	1.88		ug/L		95	70 - 130
Endosulfan I (Alpha)	<0.099		1.97	2.17		ug/L		110	70 - 130
Endosulfan II (Beta)	<0.099		1.97	2.52		ug/L		128	70 - 130
Endosulfan sulfate	<0.099	*+	1.97	2.56		ug/L		130	70 - 130
Endrin	<0.099	*+	1.97	2.57		ug/L		130	70 - 130
Endrin aldehyde	<0.099		1.97	1.61		ug/L		82	70 - 130
EPTC	<0.099		1.97	2.49		ug/L		126	70 - 130
Fluoranthene	<0.099		1.97	2.11		ug/L		107	70 - 130
Fluorene	<0.050		1.97	1.97		ug/L		100	70 - 130
gamma-Chlordane	<0.050		1.97	2.17		ug/L		110	70 - 130
Heptachlor	<0.040		1.97	2.30		ug/L		116	70 - 130
Heptachlor epoxide (isomer B)	<0.050		1.97	2.17		ug/L		110	70 - 130
Hexachlorobenzene	<0.050		1.97	1.98		ug/L		100	70 - 130
Hexachlorocyclopentadiene	<0.050		1.97	2.37		ug/L		120	70 - 130
Indeno[1,2,3-cd]pyrene	<0.050		1.97	2.25		ug/L		114	70 - 130
Isophorone	<0.50		1.97	1.88		ug/L		95	70 - 130
Lindane	<0.040		1.97	2.19		ug/L		111	70 - 130
Malathion	<0.099		1.97	2.41		ug/L		122	70 - 130
Methoxychlor	<0.099	*+ F1	1.97	2.77	F1	ug/L		140	70 - 130
Metolachlor	<0.050		1.97	2.36		ug/L		120	70 - 130
Molinate	<0.099		1.97	2.29		ug/L		116	70 - 130
Naphthalene	<0.30		1.97	1.86		ug/L		94	70 - 130
Parathion	<0.099	*+ F1	1.97	2.78	F1	ug/L		141	70 - 130
Pendimethalin (Penoxaline)	<0.099		1.97	2.19		ug/L		111	70 - 130
Phenanthrene	<0.040		1.97	1.99		ug/L		101	70 - 130
Propachlor	<0.050		1.97	2.11		ug/L		107	70 - 130
Pyrene	<0.050		1.97	2.15		ug/L		109	70 - 130
Simazine	<0.050		1.97	2.21		ug/L		112	70 - 130
Terbacil	<0.099		1.97	2.39		ug/L		121	70 - 130
Terbuthylazine	<0.099		1.97	2.24		ug/L		114	70 - 130
Thiobencarb	<0.20		1.97	2.10		ug/L		107	70 - 130
trans-Nonachlor	<0.050		1.97	2.27		ug/L		115	70 - 130
Trifluralin	<0.099		1.97	2.27		ug/L		115	70 - 130

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

Lab Sample ID: 380-68110-G-1-A MS
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 61488

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*99*		*70 - 130*
Perylene-d12	*98*		*70 - 130*
Triphenylphosphate	*111*		*70 - 130*

Lab Sample ID: 380-68277-U-1-A DU
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
1-Methylnaphthalene	<0.099		<0.099		ug/L		NC	20
2,4'-DDD	<0.099		<0.099		ug/L		NC	20
2,4'-DDE	<0.099		<0.099		ug/L		NC	20
2,4'-DDT	<0.099	*+	<0.099	*+	ug/L		NC	20
2,4-Dinitrotoluene	<0.099		<0.099		ug/L		NC	20
2,6-Dinitrotoluene	<0.099		<0.099		ug/L		NC	20
2-Methylnaphthalene	<0.099		<0.099		ug/L		NC	20
4,4'-DDD	<0.099	*+	<0.099	*+	ug/L		NC	20
4,4'-DDE	<0.099		<0.099		ug/L		NC	20
4,4'-DDT	<0.099	*+	<0.099	*+	ug/L		NC	20
Acenaphthene	<0.099		<0.099		ug/L		NC	20
Acenaphthylene	<0.099		<0.099		ug/L		NC	20
Acetochlor	<0.099		<0.099		ug/L		NC	20
Alachlor	<0.049		<0.049		ug/L		NC	20
alpha-BHC	<0.099		<0.099		ug/L		NC	20
alpha-Chlordane	<0.049		<0.049		ug/L		NC	20
Anthracene	<0.020		<0.020		ug/L		NC	20
Atrazine	0.084		0.0866		ug/L		3	20
Benz(a)anthracene	<0.049		<0.049		ug/L		NC	20
Benzo[a]pyrene	<0.020		<0.020		ug/L		NC	20
Benzo[b]fluoranthene	<0.020		<0.020		ug/L		NC	20
Benzo[g,h,i]perylene	<0.049		<0.049		ug/L		NC	20
Benzo[k]fluoranthene	<0.020		<0.020		ug/L		NC	20
beta-BHC	<0.099		<0.099		ug/L		NC	20
Bis(2-ethylhexyl) phthalate	<0.59		<0.59		ug/L		NC	20
Bromacil	<0.099		<0.099		ug/L		NC	20
Butachlor	<0.049		<0.049		ug/L		NC	20
Butylbenzylphthalate	<0.49		<0.49		ug/L		NC	20
Chlorobenzilate	<0.099	^3+	<0.099		ug/L		NC	20
Chloroneb	<0.099		<0.099		ug/L		NC	20
Chlorothalonil (Draconil, Bravo)	<0.099	^3+	<0.099		ug/L		NC	20
Chlorpyrifos	<0.049		<0.049		ug/L		NC	20
Chrysene	<0.020		<0.020		ug/L		NC	20
delta-BHC	<0.099		<0.099		ug/L		NC	20
Di(2-ethylhexyl)adipate	<0.59	^3+	<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	<0.20		<0.20		ug/L		NC	20
Diethylphthalate	<0.49		<0.49		ug/L		NC	20

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

Lab Sample ID: 380-68277-U-1-A DU
Matrix: Water
Analysis Batch: 61603

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 61488

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Dimethylphthalate	<0.49			<0.49		ug/L				NC	20
Di-n-butyl phthalate	<0.99			<0.99		ug/L				NC	20
Di-n-octyl phthalate	<0.099			<0.099		ug/L				NC	20
Endosulfan I (Alpha)	<0.099			<0.099		ug/L				NC	20
Endosulfan II (Beta)	<0.099			<0.099		ug/L				NC	20
Endosulfan sulfate	<0.099	*+		<0.099	*+	ug/L				NC	20
Endrin	<0.099	*+		<0.099	*+	ug/L				NC	20
Endrin aldehyde	<0.099			<0.099		ug/L				NC	20
EPTC	<0.099			<0.099		ug/L				NC	20
Fluoranthene	<0.099			<0.099		ug/L				NC	20
Fluorene	<0.049			<0.049		ug/L				NC	20
gamma-Chlordane	<0.049			<0.049		ug/L				NC	20
Heptachlor	<0.040			<0.039		ug/L				NC	20
Heptachlor epoxide (isomer B)	<0.049			<0.049		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	<0.49			<0.49		ug/L				NC	20
Lindane	<0.040			<0.039		ug/L				NC	20
Malathion	<0.099			<0.099		ug/L				NC	20
Methoxychlor	<0.099	*+		<0.099	*+	ug/L				NC	20
Metolachlor	<0.049			<0.049		ug/L				NC	20
Molinate	<0.099			<0.099		ug/L				NC	20
Naphthalene	<0.30			<0.30		ug/L				NC	20
Parathion	<0.099	*+		<0.099	*+	ug/L				NC	20
Pendimethalin (Penoxaline)	<0.099			<0.099		ug/L				NC	20
Phenanthrene	<0.040			<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	0.089			0.0899		ug/L				0.6	20
Terbacil	<0.099			<0.099		ug/L				NC	20
Terbuthylazine	<0.099			<0.099		ug/L				NC	20
Thiobencarb	<0.20			<0.20		ug/L				NC	20
Total Permethrin (mixed isomers)	<0.20			<0.20		ug/L				NC	20
trans-Nonachlor	<0.049			<0.049		ug/L				NC	20
Trifluralin	<0.099			<0.099		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*97*		*70 - 130*
Perylene-d12	*95*		*70 - 130*
Triphenylphosphate	*123*		*70 - 130*

