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ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/5/2024 11:43:44 AM

JOB DESCRIPTION

HRS-340E - RED-HILL - INTERA

JOB NUMBER

380-81182-1

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

See page two for job notes and contact information.

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization

Rachelle Arada

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2/5/2024 11:43:44 AM

Authorized for release by
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Table of Contents

Definitions/Glossary

Client: City & County of Honolulu
Job ID: 380-81182-1
Project/Site: HRS-340E - RED-HILL - INTERA

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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.

Glossary

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

Job Narrative
380-81182-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt
The samples were received on 2/1/2024 10:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-406785. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS associated with analytical batch 570-407167: m,p-Xylene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-407167 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8260B: The matrix spike duplicate (MSD) associated with parent sample 570-170615-A-3 was analyzed outside of the 12-hour tune window. The associated laboratory control sample and duplicate (LCS/LCSD) and matrix spike (MS) were analyzed within the 12-hour tune window. Precision and accuracy met acceptance criteria.

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

Detection Summary

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Client Sample ID: BWS2253-J1-AQ — Lab Sample ID: 380-81182-1

No Detections.

Client Sample ID: BWS2253-J1-TB — Lab Sample ID: 380-81182-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Client Sample ID: BWS2253-J1-AQ
Date Collected: 01/31/24 10:45
Date Received: 02/01/24 10:35

Lab Sample ID: 380-81182-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/L			02/01/24 21:53	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<10		10		ug/L			02/01/24 21:53	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,1-Dichloroethane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,1-Dichloroethene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,1-Dichloropropene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,2,3-Trichloropropane	<5.0		5.0		ug/L			02/01/24 21:53	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,2-Dibromo-3-Chloropropane	<10		10		ug/L			02/01/24 21:53	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,2-Dichloroethane	<0.50		0.50		ug/L			02/01/24 21:53	1
1,2-Dichloropropane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
1,3-Dichloropropane	<1.0		1.0		ug/L			02/01/24 21:53	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
2,2-Dichloropropane	<1.0		1.0		ug/L			02/01/24 21:53	1
2-Butanone	<10		10		ug/L			02/01/24 21:53	1
2-Chlorotoluene	<1.0		1.0		ug/L			02/01/24 21:53	1
2-Hexanone	<10		10		ug/L			02/01/24 21:53	1
4-Chlorotoluene	<1.0		1.0		ug/L			02/01/24 21:53	1
Acetone	<10		10		ug/L			02/01/24 21:53	1
Benzene	<0.50		0.50		ug/L			02/01/24 21:53	1
Bromobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
Bromochloromethane	<2.0		2.0		ug/L			02/01/24 21:53	1
Bromodichloromethane	<1.0		1.0		ug/L			02/01/24 21:53	1
Bromoform	<5.0		5.0		ug/L			02/01/24 21:53	1
Bromomethane	<25		25		ug/L			02/01/24 21:53	1
Carbon disulfide	<10		10		ug/L			02/01/24 21:53	1
Carbon tetrachloride	<0.50		0.50		ug/L			02/01/24 21:53	1
Chlorobenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
Chloroethane	<5.0		5.0		ug/L			02/01/24 21:53	1
Chloroform	<1.0		1.0		ug/L			02/01/24 21:53	1
Chloromethane	<10		10		ug/L			02/01/24 21:53	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			02/01/24 21:53	1
cis-1,3-Dichloropropene	<0.50		0.50		ug/L			02/01/24 21:53	1
Dibromochloromethane	<2.0		2.0		ug/L			02/01/24 21:53	1
Dibromomethane	<1.0		1.0		ug/L			02/01/24 21:53	1
Dichlorodifluoromethane	<5.0		5.0		ug/L			02/01/24 21:53	1
Diethyl ether	<10		10		ug/L			02/01/24 21:53	1
Di-isopropyl ether (DIPE)	<2.0		2.0		ug/L			02/01/24 21:53	1
Ethanol	<100		100		ug/L			02/01/24 21:53	1
Ethylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
Ethylene Dibromide	<1.0		1.0		ug/L			02/01/24 21:53	1
Ethyl-t-butyl ether (ETBE)	<2.0		2.0		ug/L			02/01/24 21:53	1

Client Sample ID: BWS2253-J1-AQ
Lab Sample ID: 380-81182-1
Date Collected: 01/31/24 10:45
Matrix: Water
Date Received: 02/01/24 10:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexachloro-1,3-butadiene	<10		10		ug/L			02/01/24 21:53	1
Hexane	<5.0		5.0		ug/L			02/01/24 21:53	1
Isobutyl alcohol	<75		75		ug/L			02/01/24 21:53	1
Isopropanol	<75		75		ug/L			02/01/24 21:53	1
Isopropylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
m,p-Xylene	<2.0		2.0		ug/L			02/01/24 21:53	1
Methylene Chloride	<10		10		ug/L			02/01/24 21:53	1
Methyl-t-Butyl Ether (MTBE)	<1.0		1.0		ug/L			02/01/24 21:53	1
MIBK	<10		10		ug/L			02/01/24 21:53	1
Naphthalene	<10		10		ug/L			02/01/24 21:53	1
n-Butylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
N-Propylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
o-Xylene	<1.0		1.0		ug/L			02/01/24 21:53	1
p-Isopropyltoluene	<1.0		1.0		ug/L			02/01/24 21:53	1
sec-Butylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
Styrene	<1.0		1.0		ug/L			02/01/24 21:53	1
tert-Amyl alcohol	<50		50		ug/L			02/01/24 21:53	1
Tert-amyl-methyl ether (TAME)	<2.0		2.0		ug/L			02/01/24 21:53	1
tert-Butyl alcohol (TBA)	<10		10		ug/L			02/01/24 21:53	1
tert-Butylbenzene	<1.0		1.0		ug/L			02/01/24 21:53	1
Tetrachloroethene	<1.0		1.0		ug/L			02/01/24 21:53	1
Toluene	<1.0		1.0		ug/L			02/01/24 21:53	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			02/01/24 21:53	1
trans-1,3-Dichloropropene	<0.50		0.50		ug/L			02/01/24 21:53	1
Trichloroethene	<1.0		1.0		ug/L			02/01/24 21:53	1
Trichlorofluoromethane	<10		10		ug/L			02/01/24 21:53	1
Vinyl acetate	<10		10		ug/L			02/01/24 21:53	1
Vinyl chloride	<0.50		0.50		ug/L			02/01/24 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 123*		*02/01/24 21:53*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/01/24 21:53*	*1*
Dibromofluoromethane (Surr)	*92*		*78 - 120*		*02/01/24 21:53*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*02/01/24 21:53*	*1*

Client Sample ID: BWS2253-J1-TB
Lab Sample ID: 380-81182-2
Date Collected: 01/31/24 10:45
Matrix: Water
Date Received: 02/01/24 10:35

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/L			02/02/24 20:52	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<10		10		ug/L			02/02/24 20:52	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,1-Dichloroethane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,1-Dichloroethene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,1-Dichloropropene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Client Sample ID: BWS2253-J1-TB
Date Collected: 01/31/24 10:45
Date Received: 02/01/24 10:35

Lab Sample ID: 380-81182-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<5.0		5.0		ug/L			02/02/24 20:52	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,2-Dibromo-3-Chloropropane	<10		10		ug/L			02/02/24 20:52	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,2-Dichloroethane	<0.50		0.50		ug/L			02/02/24 20:52	1
1,2-Dichloropropane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
1,3-Dichloropropane	<1.0		1.0		ug/L			02/02/24 20:52	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
2,2-Dichloropropane	<1.0		1.0		ug/L			02/02/24 20:52	1
2-Butanone	<10		10		ug/L			02/02/24 20:52	1
2-Chlorotoluene	<1.0		1.0		ug/L			02/02/24 20:52	1
2-Hexanone	<10		10		ug/L			02/02/24 20:52	1
4-Chlorotoluene	<1.0		1.0		ug/L			02/02/24 20:52	1
Acetone	<10		10		ug/L			02/02/24 20:52	1
Benzene	<0.50		0.50		ug/L			02/02/24 20:52	1
Bromobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
Bromochloromethane	<2.0		2.0		ug/L			02/02/24 20:52	1
Bromodichloromethane	<1.0		1.0		ug/L			02/02/24 20:52	1
Bromoform	<5.0		5.0		ug/L			02/02/24 20:52	1
Bromomethane	<25		25		ug/L			02/02/24 20:52	1
Carbon disulfide	<10		10		ug/L			02/02/24 20:52	1
Carbon tetrachloride	<0.50		0.50		ug/L			02/02/24 20:52	1
Chlorobenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
Chloroethane	<5.0		5.0		ug/L			02/02/24 20:52	1
Chloroform	<1.0		1.0		ug/L			02/02/24 20:52	1
Chloromethane	<10		10		ug/L			02/02/24 20:52	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			02/02/24 20:52	1
cis-1,3-Dichloropropene	<0.50		0.50		ug/L			02/02/24 20:52	1
Dibromochloromethane	<2.0		2.0		ug/L			02/02/24 20:52	1
Dibromomethane	<1.0		1.0		ug/L			02/02/24 20:52	1
Dichlorodifluoromethane	<5.0		5.0		ug/L			02/02/24 20:52	1
Diethyl ether	<10		10		ug/L			02/02/24 20:52	1
Di-isopropyl ether (DIPE)	<2.0		2.0		ug/L			02/02/24 20:52	1
Ethanol	<100		100		ug/L			02/02/24 20:52	1
Ethylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
Ethylene Dibromide	<1.0		1.0		ug/L			02/02/24 20:52	1
Ethyl-t-butyl ether (ETBE)	<2.0		2.0		ug/L			02/02/24 20:52	1
Hexachloro-1,3-butadiene	<10		10		ug/L			02/02/24 20:52	1
Hexane	<5.0		5.0		ug/L			02/02/24 20:52	1
Isobutyl alcohol	<75		75		ug/L			02/02/24 20:52	1
Isopropanol	<75		75		ug/L			02/02/24 20:52	1
Isopropylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
m,p-Xylene	<2.0	*+	2.0		ug/L			02/02/24 20:52	1
Methylene Chloride	<10		10		ug/L			02/02/24 20:52	1
Methyl-t-Butyl Ether (MTBE)	<1.0		1.0		ug/L			02/02/24 20:52	1
MIBK	<10		10		ug/L			02/02/24 20:52	1

