eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu Hawaii 96843

Generated 11/22/2022 9:42:36 PM

JOB DESCRIPTION

RED-HILL
RUSH Weekly Red Hill

JOB NUMBER

380-24845-1

Eurofins Eaton Monrovia
750 Royal Oaks Drive
Suite 100
Monrovia CA 91016

myEOL

Table of Contents

Definitions/Glossary

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

Job ID: 380-24845-1

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

Job ID: 380-24845-1

Laboratory: Eurofins Eaton Monrovia

Narrative

Job Narrative
380-24845-1

Comments
No additional comments.

Receipt
The samples were received on 10/18/2022 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.1º C, 5.1º C, 5.6º C an 5.7º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract non-Sister
See attached subcontract report.

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

Subcontract Work
Methods 8015 Gas (Purgeable) LL (EAL), 8015 LL DRO/MRO/JP5/JP8: These methods were subcontracted to EMAX Laboratories Inc. The subcontract laboratory certifications are different from that of the facility issuing the final report.

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.

Detection Summary

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

Job ID: 380-24845-1

Client Sample ID: AIEA GULCH WELLS PUMP 1 — Lab Sample ID: 380-24845-1
PWSID Number: HI0000331

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) — Lab Sample ID: 380-24845-2
PWSID Number: HI0000331

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2 — Lab Sample ID: 380-24845-3
PWSID Number: HI0000331

No Detections.

Client Sample ID: TB AIEA GULCH WELLS PUMP 1 — Lab Sample ID: 380-24845-4

No Detections.

Client Sample ID: TB AIEA GULCH WELLS PUMP 2 — Lab Sample ID: 380-24845-5

No Detections.

Client Sample ID: TB AIEA GULCH WELLS PUMPS 1&2 (260) — Lab Sample ID: 380-24845-6

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-24845-1

Client Sample ID: AIEA GULCH WELLS PUMP 1
Date Collected: 10/17/22 10:23
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-1
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
2,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
2,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
2,4-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
2,6-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
4,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
4,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
4,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Acenaphthene	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Acenaphthylene	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Acetochlor	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Alachlor	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
alpha-BHC	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
alpha-Chlordane	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Anthracene	ND		0.020		ug/L		10/21/22 07:31	11/02/22 21:37	1
Atrazine	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Benz(a)anthracene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Benzo[a]pyrene	ND		0.020		ug/L		10/21/22 07:31	11/02/22 21:37	1
Benzo[b]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	11/02/22 21:37	1
Benzo[g,h,i]perylene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Benzo[k]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	11/02/22 21:37	1
beta-BHC	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Bromacil	ND	*+ ^3+	0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Butachlor	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Butylbenzylphthalate	ND		0.49		ug/L		10/21/22 07:31	11/02/22 21:37	1
Caffeine	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Chlorobenzilate	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Chloroneb	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Chlorothalonil (Draconil, Bravo)	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Chlorpyrifos	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Chrysene	ND		0.020		ug/L		10/21/22 07:31	11/02/22 21:37	1
delta-BHC	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Di(2-ethylhexyl)adipate	ND		0.59		ug/L		10/21/22 07:31	11/02/22 21:37	1
Bis(2-ethylhexyl) phthalate	ND		0.59		ug/L		10/21/22 07:31	11/02/22 21:37	1
Diazinon (Qualitative)	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Dibenz(a,h)anthracene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Diclorvos (DDVP)	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Dieldrin	ND		0.20		ug/L		10/21/22 07:31	11/02/22 21:37	1
Diethylphthalate	ND		0.49		ug/L		10/21/22 07:31	11/02/22 21:37	1
Dimethoate	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Dimethylphthalate	ND		0.49		ug/L		10/21/22 07:31	11/02/22 21:37	1
Di-n-butyl phthalate	ND		0.98		ug/L		10/21/22 07:31	11/02/22 21:37	1
Di-n-octyl phthalate	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Endosulfan I (Alpha)	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Endosulfan II (Beta)	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Endosulfan sulfate	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Endrin	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Endrin aldehyde	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
EPTC	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Date Collected: 10/17/22 10:23
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-1

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Fluorene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
gamma-Chlordane	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Heptachlor	ND		0.039		ug/L		10/21/22 07:31	11/02/22 21:37	1
Heptachlor epoxide (isomer B)	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Hexachlorobenzene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Hexachlorocyclopentadiene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Indeno[1,2,3-cd]pyrene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Isophorone	ND		0.49		ug/L		10/21/22 07:31	11/02/22 21:37	1
Lindane	ND		0.039		ug/L		10/21/22 07:31	11/02/22 21:37	1
Malathion	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Methoxychlor	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Metolachlor	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Metribuzin	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Molinate	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Naphthalene	ND		0.29		ug/L		10/21/22 07:31	11/02/22 21:37	1
Parathion	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Pendimethalin (Penoxaline)	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Total Permethrin (mixed isomers)	ND		0.20		ug/L		10/21/22 07:31	11/02/22 21:37	1
Phenanthrene	ND		0.039		ug/L		10/21/22 07:31	11/02/22 21:37	1
Propachlor	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Pyrene	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Simazine	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Terbacil	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Terbuthylazine	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1
Thiobencarb	ND		0.20		ug/L		10/21/22 07:31	11/02/22 21:37	1
trans-Nonachlor	ND		0.049		ug/L		10/21/22 07:31	11/02/22 21:37	1
Trifluralin	ND		0.098		ug/L		10/21/22 07:31	11/02/22 21:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.56*	*T J*	*ug/L*		*2.42*		*10/21/22 07:31*	*11/02/22 21:37*	*1*
Decane	*1.4*	*T J N*	*ug/L*		*2.62*	*124-18-5*	*10/21/22 07:31*	*11/02/22 21:37*	*1*
9-Octadecenamide, (Z)-	*1.1*	*T J N*	*ug/L*		*7.95*	*301-02-0*	*10/21/22 07:31*	*11/02/22 21:37*	*1*
Hexazinone	*0.12*		*ug/L*		*8.32*	*51235-04-2*	*10/21/22 07:31*	*11/02/22 21:37*	*1*
Unknown	*0.61*	*T J*	*ug/L*		*9.82*		*10/21/22 07:31*	*11/02/22 21:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*97*		*70 - 130*	*10/21/22 07:31*	*11/02/22 21:37*	*1*
Triphenylphosphate	*118*		*70 - 130*	*10/21/22 07:31*	*11/02/22 21:37*	*1*
Perylene-d12	*90*		*70 - 130*	*10/21/22 07:31*	*11/02/22 21:37*	*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		10/17/22 00:00	10/24/22 20:24	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Acenaphthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1

Client Sample ID: AIEA GULCH WELLS PUMP 1
Date Collected: 10/17/22 10:23
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-1
Matrix: Drinking Water
PWSID Number: HI0000331

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
Anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Biphenyl	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Chrysene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/17/22 00:00	10/24/22 20:24	1
Fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Fluorene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Naphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Phenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1
Pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*115*		*45 - 118*	*10/17/22 00:00*	*10/24/22 20:24*	*1*
(d10-Phenanthrene)	*104*		*56 - 123*	*10/17/22 00:00*	*10/24/22 20:24*	*1*
(d12-Chrysene)	*103*		*36 - 142*	*10/17/22 00:00*	*10/24/22 20:24*	*1*
(d12-Perylene)	*82*		*36 - 161*	*10/17/22 00:00*	*10/24/22 20:24*	*1*
(d8-Naphthalene)	*107*		*20 - 112*	*10/17/22 00:00*	*10/24/22 20:24*	*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	0.020		mg/L			10/21/22 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*88*		*60 - 140*		*10/21/22 20:16*	*1*

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			10/25/22 01:27	1
JP5	ND	U	0.050		mg/L			10/25/22 01:27	1
JP8	ND	U	0.050		mg/L			10/25/22 01:27	1
MOTOR OIL	ND	U	0.050		mg/L			10/25/22 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*93*		*60 - 130*		*10/25/22 01:27*	*1*
HEXACOSANE	*89*		*60 - 130*		*10/25/22 01:27*	*1*

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

Job ID: 380-24845-1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)
Date Collected: 10/17/22 09:50
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-2
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
2,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
2,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
2,4-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
2,6-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
4,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
4,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
4,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Acenaphthene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Acenaphthylene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Acetochlor	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Alachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
alpha-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
alpha-Chlordane	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Anthracene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:21	1
Atrazine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Benz(a)anthracene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Benzo[a]pyrene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:21	1
Benzo[b]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:21	1
Benzo[g,h,i]perylene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Benzo[k]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:21	1
beta-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Bromacil	ND	^3+ *+	0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Butachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Butylbenzylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:21	1
Caffeine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Chlorobenzilate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Chloroneb	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Chlorothalonil (Draconil, Bravo)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Chlorpyrifos	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Chrysene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:21	1
delta-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Di(2-ethylhexyl)adipate	ND		0.59		ug/L		10/21/22 07:31	10/24/22 22:21	1
Bis(2-ethylhexyl) phthalate	ND		0.59		ug/L		10/21/22 07:31	10/24/22 22:21	1
Diazinon (Qualitative)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Dibenz(a,h)anthracene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Diclorvos (DDVP)	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Dieldrin	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:21	1
Diethylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:21	1
Dimethoate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Dimethylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:21	1
Di-n-butyl phthalate	ND		0.98		ug/L		10/21/22 07:31	10/24/22 22:21	1
Di-n-octyl phthalate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Endosulfan I (Alpha)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Endosulfan II (Beta)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Endosulfan sulfate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Endrin	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Endrin aldehyde	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
EPTC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)
Date Collected: 10/17/22 09:50
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-2
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Fluorene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
gamma-Chlordane	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Heptachlor	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:21	1
Heptachlor epoxide (isomer B)	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Hexachlorobenzene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Hexachlorocyclopentadiene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Indeno[1,2,3-cd]pyrene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Isophorone	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:21	1
Lindane	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:21	1
Malathion	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Methoxychlor	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Metolachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Metribuzin	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Molinate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Naphthalene	ND		0.29		ug/L		10/21/22 07:31	10/24/22 22:21	1
Parathion	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Pendimethalin (Penoxaline)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Total Permethrin (mixed isomers)	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:21	1
Phenanthrene	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:21	1
Propachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Pyrene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Simazine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Terbacil	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Terbuthylazine	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1
Thiobencarb	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:21	1
trans-Nonachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:21	1
Trifluralin	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.59*	*T J*	*ug/L*		*2.37*		*10/21/22 07:31*	*10/24/22 22:21*	*1*
Decane	*1.5*	*T J N*	*ug/L*		*2.61*	*124-18-5*	*10/21/22 07:31*	*10/24/22 22:21*	*1*
Hexazinone	*0.12*		*ug/L*		*8.34*	*51235-04-2*	*10/21/22 07:31*	*10/24/22 22:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*97*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:21*	*1*
Triphenylphosphate	*110*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:21*	*1*
Perylene-d12	*95*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:21*	*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		10/17/22 00:00	10/24/22 22:08	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Acenaphthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Date Collected: 10/17/22 09:50
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-2
Matrix: Drinking Water
PWSID Number: HI0000331

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[a]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Biphenyl	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Chrysene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/17/22 00:00	10/24/22 22:08	1
Fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Fluorene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Naphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Phenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1
Pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*111*		*45 - 118*	*10/17/22 00:00*	*10/24/22 22:08*	*1*
(d10-Phenanthrene)	*103*		*56 - 123*	*10/17/22 00:00*	*10/24/22 22:08*	*1*
(d12-Chrysene)	*102*		*36 - 142*	*10/17/22 00:00*	*10/24/22 22:08*	*1*
(d12-Perylene)	*87*		*36 - 161*	*10/17/22 00:00*	*10/24/22 22:08*	*1*
(d8-Naphthalene)	*106*		*20 - 112*	*10/17/22 00:00*	*10/24/22 22:08*	*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	0.020		mg/L			10/21/22 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*93*		*60 - 140*		*10/21/22 20:53*	*1*

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.027		mg/L			10/25/22 01:45	1
JP5	ND	U	0.054		mg/L			10/25/22 01:45	1
JP8	ND	U	0.054		mg/L			10/25/22 01:45	1
MOTOR OIL	ND	U	0.054		mg/L			10/25/22 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*88*		*60 - 130*		*10/25/22 01:45*	*1*
HEXACOSANE	*94*		*60 - 130*		*10/25/22 01:45*	*1*

Client Sample ID: AIEA GULCH WELLS PUMP 2

Date Collected: 10/17/22 10:42
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-3
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1

Client Sample ID: AIEA GULCH WELLS PUMP 2
Date Collected: 10/17/22 10:42
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-3
Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
2,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
2,4-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
2,6-Dinitrotoluene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
4,4'-DDD	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
4,4'-DDE	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
4,4'-DDT	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Acenaphthene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Acenaphthylene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Acetochlor	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Alachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
alpha-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
alpha-Chlordane	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Anthracene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:43	1
Atrazine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Benz(a)anthracene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Benzo[a]pyrene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:43	1
Benzo[b]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:43	1
Benzo[g,h,i]perylene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Benzo[k]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:43	1
beta-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Bromacil	ND	^3+ *+	0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Butachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Butylbenzylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:43	1
Caffeine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Chlorobenzilate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Chloroneb	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Chlorothalonil (Draconil, Bravo)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Chlorpyrifos	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Chrysene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 22:43	1
delta-BHC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Di(2-ethylhexyl)adipate	ND		0.59		ug/L		10/21/22 07:31	10/24/22 22:43	1
Bis(2-ethylhexyl) phthalate	ND		0.59		ug/L		10/21/22 07:31	10/24/22 22:43	1
Diazinon (Qualitative)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Dibenz(a,h)anthracene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Diclorvos (DDVP)	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Dieldrin	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:43	1
Diethylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:43	1
Dimethoate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Dimethylphthalate	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:43	1
Di-n-butyl phthalate	ND		0.98		ug/L		10/21/22 07:31	10/24/22 22:43	1
Di-n-octyl phthalate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Endosulfan I (Alpha)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Endosulfan II (Beta)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Endosulfan sulfate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Endrin	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Endrin aldehyde	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
EPTC	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Fluoranthene	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Date Collected: 10/17/22 10:42
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-3

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
gamma-Chlordane	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Heptachlor	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:43	1
Heptachlor epoxide (isomer B)	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Hexachlorobenzene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Hexachlorocyclopentadiene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Indeno[1,2,3-cd]pyrene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Isophorone	ND		0.49		ug/L		10/21/22 07:31	10/24/22 22:43	1
Lindane	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:43	1
Malathion	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Methoxychlor	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Metolachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Metribuzin	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Molinate	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Naphthalene	ND		0.29		ug/L		10/21/22 07:31	10/24/22 22:43	1
Parathion	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Pendimethalin (Penoxaline)	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Total Permethrin (mixed isomers)	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:43	1
Phenanthrene	ND		0.039		ug/L		10/21/22 07:31	10/24/22 22:43	1
Propachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Pyrene	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Simazine	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Terbacil	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Terbuthylazine	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1
Thiobencarb	ND		0.20		ug/L		10/21/22 07:31	10/24/22 22:43	1
trans-Nonachlor	ND		0.049		ug/L		10/21/22 07:31	10/24/22 22:43	1
Trifluralin	ND		0.098		ug/L		10/21/22 07:31	10/24/22 22:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1H-Imidazole, 4,5-dihydro-2-methyl-	*0.74*	*T J N*	*ug/L*		*2.39*	*534-26-9*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
Decane	*1.4*	*T J N*	*ug/L*		*2.61*	*124-18-5*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
Plumbane, diethyldimethyl-	*0.54*	*T J N*	*ug/L*		*2.91*	*1762-27-2*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
9-Octadecenamide, (Z)-	*1.2*	*T J N*	*ug/L*		*7.97*	*301-02-0*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
Hexazinone	*0.12*		*ug/L*		*8.34*	*51235-04-2*	*10/21/22 07:31*	*10/24/22 22:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*98*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
Triphenylphosphate	*105*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:43*	*1*
Perylene-d12	*93*		*70 - 130*	*10/21/22 07:31*	*10/24/22 22:43*	*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		10/17/22 00:00	10/24/22 23:52	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Acenaphthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1