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i

Lab Sample ID: 112337-B1
Matrix: BlankMatrix
Analysis Batch: O-42154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-42154_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Acenaphthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Biphenyl	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Chrysene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/30/23 00:00	11/18/23 17:41	1
Fluoranthene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Fluorene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Naphthalene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Perylene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Phenanthrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1
Pyrene	ND		0.005	0.001	µg/L		10/30/23 00:00	11/18/23 17:41	1

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*97*		*27 - 133*	*10/30/23 00:00*	*11/18/23 17:41*	*1*
(d10-Phenanthrene)	*103*		*43 - 129*	*10/30/23 00:00*	*11/18/23 17:41*	*1*
(d12-Chrysene)	*99*		*52 - 144*	*10/30/23 00:00*	*11/18/23 17:41*	*1*
(d12-Perylene)	*94*		*36 - 161*	*10/30/23 00:00*	*11/18/23 17:41*	*1*
(d8-Naphthalene)	*99*		*25 - 125*	*10/30/23 00:00*	*11/18/23 17:41*	*1*

Lab Sample ID: 112337-BS1
Matrix: BlankMatrix
Analysis Batch: O-42154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42154_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.448		µg/L		90	31 - 128
1-Methylphenanthrene	0.5	0.515		µg/L		103	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.473		µg/L		95	55 - 122
2,6-Dimethylnaphthalene	0.5	0.443		µg/L		89	48 - 120
2-Methylnaphthalene	0.5	0.45		µg/L		90	47 - 130
Acenaphthene	0.5	0.456		µg/L		91	53 - 131
Acenaphthylene	0.5	0.463		µg/L		93	43 - 140
Anthracene	0.5	0.496		µg/L		99	58 - 135

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 112337-BS1
Matrix: BlankMatrix
Analysis Batch: O-42154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-42154_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benz[a]anthracene			0.5	0.493		µg/L		99	55 - 145		
Benzo[a]pyrene			0.5	0.431		µg/L		86	51 - 143		
Benzo[b]fluoranthene			0.5	0.528		µg/L		106	46 - 165		
Benzo[e]pyrene			0.5	0.503		µg/L		101	42 - 152		
Benzo[g,h,i]perylene			0.5	0.478		µg/L		96	63 - 133		
Benzo[k]fluoranthene			0.5	0.446		µg/L		89	56 - 145		
Biphenyl			0.5	0.444		µg/L		89	56 - 119		
Chrysene			0.5	0.46		µg/L		92	56 - 141		
Dibenz[a,h]anthracene			0.5	0.65		µg/L		130	55 - 150		
Dibenzo[a,l]pyrene			1	1.12		µg/L		112	50 - 150		
Dibenzothiophene			0.5	0.49		µg/L		98	46 - 126		
Disalicylidenepropanediamine			50	46.3		µg/L		93	50 - 150		
Fluoranthene			0.5	0.528		µg/L		106	60 - 146		
Fluorene			0.5	0.459		µg/L		92	58 - 131		
Indeno[1,2,3-cd]pyrene			0.5	0.652		µg/L		130	50 - 151		
Naphthalene			0.5	0.457		µg/L		91	41 - 126		
Perylene			0.5	0.482		µg/L		96	48 - 141		
Phenanthrene			0.5	0.492		µg/L		98	67 - 127		
Pyrene			0.5	0.529		µg/L		106	54 - 156		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
(d10-Acenaphthene)	*95*		*27 - 133*
(d10-Phenanthrene)	*102*		*43 - 129*
(d12-Chrysene)	*99*		*52 - 144*
(d12-Perylene)	*92*		*36 - 161*
(d8-Naphthalene)	*94*		*25 - 125*

Lab Sample ID: 112337-BS2
Matrix: BlankMatrix
Analysis Batch: O-42154

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42154_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			0.5	0.442		µg/L		88	31 - 128	2	30
1-Methylphenanthrene			0.5	0.5		µg/L		100	66 - 127	3	30
2,3,5-Trimethylnaphthalene			0.5	0.469		µg/L		94	55 - 122	1	30
2,6-Dimethylnaphthalene			0.5	0.438		µg/L		88	48 - 120	1	30
2-Methylnaphthalene			0.5	0.438		µg/L		88	47 - 130	2	30
Acenaphthene			0.5	0.448		µg/L		90	53 - 131	1	30
Acenaphthylene			0.5	0.459		µg/L		92	43 - 140	1	30
Anthracene			0.5	0.478		µg/L		96	58 - 135	3	30
Benz[a]anthracene			0.5	0.481		µg/L		96	55 - 145	3	30
Benzo[a]pyrene			0.5	0.43		µg/L		86	51 - 143	0	30
Benzo[b]fluoranthene			0.5	0.517		µg/L		103	46 - 165	3	30
Benzo[e]pyrene			0.5	0.504		µg/L		101	42 - 152	0	30
Benzo[g,h,i]perylene			0.5	0.471		µg/L		94	63 - 133	2	30
Benzo[k]fluoranthene			0.5	0.438		µg/L		88	56 - 145	1	30
Biphenyl			0.5	0.441		µg/L		88	56 - 119	1	30
Chrysene			0.5	0.455		µg/L		91	56 - 141	1	30

Method: 625 PAH Physis LL (EAL) + TICs - EPA 625 Base/Neutral and Acid Organics i (Continued)

Lab Sample ID: 112337-BS2
Matrix: BlankMatrix
Analysis Batch: O-42154

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-42154_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]anthracene			0.5	0.648		µg/L		130	55 - 150	0	30
Dibenzo[a,l]pyrene			1	1.11		µg/L		111	50 - 150	1	30
Dibenzothiophene			0.5	0.479		µg/L		96	46 - 126	2	30
Disalicylidenepropanediamine			50	40.8		µg/L		82	50 - 150	13	30
Fluoranthene			0.5	0.515		µg/L		103	60 - 146	3	30
Fluorene			0.5	0.456		µg/L		91	58 - 131	1	30
Indeno[1,2,3-cd]pyrene			0.5	0.646		µg/L		129	50 - 151	1	30
Naphthalene			0.5	0.447		µg/L		89	41 - 126	2	30
Perylene			0.5	0.463		µg/L		93	48 - 141	3	30
Phenanthrene			0.5	0.472		µg/L		94	67 - 127	4	30
Pyrene			0.5	0.526		µg/L		105	54 - 156	1	30

Surrogate	*LCS DUP %Recovery*	*LCS DUP Qualifier*	*Limits*
(d10-Acenaphthene)	*94*		*27 - 133*
(d10-Phenanthrene)	*100*		*43 - 129*
(d12-Chrysene)	*96*		*52 - 144*
(d12-Perylene)	*92*		*36 - 161*
(d8-Naphthalene)	*94*		*25 - 125*

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics

Lab Sample ID: 23VGH7J07B
Matrix: WATER
Analysis Batch: 23VGH7J07

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GASOLINE	ND	U	0.02		mg/L			10/26/23 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE					*10/26/23 16:08*	*1*

Lab Sample ID: 23VGH7J07L
Matrix: WATER
Analysis Batch: 23VGH7J07

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE			0.5	0.401		mg/L		80	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*102*		*70 - 130*

Lab Sample ID: 23J237-01M
Matrix: WATER
Analysis Batch: 23VGH7J07

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE	ND		0.5	0.45		mg/L		90	50 - 130

Method: 8015 Gas (Purgeable) LL (EAL) - SW846 8015B Gasoline Range Organics (Continued)

Lab Sample ID: 23J237-01M
Matrix: WATER
Analysis Batch: 23VGH7J07

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*108*		*60 - 140*

Lab Sample ID: 23J237-01S
Matrix: WATER
Analysis Batch: 23VGH7J07

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GASOLINE	ND		0.5	0.457		mg/L		91	50 - 130	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
BROMOFLUOROBENZENE	*109*		*60 - 140*