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Client Sample ID: BWS2253-J1-TB
Date Collected: 01/31/24 10:45
Date Received: 02/01/24 10:35

Lab Sample ID: 380-81182-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<10		10		ug/L			02/02/24 20:52	1
n-Butylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
N-Propylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
o-Xylene	<1.0		1.0		ug/L			02/02/24 20:52	1
p-Isopropyltoluene	<1.0		1.0		ug/L			02/02/24 20:52	1
sec-Butylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
Styrene	<1.0		1.0		ug/L			02/02/24 20:52	1
tert-Amyl alcohol	<50		50		ug/L			02/02/24 20:52	1
Tert-amyl-methyl ether (TAME)	<2.0		2.0		ug/L			02/02/24 20:52	1
tert-Butyl alcohol (TBA)	<10		10		ug/L			02/02/24 20:52	1
tert-Butylbenzene	<1.0		1.0		ug/L			02/02/24 20:52	1
Tetrachloroethene	<1.0		1.0		ug/L			02/02/24 20:52	1
Toluene	<1.0		1.0		ug/L			02/02/24 20:52	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			02/02/24 20:52	1
trans-1,3-Dichloropropene	<0.50		0.50		ug/L			02/02/24 20:52	1
Trichloroethene	<1.0		1.0		ug/L			02/02/24 20:52	1
Trichlorofluoromethane	<10		10		ug/L			02/02/24 20:52	1
Vinyl acetate	<10		10		ug/L			02/02/24 20:52	1
Vinyl chloride	<0.50		0.50		ug/L			02/02/24 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 123*		*02/02/24 20:52*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*02/02/24 20:52*	*1*
Dibromofluoromethane (Surr)	*103*		*78 - 120*		*02/02/24 20:52*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*02/02/24 20:52*	*1*

Action Limit Summary

Client: City & County of Honolulu
Job ID: 380-81182-1
Project/Site: HRS-340E - RED-HILL - INTERA

Client Sample ID: BWS2253-J1-AQ
Lab Sample ID: 380-81182-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	HI DW Limit	RL	Method	Prep Type
1,1,1-Trichloroethane	<1.0		ug/L	200.0	1.0	8260B	Total/NA
1,1,2-Trichloroethane	<1.0		ug/L	5.000	1.0	8260B	Total/NA
1,1-Dichloroethene	<1.0		ug/L	7.000	1.0	8260B	Total/NA
1,2,3-Trichloropropane	<5.0		ug/L	0.6000	5.0	8260B	Total/NA
1,2,4-Trichlorobenzene	<1.0		ug/L	70.00	1.0	8260B	Total/NA
1,2-Dichlorobenzene	<1.0		ug/L	600.0	1.0	8260B	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	0.50	8260B	Total/NA
1,2-Dichloropropane	<1.0		ug/L	5.000	1.0	8260B	Total/NA
1,4-Dichlorobenzene	<1.0		ug/L	75.000	1.0	8260B	Total/NA
Benzene	<0.50		ug/L	5.000	0.50	8260B	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	0.50	8260B	Total/NA
Chlorobenzene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
cis-1,2-Dichloroethene	<1.0		ug/L	70.00	1.0	8260B	Total/NA
Ethylbenzene	<1.0		ug/L	700.0	1.0	8260B	Total/NA
Methylene Chloride	<10		ug/L	5.000	10	8260B	Total/NA
Styrene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
Tetrachloroethene	<1.0		ug/L	5.000	1.0	8260B	Total/NA
Toluene	<1.0		ug/L	1000	1.0	8260B	Total/NA
trans-1,2-Dichloroethene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
Trichloroethene	<1.0		ug/L	5.000	1.0	8260B	Total/NA
Vinyl chloride	<0.50		ug/L	2.000	0.50	8260B	Total/NA

Client Sample ID: BWS2253-J1-TB
Lab Sample ID: 380-81182-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	HI DW Limit	RL	Method	Prep Type
1,1,1-Trichloroethane	<1.0		ug/L	200.0	1.0	8260B	Total/NA
1,1,2-Trichloroethane	<1.0		ug/L	5.000	1.0	8260B	Total/NA
1,1-Dichloroethene	<1.0		ug/L	7.000	1.0	8260B	Total/NA
1,2,3-Trichloropropane	<5.0		ug/L	0.6000	5.0	8260B	Total/NA
1,2,4-Trichlorobenzene	<1.0		ug/L	70.00	1.0	8260B	Total/NA
1,2-Dichlorobenzene	<1.0		ug/L	600.0	1.0	8260B	Total/NA
1,2-Dichloroethane	<0.50		ug/L	5.000	0.50	8260B	Total/NA
1,2-Dichloropropane	<1.0		ug/L	5.000	1.0	8260B	Total/NA
1,4-Dichlorobenzene	<1.0		ug/L	75.000	1.0	8260B	Total/NA
Benzene	<0.50		ug/L	5.000	0.50	8260B	Total/NA
Carbon tetrachloride	<0.50		ug/L	5.000	0.50	8260B	Total/NA
Chlorobenzene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
cis-1,2-Dichloroethene	<1.0		ug/L	70.00	1.0	8260B	Total/NA
Ethylbenzene	<1.0		ug/L	700.0	1.0	8260B	Total/NA
Methylene Chloride	<10		ug/L	5.000	10	8260B	Total/NA
Styrene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
Tetrachloroethene	<1.0		ug/L	5.000	1.0	8260B	Total/NA
Toluene	<1.0		ug/L	1000	1.0	8260B	Total/NA

Action Limit Summary

Client: City & County of Honolulu
Job ID: 380-81182-1
Project/Site: HRS-340E - RED-HILL - INTERA

Client Sample ID: BWS2253-J1-TB (Continued)
Lab Sample ID: 380-81182-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	HI DW Limit	RL	Method	Prep Type
trans-1,2-Dichloroethene	<1.0		ug/L	100.0	1.0	8260B	Total/NA
Trichloroethene	<1.0		ug/L	5.000	1.0	8260B	Total/NA
Vinyl chloride	<0.50		ug/L	2.000	0.50	8260B	Total/NA

Surrogate Summary

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-123)	(80-120)	(78-120)	(80-120)
380-81182-1	BWS2253-J1-AQ	97	98	92	99
380-81182-2	BWS2253-J1-TB	101	95	103	95
570-170615-A-3 MS	Matrix Spike	102	90	103	95
570-170615-A-3 MSD	Matrix Spike Duplicate	104	96	101	98
LCS 570-406785/4	Lab Control Sample	96	100	91	97
LCS 570-407167/5	Lab Control Sample	103	99	102	104
LCSD 570-406785/5	Lab Control Sample Dup	98	100	92	97
LCSD 570-407167/6	Lab Control Sample Dup	103	95	102	100
MB 570-406785/8	Method Blank	96	98	90	98
MB 570-407167/9	Method Blank	102	91	102	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-406785/8
Matrix: Water
Analysis Batch: 406785

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/L			02/01/24 16:26	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<10		10		ug/L			02/01/24 16:26	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,1-Dichloroethane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,1-Dichloroethene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,1-Dichloropropene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,2,3-Trichloropropane	<5.0		5.0		ug/L			02/01/24 16:26	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,2-Dibromo-3-Chloropropane	<10		10		ug/L			02/01/24 16:26	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,2-Dichloroethane	<0.50		0.50		ug/L			02/01/24 16:26	1
1,2-Dichloropropane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
1,3-Dichloropropane	<1.0		1.0		ug/L			02/01/24 16:26	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
2,2-Dichloropropane	<1.0		1.0		ug/L			02/01/24 16:26	1
2-Butanone	<10		10		ug/L			02/01/24 16:26	1
2-Chlorotoluene	<1.0		1.0		ug/L			02/01/24 16:26	1
2-Hexanone	<10		10		ug/L			02/01/24 16:26	1
4-Chlorotoluene	<1.0		1.0		ug/L			02/01/24 16:26	1
Acetone	<10		10		ug/L			02/01/24 16:26	1
Benzene	<0.50		0.50		ug/L			02/01/24 16:26	1
Bromobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
Bromochloromethane	<2.0		2.0		ug/L			02/01/24 16:26	1
Bromodichloromethane	<1.0		1.0		ug/L			02/01/24 16:26	1
Bromoform	<5.0		5.0		ug/L			02/01/24 16:26	1
Bromomethane	<25		25		ug/L			02/01/24 16:26	1
Carbon disulfide	<10		10		ug/L			02/01/24 16:26	1
Carbon tetrachloride	<0.50		0.50		ug/L			02/01/24 16:26	1
Chlorobenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
Chloroethane	<5.0		5.0		ug/L			02/01/24 16:26	1
Chloroform	<1.0		1.0		ug/L			02/01/24 16:26	1
Chloromethane	<10		10		ug/L			02/01/24 16:26	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			02/01/24 16:26	1
cis-1,3-Dichloropropene	<0.50		0.50		ug/L			02/01/24 16:26	1
Dibromochloromethane	<2.0		2.0		ug/L			02/01/24 16:26	1
Dibromomethane	<1.0		1.0		ug/L			02/01/24 16:26	1
Dichlorodifluoromethane	<5.0		5.0		ug/L			02/01/24 16:26	1
Diethyl ether	<10		10		ug/L			02/01/24 16:26	1
Di-isopropyl ether (DIPE)	<2.0		2.0		ug/L			02/01/24 16:26	1
Ethanol	<100		100		ug/L			02/01/24 16:26	1
Ethylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
Ethylene Dibromide	<1.0		1.0		ug/L			02/01/24 16:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-406785/8
Matrix: Water
Analysis Batch: 406785