Client Sample ID: AIEA GULCH WELLS PUMP 2
Date Collected: 10/17/22 10:42
Date Received: 10/18/22 09:40

Lab Sample ID: 380-24845-3
Matrix: Drinking Water
PWSID Number: HI0000331

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
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Biphenyl	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Chrysene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/17/22 00:00	10/24/22 23:52	1
Fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Fluorene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Naphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Phenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1
Pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*118*		*45 - 118*	*10/17/22 00:00*	*10/24/22 23:52*	*1*
(d10-Phenanthrene)	*107*		*56 - 123*	*10/17/22 00:00*	*10/24/22 23:52*	*1*
(d12-Chrysene)	*102*		*36 - 142*	*10/17/22 00:00*	*10/24/22 23:52*	*1*
(d12-Perylene)	*85*		*36 - 161*	*10/17/22 00:00*	*10/24/22 23:52*	*1*
(d8-Naphthalene)	*112*		*20 - 112*	*10/17/22 00:00*	*10/24/22 23:52*	*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	0.020		mg/L			10/21/22 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*94*		*60 - 140*		*10/21/22 21:31*	*1*

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIESEL	ND	U	0.025		mg/L			10/25/22 02:03	1
JP5	ND	U	0.050		mg/L			10/25/22 02:03	1
JP8	ND	U	0.050		mg/L			10/25/22 02:03	1
MOTOR OIL	ND	U	0.050		mg/L			10/25/22 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE	*95*		*60 - 130*		*10/25/22 02:03*	*1*
HEXACOSANE	*102*		*60 - 130*		*10/25/22 02:03*	*1*

Client Sample ID: TB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-24845-4

Date Collected: 10/17/22 10:23

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	0.020		mg/L			10/21/22 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*95*		*60 - 140*		*10/21/22 22:08*	*1*

Client Sample ID: TB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-24845-5

Date Collected: 10/17/22 10:42

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	0.020		mg/L			10/21/22 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*89*		*60 - 140*		*10/21/22 22:45*	*1*

Client Sample ID: TB AIEA GULCH WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-24845-6

Date Collected: 10/17/22 09:50

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	0.020		mg/L			10/21/22 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE	*94*		*60 - 140*		*10/21/22 23:23*	*1*

Action Limit Summary

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

Job ID: 380-24845-1

Client Sample ID: AIEA GULCH WELLS PUMP 1 — Lab Sample ID: 380-24845-1

PWSID Number: HI0000331

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	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.049	525.2	Total/NA
Atrazine	ND		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400	0.59	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.59	525.2	Total/NA
Endrin	ND		ug/L	2	0.098	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.049	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.098	525.2	Total/NA
Simazine	ND		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) — Lab Sample ID: 380-24845-2

PWSID Number: HI0000331

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	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.049	525.2	Total/NA
Atrazine	ND		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400	0.59	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.59	525.2	Total/NA
Endrin	ND		ug/L	2	0.098	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.049	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.098	525.2	Total/NA
Simazine	ND		ug/L	4	0.049	525.2	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2 — Lab Sample ID: 380-24845-3

PWSID Number: HI0000331

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	Limit	RL	Method	Prep Type
Alachlor	ND		ug/L	2	0.049	525.2	Total/NA
Atrazine	ND		ug/L	3	0.049	525.2	Total/NA
Benzo[a]pyrene	ND		ug/L	0.2	0.020	525.2	Total/NA
Di(2-ethylhexyl)adipate	ND		ug/L	400	0.59	525.2	Total/NA
Bis(2-ethylhexyl) phthalate	ND		ug/L	6	0.59	525.2	Total/NA

Action Limit Summary

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

Job ID: 380-24845-1

Client Sample ID: AIEA GULCH WELLS PUMP 2 (Continued)

Lab Sample ID: 380-24845-3

PWSID Number: HI0000331

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	Limit	RL	Method	Prep Type
Endrin	ND		ug/L	2	0.098	525.2	Total/NA
Heptachlor	ND		ug/L	0.4	0.039	525.2	Total/NA
Heptachlor epoxide (isomer B)	ND		ug/L	0.2	0.049	525.2	Total/NA
Hexachlorobenzene	ND		ug/L	1	0.049	525.2	Total/NA
Hexachlorocyclopentadiene	ND		ug/L	50	0.049	525.2	Total/NA
Lindane	ND		ug/L	0.2	0.039	525.2	Total/NA
Methoxychlor	ND		ug/L	40	0.098	525.2	Total/NA
Simazine	ND		ug/L	4	0.049	525.2	Total/NA

Surrogate Summary

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

Job ID: 380-24845-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	TPP	PRY
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-24845-1	AIEA GULCH WELLS PUMP 1	97	118	90
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	97	110	95
380-24845-3	AIEA GULCH WELLS PUMP 2	98	105	93

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		2NMX	TPP	PRY
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
380-24799-E-1-A DU	Duplicate	95	118	94
380-24730-AK-1-A MS	Matrix Spike	98	109	94
LCS 380-21477/3-A	Lab Control Sample	97	112	92
LCSD 380-21477/4-A	Lab Control Sample Dup	98	112	94
MB 380-21477/1-A	Method Blank	96	109	93
MRL 380-21477/2-A	Lab Control Sample	97	109	95

Surrogate Legend

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

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)
100923-B1	Method Blank	108	99	78	82	84
100923-BS1	Lab Control Sample	120	107	77	115	95
100923-BS2	Lab Control Sample Dup	119	107	102	121	96

Surrogate Legend

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

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	(45-118)	(56-123)	(36-142)	(20-112)	(36-161)
380-24845-1	AIEA GULCH WELLS PUMP 1	115	104	103	107	82
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	111	103	102	106	87

Surrogate Summary

Client: City & County of Honolulu
Job ID: 380-24845-1
Project/Site: RED-HILL

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
		Acenapht	Phenanth	CRY	NPT	PRY			
Lab Sample ID	Client Sample ID	(45-118)	(56-123)	(36-142)	(20-112)	(36-161)			
380-24845-3	AIEA GULCH WELLS PUMP 2	118	107	102	112	85			

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)							
380-24845-1	AIEA GULCH WELLS PUMP 1	88							
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	93							
380-24845-3	AIEA GULCH WELLS PUMP 2	94							
380-24845-4	TB AIEA GULCH WELLS PUMP 1	95							
380-24845-5	TB AIEA GULCH WELLS PUMP 2	89							
380-24845-6	TB AIEA GULCH WELLS PUMP 1&2 (260)	94							

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								
22VGH7J11B	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)							
22VGH7J11C	LCD	105							
22VGH7J11L	Lab Control Sample	110							

Surrogate Legend

BFB = BROMOFLUOROBENZENE

Surrogate Summary

Client: City & County of Honolulu
Job ID: 380-24845-1
Project/Site: RED-HILL

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		BB	XACOSA								
Lab Sample ID	Client Sample ID	(60-130)	(60-130)								
380-24845-1	AIEA GULCH WELLS PUMP 1	93	89								
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	88	94								
380-24845-3	AIEA GULCH WELLS PUMP 2	95	102								

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Matrix: WATER

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		BB	XACOSA								
Lab Sample ID	Client Sample ID										
22DSJ049WB	Method Blank										

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

Method: 8015 LL DRO/MRO/JP5/JP8 - 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)								
22DSJ049WL	Lab Control Sample	103	99								
22J5J049WL	Lab Control Sample	102	94								
22J8J049WL	Lab Control Sample	99	101								

Surrogate Legend

BB = BROMOBENZENE
HEXACOSANE = HEXACOSANE

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

Lab Sample ID: MB 380-21477/1-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21477

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
2,4'-DDE	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
2,4'-DDT	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
2,4-Dinitrotoluene	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
2,6-Dinitrotoluene	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
4,4'-DDD	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
4,4'-DDE	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
4,4'-DDT	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Acenaphthene	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Acenaphthylene	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Acetochlor	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Alachlor	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
alpha-BHC	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
alpha-Chlordane	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Anthracene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 17:28	1
Atrazine	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Benz(a)anthracene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Benzo[a]pyrene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 17:28	1
Benzo[b]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 17:28	1
Benzo[g,h,i]perylene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Benzo[k]fluoranthene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 17:28	1
beta-BHC	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Bromacil	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Butachlor	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Butylbenzylphthalate	ND		0.50		ug/L		10/21/22 07:31	10/24/22 17:28	1
Caffeine	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Chlorobenzilate	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Chloroneb	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Chlorothalonil (Draconil, Bravo)	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Chlorpyrifos	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Chrysene	ND		0.020		ug/L		10/21/22 07:31	10/24/22 17:28	1
delta-BHC	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Di(2-ethylhexyl)adipate	ND		0.60		ug/L		10/21/22 07:31	10/24/22 17:28	1
Bis(2-ethylhexyl) phthalate	ND		0.60		ug/L		10/21/22 07:31	10/24/22 17:28	1
Diazinon (Qualitative)	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Dibenz(a,h)anthracene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Diclorvos (DDVP)	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Dieldrin	ND		0.20		ug/L		10/21/22 07:31	10/24/22 17:28	1
Diethylphthalate	ND		0.50		ug/L		10/21/22 07:31	10/24/22 17:28	1
Dimethoate	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Dimethylphthalate	ND		0.50		ug/L		10/21/22 07:31	10/24/22 17:28	1
Di-n-butyl phthalate	ND		0.99		ug/L		10/21/22 07:31	10/24/22 17:28	1
Di-n-octyl phthalate	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Endosulfan I (Alpha)	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Endosulfan II (Beta)	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Endosulfan sulfate	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Endrin	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Endrin aldehyde	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1

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

Lab Sample ID: MB 380-21477/1-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21477

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
EPTC	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Fluoranthene	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Fluorene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
gamma-Chlordane	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Heptachlor	ND		0.040		ug/L		10/21/22 07:31	10/24/22 17:28	1
Heptachlor epoxide (isomer B)	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Hexachlorobenzene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Hexachlorocyclopentadiene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Indeno[1,2,3-cd]pyrene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Isophorone	ND		0.50		ug/L		10/21/22 07:31	10/24/22 17:28	1
Lindane	ND		0.040		ug/L		10/21/22 07:31	10/24/22 17:28	1
Malathion	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Methoxychlor	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Metolachlor	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Metribuzin	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Molinate	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Naphthalene	ND		0.30		ug/L		10/21/22 07:31	10/24/22 17:28	1
Parathion	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Pendimethalin (Penoxaline)	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Total Permethrin (mixed isomers)	ND		0.20		ug/L		10/21/22 07:31	10/24/22 17:28	1
Phenanthrene	ND		0.040		ug/L		10/21/22 07:31	10/24/22 17:28	1
Propachlor	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Pyrene	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Simazine	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Terbacil	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Terbuthylazine	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1
Thiobencarb	ND		0.20		ug/L		10/21/22 07:31	10/24/22 17:28	1
trans-Nonachlor	ND		0.050		ug/L		10/21/22 07:31	10/24/22 17:28	1
Trifluralin	ND		0.099		ug/L		10/21/22 07:31	10/24/22 17:28	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*0.898*	*T J*	*ug/L*		*2.33*		*10/21/22 07:31*	*10/24/22 17:28*	*1*
Unknown	*1.64*	*T J*	*ug/L*		*2.55*		*10/21/22 07:31*	*10/24/22 17:28*	*1*
Unknown	*0.936*	*T J*	*ug/L*		*2.92*		*10/21/22 07:31*	*10/24/22 17:28*	*1*
9-Octadecenamide, (Z)-	*0.904*	*T J N*	*ug/L*		*7.96*	*301-02-0*	*10/21/22 07:31*	*10/24/22 17:28*	*1*
Squalene	*0.764*	*T J N*	*ug/L*		*10.76*	*111-02-4*	*10/21/22 07:31*	*10/24/22 17:28*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitro-m-xylene	*96*		*70 - 130*	*10/21/22 07:31*	*10/24/22 17:28*	*1*
Triphenylphosphate	*109*		*70 - 130*	*10/21/22 07:31*	*10/24/22 17:28*	*1*
Perylene-d12	*93*		*70 - 130*	*10/21/22 07:31*	*10/24/22 17:28*	*1*

Lab Sample ID: LCS 380-21477/3-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4'-DDD			1.99	1.92		ug/L		97	70 - 130		

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

Lab Sample ID: LCS 380-21477/3-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDE	1.99	2.06		ug/L		104	70 - 130
2,4'-DDT	1.99	2.07		ug/L		104	70 - 130
2,4-Dinitrotoluene	1.99	1.95		ug/L		98	70 - 130
2,6-Dinitrotoluene	1.99	1.90		ug/L		95	70 - 130
4,4'-DDD	1.99	2.03		ug/L		102	70 - 130
4,4'-DDE	1.99	2.08		ug/L		105	70 - 130
4,4'-DDT	1.99	2.05		ug/L		103	70 - 130
Acenaphthene	1.99	1.80		ug/L		91	70 - 130
Acenaphthylene	1.99	1.83		ug/L		92	70 - 130
Acetochlor	1.99	1.99		ug/L		100	70 - 130
Alachlor	1.99	1.99		ug/L		100	70 - 130
alpha-BHC	1.99	1.94		ug/L		97	70 - 130
alpha-Chlordane	1.99	1.81		ug/L		91	70 - 130
Anthracene	1.99	1.81		ug/L		91	70 - 130
Atrazine	1.99	2.32		ug/L		117	70 - 130
Benz(a)anthracene	1.99	2.03		ug/L		102	70 - 130
Benzo[a]pyrene	1.99	1.90		ug/L		95	70 - 130
Benzo[b]fluoranthene	1.99	1.92		ug/L		96	70 - 130
Benzo[g,h,i]perylene	1.99	1.59		ug/L		80	70 - 130
Benzo[k]fluoranthene	1.99	1.99		ug/L		100	70 - 130
beta-BHC	1.99	2.05		ug/L		103	70 - 130
Bromacil	1.99	2.51		ug/L		126	70 - 130
Butachlor	1.99	2.08		ug/L		105	70 - 130
Butylbenzylphthalate	1.99	2.28		ug/L		115	70 - 130
Caffeine	1.99	1.36		ug/L		68	45 - 137
Chlorobenzilate	1.99	2.32		ug/L		117	70 - 130
Chloroneb	1.99	1.92		ug/L		97	70 - 130
Chlorothalonil (Draconil, Bravo)	1.99	2.01		ug/L		101	70 - 130
Chlorpyrifos	1.99	2.13		ug/L		107	70 - 130
Chrysene	1.99	1.95		ug/L		98	70 - 130
delta-BHC	1.99	1.98		ug/L		100	70 - 130
Di(2-ethylhexyl)adipate	1.99	2.25		ug/L		113	70 - 130
Bis(2-ethylhexyl) phthalate	1.99	1.81		ug/L		91	70 - 130
Diazinon (Qualitative)	1.99	1.75		ug/L		88	15 - 132
Dibenz(a,h)anthracene	1.99	1.60		ug/L		81	70 - 130
Diclorvos (DDVP)	1.99	1.98		ug/L		99	70 - 130
Dieldrin	1.99	2.10		ug/L		106	70 - 130
Diethylphthalate	1.99	1.97		ug/L		99	70 - 130
Dimethoate	1.99	1.23		ug/L		62	35 - 100
Dimethylphthalate	1.99	1.96		ug/L		98	70 - 130
Di-n-butyl phthalate	3.98	4.10		ug/L		103	70 - 130
Di-n-octyl phthalate	1.99	1.54		ug/L		77	70 - 130
Endosulfan I (Alpha)	1.99	1.78		ug/L		90	70 - 130
Endosulfan II (Beta)	1.99	2.09		ug/L		105	70 - 130
Endosulfan sulfate	1.99	2.06		ug/L		104	70 - 130
Endrin	1.99	1.93		ug/L		97	70 - 130
Endrin aldehyde	1.99	2.24		ug/L		113	70 - 130
EPTC	1.99	1.76		ug/L		89	70 - 130
Fluoranthene	1.99	2.12		ug/L		107	70 - 130