Method: 8015 LL DRO/MRO - 8015 - TPH DRO/ORO

Lab Sample ID: 23DSJ033WB
Matrix: WATER
Analysis Batch: 23DSJ033W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			10/27/23 17:28	1
MOTOR OIL	ND	U	0.05		mg/L			10/27/23 17:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE					*10/27/23 17:28*	*1*
HEXACOSANE					*10/27/23 17:28*	*1*

Lab Sample ID: 23DSJ033WL
Matrix: WATER
Analysis Batch: 23DSJ033W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
DIESEL			2.5	2.09		mg/L		84	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*70*		*60 - 130*
HEXACOSANE	*98*		*60 - 130*

QC Association Summary

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

Job ID: 380-68501-1

GC/MS Semi VOA

Prep Batch: 61488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	525.2	
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	525.2	
MB 380-61488/21-A	Method Blank	Total/NA	Water	525.2	
LCS 380-61488/23-A	Lab Control Sample	Total/NA	Water	525.2	
MRL 380-61488/22-A	Lab Control Sample	Total/NA	Water	525.2	
380-68110-G-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-68277-U-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 61603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	525.2	61488
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	525.2	61488
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	525.2	61488
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	525.2	61488
MB 380-61488/21-A	Method Blank	Total/NA	Water	525.2	61488
LCS 380-61488/23-A	Lab Control Sample	Total/NA	Water	525.2	61488
MRL 380-61488/22-A	Lab Control Sample	Total/NA	Water	525.2	61488
380-68110-G-1-A MS	Matrix Spike	Total/NA	Water	525.2	61488
380-68277-U-1-A DU	Duplicate	Total/NA	Water	525.2	61488

Subcontract

Analysis Batch: O-42154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42154_P
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42154_P
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42154_P
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-42154_P
112337-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42154_P
112337-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42154_P
112337-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-42154_P

Analysis Batch: 23DSJ033W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015 LL DRO/MRO	
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015 LL DRO/MRO	
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	8015 LL DRO/MRO	
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015 LL DRO/MRO	
23DSJ033WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO	
23DSJ033WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO	

Subcontract

Analysis Batch: 23VGH7J07

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-5	TB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-6	TB: AIEA GULCH WELLS PUMP 2 (331-202-TP(	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-7	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
380-68501-8	TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP(	Total/NA	Water	8015 Gas (Purgeable) LL (EAL)	
23VGH7J07B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23VGH7J07L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23J237-01M	Matrix Spike	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
23J237-01S	Matrix Spike Duplicate	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-42154_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-68501-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	EPA_625	
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	EPA_625	
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40(	Total/NA	Drinking Water	EPA_625	
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	EPA_625	
112337-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
112337-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
112337-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-68501-1

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-68501-1

Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			61488	N8NE	EA POM	10/28/23 17:55
Total/NA	Analysis	525.2		1	61603	UPAC	EA POM	10/30/23 16:32
Total/NA	Prep	EPA_625		1	O-42154_P			10/30/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42154	YC		11/18/23 22:57
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/26/23 19:27
Total/NA	Analysis	8015 LL DRO/MRO		1	23DSJ033W	SDees		10/27/23 21:49

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-68501-2

Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			61488	N8NE	EA POM	10/28/23 17:55
Total/NA	Analysis	525.2		1	61603	UPAC	EA POM	10/30/23 16:52
Total/NA	Prep	EPA_625		1	O-42154_P			10/30/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42154	YC		11/19/23 00:42
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/26/23 21:25
Total/NA	Analysis	8015 LL DRO/MRO		1	23DSJ033W	SDees		10/27/23 22:08

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2

Lab Sample ID: 380-68501-3

Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			61488	N8NE	EA POM	10/28/23 17:55
Total/NA	Analysis	525.2		1	61603	UPAC	EA POM	10/30/23 17:12
Total/NA	Prep	EPA_625		1	O-42154_P			10/30/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42154	YC		11/19/23 02:27
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/26/23 22:05
Total/NA	Analysis	8015 LL DRO/MRO		1	23DSJ033W	SDees		10/27/23 22:27

Client Sample ID: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-4

Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			61488	N8NE	EA POM	10/28/23 17:55
Total/NA	Analysis	525.2		1	61603	UPAC	EA POM	10/30/23 17:33
Total/NA	Prep	EPA_625		1	O-42154_P			10/30/23 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-42154	YC		11/19/23 04:12
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/26/23 23:24
Total/NA	Analysis	8015 LL DRO/MRO		1	23DSJ033W	SDees		10/27/23 22:45

Client Sample ID: TB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-68501-5

Date Collected: 10/23/23 09:58
Date Received: 10/25/23 10:09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/27/23 00:03

Client Sample ID: TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)

Lab Sample ID: 380-68501-6

Date Collected: 10/23/23 11:05
Date Received: 10/25/23 10:09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/27/23 00:43

Client Sample ID: TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2

Lab Sample ID: 380-68501-7

Date Collected: 10/23/23 11:38
Date Received: 10/25/23 10:09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/27/23 01:23

Client Sample ID: TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1

Lab Sample ID: 380-68501-8

Date Collected: 10/23/23 10:36
Date Received: 10/25/23 10:09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	23VGH7J07	SCerva		10/27/23 02:03

Lab Chronicle

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

Job ID: 380-68501-1

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

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

Accreditation/Certification Summary

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

Job ID: 380-68501-1

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	01-31-24

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	Acenaphthene
525.2	525.2	Drinking Water	Acenaphthylene
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	Anthracene
525.2	525.2	Drinking Water	Benz(a)anthracene
525.2	525.2	Drinking Water	Benzo[b]fluoranthene
525.2	525.2	Drinking Water	Benzo[g,h,i]perylene
525.2	525.2	Drinking Water	Benzo[k]fluoranthene
525.2	525.2	Drinking Water	beta-BHC
525.2	525.2	Drinking Water	Bromacil
525.2	525.2	Drinking Water	Butylbenzylphthalate
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	Chrysene
525.2	525.2	Drinking Water	delta-BHC
525.2	525.2	Drinking Water	Dibenz(a,h)anthracene
525.2	525.2	Drinking Water	Diclorvos (DDVP)
525.2	525.2	Drinking Water	Diethylphthalate
525.2	525.2	Drinking Water	Dimethylphthalate
525.2	525.2	Drinking Water	Di-n-butyl phthalate
525.2	525.2	Drinking Water	Di-n-octyl phthalate
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	Fluoranthene
525.2	525.2	Drinking Water	Fluorene
525.2	525.2	Drinking Water	gamma-Chlordane
525.2	525.2	Drinking Water	Indeno[1,2,3-cd]pyrene
525.2	525.2	Drinking Water	Isophorone

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

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

Authority	Program	Identification Number	Expiration Date

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	Malathion
525.2	525.2	Drinking Water	Molinate
525.2	525.2	Drinking Water	Naphthalene
525.2	525.2	Drinking Water	Parathion
525.2	525.2	Drinking Water	Pendimethalin (Penoxaline)
525.2	525.2	Drinking Water	Phenanthrene
525.2	525.2	Drinking Water	Pyrene
525.2	525.2	Drinking Water	Terbacil
525.2	525.2	Drinking Water	Terbuthylazine
525.2	525.2	Drinking Water	Thiobencarb
525.2	525.2	Drinking Water	Total Permethrin (mixed isomers)
525.2	525.2	Drinking Water	trans-Nonachlor
525.2	525.2	Drinking Water	Trifluralin

Method Summary

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

Job ID: 380-68501-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA POM
625	EPA 625 Base/Neutral and Acid Organics i	EPA	
8015	8015 - TPH DRO/ORO	EPA	
8015B	SW846 8015B Gasoline Range Organics	SW846	
525.2	Extraction of Semivolatile Compounds	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Physis Environmental Laboratories, 1904 Wright Circle, Anaheim, CA 92806

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

Sample Summary

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

Job ID: 380-68501-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-68501-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	10/23/23 09:58	10/25/23 10:09
380-68501-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	10/23/23 11:05	10/25/23 10:09
380-68501-3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	Drinking Water	10/23/23 11:38	10/25/23 10:09
380-68501-4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	Drinking Water	10/23/23 10:36	10/25/23 10:09
380-68501-5	TB: MOANALUA WELLS (331-223-TP202)	Water	10/23/23 09:58	10/25/23 10:09
380-68501-6	TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	10/23/23 11:05	10/25/23 10:09
380-68501-7	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) P2	Water	10/23/23 11:38	10/25/23 10:09
380-68501-8	TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) P1	Water	10/23/23 10:36	10/25/23 10:09