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	<2.0		2.0		ug/L			02/01/24 16:26	1
Hexachloro-1,3-butadiene	<10		10		ug/L			02/01/24 16:26	1
Hexane	<5.0		5.0		ug/L			02/01/24 16:26	1
Isobutyl alcohol	<75		75		ug/L			02/01/24 16:26	1
Isopropanol	<75		75		ug/L			02/01/24 16:26	1
Isopropylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
m,p-Xylene	<2.0		2.0		ug/L			02/01/24 16:26	1
Methylene Chloride	<10		10		ug/L			02/01/24 16:26	1
Methyl-t-Butyl Ether (MTBE)	<1.0		1.0		ug/L			02/01/24 16:26	1
MIBK	<10		10		ug/L			02/01/24 16:26	1
Naphthalene	<10		10		ug/L			02/01/24 16:26	1
n-Butylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
N-Propylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
o-Xylene	<1.0		1.0		ug/L			02/01/24 16:26	1
p-Isopropyltoluene	<1.0		1.0		ug/L			02/01/24 16:26	1
sec-Butylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
Styrene	<1.0		1.0		ug/L			02/01/24 16:26	1
tert-Amyl alcohol	<50		50		ug/L			02/01/24 16:26	1
Tert-amyl-methyl ether (TAME)	<2.0		2.0		ug/L			02/01/24 16:26	1
tert-Butyl alcohol (TBA)	<10		10		ug/L			02/01/24 16:26	1
tert-Butylbenzene	<1.0		1.0		ug/L			02/01/24 16:26	1
Tetrachloroethene	<1.0		1.0		ug/L			02/01/24 16:26	1
Toluene	<1.0		1.0		ug/L			02/01/24 16:26	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			02/01/24 16:26	1
trans-1,3-Dichloropropene	<0.50		0.50		ug/L			02/01/24 16:26	1
Trichloroethene	<1.0		1.0		ug/L			02/01/24 16:26	1
Trichlorofluoromethane	<10		10		ug/L			02/01/24 16:26	1
Vinyl acetate	<10		10		ug/L			02/01/24 16:26	1
Vinyl chloride	<0.50		0.50		ug/L			02/01/24 16:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 123*		*02/01/24 16:26*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/01/24 16:26*	*1*
Dibromofluoromethane (Surr)	*90*		*78 - 120*		*02/01/24 16:26*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*02/01/24 16:26*	*1*

Lab Sample ID: LCS 570-406785/4
Matrix: Water
Analysis Batch: 406785

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane			20.0	17.7		ug/L		88	80 - 122		
1,1,1-Trichloroethane			20.0	17.0		ug/L		85	78 - 125		
1,1,2,2-Tetrachloroethane			20.0	19.4		ug/L		97	79 - 127		
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	17.8		ug/L		89	72 - 138		
1,1,2-Trichloroethane			20.0	18.7		ug/L		94	80 - 124		
1,1-Dichloroethane			20.0	18.6		ug/L		93	80 - 127		
1,1-Dichloroethene			20.0	19.3		ug/L		97	80 - 133		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-406785/4
Matrix: Water
Analysis Batch: 406785

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	20.0	18.1		ug/L		91	79 - 126
1,2,3-Trichlorobenzene	20.0	18.7		ug/L		94	79 - 128
1,2,3-Trichloropropane	20.0	18.9		ug/L		95	71 - 128
1,2,4-Trichlorobenzene	20.0	19.6		ug/L		98	77 - 126
1,2,4-Trimethylbenzene	20.0	19.2		ug/L		96	80 - 121
1,2-Dibromo-3-Chloropropane	20.0	17.3		ug/L		87	66 - 122
1,2-Dichlorobenzene	20.0	19.1		ug/L		95	80 - 121
1,2-Dichloroethane	20.0	19.2		ug/L		96	77 - 122
1,2-Dichloropropane	20.0	19.0		ug/L		95	80 - 122
1,3,5-Trimethylbenzene	20.0	19.2		ug/L		96	80 - 123
1,3-Dichlorobenzene	20.0	19.0		ug/L		95	80 - 120
1,3-Dichloropropane	20.0	19.6		ug/L		98	80 - 121
1,4-Dichlorobenzene	20.0	19.1		ug/L		95	80 - 120
2,2-Dichloropropane	20.0	17.3		ug/L		87	68 - 143
2-Butanone	20.0	18.8		ug/L		94	61 - 139
2-Chlorotoluene	20.0	19.8		ug/L		99	80 - 121
2-Hexanone	20.0	19.0		ug/L		95	63 - 134
4-Chlorotoluene	20.0	19.9		ug/L		99	80 - 121
Acetone	20.0	24.6		ug/L		123	45 - 150
Benzene	20.0	18.4		ug/L		92	80 - 121
Bromobenzene	20.0	18.2		ug/L		91	80 - 120
Bromochloromethane	20.0	18.5		ug/L		92	80 - 121
Bromodichloromethane	20.0	17.0		ug/L		85	80 - 121
Bromoform	20.0	15.6		ug/L		78	78 - 124
Bromomethane	20.0	17.1	J	ug/L		86	48 - 156
Carbon disulfide	20.0	17.6		ug/L		88	76 - 129
Carbon tetrachloride	20.0	16.5		ug/L		83	71 - 137
Chlorobenzene	20.0	18.8		ug/L		94	80 - 120
Chloroethane	20.0	17.1		ug/L		86	73 - 138
Chloroform	20.0	16.8		ug/L		84	80 - 121
Chloromethane	20.0	16.8		ug/L		84	57 - 138
cis-1,2-Dichloroethene	20.0	17.6		ug/L		88	80 - 125
cis-1,3-Dichloropropene	20.0	17.1		ug/L		85	80 - 120
Dibromochloromethane	20.0	17.5		ug/L		87	80 - 126
Dibromomethane	20.0	17.5		ug/L		87	80 - 120
Dichlorodifluoromethane	20.0	13.2		ug/L		66	44 - 148
Diethyl ether	20.0	18.3		ug/L		92	71 - 132
Di-isopropyl ether (DIPE)	20.0	19.1		ug/L		95	75 - 134
Ethanol	200	189		ug/L		94	50 - 168
Ethylbenzene	20.0	19.9		ug/L		100	80 - 121
Ethylene Dibromide	20.0	18.6		ug/L		93	80 - 120
Ethyl-t-butyl ether (ETBE)	20.0	18.9		ug/L		94	80 - 124
Isopropylbenzene	20.0	20.7		ug/L		104	80 - 121
m,p-Xylene	40.0	40.6		ug/L		102	80 - 123
Methylene Chloride	20.0	17.7		ug/L		88	80 - 121
Methyl-t-Butyl Ether (MTBE)	20.0	17.6		ug/L		88	78 - 123
MIBK	20.0	20.2		ug/L		101	67 - 125
Naphthalene	20.0	19.8		ug/L		99	65 - 133
n-Butylbenzene	20.0	20.6		ug/L		103	80 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-406785/4
Matrix: Water
Analysis Batch: 406785

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-Propylbenzene	20.0	20.6		ug/L		103	80 - 125
o-Xylene	20.0	19.1		ug/L		96	80 - 122
p-Isopropyltoluene	20.0	20.3		ug/L		101	80 - 124
sec-Butylbenzene	20.0	20.7		ug/L		103	80 - 122
Styrene	20.0	19.3		ug/L		96	80 - 120
tert-Amyl alcohol	100	88.9		ug/L		89	51 - 148
Tert-amyl-methyl ether (TAME)	20.0	18.5		ug/L		93	74 - 125
tert-Butyl alcohol (TBA)	100	104		ug/L		104	70 - 141
tert-Butylbenzene	20.0	19.4		ug/L		97	80 - 122
Tetrachloroethene	20.0	19.1		ug/L		95	80 - 122
Toluene	20.0	18.6		ug/L		93	80 - 120
trans-1,2-Dichloroethene	20.0	16.7		ug/L		83	80 - 122
trans-1,3-Dichloropropene	20.0	18.0		ug/L		90	80 - 125
Trichloroethene	20.0	17.9		ug/L		90	80 - 120
Trichlorofluoromethane	20.0	17.7		ug/L		89	67 - 142
Vinyl acetate	20.0	17.7		ug/L		88	62 - 140
Vinyl chloride	20.0	19.1		ug/L		96	66 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 123*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*78 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 570-406785/5
Matrix: Water
Analysis Batch: 406785