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

Lab Sample ID: LCS 380-21477/3-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	1.99	1.91		ug/L		96	70 - 130
gamma-Chlordane	1.99	1.81		ug/L		91	70 - 130
Heptachlor	1.99	1.79		ug/L		90	70 - 130
Heptachlor epoxide (isomer B)	1.99	1.87		ug/L		94	70 - 130
Hexachlorobenzene	1.99	1.84		ug/L		93	70 - 130
Hexachlorocyclopentadiene	1.99	1.90		ug/L		95	70 - 130
Indeno[1,2,3-cd]pyrene	1.99	1.59		ug/L		80	70 - 130
Isophorone	1.99	1.70		ug/L		86	70 - 130
Lindane	1.99	2.00		ug/L		100	70 - 130
Malathion	1.99	2.11		ug/L		106	70 - 130
Methoxychlor	1.99	2.01		ug/L		101	70 - 130
Metolachlor	1.99	2.13		ug/L		107	70 - 130
Metribuzin	1.99	2.16		ug/L		109	70 - 130
Molinate	1.99	1.84		ug/L		93	70 - 130
Naphthalene	1.99	1.79		ug/L		90	70 - 130
Parathion	1.99	2.43		ug/L		122	70 - 130
Pendimethalin (Penoxaline)	1.99	2.03		ug/L		102	70 - 130
Phenanthrene	1.99	1.83		ug/L		92	70 - 130
Propachlor	1.99	2.01		ug/L		101	70 - 130
Pyrene	1.99	2.14		ug/L		108	70 - 130
Simazine	1.99	2.35		ug/L		118	70 - 130
Terbacil	1.99	2.34		ug/L		118	70 - 130
Terbuthylazine	1.99	2.11		ug/L		106	70 - 130
Thiobencarb	1.99	1.98		ug/L		100	70 - 130
trans-Nonachlor	1.99	1.81		ug/L		91	70 - 130
Trifluralin	1.99	1.96		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Nitro-m-xylene	*97*		*70 - 130*
Triphenylphosphate	*112*		*70 - 130*
Perylene-d12	*92*		*70 - 130*

Lab Sample ID: LCSD 380-21477/4-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4'-DDD	1.99	1.98		ug/L		100	70 - 130	3	20
2,4'-DDE	1.99	2.14		ug/L		107	70 - 130	4	20
2,4'-DDT	1.99	2.15		ug/L		108	70 - 130	4	20
2,4-Dinitrotoluene	1.99	1.99		ug/L		100	70 - 130	2	20
2,6-Dinitrotoluene	1.99	1.93		ug/L		97	70 - 130	2	20
4,4'-DDD	1.99	2.13		ug/L		107	70 - 130	5	20
4,4'-DDE	1.99	2.11		ug/L		106	70 - 130	2	20
4,4'-DDT	1.99	2.10		ug/L		106	70 - 130	3	20
Acenaphthene	1.99	1.82		ug/L		92	70 - 130	1	20
Acenaphthylene	1.99	1.86		ug/L		93	70 - 130	2	20
Acetochlor	1.99	2.03		ug/L		102	70 - 130	2	20

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

Lab Sample ID: LCSD 380-21477/4-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alachlor			1.99	2.02		ug/L		101	70 - 130	1	20
alpha-BHC			1.99	1.96		ug/L		99	70 - 130	1	20
alpha-Chlordane			1.99	1.85		ug/L		93	70 - 130	2	20
Anthracene			1.99	1.83		ug/L		92	70 - 130	1	20
Atrazine			1.99	2.36		ug/L		118	70 - 130	1	20
Benz(a)anthracene			1.99	2.11		ug/L		106	70 - 130	4	20
Benzo[a]pyrene			1.99	2.00		ug/L		101	70 - 130	5	20
Benzo[b]fluoranthene			1.99	2.04		ug/L		103	70 - 130	6	20
Benzo[g,h,i]perylene			1.99	1.68		ug/L		84	70 - 130	5	20
Benzo[k]fluoranthene			1.99	2.12		ug/L		106	70 - 130	6	20
beta-BHC			1.99	2.12		ug/L		106	70 - 130	3	20
Bromacil			1.99	2.61	*+	ug/L		131	70 - 130	4	20
Butachlor			1.99	2.16		ug/L		109	70 - 130	4	20
Butylbenzylphthalate			1.99	2.32		ug/L		117	70 - 130	2	20
Caffeine			1.99	1.38		ug/L		69	45 - 137	2	20
Chlorobenzilate			1.99	2.42		ug/L		122	70 - 130	4	20
Chloroneb			1.99	1.97		ug/L		99	70 - 130	2	20
Chlorothalonil (Draconil, Bravo)			1.99	2.02		ug/L		101	70 - 130	1	20
Chlorpyrifos			1.99	2.18		ug/L		110	70 - 130	2	20
Chrysene			1.99	2.07		ug/L		104	70 - 130	6	20
delta-BHC			1.99	2.02		ug/L		101	70 - 130	2	20
Di(2-ethylhexyl)adipate			1.99	2.26		ug/L		114	70 - 130	1	20
Bis(2-ethylhexyl) phthalate			1.99	1.87		ug/L		94	70 - 130	4	20
Diazinon (Qualitative)			1.99	1.80		ug/L		90	15 - 132	3	20
Dibenz(a,h)anthracene			1.99	1.67		ug/L		84	70 - 130	4	20
Diclorvos (DDVP)			1.99	2.04		ug/L		102	70 - 130	3	20
Dieldrin			1.99	2.11		ug/L		106	70 - 130	0	20
Diethylphthalate			1.99	1.99		ug/L		100	70 - 130	1	20
Dimethoate			1.99	1.28		ug/L		64	35 - 100	4	20
Dimethylphthalate			1.99	2.01		ug/L		101	70 - 130	3	20
Di-n-butyl phthalate			3.98	4.49		ug/L		113	70 - 130	9	20
Di-n-octyl phthalate			1.99	1.61		ug/L		81	70 - 130	5	20
Endosulfan I (Alpha)			1.99	1.83		ug/L		92	70 - 130	3	20
Endosulfan II (Beta)			1.99	2.17		ug/L		109	70 - 130	4	20
Endosulfan sulfate			1.99	2.11		ug/L		106	70 - 130	2	20
Endrin			1.99	2.04		ug/L		102	70 - 130	5	20
Endrin aldehyde			1.99	2.36		ug/L		118	70 - 130	5	20
EPTC			1.99	1.81		ug/L		91	70 - 130	3	20
Fluoranthene			1.99	2.16		ug/L		108	70 - 130	2	20
Fluorene			1.99	1.94		ug/L		98	70 - 130	2	20
gamma-Chlordane			1.99	1.85		ug/L		93	70 - 130	2	20
Heptachlor			1.99	1.85		ug/L		93	70 - 130	3	20
Heptachlor epoxide (isomer B)			1.99	1.91		ug/L		96	70 - 130	2	20
Hexachlorobenzene			1.99	1.93		ug/L		97	70 - 130	5	20
Hexachlorocyclopentadiene			1.99	1.94		ug/L		98	70 - 130	2	20
Indeno[1,2,3-cd]pyrene			1.99	1.69		ug/L		85	70 - 130	6	20
Isophorone			1.99	1.76		ug/L		88	70 - 130	3	20
Lindane			1.99	2.04		ug/L		103	70 - 130	2	20
Malathion			1.99	2.16		ug/L		109	70 - 130	2	20

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

Lab Sample ID: LCSD 380-21477/4-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methoxychlor			1.99	2.10		ug/L		105	70 - 130	4	20
Metolachlor			1.99	2.15		ug/L		108	70 - 130	1	20
Metribuzin			1.99	2.25		ug/L		113	70 - 130	4	20
Molinate			1.99	1.94		ug/L		97	70 - 130	5	20
Naphthalene			1.99	1.80		ug/L		91	70 - 130	1	20
Parathion			1.99	2.54		ug/L		128	70 - 130	4	20
Pendimethalin (Penoxaline)			1.99	2.09		ug/L		105	70 - 130	3	20
Phenanthrene			1.99	1.85		ug/L		93	70 - 130	1	20
Propachlor			1.99	2.08		ug/L		104	70 - 130	3	20
Pyrene			1.99	2.21		ug/L		111	70 - 130	3	20
Simazine			1.99	2.45		ug/L		123	70 - 130	4	20
Terbacil			1.99	2.46		ug/L		124	70 - 130	5	20
Terbuthylazine			1.99	2.24		ug/L		113	70 - 130	6	20
Thiobencarb			1.99	2.04		ug/L		102	70 - 130	3	20
trans-Nonachlor			1.99	1.86		ug/L		93	70 - 130	3	20
Trifluralin			1.99	2.02		ug/L		101	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Nitro-m-xylene	*98*		*70 - 130*
Triphenylphosphate	*112*		*70 - 130*
Perylene-d12	*94*		*70 - 130*

Lab Sample ID: MRL 380-21477/2-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
2,4'-DDD			0.0995	0.108		ug/L		108	50 - 150
2,4'-DDE			0.0995	0.0829	J	ug/L		83	50 - 150
2,4'-DDT			0.0995	0.0741	J	ug/L		74	50 - 150
2,4-Dinitrotoluene			0.0995	0.103		ug/L		103	50 - 150
2,6-Dinitrotoluene			0.0995	0.0990	J	ug/L		99	50 - 150
4,4'-DDD			0.0995	0.0793	J	ug/L		80	50 - 150
4,4'-DDE			0.0995	0.0763	J	ug/L		77	50 - 150
4,4'-DDT			0.0995	0.110		ug/L		111	50 - 150
Acenaphthene			0.0995	0.0868	J	ug/L		87	50 - 150
Acenaphthylene			0.0995	0.0849	J	ug/L		85	50 - 150
Acetochlor			0.0498	0.0418	J	ug/L		84	50 - 150
Alachlor			0.0498	0.0557		ug/L		112	50 - 150
alpha-BHC			0.0995	0.0970	J	ug/L		98	50 - 150
alpha-Chlordane			0.0249	ND		ug/L		82	50 - 150
Anthracene			0.0199	0.0190	J	ug/L		95	50 - 150
Atrazine			0.0498	ND		ug/L		86	50 - 150
Benz(a)anthracene			0.0498	0.0659		ug/L		132	50 - 150
Benzo[a]pyrene			0.0199	0.0141	J	ug/L		71	50 - 150
Benzo[b]fluoranthene			0.0199	0.0147	J	ug/L		74	50 - 150
Benzo[g,h,i]perylene			0.0498	0.0430	J	ug/L		86	50 - 150
Benzo[k]fluoranthene			0.0199	ND		ug/L		77	50 - 150

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

Lab Sample ID: MRL 380-21477/2-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
beta-BHC	0.0995	0.0976	J	ug/L		98	50 - 150
Bromacil	0.0995	0.187	^3+	ug/L		188	50 - 150
Butachlor	0.0498	0.0516		ug/L		104	50 - 150
Butylbenzylphthalate	0.149	0.182	J	ug/L		122	50 - 150
Caffeine	0.0498	0.0316	J	ug/L		64	50 - 150
Chlorobenzilate	0.0995	0.118		ug/L		118	50 - 150
Chloroneb	0.0995	0.0941	J	ug/L		95	50 - 150
Chlorothalonil (Draconil, Bravo)	0.0995	0.139		ug/L		140	50 - 150
Chlorpyrifos	0.0498	0.0476	J	ug/L		96	50 - 150
Chrysene	0.0199	0.0168	J	ug/L		84	50 - 150
delta-BHC	0.0995	0.108		ug/L		108	50 - 150
Di(2-ethylhexyl)adipate	0.299	0.355	J	ug/L		119	50 - 150
Bis(2-ethylhexyl) phthalate	0.597	0.665		ug/L		111	50 - 150
Diazinon (Qualitative)	0.0995	0.0883	J	ug/L		89	15 - 132
Dibenz(a,h)anthracene	0.0498	0.0384	J	ug/L		77	50 - 150
Diclorvos (DDVP)	0.0498	0.0521		ug/L		105	50 - 150
Dieldrin	0.0995	0.114	J	ug/L		114	50 - 150
Diethylphthalate	0.149	0.158	J	ug/L		106	50 - 150
Dimethoate	0.0995	0.0527	J	ug/L		53	35 - 100
Dimethylphthalate	0.299	0.274	J	ug/L		92	50 - 150
Di-n-butyl phthalate	0.299	0.323	J	ug/L		108	49 - 243
Di-n-octyl phthalate	0.0995	0.0966	J	ug/L		97	50 - 150
Endosulfan I (Alpha)	0.0995	0.0829	J	ug/L		83	50 - 150
Endosulfan II (Beta)	0.0995	0.114		ug/L		115	50 - 150
Endosulfan sulfate	0.0995	0.103		ug/L		104	50 - 150
Endrin	0.0995	0.123		ug/L		124	50 - 150
Endrin aldehyde	0.0995	ND		ug/L		80	50 - 150
EPTC	0.0995	0.0842	J	ug/L		85	50 - 150
Fluoranthene	0.0498	0.0459	J	ug/L		92	50 - 150
Fluorene	0.0498	ND		ug/L		85	50 - 150
gamma-Chlordane	0.0249	0.0214	J	ug/L		86	50 - 150
Heptachlor	0.0398	0.0557		ug/L		140	50 - 150
Heptachlor epoxide (isomer B)	0.0498	0.0415	J	ug/L		83	50 - 150
Hexachlorobenzene	0.0498	0.0443	J	ug/L		89	50 - 150
Hexachlorocyclopentadiene	0.0498	0.0398	J	ug/L		80	50 - 150
Indeno[1,2,3-cd]pyrene	0.0498	0.0402	J	ug/L		81	50 - 150
Isophorone	0.0995	0.0875	J	ug/L		88	50 - 150
Lindane	0.0398	0.0458		ug/L		115	50 - 150
Malathion	0.0995	0.0892	J	ug/L		90	50 - 150
Methoxychlor	0.0995	0.116		ug/L		117	50 - 150
Metolachlor	0.0498	0.0561		ug/L		113	50 - 150
Metribuzin	0.0498	0.0364	J	ug/L		73	50 - 150
Molinate	0.0995	0.0837	J	ug/L		84	50 - 150
Naphthalene	0.0995	0.0904	J	ug/L		91	50 - 150
Parathion	0.0995	0.0977	J	ug/L		98	50 - 150
Pendimethalin (Penoxaline)	0.0995	0.113		ug/L		113	50 - 150
Phenanthrene	0.0199	0.0198	J	ug/L		99	50 - 150
Propachlor	0.0498	0.0484	J	ug/L		97	50 - 150
Pyrene	0.0498	0.0452	J	ug/L		91	50 - 150