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

Date: 11-03-2023
EMAX Batch No.: 23J237

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-68501

Enclosed is the Laboratory report for samples received on 10/26/23.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-68501-1	J237-01	10/23/23	WATER	TPH GASOLINE
				TPH DIESEL & MOTOR OIL
380-68501-2	J237-02	10/23/23	WATER	TPH GASOLINE
				TPH DIESEL & MOTOR OIL
380-68501-3	J237-03	10/23/23	WATER	TPH GASOLINE
				TPH DIESEL & MOTOR OIL
380-68501-4	J237-04	10/23/23	WATER	TPH GASOLINE
				TPH DIESEL & MOTOR OIL
380-68501-5	J237-05	10/23/23	WATER	TPH GASOLINE
380-68501-6	J237-06	10/23/23	WATER	TPH GASOLINE
380-68501-7	J237-07	10/23/23	WATER	TPH GASOLINE
380-68501-8	J237-08	10/23/23	WATER	TPH GASOLINE
380-68501-1MS	J237-01M	10/23/23	WATER	TPH GASOLINE
380-68501-1MSD	J237-01S	10/23/23	WATER	TPH GASOLINE

The results are summarized on the following pages.

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

Sincerely yours,

Caspar J. Pang
Laboratory Director

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

NELAP Accredited Certificate Number CA002912023-25
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

23J237

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 (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-87319.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: EMAX Laboratories Inc		Accreditations Required (See note): State - Hawaii		Job #: 380-68501-1
Address: 3051 Fujita Street, ,	Due Date Requested: 11/6/2023			
City: Torrance	TAT Requested (days):			
State, Zip: CA, 90505				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

	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)	SUB (8015 Gas (Purgeable) LL (EAL))/ 8015 Gas (Purgeable) LL (EAL)	SUB (8015 LL DRO/MRO)/ 8015 LL DRO/MRO	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
1	MOANALUA WELLS (331-223-TP202) (380-68501-1)	10/23/23	09:58 Hawaiian		Water			X	X	5	See Attached Instructions
2	AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-68501-2)	10/23/23	11:05 Hawaiian		Water			X	X	6	See Attached Instructions
3	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-68501-3)	10/23/23	11:38 Hawaiian		Water			X	X	6	See Attached Instructions
4	HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-68501-4)	10/23/23	10:36 Hawaiian		Water			X	X	6	See Attached Instructions
5	TB: MOANALUA WELLS (331-223-TP202) (380-68501-5)	10/23/23	09:58 Hawaiian		Water			X		2	See Attached Instructions
6	TB: AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-68501-	10/23/23	11:05 Hawaiian		Water			X		2	See Attached Instructions
7	TB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-6850	10/23/23	11:38 Hawaiian		Water			X		2	See Attached Instructions
8	TB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-68501-	10/23/23	10:36 Hawaiian		Water			X		2	See Attached Instructions

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	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *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
	[signature]	10/26/23 1017	[signature]	[signature]	10/26/23 10:17	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4/2.2 *CF:-0.2

EMAX LABORATORIES, INC.

REFERENCE: EMAX-SM02 Rev. 12

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 23J237
☐ Fedex ☐ UPS ☑ GSO ☐ Others		Recipient Nana Rivera
☐ EMAX Courier ☑ Client Delivery		Date 10/26/23 Time 10:17

COC INSPECTION

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

Note: _____

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition Correction	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging Factor:	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures −0.2 (Cool, ≤6 °C but not frozen)	☑ Cooler 1 2.4/2.2 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C
Thermometer:	*A - S/N* _____	*B - S/N* _____	*C - S/N* 230044897	*D - S/N* 210760237	

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

Note: _____

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
5-8	24-31	D7	second date reads: 10/16/23	R1

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time. MB 10/27/23

NOTES/OBSERVATIONS:

SAMPLE MATRIX IS DRINKING WATER? ☐ YES ☐ NO

LEGEND:

☐ Continue to next page.

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

REVIEWS:

Sample Labeling Nandeen Nacana Date 10/20/23 10/26/23

SRF Date 10/26/23

PM MB Date 10/27/23

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-68501

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

SDG#: 23J237

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-68501

SDG : 23J237

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

A total of eight(8) water samples were received on 10/26/23 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. VGH7J07B - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. VGH7J07L/VGH7J07C were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in J237-01M/J237-01S. Refer to Matrix QC summary form for details.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : EUROFINS EATON ANALYTICAL
Project : 380-68501

SDG NO. : 23J237
Instrument ID : H7

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VGH7J07B	1	NA	10/26/2316:08	10/26/2316:08	AJ26005A	AJ26004A	23VGH7J07	Method Blank
LCS1W	VGH7J07L	1	NA	10/26/2316:47	10/26/2316:47	AJ26006A	AJ26004A	23VGH7J07	Lab Control Sample (LCS)
LCD1W	VGH7J07C	1	NA	10/26/2317:28	10/26/2317:28	AJ26007A	AJ26004A	23VGH7J07	LCS Duplicate
380-68501-1	J237-01	1	NA	10/26/2319:27	10/26/2319:27	AJ26010A	AJ26004A	23VGH7J07	Field Sample
380-68501-1MS	J237-01M	1	NA	10/26/2320:06	10/26/2320:06	AJ26011A	AJ26004A	23VGH7J07	Matrix Spike Sample (MS)
380-68501-1MSD	J237-01S	1	NA	10/26/2320:46	10/26/2320:46	AJ26012A	AJ26004A	23VGH7J07	MS Duplicate (MSD)
380-68501-2	J237-02	1	NA	10/26/2321:25	10/26/2321:25	AJ26013A	AJ26004A	23VGH7J07	Field Sample
380-68501-3	J237-03	1	NA	10/26/2322:05	10/26/2322:05	AJ26014A	AJ26004A	23VGH7J07	Field Sample
380-68501-4	J237-04	1	NA	10/26/2323:24	10/26/2323:24	AJ26016A	AJ26015A	23VGH7J07	Field Sample
380-68501-5	J237-05	1	NA	10/27/2300:03	10/27/2300:03	AJ26017A	AJ26015A	23VGH7J07	Field Sample
380-68501-6	J237-06	1	NA	10/27/2300:43	10/27/2300:43	AJ26018A	AJ26015A	23VGH7J07	Field Sample
380-68501-7	J237-07	1	NA	10/27/2301:23	10/27/2301:23	AJ26019A	AJ26015A	23VGH7J07	Field Sample
380-68501-8	J237-08	1	NA	10/27/2302:03	10/27/2302:03	AJ26020A	AJ26015A	23VGH7J07	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 09:58
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 19:27
Sample ID	: 380-68501-1	Date Analyzed:	10/26/23 19:27
Lab Samp ID:	J237-01	Dilution Factor:	1
Lab File ID:	AJ26010A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26004A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0353	0.0400	88	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:05
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 21:25
Sample ID	: 380-68501-2	Date Analyzed:	10/26/23 21:25
Lab Samp ID:	J237-02	Dilution Factor:	1
Lab File ID:	AJ26013A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26004A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0359	0.0400	90	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:38
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 22:05
Sample ID	: 380-68501-3	Date Analyzed:	10/26/23 22:05
Lab Samp ID:	J237-03	Dilution Factor:	1
Lab File ID:	AJ26014A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26004A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0356	0.0400	89	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 10:36
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 23:24
Sample ID	: 380-68501-4	Date Analyzed:	10/26/23 23:24
Lab Samp ID:	J237-04	Dilution Factor:	1
Lab File ID:	AJ26016A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26015A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0339	0.0400	85	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 09:58
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/27/23 00:03
Sample ID	: 380-68501-5	Date Analyzed:	10/27/23 00:03
Lab Samp ID:	J237-05	Dilution Factor:	1
Lab File ID:	AJ26017A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26015A	Instrument ID:	H7