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	19.5		ug/L		98	80 - 122	10	20
1,1,1-Trichloroethane	20.0	18.8		ug/L		94	78 - 125	10	20
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/L		104	79 - 127	7	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.5		ug/L		103	72 - 138	14	20
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	80 - 124	6	20
1,1-Dichloroethane	20.0	19.6		ug/L		98	80 - 127	5	20
1,1-Dichloroethene	20.0	21.5		ug/L		107	80 - 133	10	20
1,1-Dichloropropene	20.0	19.8		ug/L		99	79 - 126	9	20
1,2,3-Trichlorobenzene	20.0	21.0		ug/L		105	79 - 128	11	20
1,2,3-Trichloropropane	20.0	20.2		ug/L		101	71 - 128	7	20
1,2,4-Trichlorobenzene	20.0	21.4		ug/L		107	77 - 126	9	20
1,2,4-Trimethylbenzene	20.0	21.7		ug/L		108	80 - 121	12	20
1,2-Dibromo-3-Chloropropane	20.0	17.0		ug/L		85	66 - 122	2	20
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	80 - 121	9	20
1,2-Dichloroethane	20.0	20.6		ug/L		103	77 - 122	7	20
1,2-Dichloropropane	20.0	20.6		ug/L		103	80 - 122	8	20
1,3,5-Trimethylbenzene	20.0	21.0		ug/L		105	80 - 123	9	20
1,3-Dichlorobenzene	20.0	20.5		ug/L		103	80 - 120	8	20
1,3-Dichloropropane	20.0	20.1		ug/L		101	80 - 121	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-406785/5
Matrix: Water
Analysis Batch: 406785

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120	8	20
2,2-Dichloropropane	20.0	18.8		ug/L		94	68 - 143	8	20
2-Butanone	20.0	20.3		ug/L		101	61 - 139	8	25
2-Chlorotoluene	20.0	21.0		ug/L		105	80 - 121	6	20
2-Hexanone	20.0	19.8		ug/L		99	63 - 134	4	21
4-Chlorotoluene	20.0	21.2		ug/L		106	80 - 121	6	20
Acetone	20.0	20.8		ug/L		104	45 - 150	17	23
Benzene	20.0	19.9		ug/L		99	80 - 121	8	20
Bromobenzene	20.0	19.6		ug/L		98	80 - 120	7	20
Bromochloromethane	20.0	19.3		ug/L		97	80 - 121	4	20
Bromodichloromethane	20.0	18.4		ug/L		92	80 - 121	8	20
Bromoform	20.0	16.8		ug/L		84	78 - 124	7	20
Bromomethane	20.0	16.1	J	ug/L		80	48 - 156	6	21
Carbon disulfide	20.0	19.6		ug/L		98	76 - 129	10	20
Carbon tetrachloride	20.0	18.4		ug/L		92	71 - 137	11	20
Chlorobenzene	20.0	20.8		ug/L		104	80 - 120	10	20
Chloroethane	20.0	19.2		ug/L		96	73 - 138	12	20
Chloroform	20.0	18.6		ug/L		93	80 - 121	10	20
Chloromethane	20.0	17.8		ug/L		89	57 - 138	6	20
cis-1,2-Dichloroethene	20.0	18.7		ug/L		94	80 - 125	6	20
cis-1,3-Dichloropropene	20.0	18.4		ug/L		92	80 - 120	8	20
Dibromochloromethane	20.0	18.1		ug/L		90	80 - 126	3	20
Dibromomethane	20.0	18.4		ug/L		92	80 - 120	5	20
Dichlorodifluoromethane	20.0	15.1		ug/L		75	44 - 148	14	28
Diethyl ether	20.0	19.5		ug/L		97	71 - 132	6	20
Di-isopropyl ether (DIPE)	20.0	20.3		ug/L		101	75 - 134	6	20
Ethanol	200	199		ug/L		100	50 - 168	5	29
Ethylbenzene	20.0	21.7		ug/L		109	80 - 121	9	20
Ethylene Dibromide	20.0	19.3		ug/L		97	80 - 120	4	20
Ethyl-t-butyl ether (ETBE)	20.0	20.1		ug/L		101	80 - 124	6	20
Isopropylbenzene	20.0	22.7		ug/L		114	80 - 121	9	20
m,p-Xylene	40.0	44.6		ug/L		111	80 - 123	9	20
Methylene Chloride	20.0	19.1		ug/L		95	80 - 121	8	20
Methyl-t-Butyl Ether (MTBE)	20.0	18.1		ug/L		90	78 - 123	3	20
MIBK	20.0	20.9		ug/L		104	67 - 125	3	20
Naphthalene	20.0	21.3		ug/L		107	65 - 133	7	20
n-Butylbenzene	20.0	22.6		ug/L		113	80 - 125	10	20
N-Propylbenzene	20.0	22.3		ug/L		112	80 - 125	8	20
o-Xylene	20.0	20.9		ug/L		105	80 - 122	9	20
p-Isopropyltoluene	20.0	22.6		ug/L		113	80 - 124	11	20
sec-Butylbenzene	20.0	23.1		ug/L		115	80 - 122	11	20
Styrene	20.0	20.9		ug/L		104	80 - 120	8	20
tert-Amyl alcohol	100	85.7		ug/L		86	51 - 148	4	29
Tert-amyl-methyl ether (TAME)	20.0	19.4		ug/L		97	74 - 125	5	20
tert-Butyl alcohol (TBA)	100	99.5		ug/L		99	70 - 141	4	20
tert-Butylbenzene	20.0	20.9		ug/L		104	80 - 122	7	20
Tetrachloroethene	20.0	20.8		ug/L		104	80 - 122	9	20
Toluene	20.0	19.9		ug/L		100	80 - 120	7	20
trans-1,2-Dichloroethene	20.0	18.0		ug/L		90	80 - 122	8	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-406785/5
Matrix: Water
Analysis Batch: 406785

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,3-Dichloropropene			20.0	18.9		ug/L		94	80 - 125	5	20
Trichloroethene			20.0	19.4		ug/L		97	80 - 120	8	20
Trichlorofluoromethane			20.0	20.0		ug/L		100	67 - 142	12	20
Vinyl acetate			20.0	18.3		ug/L		91	62 - 140	3	21
Vinyl chloride			20.0	21.2		ug/L		106	66 - 136	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 123*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*78 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: MB 570-407167/9
Matrix: Water
Analysis Batch: 407167

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/L			02/02/24 17:57	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<10		10		ug/L			02/02/24 17:57	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,1-Dichloroethane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,1-Dichloroethene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,1-Dichloropropene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,2,3-Trichloropropane	<5.0		5.0		ug/L			02/02/24 17:57	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,2-Dibromo-3-Chloropropane	<10		10		ug/L			02/02/24 17:57	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,2-Dichloroethane	<0.50		0.50		ug/L			02/02/24 17:57	1
1,2-Dichloropropane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
1,3-Dichloropropane	<1.0		1.0		ug/L			02/02/24 17:57	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
2,2-Dichloropropane	<1.0		1.0		ug/L			02/02/24 17:57	1
2-Butanone	<10		10		ug/L			02/02/24 17:57	1
2-Chlorotoluene	<1.0		1.0		ug/L			02/02/24 17:57	1
2-Hexanone	<10		10		ug/L			02/02/24 17:57	1
4-Chlorotoluene	<1.0		1.0		ug/L			02/02/24 17:57	1
Acetone	<10		10		ug/L			02/02/24 17:57	1
Benzene	<0.50		0.50		ug/L			02/02/24 17:57	1
Bromobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
Bromochloromethane	<2.0		2.0		ug/L			02/02/24 17:57	1
Bromodichloromethane	<1.0		1.0		ug/L			02/02/24 17:57	1
Bromoform	<5.0		5.0		ug/L			02/02/24 17:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-407167/9
Matrix: Water
Analysis Batch: 407167