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

Lab Sample ID: MRL 380-21477/2-A
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21477

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Simazine			0.0498	0.0543		ug/L		109	50 - 150		
Terbacil			0.0995	0.126		ug/L		127	50 - 150		
Terbuthylazine			0.0995	0.0797	J	ug/L		80	50 - 150		
Thiobencarb			0.0995	0.112	J	ug/L		113	50 - 150		
trans-Nonachlor			0.0249	0.0267	J	ug/L		107	50 - 150		
Trifluralin			0.0995	0.0761	J	ug/L		76	50 - 150		

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
2-Nitro-m-xylene	*97*		*70 - 130*
Triphenylphosphate	*109*		*70 - 130*
Perylene-d12	*95*		*70 - 130*

Lab Sample ID: 380-24730-AK-1-A MS
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4'-DDD	ND		1.97	1.94		ug/L		98	70 - 130		
2,4'-DDE	ND		1.97	2.04		ug/L		104	70 - 130		
2,4'-DDT	ND		1.97	2.06		ug/L		104	70 - 130		
2,4-Dinitrotoluene	ND		1.97	2.09		ug/L		106	70 - 130		
2,6-Dinitrotoluene	ND		1.97	1.99		ug/L		101	70 - 130		
4,4'-DDD	ND		1.97	2.02		ug/L		103	70 - 130		
4,4'-DDE	ND		1.97	2.01		ug/L		102	70 - 130		
4,4'-DDT	ND		1.97	2.02		ug/L		103	70 - 130		
Acenaphthene	ND		1.97	1.83		ug/L		93	70 - 130		
Acenaphthylene	ND		1.97	1.92		ug/L		98	70 - 130		
Acetochlor	ND		1.97	1.98		ug/L		101	70 - 130		
Alachlor	ND		1.97	2.01		ug/L		102	70 - 130		
alpha-BHC	ND		1.97	1.94		ug/L		99	70 - 130		
alpha-Chlordane	ND		1.97	1.76		ug/L		89	70 - 130		
Anthracene	ND		1.97	1.66		ug/L		84	70 - 130		
Atrazine	ND		1.97	2.33		ug/L		118	70 - 130		
Benz(a)anthracene	ND		1.97	2.02		ug/L		102	70 - 130		
Benzo[a]pyrene	ND		1.97	1.94		ug/L		98	70 - 130		
Benzo[b]fluoranthene	ND		1.97	1.98		ug/L		100	70 - 130		
Benzo[g,h,i]perylene	ND		1.97	1.71		ug/L		87	70 - 130		
Benzo[k]fluoranthene	ND		1.97	2.05		ug/L		104	70 - 130		
beta-BHC	ND		1.97	2.08		ug/L		106	70 - 130		
Bromacil	ND	^3+ *+ F1	1.97	2.75	F1	ug/L		140	70 - 130		
Butachlor	ND		1.97	2.09		ug/L		106	70 - 130		
Butylbenzylphthalate	ND		1.97	2.24		ug/L		114	70 - 130		
Caffeine	ND		1.97	1.57		ug/L		79	46 - 144		
Chlorobenzilate	ND		1.97	2.38		ug/L		121	70 - 130		
Chloroneb	ND		1.97	1.95		ug/L		99	70 - 130		
Chlorothalonil (Draconil, Bravo)	ND		1.97	2.00		ug/L		102	70 - 130		
Chlorpyrifos	ND		1.97	2.16		ug/L		109	70 - 130		
Chrysene	ND		1.97	2.00		ug/L		102	70 - 130		

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

Lab Sample ID: 380-24730-AK-1-A MS
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
delta-BHC	ND		1.97	1.95		ug/L		99	70 - 130
Di(2-ethylhexyl)adipate	ND		1.97	2.14		ug/L		109	70 - 130
Bis(2-ethylhexyl) phthalate	ND		1.97	1.71		ug/L		87	70 - 130
Diazinon (Qualitative)	ND		1.97	1.89		ug/L		96	15 - 132
Dibenz(a,h)anthracene	ND		1.97	1.72		ug/L		87	70 - 130
Diclorvos (DDVP)	ND		1.97	2.02		ug/L		102	70 - 130
Dieldrin	ND		1.97	1.98		ug/L		100	70 - 130
Diethylphthalate	ND		1.97	2.02		ug/L		103	70 - 130
Dimethoate	ND		1.97	1.61		ug/L		82	34 - 111
Dimethylphthalate	ND		1.97	1.90		ug/L		97	70 - 130
Di-n-butyl phthalate	ND		3.94	4.16		ug/L		102	70 - 130
Di-n-octyl phthalate	ND		1.97	1.52		ug/L		77	70 - 130
Endosulfan I (Alpha)	ND		1.97	1.79		ug/L		91	70 - 130
Endosulfan II (Beta)	ND		1.97	2.10		ug/L		107	70 - 130
Endosulfan sulfate	ND		1.97	1.97		ug/L		100	70 - 130
Endrin	ND		1.97	1.94		ug/L		98	70 - 130
Endrin aldehyde	ND		1.97	1.72		ug/L		87	70 - 130
EPTC	ND		1.97	1.85		ug/L		94	70 - 130
Fluoranthene	ND		1.97	2.12		ug/L		108	70 - 130
Fluorene	ND		1.97	1.93		ug/L		98	70 - 130
gamma-Chlordane	ND		1.97	1.76		ug/L		89	70 - 130
Heptachlor	ND		1.97	1.83		ug/L		93	70 - 130
Heptachlor epoxide (isomer B)	ND		1.97	1.83		ug/L		93	70 - 130
Hexachlorobenzene	ND		1.97	1.90		ug/L		97	70 - 130
Hexachlorocyclopentadiene	ND		1.97	1.95		ug/L		99	70 - 130
Indeno[1,2,3-cd]pyrene	ND		1.97	1.73		ug/L		88	70 - 130
Isophorone	ND		1.97	1.75		ug/L		89	70 - 130
Lindane	ND		1.97	2.02		ug/L		102	70 - 130
Malathion	ND		1.97	2.27		ug/L		115	70 - 130
Methoxychlor	ND		1.97	2.07		ug/L		105	70 - 130
Metolachlor	ND		1.97	2.17		ug/L		110	70 - 130
Metribuzin	ND		1.97	2.26		ug/L		115	70 - 130
Molinate	ND		1.97	2.02		ug/L		102	70 - 130
Naphthalene	ND		1.97	1.82		ug/L		92	70 - 130
Parathion	ND		1.97	2.57		ug/L		130	70 - 130
Pendimethalin (Penoxaline)	ND		1.97	2.14		ug/L		108	70 - 130
Phenanthrene	ND		1.97	1.84		ug/L		93	70 - 130
Propachlor	ND		1.97	2.10		ug/L		106	70 - 130
Pyrene	ND		1.97	2.16		ug/L		110	70 - 130
Simazine	ND		1.97	2.37		ug/L		120	70 - 130
Terbacil	ND		1.97	2.47		ug/L		125	70 - 130
Terbuthylazine	ND		1.97	2.20		ug/L		112	70 - 130
Thiobencarb	ND		1.97	2.00		ug/L		102	70 - 130
trans-Nonachlor	ND		1.97	1.78		ug/L		91	70 - 130
Trifluralin	ND		1.97	2.15		ug/L		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Nitro-m-xylene	*98*		*70 - 130*

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

Lab Sample ID: 380-24730-AK-1-A MS
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21477

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Triphenylphosphate	*109*		*70 - 130*
Perylene-d12	*94*		*70 - 130*

Lab Sample ID: 380-24799-E-1-A DU
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
2,4'-DDD	ND			ND		ug/L				NC	20
2,4'-DDE	ND			ND		ug/L				NC	20
2,4'-DDT	ND			ND		ug/L				NC	20
2,4-Dinitrotoluene	ND			ND		ug/L				NC	20
2,6-Dinitrotoluene	ND			ND		ug/L				NC	20
4,4'-DDD	ND			ND		ug/L				NC	20
4,4'-DDE	ND			ND		ug/L				NC	20
4,4'-DDT	ND			ND		ug/L				NC	20
Acenaphthene	ND			ND		ug/L				NC	20
Acenaphthylene	ND			ND		ug/L				NC	20
Acetochlor	ND			ND		ug/L				NC	20
Alachlor	ND			ND		ug/L				NC	20
alpha-BHC	ND			ND		ug/L				NC	20
alpha-Chlordane	ND			ND		ug/L				NC	20
Anthracene	ND			ND		ug/L				NC	20
Atrazine	ND			ND		ug/L				NC	20
Benz(a)anthracene	ND			ND		ug/L				NC	20
Benzo[a]pyrene	ND			ND		ug/L				NC	20
Benzo[b]fluoranthene	ND			ND		ug/L				NC	20
Benzo[g,h,i]perylene	ND			ND		ug/L				NC	20
Benzo[k]fluoranthene	ND			ND		ug/L				NC	20
beta-BHC	ND			ND		ug/L				NC	20
Bromacil	ND	^3+ *+		ND	*+	ug/L				NC	20
Butachlor	ND			ND		ug/L				NC	20
Butylbenzylphthalate	ND			ND		ug/L				NC	20
Caffeine	ND			ND		ug/L				NC	20
Chlorobenzilate	ND			ND		ug/L				NC	20
Chloroneb	ND			ND		ug/L				NC	20
Chlorothalonil (Draconil, Bravo)	ND			ND		ug/L				NC	20
Chlorpyrifos	ND			ND		ug/L				NC	20
Chrysene	ND			ND		ug/L				NC	20
delta-BHC	ND			ND		ug/L				NC	20
Di(2-ethylhexyl)adipate	ND			ND		ug/L				NC	20
Bis(2-ethylhexyl) phthalate	ND			ND		ug/L				NC	20
Diazinon (Qualitative)	ND			ND		ug/L				NC	20
Dibenz(a,h)anthracene	ND			ND		ug/L				NC	20
Diclorvos (DDVP)	ND			ND		ug/L				NC	20
Dieldrin	ND			ND		ug/L				NC	20
Diethylphthalate	ND			ND		ug/L				NC	20
Dimethoate	ND			ND		ug/L				NC	20

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

Lab Sample ID: 380-24799-E-1-A DU
Matrix: Water
Analysis Batch: 21699

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 21477

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Dimethylphthalate	ND			ND		ug/L				NC	20
Di-n-butyl phthalate	ND			ND		ug/L				NC	20
Di-n-octyl phthalate	ND			ND		ug/L				NC	20
Endosulfan I (Alpha)	ND			ND		ug/L				NC	20
Endosulfan II (Beta)	ND			ND		ug/L				NC	20
Endosulfan sulfate	ND			ND		ug/L				NC	20
Endrin	ND			ND		ug/L				NC	20
Endrin aldehyde	ND			ND		ug/L				NC	20
EPTC	ND			ND		ug/L				NC	20
Fluoranthene	ND			ND		ug/L				NC	20
Fluorene	ND			ND		ug/L				NC	20
gamma-Chlordane	ND			ND		ug/L				NC	20
Heptachlor	ND			ND		ug/L				NC	20
Heptachlor epoxide (isomer B)	ND			ND		ug/L				NC	20
Hexachlorobenzene	ND			ND		ug/L				NC	20
Hexachlorocyclopentadiene	ND			ND		ug/L				NC	20
Indeno[1,2,3-cd]pyrene	ND			ND		ug/L				NC	20
Isophorone	ND			ND		ug/L				NC	20
Lindane	ND			ND		ug/L				NC	20
Malathion	ND			ND		ug/L				NC	20
Methoxychlor	ND			ND		ug/L				NC	20
Metolachlor	ND			ND		ug/L				NC	20
Metribuzin	ND			ND		ug/L				NC	20
Molinate	ND			ND		ug/L				NC	20
Naphthalene	ND			ND		ug/L				NC	20
Parathion	ND			ND		ug/L				NC	20
Pendimethalin (Penoxaline)	ND			ND		ug/L				NC	20
Total Permethrin (mixed isomers)	ND			ND		ug/L				NC	20
Phenanthrene	ND			ND		ug/L				NC	20
Propachlor	ND			ND		ug/L				NC	20
Pyrene	ND			ND		ug/L				NC	20
Simazine	ND			ND		ug/L				NC	20
Terbacil	ND			ND		ug/L				NC	20
Terbuthylazine	ND			ND		ug/L				NC	20
Thiobencarb	ND			ND		ug/L				NC	20
trans-Nonachlor	ND			ND		ug/L				NC	20
Trifluralin	ND			ND		ug/L				NC	20

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
2-Nitro-m-xylene	*95*		*70 - 130*
Triphenylphosphate	*118*		*70 - 130*
Perylene-d12	*94*		*70 - 130*

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

Lab Sample ID: 100923-B1
Matrix: BlankMatrix
Analysis Batch: O-40002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: O-40002_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
1-Methylphenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
2,3,5-Trimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
2,6-Dimethylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
2-Methylnaphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Acenaphthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Acenaphthylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benz[a]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benzo[a]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benzo[b]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benzo[e]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benzo[g,h,i]perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Benzo[k]fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Biphenyl	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Chrysene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Dibenz[a,h]anthracene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Dibenzo[a,l]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Dibenzothiophene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Disalicylidenepropanediamine	ND		0.1	0.05	µg/L		10/17/22 00:00	10/24/22 11:46	1
Fluoranthene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Fluorene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Indeno[1,2,3-cd]pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Naphthalene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Perylene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Phenanthrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1
Pyrene	ND		0.005	0.001	µg/L		10/17/22 00:00	10/24/22 11:46	1

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
(d10-Acenaphthene)	*108*		*27 - 133*	*10/17/22 00:00*	*10/24/22 11:46*	*1*
(d10-Phenanthrene)	*99*		*43 - 129*	*10/17/22 00:00*	*10/24/22 11:46*	*1*
(d12-Chrysene)	*78*		*52 - 144*	*10/17/22 00:00*	*10/24/22 11:46*	*1*
(d12-Perylene)	*84*		*36 - 161*	*10/17/22 00:00*	*10/24/22 11:46*	*1*
(d8-Naphthalene)	*82*		*25 - 125*	*10/17/22 00:00*	*10/24/22 11:46*	*1*

