

ANALYTICAL REPORT

Eurofins Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-109117-2
Client Project/Site: Red Hill Drinking Water

For:
AECOM
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Honolulu, Hawaii 96813

Attn: Margie F Pascua



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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Job ID: 580-109117-2

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-109117-2

Comments

No additional comments.

Receipt

The samples were received on 1/10/2022 9:15 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 was 2.9° C.

GC/MS VOA

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

GC Semi VOA

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

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-377981, so a laboratory control sample/laboratory control sample duplicate were created and substituted for the MS/MSD/DUP.

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

VOA Prep

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

Definitions/Glossary

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but 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

Client Sample Results

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Client Sample ID: 20220107-F2-YT03

Lab Sample ID: 580-109117-10

Date Collected: 01/07/22 18:18

Matrix: Water

Date Received: 01/10/22 09:15

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			01/11/22 22:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		78 - 120					01/11/22 22:42	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	0.093	U	0.11	0.093	mg/L		01/11/22 09:43	01/11/22 17:19	1
C24-C40	0.19	U	0.36	0.19	mg/L		01/11/22 09:43	01/11/22 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	78		53 - 120				01/11/22 09:43	01/11/22 17:19	1

QC Sample Results

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-378071/5

Matrix: Water

Analysis Batch: 378071

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			01/11/22 20:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		78 - 120					01/11/22 20:19	1

Lab Sample ID: LCS 580-378071/8

Matrix: Water

Analysis Batch: 378071

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (C6-C12)	1000	1020		ug/L		102	75 - 127		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	104		78 - 120						

Lab Sample ID: LCSD 580-378071/9

Matrix: Water

Analysis Batch: 378071

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics (C6-C12)	1000	1030		ug/L		103	75 - 127	1	13
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		78 - 120						

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 580-377981/1-A

Matrix: Water

Analysis Batch: 378039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	0.090	U	0.11	0.090	mg/L		01/11/22 09:43	01/11/22 15:58	1
C24-C40	0.18	U	0.35	0.18	mg/L		01/11/22 09:43	01/11/22 15:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		53 - 120				01/11/22 09:43	01/11/22 15:58	1

Lab Sample ID: LCS 580-377981/2-A

Matrix: Water

Analysis Batch: 378039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C9-C25	1.00	0.765		mg/L		76	55 - 134		
C24-C40	1.00	0.941		mg/L		94	36 - 143		

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QC Sample Results

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 580-377981/2-A
Matrix: Water
Analysis Batch: 378039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377981

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	76		53 - 120

Lab Sample ID: LCSD 580-377981/3-A
Matrix: Water
Analysis Batch: 378039

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377981

	Spike	LCSD	LCSD					%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C9-C25	1.00	0.919		mg/L		92	55 - 134	18	26
C24-C40	1.00	1.03		mg/L		103	36 - 143	9	24
	LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits						
<i>o</i> -Terphenyl	85		53 - 120						

Lab Chronicle

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Client Sample ID: 20220107-F2-YT03

Lab Sample ID: 580-109117-10

Date Collected: 01/07/22 18:18

Matrix: Water

Date Received: 01/10/22 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	378071	01/11/22 22:42	JSM	FGS SEA
Total/NA	Prep	3510C			377981	01/11/22 09:43	M1E	FGS SEA
Total/NA	Analysis	8015D		1	378039	01/11/22 17:19	JAE	FGS SEA

Laboratory References:
FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM

Job ID: 580-109117-2

Project/Site: Red Hill Drinking Water

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2236	01-19-22

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Sample Summary

Client: AECOM
Project/Site: Red Hill Drinking Water

Job ID: 580-109117-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-109117-10	20220107-F2-YT03	Water	01/07/22 18:18	01/10/22 09:15

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Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-109117-2

Login Number: 109117

List Source: Eurofins Seattle

List Number: 1

Creator: Presley, Kim A

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-109090-1
Client Project/Site: Red Hill CV22FO106

For:
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813

Attn: Margie F Pascua



Authorized for release by:
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Job ID: 580-109090-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-109090-1

Comments

No additional comments.

Receipt

The samples were received on 1/8/2022 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were -0.6° C and -0.3° C.

GC/MS VOA

Methods 8260/CALUFT DOD, 8260B/CA_LUFTMS: Internal standard recovery is low in the method blank. This creates a high bias that results in a high recovery of the surrogate. Method blank is non detect, therefore data have been reported. (MB 580-377913/7)

Method 8260B/CA_LUFTMS: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 580-377913 recovered outside control limits for the following analytes: Gasoline Range Organics (C6-C12). The individual recoveries of both the LCS and LCSD met the acceptance criteria.

Method 8260D: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 580-377858 recovered outside control limits for the following analytes: 1,2-Dichloroethene, Total. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: Internal standard is low and surrogate recovery is high (due to low IS) in the method blank, laboratory control sample, and duplicate associated with samples 20220106-F2-ZT07 (580-109090-3), 20220106-F2-ZT08 (580-109090-4) and (MB 580-377858/7). Method blank is non detect for all analytes and IS recovery is acceptable in the samples, therefore data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 580-377820 recovered above the upper control limit for Chloromethane, Vinyl chloride, Acetone, Ethyl Chloride and Carbon disulfide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 20220106-F2-ZT07 (580-109090-3), 20220106-F2-ZT08 (580-109090-4) and (CCVIS 580-377820/2).