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<25		25		ug/L			02/02/24 17:57	1
Carbon disulfide	<10		10		ug/L			02/02/24 17:57	1
Carbon tetrachloride	<0.50		0.50		ug/L			02/02/24 17:57	1
Chlorobenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
Chloroethane	<5.0		5.0		ug/L			02/02/24 17:57	1
Chloroform	<1.0		1.0		ug/L			02/02/24 17:57	1
Chloromethane	<10		10		ug/L			02/02/24 17:57	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			02/02/24 17:57	1
cis-1,3-Dichloropropene	<0.50		0.50		ug/L			02/02/24 17:57	1
Dibromochloromethane	<2.0		2.0		ug/L			02/02/24 17:57	1
Dibromomethane	<1.0		1.0		ug/L			02/02/24 17:57	1
Dichlorodifluoromethane	<5.0		5.0		ug/L			02/02/24 17:57	1
Diethyl ether	<10		10		ug/L			02/02/24 17:57	1
Di-isopropyl ether (DIPE)	<2.0		2.0		ug/L			02/02/24 17:57	1
Ethanol	<100		100		ug/L			02/02/24 17:57	1
Ethylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
Ethylene Dibromide	<1.0		1.0		ug/L			02/02/24 17:57	1
Ethyl-t-butyl ether (ETBE)	<2.0		2.0		ug/L			02/02/24 17:57	1
Hexachloro-1,3-butadiene	<10		10		ug/L			02/02/24 17:57	1
Hexane	<5.0		5.0		ug/L			02/02/24 17:57	1
Isobutyl alcohol	<75		75		ug/L			02/02/24 17:57	1
Isopropanol	<75		75		ug/L			02/02/24 17:57	1
Isopropylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
m,p-Xylene	<2.0		2.0		ug/L			02/02/24 17:57	1
Methylene Chloride	<10		10		ug/L			02/02/24 17:57	1
Methyl-t-Butyl Ether (MTBE)	<1.0		1.0		ug/L			02/02/24 17:57	1
MIBK	<10		10		ug/L			02/02/24 17:57	1
Naphthalene	<10		10		ug/L			02/02/24 17:57	1
n-Butylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
N-Propylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
o-Xylene	<1.0		1.0		ug/L			02/02/24 17:57	1
p-Isopropyltoluene	<1.0		1.0		ug/L			02/02/24 17:57	1
sec-Butylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
Styrene	<1.0		1.0		ug/L			02/02/24 17:57	1
tert-Amyl alcohol	<50		50		ug/L			02/02/24 17:57	1
Tert-amyl-methyl ether (TAME)	<2.0		2.0		ug/L			02/02/24 17:57	1
tert-Butyl alcohol (TBA)	<10		10		ug/L			02/02/24 17:57	1
tert-Butylbenzene	<1.0		1.0		ug/L			02/02/24 17:57	1
Tetrachloroethene	<1.0		1.0		ug/L			02/02/24 17:57	1
Toluene	<1.0		1.0		ug/L			02/02/24 17:57	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			02/02/24 17:57	1
trans-1,3-Dichloropropene	<0.50		0.50		ug/L			02/02/24 17:57	1
Trichloroethene	<1.0		1.0		ug/L			02/02/24 17:57	1
Trichlorofluoromethane	<10		10		ug/L			02/02/24 17:57	1
Vinyl acetate	<10		10		ug/L			02/02/24 17:57	1
Vinyl chloride	<0.50		0.50		ug/L			02/02/24 17:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-407167/9
Matrix: Water
Analysis Batch: 407167

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 123		02/02/24 17:57	1
4-Bromofluorobenzene (Surr)	91		80 - 120		02/02/24 17:57	1
Dibromofluoromethane (Surr)	102		78 - 120		02/02/24 17:57	1
Toluene-d8 (Surr)	97		80 - 120		02/02/24 17:57	1

Lab Sample ID: LCS 570-407167/5
Matrix: Water
Analysis Batch: 407167

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	20.5		ug/L		102	80 - 122
1,1,1-Trichloroethane	20.0	21.5		ug/L		108	78 - 125
1,1,2,2-Tetrachloroethane	20.0	21.1		ug/L		105	79 - 127
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9		ug/L		109	72 - 138
1,1,2-Trichloroethane	20.0	23.0		ug/L		115	80 - 124
1,1-Dichloroethane	20.0	21.6		ug/L		108	80 - 127
1,1-Dichloroethene	20.0	21.8		ug/L		109	80 - 133
1,1-Dichloropropene	20.0	21.4		ug/L		107	79 - 126
1,2,3-Trichlorobenzene	20.0	18.7		ug/L		94	79 - 128
1,2,3-Trichloropropane	20.0	19.5		ug/L		98	71 - 128
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		96	77 - 126
1,2,4-Trimethylbenzene	20.0	21.3		ug/L		107	80 - 121
1,2-Dibromo-3-Chloropropane	20.0	16.9		ug/L		85	66 - 122
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 121
1,2-Dichloroethane	20.0	21.2		ug/L		106	77 - 122
1,2-Dichloropropane	20.0	20.6		ug/L		103	80 - 122
1,3,5-Trimethylbenzene	20.0	21.1		ug/L		105	80 - 123
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120
1,3-Dichloropropane	20.0	20.4		ug/L		102	80 - 121
1,4-Dichlorobenzene	20.0	19.7		ug/L		98	80 - 120
2,2-Dichloropropane	20.0	21.9		ug/L		109	68 - 143
2-Butanone	20.0	20.8		ug/L		104	61 - 139
2-Chlorotoluene	20.0	20.3		ug/L		102	80 - 121
2-Hexanone	20.0	20.5		ug/L		103	63 - 134
4-Chlorotoluene	20.0	21.8		ug/L		109	80 - 121
Acetone	20.0	20.8		ug/L		104	45 - 150
Benzene	20.0	20.4		ug/L		102	80 - 121
Bromobenzene	20.0	20.6		ug/L		103	80 - 120
Bromochloromethane	20.0	20.7		ug/L		104	80 - 121
Bromodichloromethane	20.0	21.8		ug/L		109	80 - 121
Bromoform	20.0	21.4		ug/L		107	78 - 124
Bromomethane	20.0	17.9	J	ug/L		90	48 - 156
Carbon disulfide	20.0	20.6		ug/L		103	76 - 129
Carbon tetrachloride	20.0	21.5		ug/L		107	71 - 137
Chlorobenzene	20.0	20.6		ug/L		103	80 - 120
Chloroethane	20.0	21.3		ug/L		106	73 - 138
Chloroform	20.0	20.5		ug/L		103	80 - 121
Chloromethane	20.0	22.0		ug/L		110	57 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-407167/5
Matrix: Water
Analysis Batch: 407167

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	20.0	21.6		ug/L		108	80 - 125
cis-1,3-Dichloropropene	20.0	22.3		ug/L		111	80 - 120
Dibromochloromethane	20.0	21.0		ug/L		105	80 - 126
Dibromomethane	20.0	20.9		ug/L		105	80 - 120
Dichlorodifluoromethane	20.0	20.0		ug/L		100	44 - 148
Diethyl ether	20.0	21.0		ug/L		105	71 - 132
Di-isopropyl ether (DIPE)	20.0	20.7		ug/L		104	75 - 134
Ethanol	200	211		ug/L		105	50 - 168
Ethylbenzene	20.0	22.7		ug/L		114	80 - 121
Ethylene Dibromide	20.0	20.8		ug/L		104	80 - 120
Ethyl-t-butyl ether (ETBE)	20.0	20.7		ug/L		103	80 - 124
Isopropylbenzene	20.0	21.8		ug/L		109	80 - 121
m,p-Xylene	40.0	50.5	*+	ug/L		126	80 - 123
Methylene Chloride	20.0	21.4		ug/L		107	80 - 121
Methyl-t-Butyl Ether (MTBE)	20.0	20.1		ug/L		101	78 - 123
MIBK	20.0	20.7		ug/L		103	67 - 125
Naphthalene	20.0	17.7		ug/L		89	65 - 133
n-Butylbenzene	20.0	22.2		ug/L		111	80 - 125
N-Propylbenzene	20.0	21.1		ug/L		105	80 - 125
o-Xylene	20.0	23.3		ug/L		116	80 - 122
p-Isopropyltoluene	20.0	20.9		ug/L		104	80 - 124
sec-Butylbenzene	20.0	21.3		ug/L		107	80 - 122
Styrene	20.0	21.4		ug/L		107	80 - 120
tert-Amyl alcohol	100	85.3		ug/L		85	51 - 148
Tert-amyl-methyl ether (TAME)	20.0	20.4		ug/L		102	74 - 125
tert-Butyl alcohol (TBA)	100	99.0		ug/L		99	70 - 141
tert-Butylbenzene	20.0	22.2		ug/L		111	80 - 122
Tetrachloroethene	20.0	22.0		ug/L		110	80 - 122
Toluene	20.0	22.4		ug/L		112	80 - 120
trans-1,2-Dichloroethene	20.0	21.5		ug/L		108	80 - 122
trans-1,3-Dichloropropene	20.0	21.6		ug/L		108	80 - 125
Trichloroethene	20.0	22.3		ug/L		112	80 - 120
Trichlorofluoromethane	20.0	22.3		ug/L		111	67 - 142
Vinyl acetate	20.0	19.4		ug/L		97	62 - 140
Vinyl chloride	20.0	20.3		ug/L		101	66 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 123*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*78 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 570-407167/6
Matrix: Water
Analysis Batch: 407167

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	20.0	19.1		ug/L		95	80 - 122	7	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-407167/6
Matrix: Water
Analysis Batch: 407167