Lab Sample ID: 100923-BS1
Matrix: BlankMatrix
Analysis Batch: O-40002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40002_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	0.5	0.519		µg/L		104	31 - 128
1-Methylphenanthrene	0.5	0.482		µg/L		96	66 - 127
2,3,5-Trimethylnaphthalene	0.5	0.51		µg/L		102	55 - 122
2,6-Dimethylnaphthalene	0.5	0.508		µg/L		102	48 - 120
2-Methylnaphthalene	0.5	0.526		µg/L		105	47 - 130
Acenaphthene	0.5	0.523		µg/L		105	53 - 131
Acenaphthylene	0.5	0.499		µg/L		100	43 - 140
Anthracene	0.5	0.503		µg/L		101	58 - 135

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

Lab Sample ID: 100923-BS1
Matrix: BlankMatrix
Analysis Batch: O-40002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: O-40002_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benz[a]anthracene			0.5	0.632		µg/L		126	55 - 145		
Benzo[a]pyrene			0.5	0.478		µg/L		96	51 - 143		
Benzo[b]fluoranthene			0.5	0.386		µg/L		77	46 - 165		
Benzo[e]pyrene			0.5	0.465		µg/L		93	42 - 152		
Benzo[g,h,i]perylene			0.5	0.486		µg/L		97	63 - 133		
Benzo[k]fluoranthene			0.5	0.425		µg/L		85	56 - 145		
Biphenyl			0.5	0.525		µg/L		105	56 - 119		
Chrysene			0.5	0.486		µg/L		97	56 - 141		
Dibenz[a,h]anthracene			0.5	0.451		µg/L		90	55 - 150		
Dibenzo[a,l]pyrene			0.5	0.369		µg/L		74	50 - 150		
Dibenzothiophene			0.5	0.515		µg/L		103	75 - 113		
Disalicylidenepropanediamine			50	39.4		µg/L		79	50 - 150		
Fluoranthene			0.5	0.488		µg/L		98	60 - 146		
Fluorene			0.5	0.51		µg/L		102	58 - 131		
Indeno[1,2,3-cd]pyrene			0.5	0.498		µg/L		100	50 - 151		
Naphthalene			0.5	0.534		µg/L		107	41 - 126		
Perylene			0.5	0.471		µg/L		94	48 - 141		
Phenanthrene			0.5	0.527		µg/L		105	67 - 127		
Pyrene			0.5	0.48		µg/L		96	54 - 156		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
(d10-Acenaphthene)	*120*		*27 - 133*
(d10-Phenanthrene)	*107*		*43 - 129*
(d12-Chrysene)	*77*		*52 - 144*
(d12-Perylene)	*95*		*36 - 161*
(d8-Naphthalene)	*115*		*25 - 125*

Lab Sample ID: 100923-BS2
Matrix: BlankMatrix
Analysis Batch: O-40002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40002_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene			0.5	0.492		µg/L		98	31 - 128	6	30
1-Methylphenanthrene			0.5	0.621		µg/L		124	66 - 127	25	30
2,3,5-Trimethylnaphthalene			0.5	0.507		µg/L		101	55 - 122	1	30
2,6-Dimethylnaphthalene			0.5	0.491		µg/L		98	48 - 120	4	30
2-Methylnaphthalene			0.5	0.502		µg/L		100	47 - 130	5	30
Acenaphthene			0.5	0.534		µg/L		107	53 - 131	2	30
Acenaphthylene			0.5	0.491		µg/L		98	43 - 140	2	30
Anthracene			0.5	0.518		µg/L		104	58 - 135	3	30
Benz[a]anthracene			0.5	0.658		µg/L		132	55 - 145	5	30
Benzo[a]pyrene			0.5	0.479		µg/L		96	51 - 143	0	30
Benzo[b]fluoranthene			0.5	0.461		µg/L		92	46 - 165	18	30
Benzo[e]pyrene			0.5	0.472		µg/L		94	42 - 152	1	30
Benzo[g,h,i]perylene			0.5	0.491		µg/L		98	63 - 133	1	30
Benzo[k]fluoranthene			0.5	0.536		µg/L		107	56 - 145	23	30
Biphenyl			0.5	0.514		µg/L		103	56 - 119	2	30
Chrysene			0.5	0.493		µg/L		99	56 - 141	2	30

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

Lab Sample ID: 100923-BS2
Matrix: BlankMatrix
Analysis Batch: O-40002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: O-40002_P

Analyte			Spike Added	LCS DUP Result	LCS DUP Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]anthracene			0.5	0.454		µg/L		91	55 - 150	1	30
Dibenzo[a,l]pyrene			0.5	0.491		µg/L		98	50 - 150	28	30
Dibenzothiophene			0.5	0.521		µg/L		104	75 - 113	1	30
Disalicylidenepropanediamine			50	34.7		µg/L		69	50 - 150	14	30
Fluoranthene			0.5	0.638		µg/L		128	60 - 146	27	30
Fluorene			0.5	0.525		µg/L		105	58 - 131	3	30
Indeno[1,2,3-cd]pyrene			0.5	0.499		µg/L		100	50 - 151	0	30
Naphthalene			0.5	0.509		µg/L		102	41 - 126	5	30
Perylene			0.5	0.475		µg/L		95	48 - 141	1	30
Phenanthrene			0.5	0.539		µg/L		108	67 - 127	3	30
Pyrene			0.5	0.65		µg/L		130	54 - 156	30	30

Surrogate	*LCS DUP %Recovery*	*LCS DUP Qualifier*	*Limits*
(d10-Acenaphthene)	*119*		*27 - 133*
(d10-Phenanthrene)	*107*		*43 - 129*
(d12-Chrysene)	*102*		*52 - 144*
(d12-Perylene)	*96*		*36 - 161*
(d8-Naphthalene)	*121*		*25 - 125*

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

Lab Sample ID: 22VGH7J11B
Matrix: WATER
Analysis Batch: 22VGH7J11

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	0.020		mg/L			10/21/22 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOFLUOROBENZENE					*10/21/22 12:47*	*1*

Lab Sample ID: 22VGH7J11L
Matrix: WATER
Analysis Batch: 22VGH7J11

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
GASOLINE			0.500	0.453		mg/L		91	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOFLUOROBENZENE	*110*		*70 - 130*

Method: 8015 LL DRO/MRO/JP5/JP8 - 8015 - TPH DRO/ORO

Lab Sample ID: 22DSJ049WB
Matrix: WATER
Analysis Batch: 22DSJ049W

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			10/24/22 19:18	1
JP5	ND	U	0.050		mg/L			10/24/22 19:18	1
JP8	ND	U	0.050		mg/L			10/24/22 19:18	1
MOTOR OIL	ND	U	0.050		mg/L			10/24/22 19:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
BROMOBENZENE					*10/24/22 19:18*	*1*
HEXACOSANE					*10/24/22 19:18*	*1*

Lab Sample ID: 22DSJ049WL
Matrix: WATER
Analysis Batch: 22DSJ049W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
DIESEL			2.50	2.70		mg/L		108	50 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*103*		*60 - 130*
HEXACOSANE	*99*		*60 - 130*

Lab Sample ID: 22J5J049WL
Matrix: WATER
Analysis Batch: 22DSJ049W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP5			2.50	2.20		mg/L		88	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*102*		*60 - 130*
HEXACOSANE	*94*		*60 - 130*

Lab Sample ID: 22J8J049WL
Matrix: WATER
Analysis Batch: 22DSJ049W

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
JP8			2.50	2.50		mg/L		100	30 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
BROMOBENZENE	*99*		*60 - 130*
HEXACOSANE	*101*		*60 - 130*

GC/MS Semi VOA

Prep Batch: 21477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	525.2	
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	525.2	
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	
MB 380-21477/1-A	Method Blank	Total/NA	Water	525.2	
LCS 380-21477/3-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 380-21477/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MRL 380-21477/2-A	Lab Control Sample	Total/NA	Water	525.2	
380-24730-AK-1-A MS	Matrix Spike	Total/NA	Water	525.2	
380-24799-E-1-A DU	Duplicate	Total/NA	Water	525.2	

Analysis Batch: 21699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	525.2	21477
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	525.2	21477
MB 380-21477/1-A	Method Blank	Total/NA	Water	525.2	21477
LCS 380-21477/3-A	Lab Control Sample	Total/NA	Water	525.2	21477
LCSD 380-21477/4-A	Lab Control Sample Dup	Total/NA	Water	525.2	21477
MRL 380-21477/2-A	Lab Control Sample	Total/NA	Water	525.2	21477
380-24730-AK-1-A MS	Matrix Spike	Total/NA	Water	525.2	21477
380-24799-E-1-A DU	Duplicate	Total/NA	Water	525.2	21477

Analysis Batch: 22915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	525.2	21477

Subcontract

Analysis Batch: O-40002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40002_P
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40002_P
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	625 PAH Physis LL (EAL) + TICs	O-40002_P
100923-B1	Method Blank	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40002_P
100923-BS1	Lab Control Sample	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40002_P
100923-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	625 PAH Physis LL (EAL) + TICs	O-40002_P

Analysis Batch: 22DSJ049W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 LL DRO/MRO/JP5/JP8	

Subcontract (Continued)

Analysis Batch: 22DSJ049W (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
22DSJ049WB	Method Blank	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
22DSJ049WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
22J5J049WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	
22J8J049WL	Lab Control Sample	Total/NA	WATER	8015 LL DRO/MRO/JP5/JP8	

Analysis Batch: 22VGH7J11

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-24845-4	TB AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-24845-5	TB AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
380-24845-6	TB AIEA GULCH WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	8015 Gas (Purgeable) LL (EAL)	
22VGH7J11B	Method Blank	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	
22VGH7J11L	Lab Control Sample	Total/NA	WATER	8015 Gas (Purgeable) LL (EAL)	

Prep Batch: O-40002_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-24845-1	AIEA GULCH WELLS PUMP 1	Total/NA	Drinking Water	EPA_625	
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Total/NA	Drinking Water	EPA_625	
380-24845-3	AIEA GULCH WELLS PUMP 2	Total/NA	Drinking Water	EPA_625	
100923-B1	Method Blank	Total/NA	BlankMatrix	EPA_625	
100923-BS1	Lab Control Sample	Total/NA	BlankMatrix	EPA_625	
100923-BS2	Lab Control Sample Dup	Total/NA	BlankMatrix	EPA_625	

Lab Chronicle

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

Job ID: 380-24845-1

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-24845-1

Date Collected: 10/17/22 10:23

Matrix: Drinking Water

Date Received: 10/18/22 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			21477	OTM3	EA MON	10/21/22 07:31
Total/NA	Analysis	525.2		1	22915	UJC9	EA MON	11/02/22 21:37
Total/NA	Prep	EPA_625		1	O-40002_P			10/17/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40002	YC		10/24/22 20:24
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7J11	SDees		10/21/22 20:16
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	22DSJ049W	SDees		10/25/22 01:27

Client Sample ID: AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-24845-2

Date Collected: 10/17/22 09:50

Matrix: Drinking Water

Date Received: 10/18/22 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			21477	OTM3	EA MON	10/21/22 07:31
Total/NA	Analysis	525.2		1	21699	UJC9	EA MON	10/24/22 22:21
Total/NA	Prep	EPA_625		1	O-40002_P			10/17/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40002	YC		10/24/22 22:08
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7J11	SDees		10/21/22 20:53
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	22DSJ049W	SDees		10/25/22 01:45

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-24845-3

Date Collected: 10/17/22 10:42

Matrix: Drinking Water

Date Received: 10/18/22 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	525.2			21477	OTM3	EA MON	10/21/22 07:31
Total/NA	Analysis	525.2		1	21699	UJC9	EA MON	10/24/22 22:43
Total/NA	Prep	EPA_625		1	O-40002_P			10/17/22 00:00
Total/NA	Analysis	625 PAH Physis LL (EAL) + TICs		1	O-40002	YC		10/24/22 23:52
Total/NA	Analysis	8015 Gas (Purgeable) LL (EAL)		1	22VGH7J11	SDees		10/21/22 21:31
Total/NA	Analysis	8015 LL DRO/MRO/JP5/JP8		1	22DSJ049W	SDees		10/25/22 02:03

Client Sample ID: TB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-24845-4

Date Collected: 10/17/22 10:23

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	22VGH7J11	SDees		10/21/22 22:08

Lab Chronicle

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

Job ID: 380-24845-1

Client Sample ID: TB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-24845-5

Date Collected: 10/17/22 10:42

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	22VGH7J11	SDees		10/21/22 22:45

Client Sample ID: TB AIEA GULCH WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-24845-6

Date Collected: 10/17/22 09:50

Matrix: Drinking Water

Date Received: 10/18/22 09:40

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	22VGH7J11	SDees		10/21/22 23:23

Laboratory References:

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

EA MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-24845-1

Laboratory: Eurofins Eaton Monrovia

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-23

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	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	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	Caffeine
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	Diazinon (Qualitative)
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	Dimethoate
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

Laboratory: Eurofins Eaton Monrovia (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	Isophorone
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: 380-24845-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	EA MON
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 MON

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 MON = Eurofins Eaton Monrovia, 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016, TEL (626)386-1100

Sample Summary

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

Job ID: 380-24845-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-24845-1	AIEA GULCH WELLS PUMP 1	Drinking Water	10/17/22 10:23	10/18/22 09:40	HI0000331
380-24845-2	AIEA WELLS PUMPS 1&2 (260)	Drinking Water	10/17/22 09:50	10/18/22 09:40	HI0000331
380-24845-3	AIEA GULCH WELLS PUMP 2	Drinking Water	10/17/22 10:42	10/18/22 09:40	HI0000331
380-24845-4	TB AIEA GULCH WELLS PUMP 1	Drinking Water	10/17/22 10:23	10/18/22 09:40	
380-24845-5	TB AIEA GULCH WELLS PUMP 2	Drinking Water	10/17/22 10:42	10/18/22 09:40	
380-24845-6	TB AIEA GULCH WELLS PUMPS 1&2 (260)	Drinking Water	10/17/22 09:50	10/18/22 09:40	

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

Date: 11-10-2022
EMAX Batch No.: 22J273

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 380-24845

Enclosed is the Laboratory report for samples received on 10/19/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-24845-1	J273-01	10/17/22	WATER	TPH GASOLINE
				TPH
380-24845-2	J273-02	10/17/22	WATER	TPH GASOLINE
				TPH
380-24845-3	J273-03	10/17/22	WATER	TPH GASOLINE
				TPH
380-24845-4	J273-04	10/17/22	WATER	TPH GASOLINE
380-24845-5	J273-05	10/17/22	WATER	TPH GASOLINE
380-24845-6	J273-06	10/17/22	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 CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

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

22J273

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-24905.1
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 #: 380-24845-1
Address: 3051 Fujita Street, ,	Due Date Requested: 11/1/2022			
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/JP5/JP8)/ 8015 LL DRO/MRO/JP5/JP8	Total Number of containers	Special Instructions/Note:
				Preservation Code:							
1	AIEA GULCH WELLS PUMP 1 (380-24845-1)	10/17/22	10:23 Hawaiian		Water			X	X	6	See Attached Instructions
2	AIEA WELLS PUMPS 1&2 (260) (380-24845-2)	10/17/22	09:50 Hawaiian		Water			X	X	6	See Attached Instructions
3	AIEA GULCH WELLS PUMP 2 (380-24845-3)	10/17/22	10:42 Hawaiian		Water			X	X	6	See Attached Instructions
4	TB AIEA GULCH WELLS PUMP 1 (380-24845-4)	10/17/22	10:23 Hawaiian		Water			X		2	See Attached Instructions
5	TB AIEA GULCH WELLS PUMP 2 (380-24845-5)	10/17/22	10:42 Hawaiian		Water			X		2	See Attached Instructions
6	TB AIEA GULCH WELLS PUMPS 1&2 (260) (380-24845-6)	10/17/22	09:50 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 out 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 complicance 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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/19/22 1058			10/19/22 1058	EMAX
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: Temp 2.4

Ver: 06/08/2021

EMAX LABORATORIES, INC.