Method 8260D: The laboratory control sample (LCS) for analytical batch 580-377820 recovered outside control limits for the following analytes: Chloromethane and Vinyl chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: Surrogate recovery was outside control limits for the following sample: 20220106-F2-ZT07 (580-109090-3), 20220106-F2-ZT08 (580-109090-4) and (MB 580-377820/6). 4-Bromofluorobenzene (Surr) failed low. The analyte associated with the surrogate is not reported from this batch.

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

GC/MS Semi VOA

Method 8270E: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-377876 was outside criteria for the following analytes: N-Nitrosodi-n-propylamine. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270E: The laboratory control sample (LCS) for preparation batch 580-377860 and analytical batch 580-377876 recovered outside control limits for the following analytes: Pentachlorophenol. This analyte has been identified as a poor-performing compound; results for this analyte have been qualified and reported.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 580-377860 and analytical batch 580-377876 recovered outside control limits for several analytes. The individual recoveries of both the LCS and LCSD met the acceptance criteria.

Method 8270E: Surrogate 2-Fluorophenol (Surr) and Phenol-d5 (Surr) recovery for the following samples was outside control limits:

Case Narrative

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Job ID: 580-109090-1 (Continued)

Laboratory: Eurofins Seattle (Continued)

20220106-F2-ZT08 (580-109090-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

Organic Prep

Methods 3510C, CWA_Prep: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-377860. Laboratory control sample/laboratory control sample duplicate were created and substituted for MS/MSD/DUP.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-377861. Laboratory control sample/laboratory control sample duplicate were created and substituted for MS/MSD/DUP.

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

VOA Prep

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

Definitions/Glossary

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD 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.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but 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)

Eurofins Seattle

Definitions/Glossary

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-C1-ZT05

Lab Sample ID: 580-109090-1

Date Collected: 01/06/22 15:25

Matrix: Water

Date Received: 01/08/22 11:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U *1	100	31	ug/L			01/09/22 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		78 - 120					01/09/22 22:06	1

Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-C1-ZT06

Lab Sample ID: 580-109090-2

Date Collected: 01/06/22 15:30

Matrix: Water

Date Received: 01/08/22 11:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U *1	100	31	ug/L			01/09/22 22:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		78 - 120					01/09/22 22:31	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	45	U	55	45	ug/L		01/09/22 13:27	01/10/22 03:20	1
C24-C40	90	U	180	90	ug/L		01/09/22 13:27	01/10/22 03:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	86		53 - 120				01/09/22 13:27	01/10/22 03:20	1

Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-F2-ZT07

Lab Sample ID: 580-109090-3

Date Collected: 01/06/22 18:25

Matrix: Water

Date Received: 01/08/22 11:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U *1	100	31	ug/L			01/09/22 22:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		78 - 120					01/09/22 22:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	0.39	U *+	1.0	0.39	ug/L			01/09/22 22:56	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/09/22 22:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		85 - 114					01/09/22 22:56	1
Dibromofluoromethane (Surr)	104		80 - 119					01/09/22 22:56	1
1,2-Dichloroethane-d4 (Surr)	103		81 - 118					01/09/22 22:56	1
Toluene-d8 (Surr)	100		89 - 112					01/09/22 22:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	3.2	U	15	3.2	ug/L			01/08/22 21:20	1
Benzene	0.24	U	1.0	0.24	ug/L			01/08/22 21:20	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			01/08/22 21:20	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/08/22 21:20	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/08/22 21:20	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/08/22 21:20	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/08/22 21:20	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/08/22 21:20	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/08/22 21:20	1
Chloromethane	0.28	U *+	1.0	0.28	ug/L			01/08/22 21:20	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/08/22 21:20	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/08/22 21:20	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			01/08/22 21:20	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/08/22 21:20	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/08/22 21:20	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/08/22 21:20	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			01/08/22 21:20	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/08/22 21:20	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/08/22 21:20	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			01/08/22 21:20	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/08/22 21:20	1
Methyl Ethyl Ketone	4.7	U	15	4.7	ug/L			01/08/22 21:20	1
Methyl isobutyl ketone (MIBK)	2.5	U	5.0	2.5	ug/L			01/08/22 21:20	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/08/22 21:20	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/08/22 21:20	1
Styrene	0.53	U	1.0	0.53	ug/L			01/08/22 21:20	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/08/22 21:20	1
Toluene	0.39	U	1.0	0.39	ug/L			01/08/22 21:20	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/08/22 21:20	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/08/22 21:20	1
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/08/22 21:20	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/22 21:20	1

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Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-F2-ZT07

Lab Sample ID: 580-109090-3

Date Collected: 01/06/22 18:25

Matrix: Water

Date Received: 01/08/22 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/08/22 21:20	1
Vinyl chloride	0.22	U *+	1.0	0.22	ug/L			01/08/22 21:20	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/08/22 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80	S1-	85 - 114					01/08/22 21:20	1
Dibromofluoromethane (Surr)	105		80 - 119					01/08/22 21:20	1
1,2-Dichloroethane-d4 (Surr)	115		81 - 118					01/08/22 21:20	1
Toluene-d8 (Surr)	105		89 - 112					01/08/22 21:20	1

Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-F2-ZT08

Lab Sample ID: 580-109090-4

Date Collected: 01/06/22 18:30

Matrix: Water

Date Received: 01/08/22 11:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U *1	100	31	ug/L			01/09/22 23:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		78 - 120					01/09/22 23:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	0.39	U *+	1.0	0.39	ug/L			01/09/22 23:20	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/09/22 23:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		85 - 114					01/09/22 23:20	1
Dibromofluoromethane (Surr)	106		80 - 119					01/09/22 23:20	1
1,2-Dichloroethane-d4 (Surr)	105		81 - 118					01/09/22 23:20	1
Toluene-d8 (Surr)	100		89 - 112					01/09/22 23:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	3.2	U	15	3.2	ug/L			01/08/22 21:44	1
Benzene	0.24	U	1.0	0.24	ug/L			01/08/22 21:44	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			01/08/22 21:44	1
Bromoform	0.58	J	1.0	0.51	ug/L			01/08/22 21:44	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/08/22 21:44	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/08/22 21:44	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/08/22 21:44	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/08/22 21:44	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/08/22 21:44	1
Chloromethane	0.28	U *+	1.0	0.28	ug/L			01/08/22 21:44	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/08/22 21:44	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/08/22 21:44	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			01/08/22 21:44	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/08/22 21:44	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/08/22 21:44	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/08/22 21:44	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			01/08/22 21:44	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/08/22 21:44	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/08/22 21:44	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			01/08/22 21:44	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/08/22 21:44	1
Methyl Ethyl Ketone	4.7	U	15	4.7	ug/L			01/08/22 21:44	1
Methyl isobutyl ketone (MIBK)	2.5	U	5.0	2.5	ug/L			01/08/22 21:44	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/08/22 21:44	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/08/22 21:44	1
Styrene	0.53	U	1.0	0.53	ug/L			01/08/22 21:44	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/08/22 21:44	1
Toluene	0.39	U	1.0	0.39	ug/L			01/08/22 21:44	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/08/22 21:44	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/08/22 21:44	1
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/08/22 21:44	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/22 21:44	1

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Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-F2-ZT08

Lab Sample ID: 580-109090-4

Date Collected: 01/06/22 18:30

Matrix: Water

Date Received: 01/08/22 11:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/08/22 21:44	1
Vinyl chloride	0.22	U *	1.0	0.22	ug/L			01/08/22 21:44	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/08/22 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79	S1-	85 - 114		01/08/22 21:44	1
Dibromofluoromethane (Surr)	110		80 - 119		01/08/22 21:44	1
1,2-Dichloroethane-d4 (Surr)	111		81 - 118		01/08/22 21:44	1
Toluene-d8 (Surr)	106		89 - 112		01/08/22 21:44	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Acenaphthylene	0.062	U *1	1.0	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
Anthracene	0.051	U	1.0	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Benzo[a]anthracene	0.051	U	0.26	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Benzo[a]pyrene	0.041	U	0.26	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
Benzo[b]fluoranthene	0.041	U	0.26	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
Benzo[g,h,i]perylene	0.041	U	0.26	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
Benzo[k]fluoranthene	0.051	U	0.26	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Bis(2-chloroethoxy)methane	0.051	U	0.62	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Bis(2-chloroethyl)ether	1.6		0.10	0.031	ug/L		01/09/22 13:22	01/10/22 19:40	1
Bis(2-ethylhexyl) phthalate	0.76	U	3.1	0.76	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Bromophenyl phenyl ether	0.062	U	0.62	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
Butyl benzyl phthalate	0.28	U	4.1	0.28	ug/L		01/09/22 13:22	01/10/22 19:40	1
Carbazole	0.10	U	0.62	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Chloroaniline	0.61	U *1	2.1	0.61	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Chloro-3-methylphenol	0.13	U	0.62	0.13	ug/L		01/09/22 13:22	01/10/22 19:40	1
2-Chloronaphthalene	0.072	U	1.0	0.072	ug/L		01/09/22 13:22	01/10/22 19:40	1
2-Chlorophenol	0.051	U	1.0	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Chlorophenyl phenyl ether	0.051	U	0.62	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Chrysene	0.041	U	0.26	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
Dibenz(a,h)anthracene	0.072	U	0.26	0.072	ug/L		01/09/22 13:22	01/10/22 19:40	1
Dibenzofuran	0.10	U	0.41	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
1,2-Dichlorobenzene	0.051	U	0.41	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
1,3-Dichlorobenzene	0.041	U *1	0.41	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
1,4-Dichlorobenzene	0.041	U	0.41	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
3,3'-Dichlorobenzidine	0.27	U *1	1.0	0.27	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4-Dichlorophenol	0.21	U	1.0	0.21	ug/L		01/09/22 13:22	01/10/22 19:40	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4-Dimethylphenol	0.16	U *1	4.1	0.16	ug/L		01/09/22 13:22	01/10/22 19:40	1
Dimethyl phthalate	0.062	U	0.62	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
Di-n-butyl phthalate	0.20	U	3.1	0.20	ug/L		01/09/22 13:22	01/10/22 19:40	1
4,6-Dinitro-2-methylphenol	0.57	U	2.1	0.57	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4-Dinitrophenol	1.6	U	5.1	1.6	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,6-Dinitrotoluene	0.10	U	0.41	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		01/09/22 13:22	01/10/22 19:40	1
Fluoranthene	0.062	U	0.26	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
Fluorene	0.051	U	0.26	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1

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Client Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-F2-ZT08