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	20.1		ug/L		101	78 - 125	7	20
1,1,2,2-Tetrachloroethane			20.0	19.8		ug/L		99	79 - 127	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	20.4		ug/L		102	72 - 138	7	20
1,1,2-Trichloroethane			20.0	21.0		ug/L		105	80 - 124	9	20
1,1-Dichloroethane			20.0	19.5		ug/L		97	80 - 127	10	20
1,1-Dichloroethene			20.0	20.4		ug/L		102	80 - 133	7	20
1,1-Dichloropropene			20.0	20.6		ug/L		103	79 - 126	4	20
1,2,3-Trichlorobenzene			20.0	18.1		ug/L		91	79 - 128	3	20
1,2,3-Trichloropropane			20.0	18.6		ug/L		93	71 - 128	5	20
1,2,4-Trichlorobenzene			20.0	18.9		ug/L		94	77 - 126	2	20
1,2,4-Trimethylbenzene			20.0	19.9		ug/L		99	80 - 121	7	20
1,2-Dibromo-3-Chloropropane			20.0	17.9		ug/L		89	66 - 122	6	20
1,2-Dichlorobenzene			20.0	19.2		ug/L		96	80 - 121	6	20
1,2-Dichloroethane			20.0	20.0		ug/L		100	77 - 122	6	20
1,2-Dichloropropane			20.0	19.1		ug/L		96	80 - 122	7	20
1,3,5-Trimethylbenzene			20.0	18.5		ug/L		92	80 - 123	13	20
1,3-Dichlorobenzene			20.0	19.0		ug/L		95	80 - 120	8	20
1,3-Dichloropropane			20.0	19.4		ug/L		97	80 - 121	5	20
1,4-Dichlorobenzene			20.0	18.9		ug/L		94	80 - 120	4	20
2,2-Dichloropropane			20.0	20.2		ug/L		101	68 - 143	8	20
2-Butanone			20.0	19.7		ug/L		98	61 - 139	5	25
2-Chlorotoluene			20.0	17.8		ug/L		89	80 - 121	13	20
2-Hexanone			20.0	19.6		ug/L		98	63 - 134	5	21
4-Chlorotoluene			20.0	19.9		ug/L		100	80 - 121	9	20
Acetone			20.0	19.0		ug/L		95	45 - 150	9	23
Benzene			20.0	19.0		ug/L		95	80 - 121	7	20
Bromobenzene			20.0	18.2		ug/L		91	80 - 120	12	20
Bromochloromethane			20.0	20.1		ug/L		101	80 - 121	3	20
Bromodichloromethane			20.0	19.8		ug/L		99	80 - 121	10	20
Bromoform			20.0	20.5		ug/L		102	78 - 124	4	20
Bromomethane			20.0	16.9	J	ug/L		85	48 - 156	6	21
Carbon disulfide			20.0	19.2		ug/L		96	76 - 129	7	20
Carbon tetrachloride			20.0	19.6		ug/L		98	71 - 137	9	20
Chlorobenzene			20.0	19.2		ug/L		96	80 - 120	7	20
Chloroethane			20.0	18.9		ug/L		94	73 - 138	12	20
Chloroform			20.0	19.7		ug/L		98	80 - 121	4	20
Chloromethane			20.0	19.2		ug/L		96	57 - 138	14	20
cis-1,2-Dichloroethene			20.0	19.6		ug/L		98	80 - 125	10	20
cis-1,3-Dichloropropene			20.0	20.5		ug/L		103	80 - 120	8	20
Dibromochloromethane			20.0	20.0		ug/L		100	80 - 126	5	20
Dibromomethane			20.0	20.1		ug/L		101	80 - 120	4	20
Dichlorodifluoromethane			20.0	17.8		ug/L		89	44 - 148	11	28
Diethyl ether			20.0	20.4		ug/L		102	71 - 132	3	20
Di-isopropyl ether (DIPE)			20.0	20.2		ug/L		101	75 - 134	3	20
Ethanol			200	186		ug/L		93	50 - 168	13	29
Ethylbenzene			20.0	20.3		ug/L		102	80 - 121	11	20
Ethylene Dibromide			20.0	20.2		ug/L		101	80 - 120	3	20
Ethyl-t-butyl ether (ETBE)			20.0	20.0		ug/L		100	80 - 124	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-407167/6
Matrix: Water
Analysis Batch: 407167

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Isopropylbenzene	20.0	19.3		ug/L		97	80 - 121	12	20
m,p-Xylene	40.0	46.4		ug/L		116	80 - 123	8	20
Methylene Chloride	20.0	20.0		ug/L		100	80 - 121	7	20
Methyl-t-Butyl Ether (MTBE)	20.0	20.2		ug/L		101	78 - 123	0	20
MIBK	20.0	19.3		ug/L		97	67 - 125	7	20
Naphthalene	20.0	18.0		ug/L		90	65 - 133	2	20
n-Butylbenzene	20.0	20.3		ug/L		102	80 - 125	9	20
N-Propylbenzene	20.0	19.1		ug/L		96	80 - 125	10	20
o-Xylene	20.0	21.4		ug/L		107	80 - 122	9	20
p-Isopropyltoluene	20.0	19.1		ug/L		95	80 - 124	9	20
sec-Butylbenzene	20.0	19.6		ug/L		98	80 - 122	8	20
Styrene	20.0	19.9		ug/L		100	80 - 120	7	20
tert-Amyl alcohol	100	92.2		ug/L		92	51 - 148	8	29
Tert-amyl-methyl ether (TAME)	20.0	19.8		ug/L		99	74 - 125	3	20
tert-Butyl alcohol (TBA)	100	90.7		ug/L		91	70 - 141	9	20
tert-Butylbenzene	20.0	20.0		ug/L		100	80 - 122	11	20
Tetrachloroethene	20.0	21.3		ug/L		107	80 - 122	3	20
Toluene	20.0	20.0		ug/L		100	80 - 120	11	20
trans-1,2-Dichloroethene	20.0	20.7		ug/L		103	80 - 122	4	20
trans-1,3-Dichloropropene	20.0	21.0		ug/L		105	80 - 125	3	20
Trichloroethene	20.0	19.9		ug/L		99	80 - 120	12	20
Trichlorofluoromethane	20.0	20.2		ug/L		101	67 - 142	10	20
Vinyl acetate	20.0	20.7		ug/L		103	62 - 140	6	21
Vinyl chloride	20.0	18.2		ug/L		91	66 - 136	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 123*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*78 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 570-170615-A-3 MS
Matrix: Water
Analysis Batch: 407167

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	<2.0		20.0	15.9		ug/L		80	75 - 138
1,1,1-Trichloroethane	<1.0	F2	20.0	14.4		ug/L		72	69 - 127
1,1,2,2-Tetrachloroethane	<1.0		20.0	17.6		ug/L		88	75 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	<10	F2	20.0	14.9		ug/L		74	50 - 125
1,1,2-Trichloroethane	<1.0		20.0	17.9		ug/L		89	75 - 125
1,1-Dichloroethane	<1.0	F2	20.0	16.0		ug/L		80	75 - 125
1,1-Dichloroethene	<1.0	F2	20.0	16.4		ug/L		82	57 - 135
1,1-Dichloropropene	<1.0	F2	20.0	15.5		ug/L		77	73 - 125
1,2,3-Trichlorobenzene	<1.0		20.0	15.5		ug/L		78	73 - 136
1,2,3-Trichloropropane	<5.0	F1	20.0	14.7	F1	ug/L		73	75 - 125
1,2,4-Trichlorobenzene	<1.0		20.0	15.6		ug/L		78	69 - 136
1,2,4-Trimethylbenzene	<1.0		20.0	15.9		ug/L		79	75 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-170615-A-3 MS
Matrix: Water
Analysis Batch: 407167

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	<10		20.0	15.0		ug/L		75	65 - 128
1,2-Dichlorobenzene	<1.0		20.0	17.1		ug/L		86	75 - 125
1,2-Dichloroethane	<0.50		20.0	16.1		ug/L		81	75 - 127
1,2-Dichloropropane	<1.0	F2	20.0	15.3		ug/L		76	75 - 126
1,3,5-Trimethylbenzene	<1.0	F1	20.0	14.6	F1	ug/L		73	75 - 129
1,3-Dichlorobenzene	<1.0		20.0	16.7		ug/L		84	75 - 125
1,3-Dichloropropane	<1.0		20.0	16.7		ug/L		84	75 - 126
1,4-Dichlorobenzene	<1.0		20.0	16.1		ug/L		81	75 - 125
2,2-Dichloropropane	<1.0	F2	20.0	12.7		ug/L		63	51 - 141
2-Butanone	<10		20.0	19.2		ug/L		96	61 - 137
2-Chlorotoluene	<1.0	F1	20.0	14.8	F1	ug/L		74	75 - 125
2-Hexanone	<10	F2	20.0	13.8		ug/L		69	60 - 155
4-Chlorotoluene	<1.0		20.0	16.9		ug/L		84	75 - 130
Acetone	<10	F2	20.0	16.1		ug/L		80	49 - 133
Benzene	<0.50	F2	20.0	15.5		ug/L		77	75 - 125
Bromobenzene	<1.0		20.0	15.4		ug/L		77	75 - 127
Bromochloromethane	<2.0	F2	20.0	15.5		ug/L		77	72 - 125
Bromodichloromethane	<1.0		20.0	15.4		ug/L		77	75 - 129
Bromoform	<5.0		20.0	16.7		ug/L		83	65 - 146
Bromomethane	<25		20.0	<25		ug/L		67	51 - 146
Carbon disulfide	<10	F2	20.0	16.0		ug/L		80	67 - 129
Carbon tetrachloride	<0.50	F2	20.0	14.1		ug/L		70	68 - 137
Chlorobenzene	<1.0	F2	20.0	15.6		ug/L		78	75 - 125
Chloroethane	<5.0	F2	20.0	13.1		ug/L		66	60 - 145
Chloroform	<1.0	F2	20.0	15.2		ug/L		76	75 - 125
Chloromethane	<10		20.0	15.7		ug/L		78	56 - 142
cis-1,2-Dichloroethene	<1.0	F2	20.0	17.0		ug/L		85	57 - 142
cis-1,3-Dichloropropene	<0.50	F1 F2	20.0	12.8	F1	ug/L		64	73 - 128
Dibromochloromethane	<2.0		20.0	16.8		ug/L		84	74 - 140
Dibromomethane	<1.0	F2	20.0	15.1		ug/L		76	75 - 125
Dichlorodifluoromethane	<5.0	F1 F2	20.0	10.0	F1	ug/L		50	51 - 128
Diethyl ether	<10	F2	20.0	16.3		ug/L		81	61 - 129
Di-isopropyl ether (DIPE)	<2.0	F2	20.0	16.0		ug/L		80	71 - 129
Ethanol	<100		200	140		ug/L		70	21 - 180
Ethylbenzene	<1.0		20.0	15.3		ug/L		77	75 - 127
Ethylene Dibromide	<1.0		20.0	16.0		ug/L		80	75 - 125
Ethyl-t-butyl ether (ETBE)	<2.0	F2	20.0	15.1		ug/L		76	67 - 125
Isopropylbenzene	<1.0	F2	20.0	16.1		ug/L		81	75 - 130
m,p-Xylene	<2.0	*+	40.0	32.0		ug/L		80	75 - 128
Methylene Chloride	<10	F2	20.0	16.7		ug/L		83	70 - 125
Methyl-t-Butyl Ether (MTBE)	<1.0	F2	20.0	15.9		ug/L		79	65 - 125
MIBK	<10	F2	20.0	14.1		ug/L		71	66 - 138
Naphthalene	<10		20.0	15.2		ug/L		76	75 - 134
n-Butylbenzene	<1.0		20.0	16.6		ug/L		83	71 - 137
N-Propylbenzene	<1.0		20.0	15.5		ug/L		77	75 - 129
o-Xylene	<1.0		20.0	15.7		ug/L		79	75 - 128
p-Isopropyltoluene	<1.0		20.0	15.7		ug/L		79	74 - 135
sec-Butylbenzene	<1.0		20.0	16.6		ug/L		83	75 - 132
Styrene	<1.0	F1 F2	20.0	14.4	F1	ug/L		72	75 - 129