REFERENCE: EMAX-SM02 Rev. 12

SAMPLE RECEIPT FORM 1

Type of Delivery	Airbill / Tracking Number	ECN 22J273
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Johwin Zamora
☐ EMAX Courier ☑ Client Delivery		Date 10/19/22 Time 10:58

COC INSPECTION

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

Note:

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☑ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☑ Cooler 1 2.4 °C	☐ Cooler 2 _____ °C	☐ Cooler 3 _____ °C	☐ Cooler 4 _____ °C	☐ Cooler 5 _____ °C
	☐ Cooler 6 _____ °C	☐ Cooler 7 _____ °C	☐ Cooler 8 _____ °C	☐ Cooler 9 _____ °C	☐ Cooler 10 _____ °C
Thermometer:	*A - S/N* _____	*B - S/N* 210760237	*C - S/N* _____	*D - S/N* 210760272	

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

Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
4-6	19-24	D22	2nd Date reads 10/13/22	R1
1-3	5,6,11,12,17,18	D1	JPS / JP8 not indicated on label	R8

LW 10/19/22

RS 10/26/22

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

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 label	D13	Out of Holding Time	R1	Proceed as indicated in ☒ COC ☐ Label
D2	Analysis mismatch COC vs label	D14	Bubble is >6mm	R2	Refer to attached instruction
D3	Sample ID mismatch COC vs label	D15	No trip blank in cooler	R3	Cancel the analysis
D4	Sample ID is not indicated in _____	D16	Preservation not indicated in _____	R4	Use vial with smallest bubble first
D5	Container -[improper] [leaking] [broken]	D17	Preservation mismatch COC vs label	R5	Log-in with latest sampling date and time+1 min
D6	Date/Time is not indicated in _____	D18	Insufficient chemical preservative	R6	Adjust pH as necessary
D7	Date/Time mismatch COC vs label	D19	Insufficient Sample	R7	Filter and preserved as necessary
D8	Sample listed in COC is not received	D20	No filtration info for dissolved analysis	R8	Informed Client.
D9	Sample received is not listed in COC	D21	No sample for moisture determination	R9	
D10	No initial/date on corrections in COC/label	(D22)	2nd Date on label is incorrect	R10	
D11	Container count mismatch COC vs received	D23		R11	
D12	Container size mismatch COC vs received	D24		R12	

REVIEWS:

Sample Labeling maria rivera Date 10/19/22 — 10/19/22

SRF Date 10/19/22

PM Date 10/26/22

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

380-24845

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

SDG#: 22J273

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-24845

SDG : 22J273

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

A total of six(6) water samples were received on 10/19/22 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. VGH7J11B - 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. VGH7J11L/VGH7J11C 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 J272-01M/J272-01S. 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 : 380-24845
SDG NO. : 22J273
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	VGH7J11B	1	NA	10/21/2212:47	10/21/2212:47	AJ21005A	AJ21004A	22VGH7J11	Method Blank
LCS1W	VGH7J11L	1	NA	10/21/2214:40	10/21/2214:40	AJ21008A	AJ21004A	22VGH7J11	Lab Control Sample (LCS)
LCD1W	VGH7J11C	1	NA	10/21/2215:17	10/21/2215:17	AJ21009A	AJ21004A	22VGH7J11	LCS Duplicate
380-24845-1	J273-01	1	NA	10/21/2220:16	10/21/2220:16	AJ21017A	AJ21016A	22VGH7J11	Field Sample
380-24845-2	J273-02	1	NA	10/21/2220:53	10/21/2220:53	AJ21018A	AJ21016A	22VGH7J11	Field Sample
380-24845-3	J273-03	1	NA	10/21/2221:31	10/21/2221:31	AJ21019A	AJ21016A	22VGH7J11	Field Sample
380-24845-4	J273-04	1	NA	10/21/2222:08	10/21/2222:08	AJ21020A	AJ21016A	22VGH7J11	Field Sample
380-24845-5	J273-05	1	NA	10/21/2222:45	10/21/2222:45	AJ21021A	AJ21016A	22VGH7J11	Field Sample
380-24845-6	J273-06	1	NA	10/21/2223:23	10/21/2223:23	AJ21022A	AJ21016A	22VGH7J11	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:	10/17/22 10:23
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 20:16
Sample ID	: 380-24845-1	Date Analyzed:	10/21/22 20:16
Lab Samp ID:	J273-01	Dilution Factor:	1
Lab File ID:	AJ21017A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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:	10/17/22 09:50
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 20:53
Sample ID	: 380-24845-2	Date Analyzed:	10/21/22 20:53
Lab Samp ID:	J273-02	Dilution Factor:	1
Lab File ID:	AJ21018A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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	0.0373	0.0400	93	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:	10/17/22 10:42
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 21:31
Sample ID	: 380-24845-3	Date Analyzed:	10/21/22 21:31
Lab Samp ID:	J273-03	Dilution Factor:	1
Lab File ID:	AJ21019A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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	0.0374	0.0400	94	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:	10/17/22 10:23
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 22:08
Sample ID	: 380-24845-4	Date Analyzed:	10/21/22 22:08
Lab Samp ID:	J273-04	Dilution Factor:	1
Lab File ID:	AJ21020A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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	0.0381	0.0400	95	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:	10/17/22 10:42
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 22:45
Sample ID	: 380-24845-5	Date Analyzed:	10/21/22 22:45
Lab Samp ID:	J273-05	Dilution Factor:	1
Lab File ID:	AJ21021A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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	0.0358	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:	10/17/22 09:50
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/21/22 23:23
Sample ID	: 380-24845-6	Date Analyzed:	10/21/22 23:23
Lab Samp ID:	J273-06	Dilution Factor:	1
Lab File ID:	AJ21022A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21016A	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	0.0377	0.0400	94	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:	10/21/22 12:47
Project	: 380-24845	Date Received:	10/21/22
Batch No.	: 22J273	Date Extracted:	10/21/22 12:47
Sample ID	: MBLK1W	Date Analyzed:	10/21/22 12:47
Lab Samp ID:	VGH7J11B	Dilution Factor:	1
Lab File ID:	AJ21005A	Matrix:	WATER
Ext Btch ID:	22VGH7J11	% Moisture:	NA
Calib. Ref.:	AJ21004A	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	0.0313	0.0400	78	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 : 380-24845
BATCH NO. : 22J273
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VGH7J11B	VGH7J11L	VGH7J11C
LAB FILE ID	: AJ21005A	AJ21008A	AJ21009A
DATE PREPARED	: 10/21/22 12:47	10/21/22 14:40	10/21/22 15:17
DATE ANALYZED	: 10/21/22 12:47	10/21/22 14:40	10/21/22 15:17
PREP BATCH	: 22VGH7J11	22VGH7J11	22VGH7J11
CALIBRATION REF	: AJ21004A	AJ21004A	AJ21004A

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	0.453	91	0.500	0.460	92	2	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0439	110	0.0400	0.0418	105	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 : 380-24805
BATCH NO. : 22J272
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-24805-1	380-24805-1MS	380-24805-1MSD
LAB SAMPLE ID	: J272-01	J272-01M	J272-01S
LAB FILE ID	: AJ21010A	AJ21011A	AJ21012A
DATE PREPARED	: 10/21/22 15:54	10/21/22 16:32	10/21/22 17:09
DATE ANALYZED	: 10/21/22 15:54	10/21/22 16:32	10/21/22 17:09
PREP BATCH	: 22VGH7J11	22VGH7J11	22VGH7J11
CALIBRATION REF	: AJ21004A	AJ21004A	AJ21004A

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	0.478	96	0.500	0.464	93	3	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0461	115	0.0400	0.0467	117	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-24845

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22J273

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-24845

SDG : 22J273

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

A total of three(3) water samples were received on 10/19/22 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. DSJ049WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSJ049WL. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22J162-01M/22J162-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-24845

SDG : 22J273

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of three(3) water samples were received on 10/19/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSJ049WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP5 was within LCS QC limits in J5J049WL. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP5 was within MS QC limits in 22J162-01M/22J162-01S. Refer to Matrix QC summary form for details.

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

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

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 380-24845

SDG : 22J273

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

A total of three(3) water samples were received on 10/19/22 to be analyzed for Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B and project specific requirements.

Holding Time
Samples were analyzed within the prescribed holding time.

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

Method Blank
Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. DSJ049WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample
Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) LCS was analyzed. Percent recovery for JP8 was within LCS QC limits in J8J049WL. Refer to LCS summary form for details.

Matrix QC Sample
Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. JP8 was within MS QC limits in 22J197-01M/22J197-01S. Refer to Matrix QC summary form for details.

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

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

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-24845

SDG NO. : 22J273
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	DSJ049WB	1	NA	10/24/2219:18	10/22/2213:30	LJ24029A	LJ24023A	22DSJ049W	Method Blank
LCS1W	DSJ049WL	1	NA	10/24/2219:36	10/22/2213:30	LJ24030A	LJ24023A	22DSJ049W	Lab Control Sample (LCS)
380-24845-1	J273-01	1	NA	10/25/2201:27	10/22/2213:30	LJ24049A	LJ24023A	22DSJ049W	Field Sample
380-24845-2	J273-02	1	NA	10/25/2201:45	10/22/2213:30	LJ24050A	LJ24023A	22DSJ049W	Field Sample
380-24845-3	J273-03	1	NA	10/25/2202:03	10/22/2213:30	LJ24051A	LJ24023A	22DSJ049W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-24845

SDG NO. : 22J273
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	DSJ049WB	1	NA	10/24/2219:18	10/22/2213:30	LJ24029A	LJ24024A	22DSJ049W	Method Blank
LCS1W	J5J049WL	1	NA	10/24/2219:55	10/22/2213:30	LJ24031A	LJ24024A	22DSJ049W	Lab Control Sample (LCS)
380-24845-1	J273-01	1	NA	10/25/2201:27	10/22/2213:30	LJ24049A	LJ24024A	22DSJ049W	Field Sample
380-24845-2	J273-02	1	NA	10/25/2201:45	10/22/2213:30	LJ24050A	LJ24024A	22DSJ049W	Field Sample
380-24845-3	J273-03	1	NA	10/25/2202:03	10/22/2213:30	LJ24051A	LJ24024A	22DSJ049W	Field Sample

FN - Filename
% Moist - Percent Moisture

LAB CHRONICLE
PETROLEUM HYDROCARBONS BY EXTRACTION

Client : EUROFINS EATON ANALYTICAL
Project : 380-24845

SDG NO. : 22J273
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	DSJ049WB	1	NA	10/24/2219:18	10/22/2213:30	LJ24029A	LJ24025A	22DSJ049W	Method Blank
LCS1W	J8J049WL	1	NA	10/24/2220:13	10/22/2213:30	LJ24032A	LJ24025A	22DSJ049W	Lab Control Sample (LCS)
380-24845-1	J273-01	1	NA	10/25/2201:27	10/22/2213:30	LJ24049A	LJ24025A	22DSJ049W	Field Sample
380-24845-2	J273-02	1	NA	10/25/2201:45	10/22/2213:30	LJ24050A	LJ24025A	22DSJ049W	Field Sample
380-24845-3	J273-03	1	NA	10/25/2202:03	10/22/2213:30	LJ24051A	LJ24025A	22DSJ049W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:23
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-1	Date Analyzed:	10/25/22 01:27
Lab Samp ID:	22J273-01	Dilution Factor:	1
Lab File ID:	LJ24049A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24023A	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	0.464	0.500	93	60-130
Hexacosane	0.112	0.125	89	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	: DLi	Analyzed by	: SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:23
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-1	Date Analyzed:	10/25/22 01:27
Lab Samp ID:	22J273-01	Dilution Factor:	1
Lab File ID:	LJ24049A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24024A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.464	0.500	93	60-130
Hexacosane	0.112	0.125	89	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:23
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-1	Date Analyzed:	10/25/22 01:27
Lab Samp ID:	22J273-01	Dilution Factor:	1
Lab File ID:	LJ24049A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24025A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.464	0.500	93	60-130
Hexacosane	0.112	0.125	89	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP8	C8-C18

Reported ND at RL quantitated per pattern recognition.

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

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 09:50
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-2	Date Analyzed:	10/25/22 01:45
Lab Samp ID:	22J273-02	Dilution Factor:	1
Lab File ID:	LJ24050A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24023A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.027	0.014
Motor Oil	ND	0.054	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.476	0.540	88	60-130
Hexacosane	0.127	0.135	94	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	: 930ml	Final Volume	: 5ml
Prepared by	: DLi	Analyzed by	: SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 09:50
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-2	Date Analyzed:	10/25/22 01:45
Lab Samp ID:	22J273-02	Dilution Factor:	1
Lab File ID:	LJ24050A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24024A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP5	ND	0.054	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.476	0.540	88	60-130
Hexacosane	0.127	0.135	94	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP5	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 930ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 09:50
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-2	Date Analyzed:	10/25/22 01:45
Lab Samp ID:	22J273-02	Dilution Factor:	1
Lab File ID:	LJ24050A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24025A	Instrument ID:	D5

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
JP8	ND	0.054	0.027

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.476	0.540	88	60-130
Hexacosane	0.127	0.135	94	60-130

Notes:
RL : Reporting Limit

Parameter	H-C Range
JP8	C8-C18

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 930ml Final Volume : 5ml
Prepared by : DLi Analyzed by : SDeeso

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:42
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-3	Date Analyzed:	10/25/22 02:03
Lab Samp ID:	22J273-03	Dilution Factor:	1
Lab File ID:	LJ24051A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24023A	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	0.473	0.500	95	60-130
Hexacosane	0.127	0.125	102	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	: DLi	Analyzed by	: SDeeso

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:42
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-3	Date Analyzed:	10/25/22 02:03
Lab Samp ID:	22J273-03	Dilution Factor:	1
Lab File ID:	LJ24051A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24024A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.473	0.500	95	60-130
Hexacosane	0.127	0.125	102	60-130

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

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/17/22 10:42
Project	: 380-24845	Date Received:	10/19/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: 380-24845-3	Date Analyzed:	10/25/22 02:03
Lab Samp ID:	22J273-03	Dilution Factor:	1
Lab File ID:	LJ24051A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24025A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.473	0.500	95	60-130
Hexacosane	0.127	0.125	102	60-130