Lab Sample ID: 580-109090-4

Date Collected: 01/06/22 18:30

Matrix: Water

Date Received: 01/08/22 11:00

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.041	U	0.62	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
Hexachlorobutadiene	0.062	U *1	1.0	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
Hexachlorocyclopentadiene	0.14	U *1	1.0	0.14	ug/L		01/09/22 13:22	01/10/22 19:40	1
Hexachloroethane	0.051	U *1	1.0	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.41	0.13	ug/L		01/09/22 13:22	01/10/22 19:40	1
Isophorone	0.10	U	0.41	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
2-Methylphenol	0.051	U	0.62	0.051	ug/L		01/09/22 13:22	01/10/22 19:40	1
3 & 4 Methylphenol	0.10	U *1	0.62	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
Naphthalene	0.16	U *1	0.41	0.16	ug/L		01/09/22 13:22	01/10/22 19:40	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
3-Nitroaniline	0.16	U	3.1	0.16	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Nitroaniline	0.22	U	2.1	0.22	ug/L		01/09/22 13:22	01/10/22 19:40	1
Nitrobenzene	0.041	U	1.0	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		01/09/22 13:22	01/10/22 19:40	1
N-Nitrosodi-n-propylamine	0.062	U	0.41	0.062	ug/L		01/09/22 13:22	01/10/22 19:40	1
N-Nitrosodiphenylamine	0.072	U	1.0	0.072	ug/L		01/09/22 13:22	01/10/22 19:40	1
Pentachlorophenol	0.52	U *1 *	10	0.52	ug/L		01/09/22 13:22	01/10/22 19:40	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		01/09/22 13:22	01/10/22 19:40	1
Phenol	0.37	U *1	1.0	0.37	ug/L		01/09/22 13:22	01/10/22 19:40	1
Pyrene	0.041	U	1.0	0.041	ug/L		01/09/22 13:22	01/10/22 19:40	1
1,2,4-Trichlorobenzene	0.093	U	0.41	0.093	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4,5-Trichlorophenol	0.10	U	0.41	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1
2,4,6-Trichlorophenol	0.10	U	0.62	0.10	ug/L		01/09/22 13:22	01/10/22 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		44 - 119	01/09/22 13:22	01/10/22 19:40	1
2-Fluorophenol (Surr)	11	S1-	19 - 119	01/09/22 13:22	01/10/22 19:40	1
Nitrobenzene-d5 (Surr)	81		44 - 120	01/09/22 13:22	01/10/22 19:40	1
Phenol-d5 (Surr)	0.2	S1-	10 - 120	01/09/22 13:22	01/10/22 19:40	1
Terphenyl-d14	98		50 - 134	01/09/22 13:22	01/10/22 19:40	1
2,4,6-Tribromophenol	75		43 - 140	01/09/22 13:22	01/10/22 19:40	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	46	U	56	46	ug/L		01/09/22 13:27	01/10/22 03:40	1
C24-C40	91	U	180	91	ug/L		01/09/22 13:27	01/10/22 03:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		53 - 120	01/09/22 13:27	01/10/22 03:40	1

QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-377913/7

Matrix: Water

Analysis Batch: 377913

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U *3	100	31	ug/L			01/09/22 15:53	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	*3 S1+	78 - 120					01/09/22 15:53	1

Lab Sample ID: LCS 580-377913/9

Matrix: Water

Analysis Batch: 377913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Gasoline Range Organics (C6-C12)	1000	1190		ug/L		119	75 - 127	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	123	*3 S1+	78 - 120					

Lab Sample ID: LCSD 580-377913/10

Matrix: Water

Analysis Batch: 377913

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)	1000	955	*1	ug/L		95	75 - 127	22	13
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	106		78 - 120						

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

Lab Sample ID: MB 580-377820/6

Matrix: Water

Analysis Batch: 377820

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	3.2	U	15	3.2	ug/L			01/08/22 17:13	1
Benzene	0.24	U	1.0	0.24	ug/L			01/08/22 17:13	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			01/08/22 17:13	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/08/22 17:13	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/08/22 17:13	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/08/22 17:13	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/08/22 17:13	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/08/22 17:13	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/08/22 17:13	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/08/22 17:13	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/08/22 17:13	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/08/22 17:13	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			01/08/22 17:13	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/08/22 17:13	1

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

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

Lab Sample ID: MB 580-377820/6

Matrix: Water

Analysis Batch: 377820

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/08/22 17:13	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/08/22 17:13	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			01/08/22 17:13	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/08/22 17:13	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/08/22 17:13	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			01/08/22 17:13	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/08/22 17:13	1
Methyl Ethyl Ketone	4.7	U	15	4.7	ug/L			01/08/22 17:13	1
Methyl isobutyl ketone (MIBK)	2.5	U	5.0	2.5	ug/L			01/08/22 17:13	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/08/22 17:13	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/08/22 17:13	1
Styrene	0.53	U	1.0	0.53	ug/L			01/08/22 17:13	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/08/22 17:13	1
Toluene	0.39	U	1.0	0.39	ug/L			01/08/22 17:13	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/08/22 17:13	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/08/22 17:13	1
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/08/22 17:13	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/22 17:13	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/08/22 17:13	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/08/22 17:13	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/08/22 17:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84	S1-	85 - 114		01/08/22 17:13	1
Dibromofluoromethane (Surr)	100		80 - 119		01/08/22 17:13	1
1,2-Dichloroethane-d4 (Surr)	108		81 - 118		01/08/22 17:13	1
Toluene-d8 (Surr)	103		89 - 112		01/08/22 17:13	1

Lab Sample ID: LCS 580-377820/3

Matrix: Water

Analysis Batch: 377820

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	31.8		ug/L		127	39 - 160
Benzene	5.00	5.43		ug/L		109	79 - 120
Bromodichloromethane	5.00	5.23		ug/L		105	79 - 125
Bromoform	5.00	5.12		ug/L		102	66 - 130
Bromomethane	5.00	6.17		ug/L		123	53 - 141
Carbon disulfide	5.00	6.12		ug/L		122	64 - 133
Carbon tetrachloride	5.00	4.76		ug/L		95	72 - 136
Chlorobenzene	5.00	5.40		ug/L		108	82 - 118
Chloroform	5.00	5.31		ug/L		106	79 - 124
Chloromethane	5.00	7.42	*+	ug/L		148	50 - 139
cis-1,2-Dichloroethene	5.00	5.21		ug/L		104	78 - 123
cis-1,3-Dichloropropene	5.00	5.23		ug/L		105	75 - 124
Dibromochloromethane	5.00	5.38		ug/L		108	74 - 126
1,1-Dichloroethane	5.00	5.82		ug/L		116	77 - 125
1,2-Dichloroethane	5.00	5.10		ug/L		102	73 - 128