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromofluorobenzene	0.0356	0.0400	89	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:05
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/27/23 00:43
Sample ID	: 380-68501-6	Date Analyzed:	10/27/23 00:43
Lab Samp ID:	J237-06	Dilution Factor:	1
Lab File ID:	AJ26018A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26015A	Instrument ID:	H7

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	**RESULT**	**SPK_AMT**	**%RECOVERY**	**QC LIMIT**
Bromofluorobenzene	0.0341	0.0400	85	60-140

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

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:38
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/27/23 01:23
Sample ID	: 380-68501-7	Date Analyzed:	10/27/23 01:23
Lab Samp ID:	J237-07	Dilution Factor:	1
Lab File ID:	AJ26019A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26015A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0354	0.0400	88	60-140

Notes:

Parameter	H-C Range
Gasoline	C6-C10

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 10:36
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/27/23 02:03
Sample ID	: 380-68501-8	Date Analyzed:	10/27/23 02:03
Lab Samp ID:	J237-08	Dilution Factor:	1
Lab File ID:	AJ26020A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26015A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0350	0.0400	87	60-140

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

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

QC SUMMARIES

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

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/26/23 16:08
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 16:08
Sample ID	: MBLK1W	Date Analyzed:	10/26/23 16:08
Lab Samp ID:	VGH7J07B	Dilution Factor:	1
Lab File ID:	AJ26005A	Matrix:	WATER
Ext Btch ID:	23VGH7J07	% Moisture:	NA
Calib. Ref.:	AJ26004A	Instrument ID:	H7

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0334	0.0400	83	60-140

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-68501
BATCH NO. : 23J237
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VGH7J07B	VGH7J07L	VGH7J07C
LAB FILE ID	: AJ26005A	AJ26006A	AJ26007A
DATE PREPARED	: 10/26/23 16:08	10/26/23 16:47	10/26/23 17:28
DATE ANALYZED	: 10/26/23 16:08	10/26/23 16:47	10/26/23 17:28
PREP BATCH	: 23VGH7J07	23VGH7J07	23VGH7J07
CALIBRATION REF	: AJ26004A	AJ26004A	AJ26004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.401	80	0.500	0.452	90	12	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0406	102	0.0400	0.0448	112	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-68501
BATCH NO. : 23J237
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-68501-1	380-68501-1MS	380-68501-1MSD
LAB SAMPLE ID	: J237-01	J237-01M	J237-01S
LAB FILE ID	: AJ26010A	AJ26011A	AJ26012A
DATE PREPARED	: 10/26/23 19:27	10/26/23 20:06	10/26/23 20:46
DATE ANALYZED	: 10/26/23 19:27	10/26/23 20:06	10/26/23 20:46
PREP BATCH	: 23VGH7J07	23VGH7J07	23VGH7J07
CALIBRATION REF	: AJ26004A	AJ26004A	AJ26004A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.450	90	0.500	0.457	91	2	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0431	108	0.0400	0.0437	109	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-68501

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 23J237

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-68501

SDG : 23J237

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of four(4) water samples were received on 10/26/23 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSJ033WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. DSJ033WL/DSJ033WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample
No matrix QC sample was provided on this SDG.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-68501

SDG NO. : 23J237
Instrument ID : D5

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSJ033WB	1	NA	10/27/2317:28	10/26/2313:30	LJ26090A	LJ26076A	23DSJ033W	Method Blank
LCS1W	DSJ033WL	1	NA	10/27/2317:47	10/26/2313:30	LJ26091A	LJ26076A	23DSJ033W	Lab Control Sample (LCS)
LCD1W	DSJ033WC	1	NA	10/27/2318:06	10/26/2313:30	LJ26092A	LJ26076A	23DSJ033W	LCS Duplicate
380-68501-1	J237-01	1	NA	10/27/2321:49	10/26/2313:30	LJ26104A	LJ26097A	23DSJ033W	Field Sample
380-68501-2	J237-02	1	NA	10/27/2322:08	10/26/2313:30	LJ26105A	LJ26097A	23DSJ033W	Field Sample
380-68501-3	J237-03	1	NA	10/27/2322:27	10/26/2313:30	LJ26106A	LJ26097A	23DSJ033W	Field Sample
380-68501-4	J237-04	1	NA	10/27/2322:45	10/26/2313:30	LJ26107A	LJ26097A	23DSJ033W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 09:58
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 13:30
Sample ID	: 380-68501-1	Date Analyzed:	10/27/23 21:49
Lab Samp ID:	23J237-01	Dilution Factor:	1
Lab File ID:	LJ26104A	Matrix:	WATER
Ext Btch ID:	23DSJ033W	% Moisture:	NA
Calib. Ref.:	LJ26097A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.027	0.013
Motor Oil	ND	0.053	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.323	0.530	61	60-130
Hexacosane	0.0968	0.132	73	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 940ml	Final Volume :	5ml
Prepared by	: RGalan	Analyzed by :	SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:05
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 13:30
Sample ID	: 380-68501-2	Date Analyzed:	10/27/23 22:08
Lab Samp ID:	23J237-02	Dilution Factor:	1
Lab File ID:	LJ26105A	Matrix:	WATER
Ext Btch ID:	23DSJ033W	% Moisture:	NA
Calib. Ref.:	LJ26097A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.028	0.014
Motor Oil	ND	0.057	0.028

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.400	0.570	70	60-130
Hexacosane	0.125	0.142	88	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 880ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 11:38
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 13:30
Sample ID	: 380-68501-3	Date Analyzed:	10/27/23 22:27
Lab Samp ID:	23J237-03	Dilution Factor:	1
Lab File ID:	LJ26106A	Matrix:	WATER
Ext Btch ID:	23DSJ033W	% Moisture:	NA
Calib. Ref.:	LJ26097A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.030	0.015
Motor Oil	ND	0.059	0.030

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.421	0.590	71	60-130
Hexacosane	0.137	0.148	93	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 850ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/23/23 10:36
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 13:30
Sample ID	: 380-68501-4	Date Analyzed:	10/27/23 22:45
Lab Samp ID:	23J237-04	Dilution Factor:	1
Lab File ID:	LJ26107A	Matrix:	WATER
Ext Btch ID:	23DSJ033W	% Moisture:	NA
Calib. Ref.:	LJ26097A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.028	0.014
Motor Oil	ND	0.056	0.028

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.386	0.555	70	60-130
Hexacosane	0.126	0.139	91	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 900ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/26/23 13:30
Project	: 380-68501	Date Received:	10/26/23
Batch No.	: 23J237	Date Extracted:	10/26/23 13:30
Sample ID	: MBLK1W	Date Analyzed:	10/27/23 17:28
Lab Samp ID:	DSJ033WB	Dilution Factor:	1
Lab File ID:	LJ26090A	Matrix:	WATER
Ext Btch ID:	23DSJ033W	% Moisture:	NA
Calib. Ref.:	LJ26076A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.025	0.012
Motor Oil	ND	0.050	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.323	0.500	65	60-130
Hexacosane	0.105	0.125	84	60-130

Notes:

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

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount	: 1000ml	Final Volume	: 5ml
Prepared by	: RGalan	Analyzed by	: SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-68501
BATCH NO. : 23J237
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: DSJ033WB	DSJ033WL	DSJ033WC
LAB FILE ID	: LJ26090A	LJ26091A	LJ26092A
DATE PREPARED	: 10/26/23 13:30	10/26/23 13:30	10/26/23 13:30
DATE ANALYZED	: 10/27/23 17:28	10/27/23 17:47	10/27/23 18:06
PREP BATCH	: 23DSJ033W	23DSJ033W	23DSJ033W
CALIBRATION REF	: LJ26076A	LJ26076A	LJ26076A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.09	84	2.50	2.29	92	9	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.351	70	0.500	0.376	75	60-130
Hexacosane	0.125	0.122	98	0.125	0.129	103	60-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

November 21, 2023

Rachelle Arada
Eurofins Eaton Analytical
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016-

Project Name: RED-HILL Project # 38001111 Job # 380-68501-1
Physis Project ID: 1407003-458

Dear Rachelle,

Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 10/26/2023. A total of 4 samples were received for analysis in accordance with the attached chain of custody (COC). Per the COC, the samples were analyzed for:

Organics
Polynuclear Aromatic Hydrocarbons by EPA 625.1
Disalicylidenepropanediamine by EPA 625.1
Dibenzo [a,l] Pyrene w/ PAHs by EPA 625.1

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

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

Regards,
misty mercier
Misty Mercier
714 602-5320
Extension 202
mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-458

RED-HILL Project # 38001111 Job # 380-68501-1

Total Samples: 4

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
112338	MOANALUA WELLS	331-223-TP202 (380-68501-1)	10/23/2023	9:58	Samplewater	Not Specified
112339	AIEA GULCH WELLS PUMP 2	331-202-TP072 (380-68501-2)	10/23/2023	11:05	Samplewater	Not Specified
112340	AIEA WELLS PUMPS 1&2 (2683)	331-203-TP400 (380-68501-3)	10/23/2023	11:38	Samplewater	Not Specified
112341	HALAWA WELLS UNITS 1 & 2	331-206-TP065 (380-68501-4)	10/23/2023	10:36	Samplewater	Not Specified

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ABBREVIATIONS and ACRONYMS

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

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QUALITY ASSURANCE SUMMARY

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

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

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

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

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

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

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

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

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

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

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the target analyte and most often used with organic analytical procedures. Surrogates are added in known concentration to all samples and are measured to indicate overall efficiency of the method including processing and analyses.

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

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

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

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PHYSIS QUALIFIER CODES

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

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CASE NARRATIVE

QUALIFIER NOTES

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

ND

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

ANALYTICAL REPORT

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112338-R1	**MOANALUA WELLS 331-223-TP202**	**Matrix:**	**Samplewater**				**Sampled:**	**23-Oct-23**	**9:58**	**Received:**	**26-Oct-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42154	30-Oct-23	18-Nov-23
Sample ID: 112339-R1	**AIEA GULCH WELLS PUMP 2 331-20**	**Matrix:**	**Samplewater**				**Sampled:**	**23-Oct-23**	**11:05**	**Received:**	**26-Oct-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42154	30-Oct-23	19-Nov-23
Sample ID: 112340-R1	**AIEA WELLS PUMPS 1&2 (260) 331-**	**Matrix:**	**Samplewater**				**Sampled:**	**23-Oct-23**	**11:38**	**Received:**	**26-Oct-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42154	30-Oct-23	19-Nov-23
Sample ID: 112341-R1	**HALAWA WELLS UNITS 1 & 2 331-2**	**Matrix:**	**Samplewater**				**Sampled:**	**23-Oct-23**	**10:36**	**Received:**	**26-Oct-23**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-42154	30-Oct-23	19-Nov-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112338-R1	**MOANALUA WELLS 331-223-TP202**	**Matrix: Samplewater**					**Sampled:**	**23-Oct-23 9:58**		**Received:**	**26-Oct-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	94	1			Total		O-42154	30-Oct-23	18-Nov-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	101	1			Total		O-42154	30-Oct-23	18-Nov-23
(d12-Chrysene)	EPA 625.1	% Recovery	94	1			Total		O-42154	30-Oct-23	18-Nov-23
(d12-Perylene)	EPA 625.1	% Recovery	88	1			Total		O-42154	30-Oct-23	18-Nov-23
(d8-Naphthalene)	EPA 625.1	% Recovery	93	1			Total		O-42154	30-Oct-23	18-Nov-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	18-Nov-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112339-R1	**AIEA GULCH WELLS PUMP 2 331-20 Matrix: Samplewater**						**Sampled:**	**23-Oct-23 11:05**		**Received:**	**26-Oct-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	95	1			Total		O-42154	30-Oct-23	19-Nov-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	104	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Chrysene)	EPA 625.1	% Recovery	101	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Perylene)	EPA 625.1	% Recovery	95	1			Total		O-42154	30-Oct-23	19-Nov-23
(d8-Naphthalene)	EPA 625.1	% Recovery	94	1			Total		O-42154	30-Oct-23	19-Nov-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112340-R1	**AIEA WELLS PUMPS 1&2 (260) 331-**	**Matrix: Samplewater**					**Sampled: 23-Oct-23 11:38**			**Received: 26-Oct-23**	
(d10-Acenaphthene)	EPA 625.1	% Recovery	92	1			Total		O-42154	30-Oct-23	19-Nov-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	99	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Chrysene)	EPA 625.1	% Recovery	93	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Perylene)	EPA 625.1	% Recovery	89	1			Total		O-42154	30-Oct-23	19-Nov-23
(d8-Naphthalene)	EPA 625.1	% Recovery	92	1			Total		O-42154	30-Oct-23	19-Nov-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 112341-R1	**HALAWA WELLS UNITS 1 & 2 331-2**	**Matrix: Samplewater**					**Sampled:**	**23-Oct-23 10:36**		**Received:**	**26-Oct-23**
(d10-Acenaphthene)	EPA 625.1	% Recovery	90	1			Total		O-42154	30-Oct-23	19-Nov-23
(d10-Phenanthrene)	EPA 625.1	% Recovery	99	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Chrysene)	EPA 625.1	% Recovery	93	1			Total		O-42154	30-Oct-23	19-Nov-23
(d12-Perylene)	EPA 625.1	% Recovery	87	1			Total		O-42154	30-Oct-23	19-Nov-23
(d8-Naphthalene)	EPA 625.1	% Recovery	86	1			Total		O-42154	30-Oct-23	19-Nov-23
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-42154	30-Oct-23	19-Nov-23

QUALITY CONTROL REPORT

ENVIRONMENTAL LABORATORIES, INC.

Innovative Solutions for Nature

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Base/Neutral Extractable Compounds QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112337-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23			Analyzed: 18-Nov-23			
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L								
Sample ID: 112337-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23			Analyzed: 18-Nov-23			
Disalicylidenepropanediamin	Total	46.3	1	0.05	0.1	µg/L	50	0	93	50 - 150%	PASS			
Sample ID: 112337-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**			**Received:**			
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23			Analyzed: 18-Nov-23			
Disalicylidenepropanediamin	Total	40.8	1	0.05	0.1	µg/L	50	0	82	50 - 150%	PASS	13	30	PASS

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112337-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**			**Received:**			
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23		Analyzed: 18-Nov-23			
(d10-Acenaphthene)	Total	97	1			% Recovery	100	97	27 - 133%	PASS			
(d10-Phenanthrene)	Total	103	1			% Recovery	100	103	43 - 129%	PASS			
(d12-Chrysene)	Total	99	1			% Recovery	100	99	52 - 144%	PASS			
(d12-Perylene)	Total	94	1			% Recovery	100	94	36 - 161%	PASS			
(d8-Naphthalene)	Total	99	1			% Recovery	100	99	25 - 125%	PASS			
1-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
1-Methylphenanthrene	Total	ND	1	0.001	0.005	µg/L							
2,3,5-Trimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
2,6-Dimethylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
2-Methylnaphthalene	Total	ND	1	0.001	0.005	µg/L							
Acenaphthene	Total	ND	1	0.001	0.005	µg/L							
Acenaphthylene	Total	ND	1	0.001	0.005	µg/L							
Anthracene	Total	ND	1	0.001	0.005	µg/L							
Benz[a]anthracene	Total	ND	1	0.001	0.005	µg/L							
Benzo[a]pyrene	Total	ND	1	0.001	0.005	µg/L							
Benzo[b]fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Benzo[e]pyrene	Total	ND	1	0.001	0.005	µg/L							
Benzo[g,h,i]perylene	Total	ND	1	0.001	0.005	µg/L							
Benzo[k]fluoranthene	Total	ND	1	0.001	0.005	µg/L							
Biphenyl	Total	ND	1	0.001	0.005	µg/L							
Chrysene	Total	ND	1	0.001	0.005	µg/L							
Dibenz[a,h]anthracene	Total	ND	1	0.001	0.005	µg/L							
Dibenzo[a,l]pyrene	Total	ND	1	0.001	0.005	µg/L							
Dibenzothiophene	Total	ND	1	0.001	0.005	µg/L							