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-170615-A-3 MS
Matrix: Water
Analysis Batch: 407167

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
tert-Amyl alcohol	<50		100	72.0		ug/L		72	34 - 151
Tert-amyl-methyl ether (TAME)	<2.0	F2	20.0	15.1		ug/L		75	70 - 125
tert-Butyl alcohol (TBA)	<10	F2	100	72.6		ug/L		73	68 - 139
tert-Butylbenzene	<1.0		20.0	16.8		ug/L		84	75 - 132
Tetrachloroethene	<1.0		20.0	17.1		ug/L		85	54 - 149
Toluene	<1.0	F2	20.0	15.3		ug/L		76	75 - 125
trans-1,2-Dichloroethene	<1.0	F2	20.0	15.9		ug/L		80	70 - 125
trans-1,3-Dichloropropene	<0.50	F2	20.0	16.0		ug/L		80	69 - 144
Trichloroethene	<1.0	F2	20.0	16.2		ug/L		81	68 - 128
Trichlorofluoromethane	<10	F1 F2	20.0	10.2	F1	ug/L		51	54 - 150
Vinyl acetate	<10		20.0	12.9		ug/L		64	50 - 150
Vinyl chloride	<0.50	F2	20.0	12.3		ug/L		62	58 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 123*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*78 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: 570-170615-A-3 MSD
Matrix: Water
Analysis Batch: 407167

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<2.0		20.0	18.5		ug/L		92	75 - 138	15	20
1,1,1-Trichloroethane	<1.0	F2	20.0	19.2	F2	ug/L		96	69 - 127	28	20
1,1,2,2-Tetrachloroethane	<1.0		20.0	18.8		ug/L		94	75 - 133	7	20
1,1,2-Trichloro-1,2,2-trifluoroethane	<10	F2	20.0	20.7	F2	ug/L		103	50 - 125	33	20
1,1,2-Trichloroethane	<1.0		20.0	20.8		ug/L		104	75 - 125	15	20
1,1-Dichloroethane	<1.0	F2	20.0	20.5	F2	ug/L		102	75 - 125	24	20
1,1-Dichloroethene	<1.0	F2	20.0	21.1	F2	ug/L		106	57 - 135	25	20
1,1-Dichloropropene	<1.0	F2	20.0	20.0	F2	ug/L		100	73 - 125	25	20
1,2,3-Trichlorobenzene	<1.0		20.0	16.7		ug/L		83	73 - 136	7	20
1,2,3-Trichloropropane	<5.0	F1	20.0	17.2		ug/L		86	75 - 125	16	20
1,2,4-Trichlorobenzene	<1.0		20.0	17.1		ug/L		86	69 - 136	9	20
1,2,4-Trimethylbenzene	<1.0		20.0	17.2		ug/L		86	75 - 131	8	20
1,2-Dibromo-3-Chloropropane	<10		20.0	14.7		ug/L		73	65 - 128	2	20
1,2-Dichlorobenzene	<1.0		20.0	18.5		ug/L		92	75 - 125	7	20
1,2-Dichloroethane	<0.50		20.0	19.7		ug/L		98	75 - 127	20	20
1,2-Dichloropropane	<1.0	F2	20.0	18.8	F2	ug/L		94	75 - 126	21	20
1,3,5-Trimethylbenzene	<1.0	F1	20.0	17.8		ug/L		89	75 - 129	20	20
1,3-Dichlorobenzene	<1.0		20.0	17.6		ug/L		88	75 - 125	5	20
1,3-Dichloropropane	<1.0		20.0	19.2		ug/L		96	75 - 126	14	20
1,4-Dichlorobenzene	<1.0		20.0	17.6		ug/L		88	75 - 125	9	20
2,2-Dichloropropane	<1.0	F2	20.0	16.8	F2	ug/L		84	51 - 141	28	20
2-Butanone	<10		20.0	18.2		ug/L		91	61 - 137	5	20
2-Chlorotoluene	<1.0	F1	20.0	17.4		ug/L		87	75 - 125	16	20
2-Hexanone	<10	F2	20.0	18.7	F2	ug/L		94	60 - 155	30	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-170615-A-3 MSD
Matrix: Water
Analysis Batch: 407167

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Chlorotoluene	<1.0		20.0	18.2		ug/L		91	75 - 130	8	20
Acetone	<10	F2	20.0	20.6	F2	ug/L		103	49 - 133	25	20
Benzene	<0.50	F2	20.0	19.5	F2	ug/L		97	75 - 125	23	20
Bromobenzene	<1.0		20.0	17.7		ug/L		88	75 - 127	14	20
Bromochloromethane	<2.0	F2	20.0	20.3	F2	ug/L		101	72 - 125	27	20
Bromodichloromethane	<1.0		20.0	19.0		ug/L		95	75 - 129	20	20
Bromoform	<5.0		20.0	17.7		ug/L		88	65 - 146	6	20
Bromomethane	<25		20.0	<25		ug/L		84	51 - 146	22	23
Carbon disulfide	<10	F2	20.0	20.7	F2	ug/L		104	67 - 129	26	20
Carbon tetrachloride	<0.50	F2	20.0	18.8	F2	ug/L		94	68 - 137	29	20
Chlorobenzene	<1.0	F2	20.0	19.2	F2	ug/L		96	75 - 125	21	20
Chloroethane	<5.0	F2	20.0	17.0	F2	ug/L		85	60 - 145	25	20
Chloroform	<1.0	F2	20.0	19.7	F2	ug/L		99	75 - 125	26	20
Chloromethane	<10		20.0	18.2		ug/L		91	56 - 142	15	20
cis-1,2-Dichloroethene	<1.0	F2	20.0	20.9	F2	ug/L		104	57 - 142	21	20
cis-1,3-Dichloropropene	<0.50	F1 F2	20.0	17.7	F2	ug/L		89	73 - 128	32	20
Dibromochloromethane	<2.0		20.0	19.3		ug/L		97	74 - 140	14	20
Dibromomethane	<1.0	F2	20.0	19.2	F2	ug/L		96	75 - 125	23	20
Dichlorodifluoromethane	<5.0	F1 F2	20.0	12.9	F2	ug/L		64	51 - 128	25	20
Diethyl ether	<10	F2	20.0	20.7	F2	ug/L		103	61 - 129	24	20
Di-isopropyl ether (DIPE)	<2.0	F2	20.0	19.7	F2	ug/L		99	71 - 129	21	20
Ethanol	<100		200	195		ug/L		98	21 - 180	33	40
Ethylbenzene	<1.0		20.0	18.3		ug/L		91	75 - 127	18	20
Ethylene Dibromide	<1.0		20.0	18.9		ug/L		95	75 - 125	17	20
Ethyl-t-butyl ether (ETBE)	<2.0	F2	20.0	19.4	F2	ug/L		97	67 - 125	25	20
Isopropylbenzene	<1.0	F2	20.0	19.9	F2	ug/L		99	75 - 130	21	20
m,p-Xylene	<2.0	*+	40.0	38.1		ug/L		95	75 - 128	17	20
Methylene Chloride	<10	F2	20.0	21.1	F2	ug/L		105	70 - 125	23	20
Methyl-t-Butyl Ether (MTBE)	<1.0	F2	20.0	19.8	F2	ug/L		99	65 - 125	22	20
MIBK	<10	F2	20.0	17.9	F2	ug/L		90	66 - 138	24	20
Naphthalene	<10		20.0	16.3		ug/L		82	75 - 134	7	20
n-Butylbenzene	<1.0		20.0	18.6		ug/L		93	71 - 137	12	20
N-Propylbenzene	<1.0		20.0	18.2		ug/L		91	75 - 129	16	20
o-Xylene	<1.0		20.0	18.7		ug/L		94	75 - 128	17	20
p-Isopropyltoluene	<1.0		20.0	17.3		ug/L		87	74 - 135	10	20
sec-Butylbenzene	<1.0		20.0	18.1		ug/L		91	75 - 132	9	20
Styrene	<1.0	F1 F2	20.0	17.9	F2	ug/L		89	75 - 129	22	20
tert-Amyl alcohol	<50		100	85.1		ug/L		85	34 - 151	17	20
Tert-amyl-methyl ether (TAME)	<2.0	F2	20.0	18.9	F2	ug/L		95	70 - 125	23	20
tert-Butyl alcohol (TBA)	<10	F2	100	92.2	F2	ug/L		92	68 - 139	24	20
tert-Butylbenzene	<1.0		20.0	18.3		ug/L		91	75 - 132	8	20
Tetrachloroethene	<1.0		20.0	19.9		ug/L		99	54 - 149	15	20
Toluene	<1.0	F2	20.0	19.3	F2	ug/L		97	75 - 125	23	20
trans-1,2-Dichloroethene	<1.0	F2	20.0	20.9	F2	ug/L		105	70 - 125	27	20
trans-1,3-Dichloropropene	<0.50	F2	20.0	19.8	F2	ug/L		99	69 - 144	21	20
Trichloroethene	<1.0	F2	20.0	20.0	F2	ug/L		100	68 - 128	21	20
Trichlorofluoromethane	<10	F1 F2	20.0	13.0	F2	ug/L		65	54 - 150	24	20
Vinyl acetate	<10		20.0	15.1		ug/L		75	50 - 150	16	20
Vinyl chloride	<0.50	F2	20.0	15.4	F2	ug/L		77	58 - 140	22	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 123
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	101		78 - 120
Toluene-d8 (Surr)	98		80 - 120