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

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

Lab Sample ID: LCS 580-377820/3

Matrix: Water

Analysis Batch: 377820

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	5.00	5.84		ug/L		117	71 - 131
Dichloromethane	5.00	6.14		ug/L		123	74 - 124
1,2-Dichloropropane	5.00	5.43		ug/L		109	78 - 122
Ethylbenzene	5.00	5.37		ug/L		107	79 - 121
Ethyl Chloride	5.00	6.68		ug/L		134	60 - 138
2-Hexanone	25.0	24.8		ug/L		99	57 - 139
Methyl Ethyl Ketone	25.0	20.9		ug/L		84	56 - 143
Methyl isobutyl ketone (MIBK)	25.0	26.0		ug/L		104	67 - 130
m-Xylene & p-Xylene	5.00	5.70		ug/L		114	80 - 121
o-Xylene	5.00	5.45		ug/L		109	78 - 122
Styrene	5.00	5.23		ug/L		105	78 - 123
Tetrachloroethene	5.00	5.03		ug/L		101	74 - 129
Toluene	5.00	5.70		ug/L		114	80 - 121
trans-1,2-Dichloroethene	5.00	5.08		ug/L		102	75 - 124
trans-1,3-Dichloropropene	5.00	5.52		ug/L		110	73 - 127
1,1,1-Trichloroethane	5.00	5.00		ug/L		100	74 - 131
1,1,2-Trichloroethane	5.00	5.43		ug/L		109	80 - 119
Trichloroethene	5.00	4.19		ug/L		84	79 - 123
Vinyl chloride	5.00	7.06	+	ug/L		141	58 - 137
Xylenes, Total	10.0	11.2		ug/L		112	79 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		85 - 114
Dibromofluoromethane (Surr)	96		80 - 119
1,2-Dichloroethane-d4 (Surr)	103		81 - 118
Toluene-d8 (Surr)	109		89 - 112

Lab Sample ID: LCSD 580-377820/4

Matrix: Water

Analysis Batch: 377820

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
Acetone	25.0	32.7		ug/L		131	39 - 160	3	20
Benzene	5.00	5.20		ug/L		104	79 - 120	4	20
Bromodichloromethane	5.00	5.11		ug/L		102	79 - 125	2	20
Bromoform	5.00	5.01		ug/L		100	66 - 130	2	20
Bromomethane	5.00	5.76		ug/L		115	53 - 141	7	20
Carbon disulfide	5.00	5.72		ug/L		114	64 - 133	7	20
Carbon tetrachloride	5.00	4.67		ug/L		93	72 - 136	2	20
Chlorobenzene	5.00	5.28		ug/L		106	82 - 118	2	20
Chloroform	5.00	5.20		ug/L		104	79 - 124	2	20
Chloromethane	5.00	6.97		ug/L		139	50 - 139	6	20
cis-1,2-Dichloroethene	5.00	4.80		ug/L		96	78 - 123	8	20
cis-1,3-Dichloropropene	5.00	5.11		ug/L		102	75 - 124	2	20
Dibromochloromethane	5.00	5.33		ug/L		107	74 - 126	1	20
1,1-Dichloroethane	5.00	5.52		ug/L		110	77 - 125	5	20
1,2-Dichloroethane	5.00	4.96		ug/L		99	73 - 128	3	20
1,1-Dichloroethene	5.00	5.55		ug/L		111	71 - 131	5	20

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

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

Lab Sample ID: LCSD 580-377820/4

Matrix: Water

Analysis Batch: 377820

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
Dichloromethane	5.00	5.69		ug/L		114	74 - 124	8	20
1,2-Dichloropropane	5.00	5.11		ug/L		102	78 - 122	6	20
Ethylbenzene	5.00	5.30		ug/L		106	79 - 121	1	20
Ethyl Chloride	5.00	6.29		ug/L		126	60 - 138	6	20
2-Hexanone	25.0	24.9		ug/L		99	57 - 139	0	20
Methyl Ethyl Ketone	25.0	24.3		ug/L		97	56 - 143	15	20
Methyl isobutyl ketone (MIBK)	25.0	26.5		ug/L		106	67 - 130	2	20
m-Xylene & p-Xylene	5.00	5.68		ug/L		114	80 - 121	0	20
o-Xylene	5.00	5.38		ug/L		108	78 - 122	1	20
Styrene	5.00	5.00		ug/L		100	78 - 123	4	20
Tetrachloroethene	5.00	4.83		ug/L		97	74 - 129	4	20
Toluene	5.00	5.62		ug/L		112	80 - 121	1	20
trans-1,2-Dichloroethene	5.00	4.91		ug/L		98	75 - 124	3	20
trans-1,3-Dichloropropene	5.00	5.09		ug/L		102	73 - 127	8	20
1,1,1-Trichloroethane	5.00	4.63		ug/L		93	74 - 131	8	20
1,1,2-Trichloroethane	5.00	5.50		ug/L		110	80 - 119	1	20
Trichloroethene	5.00	4.24		ug/L		85	79 - 123	1	20
Vinyl chloride	5.00	6.55		ug/L		131	58 - 137	7	20
Xylenes, Total	10.0	11.1		ug/L		111	79 - 121	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		85 - 114
Dibromofluoromethane (Surr)	98		80 - 119
1,2-Dichloroethane-d4 (Surr)	101		81 - 118
Toluene-d8 (Surr)	109		89 - 112