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

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

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/22/22 13:30
Project	: 380-24845	Date Received:	10/22/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: MBLK1W	Date Analyzed:	10/24/22 19:18
Lab Samp ID:	DSJ049WB	Dilution Factor:	1
Lab File ID:	LJ24029A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24023A	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	0.493	0.500	99	60-130
Hexacosane	0.132	0.125	106	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	: DLi	Analyzed by	: SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-24845
BATCH NO. : 22J273
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ049WB	DSJ049WL
LAB FILE ID	: LJ24029A	LJ24030A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 19:18	10/24/22 19:36
PREP BATCH	: 22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24023A	LJ24023A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Diesel	ND	2.50	2.70	108	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.517	103	60-130
Hexacosane	0.125	0.124	99	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-23784
BATCH NO. : 22J162
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-23784-1	380-23784-1MS	380-23784-1MSD
LAB SAMPLE ID	: 22J162-01	22J162-01M	22J162-01S
LAB FILE ID	: LJ24033A	LJ24034A	LJ24035A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 20:32	10/24/22 20:50	10/24/22 21:09
PREP BATCH	: 22DSJ049W	22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24023A	LJ24023A	LJ24023A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.38	2.64	111	2.40	2.69	112	2	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.475	0.435	92	0.480	0.513	107	60-130
Hexacosane	0.119	0.122	103	0.120	0.129	108	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/22/22 13:30
Project	: 380-24845	Date Received:	10/22/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: MBLK1W	Date Analyzed:	10/24/22 19:18
Lab Samp ID:	DSJ049WB	Dilution Factor:	1
Lab File ID:	LJ24029A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24024A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.493	0.500	99	60-130
Hexacosane	0.132	0.125	106	60-130

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-24845
BATCH NO. : 22J273
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ049WB	J5J049WL
LAB FILE ID	: LJ24029A	LJ24031A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 19:18	10/24/22 19:55
PREP BATCH	: 22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24024A	LJ24024A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP5	ND	2.50	2.20	88	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.510	102	60-130
Hexacosane	0.125	0.118	94	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-23784
BATCH NO. : 22J162
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-23784-1	380-23784-1MS	380-23784-1MSD
LAB SAMPLE ID	: 22J162-01	22J162-01M	22J162-01S
LAB FILE ID	: LJ24033A	LJ24036A	LJ24037A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 20:32	10/24/22 21:27	10/24/22 21:46
PREP BATCH	: 22DSJ049W	22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24024A	LJ24024A	LJ24024A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP5	ND	2.65	2.19	83	2.72	2.40	88	9	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.530	0.562	106	0.545	0.581	107	60-130
Hexacosane	0.132	0.131	99	0.136	0.129	95	60-130

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

METHOD 3520C/8015B
PETROLEUM HYDROCARBONS BY EXTRACTION

Client	: EUROFINS EATON ANALYTICAL	Date Collected:	10/22/22 13:30
Project	: 380-24845	Date Received:	10/22/22
Batch No.	: 22J273	Date Extracted:	10/22/22 13:30
Sample ID	: MBLK1W	Date Analyzed:	10/24/22 19:18
Lab Samp ID:	DSJ049WB	Dilution Factor:	1
Lab File ID:	LJ24029A	Matrix:	WATER
Ext Btch ID:	22DSJ049W	% Moisture:	NA
Calib. Ref.:	LJ24025A	Instrument ID:	D5

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

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.493	0.500	99	60-130
Hexacosane	0.132	0.125	106	60-130

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

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

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-24845
BATCH NO. : 22J273
METHOD : 3520C/8015B

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR	: 1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSJ049WB	J8J049WL
LAB FILE ID	: LJ24029A	LJ24032A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 19:18	10/24/22 20:13
PREP BATCH	: 22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24025A	LJ24025A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
JP8	ND	2.50	2.50	100	30-160

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
Bromobenzene	0.500	0.494	99	60-130
Hexacosane	0.125	0.127	102	60-130

MB: Method Blank sample LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 380-24009
BATCH NO. : 22J197
METHOD : 3520C/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR	: 1	1	1
SAMPLE ID	: 380-24009-1	380-24009-1MS	380-24009-1MSD
LAB SAMPLE ID	: 22J197-01	22J197-01M	22J197-01S
LAB FILE ID	: LJ24044A	LJ24045A	LJ24046A
DATE PREPARED	: 10/22/22 13:30	10/22/22 13:30	10/22/22 13:30
DATE ANALYZED	: 10/24/22 23:55	10/25/22 00:13	10/25/22 00:32
PREP BATCH	: 22DSJ049W	22DSJ049W	22DSJ049W
CALIBRATION REF	: LJ24025A	LJ24025A	LJ24025A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
JP8	ND	2.65	2.71	102	2.80	2.97	106	9	30-160	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.530	0.540	102	0.560	0.534	95	60-130
Hexacosane	0.132	0.147	111	0.140	0.152	109	60-130

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

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

October 27, 2022

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

Project Name: RED-HILL Project # 38001111 Job # 380-24845-1
Physis Project ID: 1407003-323

Dear Debbie,

Enclosed are the analytical results for samples submitted to PHYSIS Environmental Laboratories, Inc. (PHYSIS) on 10/19/2022. A total of 3 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
714 602-5320
Extension 202
mistymercier@physislabs.com

PROJECT SAMPLE LIST

Eurofins Eaton Analytical

PHYSIS Project ID: 1407003-323

RED-HILL Project # 38001111 Job # 380-24845-1

Total Samples: 3

PHYSIS ID	Sample ID	Description	Date	Time	Matrix	Sample Type
100924	AIEA GULCH WELLS PUMP 1	380-24845-1	10/17/2022	10:23	Samplewater	Not Specified
100925	AIEA WELLS PUMPS 1&2 (260)	380-24845-2	10/17/2022	9:50	Samplewater	Not Specified
100926	AIEA GULCH WELLS PUMP 2	380-24845-3	10/17/2022	10:42	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: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

Base/Neutral Extractable Compounds

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 100924-R1	**AIEA GULCH WELLS PUMP 1 380-2**	**Matrix:**	**Samplewater**				**Sampled:**	**17-Oct-22**	**10:23**	**Received:**	**19-Oct-22**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40002	17-Oct-22	24-Oct-22
Sample ID: 100925-R1	**AIEA WELLS PUMPS 1&2 (260) 380-**	**Matrix:**	**Samplewater**				**Sampled:**	**17-Oct-22**	**9:50**	**Received:**	**19-Oct-22**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40002	17-Oct-22	24-Oct-22
Sample ID: 100926-R1	**AIEA GULCH WELLS PUMP 2 380-2**	**Matrix:**	**Samplewater**				**Sampled:**	**17-Oct-22**	**10:42**	**Received:**	**19-Oct-22**
Disalicylidenepropanediamine	EPA 625.1	µg/L	ND	1	0.05	0.1	Total		O-40002	17-Oct-22	24-Oct-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 100924-R1	**AIEA GULCH WELLS PUMP 1 380-2**	**Matrix: Samplewater**					**Sampled:**	**17-Oct-22 10:23**		**Received:**	**19-Oct-22**
(d10-Acenaphthene)	EPA 625.1	% Recovery	115	1			Total		O-40002	17-Oct-22	24-Oct-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	104	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Chrysene)	EPA 625.1	% Recovery	103	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Perylene)	EPA 625.1	% Recovery	82	1			Total		O-40002	17-Oct-22	24-Oct-22
(d8-Naphthalene)	EPA 625.1	% Recovery	107	1			Total		O-40002	17-Oct-22	24-Oct-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

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-40002	17-Oct-22	24-Oct-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 100925-R1	**AIEA WELLS PUMPS 1&2 (260) 380-**	**Matrix: Samplewater**					**Sampled:**	**17-Oct-22**	**9:50**	**Received:**	**19-Oct-22**
(d10-Acenaphthene)	EPA 625.1	% Recovery	111	1			Total		O-40002	17-Oct-22	24-Oct-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	103	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Chrysene)	EPA 625.1	% Recovery	102	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Perylene)	EPA 625.1	% Recovery	87	1			Total		O-40002	17-Oct-22	24-Oct-22
(d8-Naphthalene)	EPA 625.1	% Recovery	106	1			Total		O-40002	17-Oct-22	24-Oct-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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-40002	17-Oct-22	24-Oct-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

Polynuclear Aromatic Hydrocarbons

ANALYTE	Method	Units	RESULT	DF	MDL	RL	Fraction	QA CODE	Batch ID	Date Processed	Date Analyzed
Sample ID: 100926-R1	**AIEA GULCH WELLS PUMP 2 380-2**	**Matrix: Samplewater**					**Sampled:**	**17-Oct-22 10:42**		**Received:**	**19-Oct-22**
(d10-Acenaphthene)	EPA 625.1	% Recovery	118	1			Total		O-40002	17-Oct-22	24-Oct-22
(d10-Phenanthrene)	EPA 625.1	% Recovery	107	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Chrysene)	EPA 625.1	% Recovery	102	1			Total		O-40002	17-Oct-22	24-Oct-22
(d12-Perylene)	EPA 625.1	% Recovery	85	1			Total		O-40002	17-Oct-22	24-Oct-22
(d8-Naphthalene)	EPA 625.1	% Recovery	112	1			Total		O-40002	17-Oct-22	24-Oct-22
1-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
1-Methylphenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,3,5-Trimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2,6-Dimethylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
2-Methylnaphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Acenaphthylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benz[a]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[a]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[b]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[e]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[g,h,i]perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Benzo[k]fluoranthene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Biphenyl	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Chrysene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenz[a,h]anthracene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzo[a,l]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Dibenzothiophene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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-40002	17-Oct-22	24-Oct-22
Fluorene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Indeno[1,2,3-cd]pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Naphthalene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Perylene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Phenanthrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22
Pyrene	EPA 625.1	µg/L	ND	1	0.001	0.005	Total		O-40002	17-Oct-22	24-Oct-22

QUALITY CONTROL REPORT

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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: 100923-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22					Analyzed: 24-Oct-22	
Disalicylidenepropanediamin	Total	ND	1	0.05	0.1	µg/L								
Sample ID: 100923-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22					Analyzed: 24-Oct-22	
Disalicylidenepropanediamin	Total	39.4	1	0.05	0.1	µg/L	50	0	79	50 - 150%	PASS			
Sample ID: 100923-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22					Analyzed: 24-Oct-22	
Disalicylidenepropanediamin	Total	34.7	1	0.05	0.1	µg/L	50	0	69	50 - 150%	PASS	14	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: 100923-B1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**	**Sampled:**					**Received:**	
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22				Analyzed: 24-Oct-22	
(d10-Acenaphthene)	Total	108	1			% Recovery	100	108	27 - 133%	PASS			
(d10-Phenanthrene)	Total	99	1			% Recovery	100	99	43 - 129%	PASS			
(d12-Chrysene)	Total	78	1			% Recovery	100	78	52 - 144%	PASS			
(d12-Perylene)	Total	84	1			% Recovery	100	84	36 - 161%	PASS			
(d8-Naphthalene)	Total	82	1			% Recovery	100	82	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: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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: 100923-BS1	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**	
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22				Analyzed: 24-Oct-22	
(d10-Acenaphthene)	Total	120	1			% Recovery	100	0	120	27 - 133%	PASS		
(d10-Phenanthrene)	Total	107	1			% Recovery	100	0	107	43 - 129%	PASS		
(d12-Chrysene)	Total	77	1			% Recovery	100	0	77	52 - 144%	PASS		
(d12-Perylene)	Total	95	1			% Recovery	100	0	95	36 - 161%	PASS		
(d8-Naphthalene)	Total	115	1			% Recovery	100	0	115	25 - 125%	PASS		
1-Methylnaphthalene	Total	0.519	1	0.001	0.005	µg/L	0.5	0	104	31 - 128%	PASS		
1-Methylphenanthrene	Total	0.482	1	0.001	0.005	µg/L	0.5	0	96	66 - 127%	PASS		
2,3,5-Trimethylnaphthalene	Total	0.51	1	0.001	0.005	µg/L	0.5	0	102	55 - 122%	PASS		
2,6-Dimethylnaphthalene	Total	0.508	1	0.001	0.005	µg/L	0.5	0	102	48 - 120%	PASS		
2-Methylnaphthalene	Total	0.526	1	0.001	0.005	µg/L	0.5	0	105	47 - 130%	PASS		
Acenaphthene	Total	0.523	1	0.001	0.005	µg/L	0.5	0	105	53 - 131%	PASS		
Acenaphthylene	Total	0.499	1	0.001	0.005	µg/L	0.5	0	100	43 - 140%	PASS		
Anthracene	Total	0.503	1	0.001	0.005	µg/L	0.5	0	101	58 - 135%	PASS		
Benz[a]anthracene	Total	0.632	1	0.001	0.005	µg/L	0.5	0	126	55 - 145%	PASS		
Benzo[a]pyrene	Total	0.478	1	0.001	0.005	µg/L	0.5	0	96	51 - 143%	PASS		
Benzo[b]fluoranthene	Total	0.386	1	0.001	0.005	µg/L	0.5	0	77	46 - 165%	PASS		
Benzo[e]pyrene	Total	0.465	1	0.001	0.005	µg/L	0.5	0	93	42 - 152%	PASS		
Benzo[g,h,i]perylene	Total	0.486	1	0.001	0.005	µg/L	0.5	0	97	63 - 133%	PASS		
Benzo[k]fluoranthene	Total	0.425	1	0.001	0.005	µg/L	0.5	0	85	56 - 145%	PASS		
Biphenyl	Total	0.525	1	0.001	0.005	µg/L	0.5	0	105	56 - 119%	PASS		
Chrysene	Total	0.486	1	0.001	0.005	µg/L	0.5	0	97	56 - 141%	PASS		
Dibenz[a,h]anthracene	Total	0.451	1	0.001	0.005	µg/L	0.5	0	90	55 - 150%	PASS		
Dibenzo[a,l]pyrene	Total	0.369	1	0.001	0.005	µg/L	0.5	0	74	50 - 150%	PASS		
Dibenzothiophene	Total	0.515	1	0.001	0.005	µg/L	0.5	0	103	75 - 113%	PASS		

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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	0.488	1	0.001	0.005	µg/L	0.5	0	98	60 - 146%	PASS			
Fluorene	Total	0.51	1	0.001	0.005	µg/L	0.5	0	102	58 - 131%	PASS			
Indeno[1,2,3-cd]pyrene	Total	0.498	1	0.001	0.005	µg/L	0.5	0	100	50 - 151%	PASS			
Naphthalene	Total	0.534	1	0.001	0.005	µg/L	0.5	0	107	41 - 126%	PASS			
Perylene	Total	0.471	1	0.001	0.005	µg/L	0.5	0	94	48 - 141%	PASS			
Phenanthrene	Total	0.527	1	0.001	0.005	µg/L	0.5	0	105	67 - 127%	PASS			
Pyrene	Total	0.48	1	0.001	0.005	µg/L	0.5	0	96	54 - 156%	PASS			