QC Association Summary

Client: City & County of Honolulu
Job ID: 380-81182-1
Project/Site: HRS-340E - RED-HILL - INTERA

GC/MS VOA

Analysis Batch: 406785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-81182-1	BWS2253-J1-AQ	Total/NA	Water	8260B	
MB 570-406785/8	Method Blank	Total/NA	Water	8260B	
LCS 570-406785/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-406785/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 407167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-81182-2	BWS2253-J1-TB	Total/NA	Water	8260B	
MB 570-407167/9	Method Blank	Total/NA	Water	8260B	
LCS 570-407167/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-407167/6	Lab Control Sample Dup	Total/NA	Water	8260B	
570-170615-A-3 MS	Matrix Spike	Total/NA	Water	8260B	
570-170615-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Client Sample ID: BWS2253-J1-AQ

Lab Sample ID: 380-81182-1

Date Collected: 01/31/24 10:45

Matrix: Water

Date Received: 02/01/24 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	406785	CG	EET CAL 4	02/01/24 21:53

Client Sample ID: BWS2253-J1-TB

Lab Sample ID: 380-81182-2

Date Collected: 01/31/24 10:45

Matrix: Water

Date Received: 02/01/24 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	407167	CG	EET CAL 4	02/02/24 20:52

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Job ID: 380-81182-1
Project/Site: HRS-340E - RED-HILL - INTERA

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
California	Los Angeles County Sanitation Districts	10109	08-01-24
California	State	3082	07-31-24
Kansas	NELAP	E-10420	08-01-24
Nevada	State	CA00111	07-31-24
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

Method Summary

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: City & County of Honolulu
Project/Site: HRS-340E - RED-HILL - INTERA

Job ID: 380-81182-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-81182-1	BWS2253-J1-AQ	Water	01/31/24 10:45	02/01/24 10:35
380-81182-2	BWS2253-J1-TB	Water	01/31/24 10:45	02/01/24 10:35

Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins

Client Information	Sampler: EVA KAKONE	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Erwin Kawata	Phone: (858) 205-0730	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: HAWAII	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:	Analysis Requested		Job #:
Address: 630 South Beretania Street	Due Date 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:
City: Honolulu	TAT Requested (days): STANDARD			
State, Zip: HI, 96843	Compliance Project: Δ Yes ~~X~~ No			
Phone: 808-748-5066(Tel)	PO #: C20525101 exp 05312023			
Email: ekawata@hbws.org	WO #:			
Project Name: HRS-340E - RED-HILL - INTERA	Project #: 38002227			
Site: Site J	SSOW#:			

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 Only + TICs~~	~~SUBCONTRACT - TPH 8015 Diesel and Motor Oil~~	~~SUBCONTRACT - TPH 8015 Jet Fuel 5~~	~~SUBCONTRACT - TPH 8015 Jet Fuel 8~~	~~SUBCONTRACT - 8015 Gas~~	~~PFAS 553 - All Analytes~~	~~PFAS 537.1_DW_PREC 537.1 Full List~~	~~PFAS 1633_DOD5 - 1633 Std List~~	8260B - (MOD) Super Volatiles List					Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:		X	X	N	N	N	N	A	Z	Y	N	A						
BWS2253-J1-AQ	1/31/24	1045	G	Water			4	4			4	3	3	2	4					24	
BWS2253-J1-TB	1/5/24		G	Water							2				2					4	
BWS2253-J1-FB			G	Water								1	1							2	

380-81182 COC

Subcontract Notes
~~625 PAH - Physis~~
~~8015 TPH D+M - EEA POM/Tustin~~
~~8015 Gas - EEA POM/Tustin~~
8260B - EEA POM/Tustin
~~PFAS 537.1 & 533 - EEA POM~~
~~PFAS 1633 - EEA SAC~~
B [illegible] Repo t t E A Ramon

Possible Hazard Identification
X 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 X Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements: FEDEX 2704 5710 9995

Empty Kit Relinquished by: [redacted]	Date	Time	Method of Shipment: FED EX PRIORITY OVERNIGHT
Relinquished by: [redacted]	Date/Time: 1/31/24 1350	Company: INTERA INCORPORATED	Received by: C KELTNER
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Date/Time	Company
02/01/2024 10 35	EEAP
Date/Time:	Company
Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: (7574) 1.7°-0.1°-1.6° REAL-FROZEN

Ver: 01/16/2019

Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Chain of Custody Record

eurofins

Client Information	Sampler: EVA KAKONE	Lab PM: Araca, Rachelle	Carrier Tracking No(s):	COC No:
Client Contact: Mr. Erwin Kawata	Phone: (858) 205-0730	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: HAWAII	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:

Address: 630 South Beretania Street	Due Date Requested:
City: Honolulu	TAT Requested (days): STANDARD
State, Zip: HI, 96843	Compliance Project: Δ Yes Δ No
Phone: 808-748-5066(Tel)	PO #: C20525101 exp 05312023
Email: ekawata@hbws.org	WO #:
Project Name: HRS-340E - RED-HILL - INTERA	Project #: 38002227
Site: Site J	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=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 - PAH Only + TICs	SUBCONTRACT - TPH 8015 Diesel and Motor Oil	SUBCONTRACT - TPH 8015 Jet Fuel 5	SUBCONTRACT - TPH 8015 Jet Fuel 8	SUBCONTRACT - 8015 Gas	PFAS 553 - All Analytes	PFAS 537.1_DW_PREQ-537.1 Full List	PFAS 1633_DOD5_1633 Std List	8260B - (MOD) Super Volatiles List	Total Number of containers	Special Instructions/Note: x = testing comes from another container.
			Preservation Code:				N	N	N	N	A	Z	Y	N	A		
BWS2253-J1-AQ	1/31/24	1045	G	Water			4	4			4	3	3	2	4	24	
BWS2253-J1-TB	~~1/31/24~~		G	Water							2				2	4	
BWS2253-J1-FB	01/31/24		G	Water								1	1			2	

Correction EAK

380-81182 COC

Subcontract Notes
~~625 PAH - Physis~~
~~8015 TPH D+M - EEA POM/Tustin~~
~~8015 Gas - EEA POM/Tustin~~
8260B - EEA POM/Tustin
~~PFAS 537.1 & 533 - EEA POM~~
~~PFAS 1633 - EEA SAC~~
Send Report to EA Ramon

Possible Hazard Identification
☐ X 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: FEDEX 2704 5710 9995

Empty Kit Relinquished by:	Date	Time	Method of Shipment: FED EX PRIORITY OVERNIGHT

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Eva Kakone	1/31/24 1350	INTERA INCORPORATED	G KLEITNER	02/01/2024 10 35	EEAP
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: (7574) 1.7°-0.1°-1.6° REAL-FROZEN

Ver: 01/16/2019

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

Chain of Custody Record

eurofins

Loc: 380
81182

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-104639.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Hawaii		Job #: 380-81182-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 2/21/2024			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: HRS-340E - RED-HILL - INTERA	Project #: 38002227			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - 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)	8260B/5030C (MOD) Super Volatiles List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
BWS2253-J1-AQ (380-81182-1)	1/31/24	10:45 Hawaiian		Water			X	4	
BWS2253-J1-TB (380-81182-2)	1/5/24	10:45 Hawaiian		Water			X	2	

380-81182 Chain of Custody

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

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

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michelle Ds MD	2.1.24 1505	SEA-P	Daniel Villanueva	2/1/24 15:05	DCS
Relinquished by: Daniel Villanueva	Date/Time: 2/1/24 16:07	Company DCS	Received by:	Date/Time: 2/1/24 16:07	Company FED
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.4/3.4 SC12

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-81182-1

Login Number: 81182
List Number: 1
Creator: Elyas, Matthew

List Source: Eurofins Eaton Analytical Pomona

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	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-81182-1

Login Number: 81182
List Number: 2
Creator: Khana, Piyush

List Source: Eurofins Calscience
List Creation: 02/01/24 05:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	