Lab Sample ID: MB 580-377858/7

Matrix: Water

Analysis Batch: 377858

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/09/22 15:53	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/09/22 15:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	*3 S1+	85 - 114		01/09/22 15:53	1
Dibromofluoromethane (Surr)	148	*3 S1+	80 - 119		01/09/22 15:53	1
1,2-Dichloroethane-d4 (Surr)	111	*3	81 - 118		01/09/22 15:53	1
Toluene-d8 (Surr)	106	*3	89 - 112		01/09/22 15:53	1

Lab Sample ID: LCS 580-377858/4

Matrix: Water

Analysis Batch: 377858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethene, Total	20.0	38.5	*+	ug/L		193	78 - 123
1,1,2,2-Tetrachloroethane	10.0	7.61		ug/L		76	71 - 121

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

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

Lab Sample ID: LCS 580-377858/4

Matrix: Water

Analysis Batch: 377858

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	123	*3 S1+	85 - 114
Dibromofluoromethane (Surr)	137	S1+	80 - 119
1,2-Dichloroethane-d4 (Surr)	100		81 - 118
Toluene-d8 (Surr)	115	*3 S1+	89 - 112

Lab Sample ID: LCSD 580-377858/5

Matrix: Water

Analysis Batch: 377858

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
1,2-Dichloroethene, Total	20.0	35.1	*+	ug/L		176	78 - 123		9	20
1,1,2,2-Tetrachloroethane	10.0	8.13		ug/L		81	71 - 121		7	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	128	S1+	85 - 114
Dibromofluoromethane (Surr)	136	S1+	80 - 119
1,2-Dichloroethane-d4 (Surr)	100		81 - 118
Toluene-d8 (Surr)	98		89 - 112

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-377860/1-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377860

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	0.050	U	0.40	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
Anthracene	0.050	U	1.0	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Benzo[a]anthracene	0.050	U	0.25	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Benzo[a]pyrene	0.040	U	0.25	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
Benzo[b]fluoranthene	0.040	U	0.25	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
Benzo[g,h,i]perylene	0.040	U	0.25	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
Benzo[k]fluoranthene	0.050	U	0.25	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Bis(2-chloroethoxy)methane	0.050	U	0.60	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Bis(2-chloroethyl)ether	0.030	U	0.10	0.030	ug/L		01/07/22 10:46	01/10/22 18:31	1
Bis(2-ethylhexyl) phthalate	0.74	U	3.0	0.74	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Bromophenyl phenyl ether	0.060	U	0.60	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
Butyl benzyl phthalate	0.27	U	4.0	0.27	ug/L		01/07/22 10:46	01/10/22 18:31	1
Carbazole	0.10	U	0.60	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Chloroaniline	0.59	U	2.0	0.59	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Chloro-3-methylphenol	0.13	U	0.60	0.13	ug/L		01/07/22 10:46	01/10/22 18:31	1
2-Chloronaphthalene	0.070	U	1.0	0.070	ug/L		01/07/22 10:46	01/10/22 18:31	1
2-Chlorophenol	0.050	U	1.0	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Chlorophenyl phenyl ether	0.050	U	0.60	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Chrysene	0.040	U	0.25	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
Dibenz(a,h)anthracene	0.070	U	0.25	0.070	ug/L		01/07/22 10:46	01/10/22 18:31	1
Dibenzofuran	0.10	U	0.40	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-377860/1-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377860

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.050	U	0.40	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
1,3-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
1,4-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
3,3'-Dichlorobenzidine	0.26	U	1.0	0.26	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4-Dichlorophenol	0.20	U	1.0	0.20	ug/L		01/07/22 10:46	01/10/22 18:31	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4-Dimethylphenol	0.16	U	4.0	0.16	ug/L		01/07/22 10:46	01/10/22 18:31	1
Dimethyl phthalate	0.060	U	0.60	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
Di-n-butyl phthalate	0.19	U	3.0	0.19	ug/L		01/07/22 10:46	01/10/22 18:31	1
4,6-Dinitro-2-methylphenol	0.55	U	2.0	0.55	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4-Dinitrophenol	1.6	U	5.0	1.6	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,6-Dinitrotoluene	0.10	U	0.40	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		01/07/22 10:46	01/10/22 18:31	1
Fluoranthene	0.060	U	0.25	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
Fluorene	0.050	U	0.25	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Hexachlorobenzene	0.040	U	0.60	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
Hexachlorobutadiene	0.060	U	1.0	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
Hexachlorocyclopentadiene	0.14	U	1.0	0.14	ug/L		01/07/22 10:46	01/10/22 18:31	1
Hexachloroethane	0.050	U	1.0	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.40	0.13	ug/L		01/07/22 10:46	01/10/22 18:31	1
Isophorone	0.10	U	0.40	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
2-Methylphenol	0.050	U	0.60	0.050	ug/L		01/07/22 10:46	01/10/22 18:31	1
3 & 4 Methylphenol	0.10	U	0.60	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
Naphthalene	0.16	U	0.40	0.16	ug/L		01/07/22 10:46	01/10/22 18:31	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
3-Nitroaniline	0.16	U	3.0	0.16	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Nitroaniline	0.21	U	2.0	0.21	ug/L		01/07/22 10:46	01/10/22 18:31	1
Nitrobenzene	0.040	U	1.0	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		01/07/22 10:46	01/10/22 18:31	1
N-Nitrosodi-n-propylamine	0.060	U	0.40	0.060	ug/L		01/07/22 10:46	01/10/22 18:31	1
N-Nitrosodiphenylamine	0.070	U	1.0	0.070	ug/L		01/07/22 10:46	01/10/22 18:31	1
Pentachlorophenol	0.51	U	10	0.51	ug/L		01/07/22 10:46	01/10/22 18:31	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		01/07/22 10:46	01/10/22 18:31	1
Phenol	0.36	U	1.0	0.36	ug/L		01/07/22 10:46	01/10/22 18:31	1
Pyrene	0.040	U	1.0	0.040	ug/L		01/07/22 10:46	01/10/22 18:31	1
1,2,4-Trichlorobenzene	0.090	U	0.40	0.090	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4,5-Trichlorophenol	0.10	U	0.40	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1
2,4,6-Trichlorophenol	0.10	U	0.60	0.10	ug/L		01/07/22 10:46	01/10/22 18:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		44 - 119	01/07/22 10:46	01/10/22 18:31	1
2-Fluorophenol (Surr)	56		19 - 119	01/07/22 10:46	01/10/22 18:31	1
Nitrobenzene-d5 (Surr)	91		44 - 120	01/07/22 10:46	01/10/22 18:31	1
Phenol-d5 (Surr)	33		10 - 120	01/07/22 10:46	01/10/22 18:31	1
Terphenyl-d14	109		50 - 134	01/07/22 10:46	01/10/22 18:31	1
2,4,6-Tribromophenol	81		43 - 140	01/07/22 10:46	01/10/22 18:31	1