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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
Sample ID: 100923-BS2	**QAQC Procedural Blank**					**Matrix: BlankMatrix**		**Sampled:**				**Received:**		
		Method: EPA 625.1				Batch ID: O-40002		Prepared: 17-Oct-22				Analyzed: 24-Oct-22		
(d10-Acenaphthene)	Total	119	1			% Recovery	100	0	119	27 - 133%	PASS	1	30	PASS
(d10-Phenanthrene)	Total	107	1			% Recovery	100	0	107	43 - 129%	PASS	0	30	PASS
(d12-Chrysene)	Total	102	1			% Recovery	100	0	102	52 - 144%	PASS	28	30	PASS
(d12-Perylene)	Total	96	1			% Recovery	100	0	96	36 - 161%	PASS	1	30	PASS
(d8-Naphthalene)	Total	121	1			% Recovery	100	0	121	25 - 125%	PASS	5	30	PASS
1-Methylnaphthalene	Total	0.492	1	0.001	0.005	µg/L	0.5	0	98	31 - 128%	PASS	6	30	PASS
1-Methylphenanthrene	Total	0.621	1	0.001	0.005	µg/L	0.5	0	124	66 - 127%	PASS	25	30	PASS
2,3,5-Trimethylnaphthalene	Total	0.507	1	0.001	0.005	µg/L	0.5	0	101	55 - 122%	PASS	1	30	PASS
2,6-Dimethylnaphthalene	Total	0.491	1	0.001	0.005	µg/L	0.5	0	98	48 - 120%	PASS	4	30	PASS
2-Methylnaphthalene	Total	0.502	1	0.001	0.005	µg/L	0.5	0	100	47 - 130%	PASS	5	30	PASS
Acenaphthene	Total	0.534	1	0.001	0.005	µg/L	0.5	0	107	53 - 131%	PASS	2	30	PASS
Acenaphthylene	Total	0.491	1	0.001	0.005	µg/L	0.5	0	98	43 - 140%	PASS	2	30	PASS
Anthracene	Total	0.518	1	0.001	0.005	µg/L	0.5	0	104	58 - 135%	PASS	3	30	PASS
Benz[a]anthracene	Total	0.658	1	0.001	0.005	µg/L	0.5	0	132	55 - 145%	PASS	5	30	PASS
Benzo[a]pyrene	Total	0.479	1	0.001	0.005	µg/L	0.5	0	96	51 - 143%	PASS	0	30	PASS
Benzo[b]fluoranthene	Total	0.461	1	0.001	0.005	µg/L	0.5	0	92	46 - 165%	PASS	18	30	PASS
Benzo[e]pyrene	Total	0.472	1	0.001	0.005	µg/L	0.5	0	94	42 - 152%	PASS	1	30	PASS
Benzo[g,h,i]perylene	Total	0.491	1	0.001	0.005	µg/L	0.5	0	98	63 - 133%	PASS	1	30	PASS
Benzo[k]fluoranthene	Total	0.536	1	0.001	0.005	µg/L	0.5	0	107	56 - 145%	PASS	23	30	PASS
Biphenyl	Total	0.514	1	0.001	0.005	µg/L	0.5	0	103	56 - 119%	PASS	2	30	PASS
Chrysene	Total	0.493	1	0.001	0.005	µg/L	0.5	0	99	56 - 141%	PASS	2	30	PASS
Dibenz[a,h]anthracene	Total	0.454	1	0.001	0.005	µg/L	0.5	0	91	55 - 150%	PASS	1	30	PASS
Dibenzo[a,l]pyrene	Total	0.491	1	0.001	0.005	µg/L	0.5	0	98	50 - 150%	PASS	28	30	PASS
Dibenzothiophene	Total	0.521	1	0.001	0.005	µg/L	0.5	0	104	75 - 113%	PASS	1	30	PASS

PHYSIS Project ID: 1407003-323
Client: Eurofins Eaton Analytical
Project: RED-HILL Project # 38001111 Job # 380-24845-1

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	0.638	1	0.001	0.005	µg/L	0.5	0	128	60 - 146%	PASS	27	30	PASS	
Fluorene	Total	0.525	1	0.001	0.005	µg/L	0.5	0	105	58 - 131%	PASS	3	30	PASS	
Indeno[1,2,3-cd]pyrene	Total	0.499	1	0.001	0.005	µg/L	0.5	0	100	50 - 151%	PASS	0	30	PASS	
Naphthalene	Total	0.509	1	0.001	0.005	µg/L	0.5	0	102	41 - 126%	PASS	5	30	PASS	
Perylene	Total	0.475	1	0.001	0.005	µg/L	0.5	0	95	48 - 141%	PASS	1	30	PASS	
Phenanthrene	Total	0.539	1	0.001	0.005	µg/L	0.5	0	108	67 - 127%	PASS	3	30	PASS	
Pyrene	Total	0.65	1	0.001	0.005	µg/L	0.5	0	130	54 - 156%	PASS	30	30	PASS	

TENTATIVELY IDENTIFIED COMPOUNDS

Sample ID: 100924

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.3426	4.4355	1111	Anthracene-D10-	1719-06-8	96
29.3390	5.6012	1403	Benzoic acid, 2-ethylhexyl ester	5444-75-7	99

Concentration estimated using the response for Anthracene-d10

Sample ID: 100925

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.3459	5.1341	1111	Anthracene-D10	1517-22-2	96
29.3414	5.8585	1268	Benzoic acid, 2-ethylhexyl ester	5444-75-7	99

Concentration estimated using the response for Anthracene-d10

Sample ID: 100926

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.3457	3.8864	1111	Anthracene-D10-	1517-22-2	95
29.3401	4.7988	1372	Benzoic acid, 2-ethylhexyl ester	5444-75-7	99

Concentration estimated using the response for Anthracene-d10

Sample ID: Lab Blank Batch O-40002

RT	Area Pct	Concentration (ng/L)	Library/ID	Cas Number	Match Qual
32.3456	6.8762	1111	Anthracene-D10	1517-22-2	96
29.3426	4.0589	656	Benzoic acid, 2-ethylhexyl ester	5444-75-7	99

Concentration estimated using the response for Anthracene-d10

CHAIN OF CUSTODY

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-24908.1
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 #: 380-24845-1
Address: 1904 Wright Circle, ,	Due Date Requested: 11/1/2022			
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:						
AIEA GULCH WELLS PUMP 1 (380-24845-1)	10/17/22	10:23 Hawaiian		Water			X	2	See Attached Instructions
AIEA WELLS PUMPS 1&2 (260) (380-24845-2)	10/17/22	09:50 Hawaiian		Water			X	2	See Attached Instructions
AIEA GULCH WELLS PUMP 2 (380-24845-3)	10/17/22	10:42 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 out 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 complicance to Eurofins Eaton Analytical, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/19/22 1349	EEA	Ashley Gonzalez	10/19/22 13:49	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

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Sample Receipt Summary

PHYSIS
ENVIRONMENTAL LABORATORIES, INC.
Innovative Solutions for Nature

Project Iteration ID: 1407003-323
Client Name: Eurofins Eaton Analytical
Project Name: RED-HILL Project # 38001111 Job # 380-24845-1
COC Page Number: 2 of 2
Bottle Label Color: NA

Receiving Info

1. Initials Received By: AG
2. Date Received: 10/19/22
3. Time Received: MS 13:49
4. Client Name: Eurofins (Red Hill)
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): 1.8 Used I/R Thermometer # 1

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 | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-9759-2757.1
Client Contact: Dr. Ron Fenstemacher	Phone: 1-808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 1 of 3
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes:
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 (Purgeable) LL (EAL)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus Plus TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA		
AIEA GULCH WELLS PUMP 1	oct.17,2022	1023	G	Water			X	X	X	X	X		COOLER 1 OF 4 FEDEX 7702 2954 7767
AIEA GULCH WELLS PUMP 2				Water								751	A 3.3-3.1 / GEL ICE-FROZEN
AIEA WELLS PUMPS 1&2 (260)				Water									COOLER 2 OF 4 FEDEX 7702 2954 7046
HALAWA SHAFT				Water									630A 5.2-5.1 / GEL ICE-FROZEN
HALAWA WELLS UNITS 1&2				Water									COOLER 3 OF 4 FEDEX 7702 2954 7859
MOANALUA WELLS				Water									630A 5.7-5.6 / GEL ICE-FROZEN
AIEA GULCH WELLS PUMP 1				Water									COOLER 4 OF 4 FEDEX 7702 2954 7642
AIEA GULCH WELLS PUMP 2				Water									630A 5.8-5.7 / GEL ICE-FROZEN
AIEA WELLS PUMPS 1&2 (260)	oct.17,2022	0950	G	Water			X	X	X	X	X		
HALAWA SHAFT				Water									
HALAWA WELLS UNITS 1&2				Water									

380-24845 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: 7702 2954 7767

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
BAILEY	oct.17,2022 1400	HBWS		10/18/22 0940	EEA
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: 751A / 3.3~3.1 / Gel Ice

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-9759-2757.2
Client Contact: Dr. Ron Fenstemacher	Phone: 1-808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 3
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes:
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 (Purgeable) LL (EAL)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus Plus TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	R	R	RA		RA	X	
MOANALUA WELLS				Water									COOLER 1 OF 4 FEDEX 7702 2954 7767
AIEA GULCH WELLS PUMP 1				Water									751A 3.3-3.1/GEL ICE-FROZEN
AIEA GULCH WELLS PUMP 2	Oct. 17, 2022	1042	G	Water			X	X	X	X	X		COOLER 2 OF 4 FED EX 7702 2954 7046
AIEA WELLS PUMPS 1&2 (260)				Water									630A 5.2-5.1/GEL ICE-FROZEN
HALAWA SHAFT				Water									COOLER 3 OF 4 FEDEX 7702 2954 7859
HALAWA WELLS UNITS 1&2				Water									630A 5.7-5.6/GEL ICE-FROZEN
MOANALUA WELLS				Water									COOLER 4 OF 4 FED EX 7702 2954 7642
AIEA GULCH WELLS PUMP 1				Water									630A 5.8-5.7/GEL ICE-FROZEN
AIEA GULCH WELLS PUMP 2				Water									
AIEA WELLS PUMPS 1&2 (260)				Water									
HALAWA SHAFT				Water									

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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: BAILEY	Oct. 17, 2022 1400	HBWS		10/18/22 0940	EEA
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: 751A / 3.3 ~ 3.1 / Gel Ice

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: BAILEY	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-9759-2757.3
Client Contact: Dr. Ron Fenstemacher	Phone: 1-808-748-5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 3 of 3
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days):			
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No			
Phone: 808-748-5091(Tel)	PO #: C20525101 exp 05312023			
Email: RFENSTEMACHER@hbws.org	WO #:			
Project Name: RED-HILL/HBWS Sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site: Hawaii	SSOW#:			

Analysis Requested

Preservation Codes:
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 Physls LL (EAL) + TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	525.2_PREC - (MOD) 525plus Plus TICs	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				R	R	RA		RA		
HALAWA WELLS UNITS 1&2				Water									COOLER 1 OF 4 FED EX 7702 2954 7767
MOANALUA WELLS				Water									751A 3.3-3.1 / GEL ICE - FROZEN
TB AIEA GULCH WELLS PUMP1	Oct. 17, 2022	1023		Water							X		COOLER 2 OF 4 FED EX 7702 2954 7046
TB AIEA GULCH WELLS PUMP2	Oct. 17, 2022	1042		Water							X		630A 5.2-5.1 / GEL ICE - FROZEN
TB AIEA WELLS PUMPS 1&2 (260)	Oct. 17, 2022	0950		Water							X		COOLER 3 OF 4 FED EX 7702 2954 7859
TB HALAWA SHAFT				Water									630A 5.7-5.6 / GEL ICE - FROZEN
TB HALAWA WELLS UNITS 1&2				Water									COOLER 4 OF 4 FED EX 7702 2954 7642
TB MOANALUA WELLS				Water									630A 5.8-5.7 / GEL ICE - FROZEN

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:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	BAILEY	Oct. 17, 2022 1400	HBWS	C	10/18/22 0940	EA
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: 751A 3.3-3.1 Gel Ice

Ver: 06/08/2021

Shipping Order Form - Bottle Order

eurofins | Environment Testing America

S380-9759

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

Shipping Order ID: 9759 | **Ship Via: FedEx** | **Due On: 10/17/2022 11:59:00PM**

When To Ship: 10/17/2022 | **Due After: 10/17/2022 12:00:00 AM**

Ship To Information

Project Manager: Rachelle Arada
Tel: (626) 386-1106 Em: Rachelle.Arada@et.eurofinsus.com
Company Name: City & County of Honolulu
Attention: Erwin Kawata
Address 1: 630 South Beretania Street
Address 2: Public Service Bldg. Room 308
Address 3:
City: Honolulu
State: HI
Zip: 96843
Phone #: +1-808-748-5841
Project Ref: RED-HILL
Event Desc: RUSH Weekly Red Hill

Notes to Bottle/Shipping Department

Pack with Gel Ice
Label the cooler under the left hand handle with the ID of the samples that are in the cooler (If more than 1 cooler si used per 1 smaple ID lable cooler with "sample ID x of y)
Pack by Sample ID on the botte Labels (with one full set of tests per sample ID)
Send only medium to large coolers

CALL DEBBIE OR DAVIS IF THERE ARE QUESTIONS.

Shipping Method: **Individual sample per cooler (affixed TALS labels)**

- ☑ Ready to Fill
- ☑ Preprinted COC
  - 1 Number of COC Copies
- ☐ Seals on Bottle
- ☐ Seals on Coolers
- ☐ Priority
- ☐ Return Shipment Labels
  - ☐ Prepaid Return
  - Monrovia, CA (Suite 100)
- ☐ Short Hold Times
- ☑ Temperature Control
- ☐ Rush

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Bottle Order Information

Bottle Order: RUSH RED-HILL WEEKLY
Bottle Order #: 2757
Request From Client: 7/20/2022
Date Order Posted: 7/20/2022 11:12:54AM
Order Status: Ready To Process
Prepared By: Davis Haley
Deliver By Date: ***10/17/2022 11:59:00PM***
Lab Project Number: 38001111
PWSID:

Order Completion Information

Creator: Davis Haley
Filled by:
Sent Date:
Sent Via:
Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
6	2	12	Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	Water	Normal	625 PAH	
6	4	24	Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Normal		
6	2	12	Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Diesel LL (EAL) and Motor Oil	Water	Normal		
6	2	12	Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	525.2_PREC - (MOD) 525plus Plus TICs	Water	Normal		
6	2	12	VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Acid	SUBCONTRACT - 8015 Gas (Purgeable) LL (EAL)	Water	Trip Blank		

Total Bottle Summary

Bottle Type Description	Preservative	Bottle Count
Amber Glass 1 L - NaThiosulfate 8mL HCL	Sodium Thiosulfate/Hydrochloric Aci	12
Amber Glass 1 liter - Sodium Thiosulfate	Sodium Thiosulfate	12
Amber Glass 1 Liter- Sodium Sulfite/HCl	Sodium Sulfite w/HCl	12
VOA Vial 40mL - NaThiosulfate/HCL	Sodium Thiosulfate/Hydrochloric Aci	12
Voa Vial 40ml - SodiumThio w/HCl-dropper	Sodium Thiosulfate	24
	Total Bottles:	72

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Notes to Field Staff:

Scan QR code for field sampler instructions

SAMPLER FOLLOW 2 STAGE FIELD PRESERVATION FOR 8015 and 525.2

Health and Safety Notes:

Preservative	Comment
Sodium Sulfite w/HCl	CAUTION! CONTAINS SODIUM SULFITE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sodium Thiosulfate/Hydrochloric Acid	CAUTION! CONTAINS 10% SODIUM THIOSULFATE. Harmful if inhaled. Use adequate ventilation. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. Contains 13.3% Monochloroacetic Acid. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water. CAUTION! CONTAINS 1:1 HYDROCHLORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #: Seal #: Seal #:
Relinquished By	Company	Date	Time	Received By	Company	Seal #: Seal #: Seal #:

Please notify your PM immediately if an error is found in shipment. When returning samples, please return all provided QC samples.

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-24845-1

Login Number: 24845
List Number: 1
Creator: Elyas, Matthew

List Source: Eurofins Eaton Monrovia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	

Eurofins Eaton Monrovia

Job Notes

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

Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.

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

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

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

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

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

Rachelle Arada

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