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

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

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS	PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112337-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23				Analyzed: 18-Nov-23	
(d10-Acenaphthene)	Total	95	1			% Recovery	100	0	95	27 - 133%		PASS	
(d10-Phenanthrene)	Total	102	1			% Recovery	100	0	102	43 - 129%		PASS	
(d12-Chrysene)	Total	99	1			% Recovery	100	0	99	52 - 144%		PASS	
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%		PASS	
(d8-Naphthalene)	Total	94	1			% Recovery	100	0	94	25 - 125%		PASS	
1-Methylnaphthalene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	31 - 128%		PASS	
1-Methylphenanthrene	Total	0.515	1	0.001	0.005	µg/L	0.5	0	103	66 - 127%		PASS	
2,3,5-Trimethylnaphthalene	Total	0.473	1	0.001	0.005	µg/L	0.5	0	95	55 - 122%		PASS	
2,6-Dimethylnaphthalene	Total	0.443	1	0.001	0.005	µg/L	0.5	0	89	48 - 120%		PASS	
2-Methylnaphthalene	Total	0.45	1	0.001	0.005	µg/L	0.5	0	90	47 - 130%		PASS	
Acenaphthene	Total	0.456	1	0.001	0.005	µg/L	0.5	0	91	53 - 131%		PASS	
Acenaphthylene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	43 - 140%		PASS	
Anthracene	Total	0.496	1	0.001	0.005	µg/L	0.5	0	99	58 - 135%		PASS	
Benz[a]anthracene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	55 - 145%		PASS	
Benzo[a]pyrene	Total	0.431	1	0.001	0.005	µg/L	0.5	0	86	51 - 143%		PASS	
Benzo[b]fluoranthene	Total	0.528	1	0.001	0.005	µg/L	0.5	0	106	46 - 165%		PASS	
Benzo[e]pyrene	Total	0.503	1	0.001	0.005	µg/L	0.5	0	101	42 - 152%		PASS	
Benzo[g,h,i]perylene	Total	0.478	1	0.001	0.005	µg/L	0.5	0	96	63 - 133%		PASS	
Benzo[k]fluoranthene	Total	0.446	1	0.001	0.005	µg/L	0.5	0	89	56 - 145%		PASS	
Biphenyl	Total	0.444	1	0.001	0.005	µg/L	0.5	0	89	56 - 119%		PASS	
Chrysene	Total	0.46	1	0.001	0.005	µg/L	0.5	0	92	56 - 141%		PASS	
Dibenz[a,h]anthracene	Total	0.65	1	0.001	0.005	µg/L	0.5	0	130	55 - 150%		PASS	
Dibenzo[a,l]pyrene	Total	1.12	1	0.001	0.005	µg/L	1	0	112	50 - 150%		PASS	
Dibenzothiophene	Total	0.49	1	0.001	0.005	µg/L	0.5	0	98	46 - 126%		PASS	

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Fluoranthene	Total	0.528	1	0.001	0.005	µg/L	0.5	0	106	60 - 146%	PASS			
Fluorene	Total	0.459	1	0.001	0.005	µg/L	0.5	0	92	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	0.652	1	0.001	0.005	µg/L	0.5	0	130	50 - 151%	PASS			
Naphthalene	Total	0.457	1	0.001	0.005	µg/L	0.5	0	91	41 - 126%	PASS			
Perylene	Total	0.482	1	0.001	0.005	µg/L	0.5	0	96	48 - 141%	PASS			
Phenanthrene	Total	0.492	1	0.001	0.005	µg/L	0.5	0	98	67 - 127%	PASS			
Pyrene	Total	0.529	1	0.001	0.005	µg/L	0.5	0	106	54 - 156%	PASS			

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS	QA CODEc
Sample ID: 112337-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-42154		Prepared: 30-Oct-23				Analyzed: 18-Nov-23		
(d10-Acenaphthene)	Total	94	1			% Recovery	100	0	94	27 - 133%	PASS	1	30	PASS
(d10-Phenanthrene)	Total	100	1			% Recovery	100	0	100	43 - 129%	PASS	2	30	PASS
(d12-Chrysene)	Total	96	1			% Recovery	100	0	96	52 - 144%	PASS	3	30	PASS
(d12-Perylene)	Total	92	1			% Recovery	100	0	92	36 - 161%	PASS	0	30	PASS
(d8-Naphthalene)	Total	94	1			% Recovery	100	0	94	25 - 125%	PASS	0	30	PASS
1-Methylnaphthalene	Total	0.442	1	0.001	0.005	µg/L	0.5	0	88	31 - 128%	PASS	2	30	PASS
1-Methylphenanthrene	Total	0.5	1	0.001	0.005	µg/L	0.5	0	100	66 - 127%	PASS	3	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.469	1	0.001	0.005	µg/L	0.5	0	94	55 - 122%	PASS	1	30	PASS
2,6-Dimethylnaphthalene	Total	0.438	1	0.001	0.005	µg/L	0.5	0	88	48 - 120%	PASS	1	30	PASS
2-Methylnaphthalene	Total	0.438	1	0.001	0.005	µg/L	0.5	0	88	47 - 130%	PASS	2	30	PASS
Acenaphthene	Total	0.448	1	0.001	0.005	µg/L	0.5	0	90	53 - 131%	PASS	1	30	PASS
Acenaphthylene	Total	0.459	1	0.001	0.005	µg/L	0.5	0	92	43 - 140%	PASS	1	30	PASS
Anthracene	Total	0.478	1	0.001	0.005	µg/L	0.5	0	96	58 - 135%	PASS	3	30	PASS
Benz[a]anthracene	Total	0.481	1	0.001	0.005	µg/L	0.5	0	96	55 - 145%	PASS	3	30	PASS
Benzo[a]pyrene	Total	0.43	1	0.001	0.005	µg/L	0.5	0	86	51 - 143%	PASS	0	30	PASS
Benzo[b]fluoranthene	Total	0.517	1	0.001	0.005	µg/L	0.5	0	103	46 - 165%	PASS	3	30	PASS
Benzo[e]pyrene	Total	0.504	1	0.001	0.005	µg/L	0.5	0	101	42 - 152%	PASS	0	30	PASS
Benzo[g,h,i]perylene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	63 - 133%	PASS	2	30	PASS
Benzo[k]fluoranthene	Total	0.438	1	0.001	0.005	µg/L	0.5	0	88	56 - 145%	PASS	1	30	PASS
Biphenyl	Total	0.441	1	0.001	0.005	µg/L	0.5	0	88	56 - 119%	PASS	1	30	PASS
Chrysene	Total	0.455	1	0.001	0.005	µg/L	0.5	0	91	56 - 141%	PASS	1	30	PASS
Dibenz[a,h]anthracene	Total	0.648	1	0.001	0.005	µg/L	0.5	0	130	55 - 150%	PASS	0	30	PASS
Dibenzo[a,l]pyrene	Total	1.11	1	0.001	0.005	µg/L	1	0	111	50 - 150%	PASS	1	30	PASS
Dibenzothiophene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	46 - 126%	PASS	2	30	PASS

PHYSIS Project ID: 1407003-458
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-68501-1

Polynuclear Aromatic Hydrocarbons QUALITY CONTROL REPORT

ANALYTE	FRACTION	RESULT	DF	MDL	RL	UNITS	SPIKE LEVEL	SOURCE RESULT	ACCURACY %	ACCURACY LIMITS		PRECISION %	PRECISION LIMITS		QA CODEc
Fluoranthene	Total	0.515	1	0.001	0.005	µg/L	0.5	0	103	60 - 146%	PASS	3	30	PASS	
Fluorene	Total	0.456	1	0.001	0.005	µg/L	0.5	0	91	58 - 131%	PASS	1	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	0.646	1	0.001	0.005	µg/L	0.5	0	129	50 - 151%	PASS	1	30	PASS	
Naphthalene	Total	0.447	1	0.001	0.005	µg/L	0.5	0	89	41 - 126%	PASS	2	30	PASS	
Perylene	Total	0.463	1	0.001	0.005	µg/L	0.5	0	93	48 - 141%	PASS	3	30	PASS	
Phenanthrene	Total	0.472	1	0.001	0.005	µg/L	0.5	0	94	67 - 127%	PASS	4	30	PASS	
Pyrene	Total	0.526	1	0.001	0.005	µg/L	0.5	0	105	54 - 156%	PASS	1	30	PASS	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample ID: 112338