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-377860/2-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.83		ug/L		92	47 - 122
Acenaphthylene	2.00	1.87		ug/L		93	41 - 130
Anthracene	2.00	1.59		ug/L		80	57 - 123
Benzo[a]anthracene	2.00	1.91		ug/L		96	58 - 125
Benzo[a]pyrene	2.00	1.97		ug/L		98	54 - 128
Benzo[b]fluoranthene	2.00	1.99		ug/L		99	53 - 131
Benzo[g,h,i]perylene	2.00	2.05		ug/L		102	50 - 134
Benzo[k]fluoranthene	2.00	1.92		ug/L		96	57 - 129
Bis(2-chloroethoxy)methane	2.00	1.89		ug/L		95	48 - 120
Bis(2-ethylhexyl) phthalate	2.00	2.08	J	ug/L		104	55 - 135
4-Bromophenyl phenyl ether	2.00	1.62		ug/L		81	55 - 124
Butyl benzyl phthalate	2.00	2.04	J	ug/L		102	53 - 134
Carbazole	2.00	1.92		ug/L		96	60 - 122
4-Chloroaniline	2.00	1.23	J	ug/L		62	33 - 117
4-Chloro-3-methylphenol	2.00	1.86		ug/L		93	52 - 119
2-Chloronaphthalene	2.00	1.84		ug/L		92	40 - 116
2-Chlorophenol	2.00	1.68		ug/L		84	38 - 117
4-Chlorophenyl phenyl ether	2.00	1.82		ug/L		91	53 - 121
Chrysene	2.00	1.96		ug/L		98	59 - 123
Dibenz(a,h)anthracene	2.00	1.89		ug/L		94	51 - 134
Dibenzofuran	2.00	1.83		ug/L		92	53 - 118
1,2-Dichlorobenzene	2.00	1.69		ug/L		84	32 - 111
1,3-Dichlorobenzene	2.00	1.70		ug/L		85	28 - 110
1,4-Dichlorobenzene	2.00	1.72		ug/L		86	29 - 112
3,3'-Dichlorobenzidine	4.00	3.32		ug/L		83	27 - 129
2,4-Dichlorophenol	2.00	1.77		ug/L		88	47 - 121
Diethyl phthalate	2.00	2.11		ug/L		106	56 - 125
2,4-Dimethylphenol	2.00	1.98	J	ug/L		99	31 - 124
Dimethyl phthalate	2.00	1.98		ug/L		99	45 - 127
Di-n-butyl phthalate	2.00	1.90	J	ug/L		95	59 - 127
4,6-Dinitro-2-methylphenol	4.00	3.14		ug/L		78	44 - 137
2,4-Dinitrophenol	4.00	3.24	J	ug/L		81	23 - 143
2,4-Dinitrotoluene	2.00	1.87		ug/L		94	57 - 128
2,6-Dinitrotoluene	2.00	1.90		ug/L		95	57 - 124
Di-n-octyl phthalate	2.00	2.07		ug/L		104	51 - 140
Fluoranthene	2.00	1.88		ug/L		94	57 - 128
Fluorene	2.00	1.96		ug/L		98	52 - 124
Hexachlorobenzene	2.00	1.60		ug/L		80	53 - 125
Hexachlorobutadiene	2.00	1.80		ug/L		90	22 - 124
Hexachlorocyclopentadiene	2.00	1.31		ug/L		65	20 - 125
Hexachloroethane	2.00	1.86		ug/L		93	21 - 115
Indeno[1,2,3-cd]pyrene	2.00	1.98		ug/L		99	52 - 134
Isophorone	2.00	1.88		ug/L		94	42 - 124
2-Methylphenol	2.00	1.56		ug/L		78	30 - 117
3 & 4 Methylphenol	2.00	1.51		ug/L		75	29 - 110
Naphthalene	2.00	1.77		ug/L		89	40 - 121
2-Nitroaniline	2.00	1.90		ug/L		95	55 - 127
3-Nitroaniline	2.00	1.44	J	ug/L		72	41 - 128