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3814	3.8162	1111	Anthracene-D10-	1719-06-8	96
10.6148	10.4362	3039	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	90
10.2486	1.3114	382	Hydroperoxide, 1-ethylbutyl	24254-56-6	84
10.9465	1.1491	335	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	93
10.3701	1.1137	324	Valeric anhydride	2082-59-9	85
15.6835	0.7703	224	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2	98
10.9804	0.7228	210	Cyclobutanecarboxylic acid, 2-propenyl ester	1000282-60-3	90
15.5827	0.6915	201	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2	95
29.9528	0.3816	111	Hexanoic acid, 3,5,5-trimethyl-, 2-ethylhexyl ester	1000406-82-2	96
32.1473	0.3482	101	Benzoic acid, 2-ethylhexyl ester	5444-75-7	98

Concentration estimated using the response for Anthracene-d10

Sample ID: 112339

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3780	4.0482	1111	Anthracene-D10-	1719-06-8	98
10.6146	12.1371	3331	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	90
10.3703	1.6700	458	Hydroperoxide, 1-methylpentyl	24254-55-5	84
10.9457	1.2355	339	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	89
69.6630	1.0125	278	Squalene	111-02-4	94
10.9803	1.0049	276	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	93
15.6848	0.6283	172	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2	98

Concentration estimated using the response for Anthracene-d10

Sample ID: 112340

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3808	4.0368	1111	Anthracene-D10-	1719-06-8	96
10.6146	11.4070	3140	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	91
10.2488	1.4216	391	Hydroperoxide, 1-ethylbutyl	24254-56-6	82
10.3701	1.2323	339	Valeric anhydride	2082-59-9	85
10.9463	1.1271	310	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	89
10.9463	1.0458	288	3,3-Diethoxy-1-propyne	10160-87-9	88
15.6834	0.5922	163	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2	98

Concentration estimated using the response for Anthracene-d10

Sample ID: 112341

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3833	4.6058	1111	Anthracene-D10	1517-22-2	96
10.6144	10.9295	2637	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	91
10.3702	1.5611	377	Hydroperoxide, 1-methylpentyl	24254-55-5	85
10.9463	1.0944	264	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	94
10.9808	0.9220	222	Cyclobutanecarboxylic acid, 2-propenyl ester	1000282-60-3	91
15.6839	0.4684	113	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	29911-28-2	98

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank B1_42154

Retention Time	Area (% of total)	Concentration (ng/L)	Library/ID	Cas Number	Match Quality (%)
35.3823	4.9993	1111	Anthracene-D10-	1517-22-2	96
10.6148	12.1249	2695	Cyclopropane, 2-bromo-1,1,3-trimethyl-	36617-00-2	91
10.3701	1.7343	385	Hydroperoxide, 1-methylpentyl	24254-55-5	84
10.9462	1.3016	289	Oxalic acid, cyclohexyl isobutyl ester	1000309-30-4	93
10.9809	0.9337	208	1,5-Heptadien-4-one, 3,3,6-trimethyl-	546-49-6	89
28.9051	0.5156	115	Benzene, 1,2,3,5-tetrachloro-4,6-dimethyl-	877-09-8	97

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

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 (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-87321.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Physis Environmental Laboratories		Accreditations Required (See note): State - Hawaii		Job #: 380-68501-1
Address: 1904 Wright Circle, ,	Due Date Requested: 11/6/2023			
City: Anaheim	TAT Requested (days):			
State, Zip: CA, 92806				
Phone:	PO #:			
Email:	WO #:			
Project Name: RED-HILL	Project #: 38001111			
Site: Honolulu BWS Sites	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

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)	SUB (625 PAH Physis LL (EAL) + TICs)/ 625 PAH Physis LL (EAL) + TICs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MOANALUA WELLS (331-223-TP202) (380-68501-1)	10/23/23	09:58 Hawaiian		Water			X	2	See Attached Instructions
AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-68501-2)	10/23/23	11:05 Hawaiian		Water			X	2	See Attached Instructions
AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-68501-3)	10/23/23	11:38 Hawaiian		Water			X	2	See Attached Instructions
HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-68501-4)	10/23/23	10:36 Hawaiian		Water			X	2	See Attached Instructions

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	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
1	[signature]	10/26/23 1110	GEA	Angie Torr	10/26/23 11:10	PHYSIS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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:

Ver: 06/08/2021

12/5/2023

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

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Project Iteration ID: 1407003-458
Client Name: Eurofins Eaton Analytical
Project Name: RED-HILL Project # 38001111 Job # 380-68501-1
COC Page Number: 2 of 2
Bottle Label Color: NA

Sample Receipt Summary

Receiving Info

1. Initials Received By: AT
2. Date Received: 10/26/23
3. Time Received: 11:10
4. Client Name: Eurofins
5. Courier Information: (Please circle)
   - (Client)
   - UPS
   - Area Fast
   - DRS
   - FedEx
   - GSO/GLS
   - Ontrac
   - PAMS
   - PHYSIS Driver:
     - i. Start Time:_____
     - ii. End Time:_____
     - iii. Total Mileage:_____
     - iv. Number of Pickups:_____
6. Container Information: (Please put the # of containers or circle none)
   - 1 Cooler
   - ___ Styrofoam Cooler
   - ___ Boxes
   - None
   - ___ Carboy(s)
   - ___ Carboy Trash Can(s)
   - ___ Carboy Cap(s)
   - Other _____
7. What type of Ice was used: (Please circle any that apply)
   - (Wet Ice)
   - Blue Ice
   - Dry Ice
   - Water
   - None
8. Randomly Selected Samples Temperature (°C): 1.0 Used I/R Thermometer # 12

Inspection Info

1. Initials Inspected By: RGH

Sample Integrity Upon Receipt:

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

Notes:

Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016
Phone (626) 386-1100

Chain of Custody Record

eurofins

Client Information	Sample: BM1L64	Lab PM: Arada Rachelle	Carrier Tracking No(s)	COC No: 380-27941-2757 2
Client Contact: Dr Ron Fenstermacher	Phone: 808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin	Page: Page 1 of 2
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 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	SSOW#			

Analysis Requested

Preservation Codes

A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other

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)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgable) LL (EAL)	SUBCONTRACT - 8915 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus PLUS TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	537.1_DW_PREC - 537.1 Full List	533 - All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code				R	R	RA		RA	Y	N		
MOANALUA WELLS	23-Oct-2023	0958	G	Water			2		2	2	4				(2) 7738 5304 8479
AIEA GULCH WELLS PUMP2	23-Oct-2023	1105	G	Water			2		2	2	4				5-5-0.1=5.4 7515
AIEA WELLS PUMPS 1&2 (260) P2	23-Oct-2023	1138	G	Water			2		2	2	4				Gel
HALAWA WELLS UNITS 1&2 P1	23-Oct-2023	1036	G	Water			2		2	2	4				
TB MOANALUA WELLS	23-Oct-2023	0958		Water							2				
TB AIEA GULCH WELLS PUMP2	23-Oct-2023	1105		Water							2				
TB AIEA WELLS PUMPS 1&2 (260)	23-Oct-2023	1138		Water							2				
TB HALAWA WELLS UNITS 1&2	23-Oct-2023	1036		Water							2				

380-68501 COC

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: Fedex

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
BM1L64	24 Oct. 2023 1400	HBWS		10/25/23 1049	GEL
Relinquished by	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: 40.2 4.4-0.1=4.3 GEL

Ver 01/16/2019

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

SHIP DATE: 24OCT23
ACTWGT: 62.00 LB
CAD: 258050552/INET4535

BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR
POMONA CA 91768
(626) 386-1100

REF
INV
PO
DEPT

583J1/BC8B/9AE3

FedEx Express

J234023101501uv

WED - 25 OCT 10:30A
PRIORITY OVERNIGHT

3 of 5
MPS# 7738 5364 8468
0263
Mstr# 7738 5364 8446

0201

91768

WM ONTA

CA-US ONT

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment.

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-68501-1

Login Number: 68501
List Number: 1
Creator: Edrosa, Rey

List Source: Eurofins Eaton Analytical Pomona

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and 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	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	