Eurofins Seattle

QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-377860/2-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	2.00	1.84	J	ug/L		92	70 - 125
Nitrobenzene	2.00	1.89		ug/L		95	45 - 121
4-Nitrophenol	4.00	1.7	U	ug/L		42	35 - 145
N-Nitrosodi-n-propylamine	2.00	1.97		ug/L		99	49 - 119
N-Nitrosodiphenylamine	2.00	1.68		ug/L		84	51 - 123
Pentachlorophenol	4.00	1.36	J *	ug/L		34	35 - 138
Phenanthrene	2.00	1.73		ug/L		86	59 - 120
Phenol	2.00	0.826	J	ug/L		41	13 - 120
Pyrene	2.00	1.88		ug/L		94	57 - 126
1,2,4-Trichlorobenzene	2.00	1.79		ug/L		89	29 - 116
2,4,5-Trichlorophenol	2.00	1.85		ug/L		92	53 - 123
2,4,6-Trichlorophenol	2.00	1.85		ug/L		93	50 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	79		44 - 119
2-Fluorophenol (Surr)	54		19 - 119
Nitrobenzene-d5 (Surr)	86		44 - 120
Phenol-d5 (Surr)	34		10 - 120
Terphenyl-d14	91		50 - 134
2,4,6-Tribromophenol	79		43 - 140

Lab Sample ID: LCSD 580-377860/3-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377860

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.00	1.50		ug/L		75	47 - 122	20	20
Acenaphthylene	2.00	1.50	*1	ug/L		75	41 - 130	22	20
Anthracene	2.00	1.87		ug/L		93	57 - 123	16	20
Benzo[a]anthracene	2.00	1.99		ug/L		99	58 - 125	4	20
Benzo[a]pyrene	2.00	2.19		ug/L		109	54 - 128	11	20
Benzo[b]fluoranthene	2.00	2.21		ug/L		111	53 - 131	11	20
Benzo[g,h,i]perylene	2.00	2.25		ug/L		113	50 - 134	10	20
Benzo[k]fluoranthene	2.00	2.11		ug/L		106	57 - 129	9	20
Bis(2-chloroethoxy)methane	2.00	1.58		ug/L		79	48 - 120	18	20
Bis(2-ethylhexyl) phthalate	2.00	2.25	J	ug/L		113	55 - 135	8	20
4-Bromophenyl phenyl ether	2.00	1.71		ug/L		86	55 - 124	6	20
Butyl benzyl phthalate	2.00	2.28	J	ug/L		114	53 - 134	11	20
Carbazole	2.00	2.09		ug/L		104	60 - 122	8	20
4-Chloroaniline	2.00	0.993	J *1	ug/L		50	33 - 117	22	20
4-Chloro-3-methylphenol	2.00	1.69		ug/L		85	52 - 119	10	20
2-Chloronaphthalene	2.00	1.52		ug/L		76	40 - 116	19	20
2-Chlorophenol	2.00	1.37		ug/L		68	38 - 117	20	20
4-Chlorophenyl phenyl ether	2.00	1.53		ug/L		77	53 - 121	17	20
Chrysene	2.00	2.10		ug/L		105	59 - 123	7	20
Dibenz(a,h)anthracene	2.00	2.09		ug/L		105	51 - 134	10	20
Dibenzofuran	2.00	1.55		ug/L		77	53 - 118	17	20
1,2-Dichlorobenzene	2.00	1.41		ug/L		70	32 - 111	18	20

Eurofins Seattle

QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-377860/3-A

Matrix: Water

Analysis Batch: 377876

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377860

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	2.00	1.36	*1	ug/L		68	28 - 110	22	20
1,4-Dichlorobenzene	2.00	1.42		ug/L		71	29 - 112	19	20
3,3'-Dichlorobenzidine	4.00	2.36	*1	ug/L		59	27 - 129	34	20
2,4-Dichlorophenol	2.00	1.46		ug/L		73	47 - 121	19	20
Diethyl phthalate	2.00	2.18		ug/L		109	56 - 125	3	20
2,4-Dimethylphenol	2.00	1.58	J *1	ug/L		79	31 - 124	22	20
Dimethyl phthalate	2.00	1.92		ug/L		96	45 - 127	3	20
Di-n-butyl phthalate	2.00	2.18	J	ug/L		109	59 - 127	14	20
4,6-Dinitro-2-methylphenol	4.00	3.52		ug/L		88	44 - 137	12	20
2,4-Dinitrophenol	4.00	3.17	J	ug/L		79	23 - 143	2	20
2,4-Dinitrotoluene	2.00	1.94		ug/L		97	57 - 128	3	20
2,6-Dinitrotoluene	2.00	1.71		ug/L		85	57 - 124	10	20
Di-n-octyl phthalate	2.00	2.35		ug/L		118	51 - 140	13	20
Fluoranthene	2.00	2.11		ug/L		105	57 - 128	11	20
Fluorene	2.00	1.64		ug/L		82	52 - 124	18	20
Hexachlorobenzene	2.00	1.74		ug/L		87	53 - 125	9	20
Hexachlorobutadiene	2.00	1.38	*1	ug/L		69	22 - 124	27	20
Hexachlorocyclopentadiene	2.00	1.02	*1	ug/L		51	20 - 125	25	20
Hexachloroethane	2.00	1.47	*1	ug/L		74	21 - 115	24	20
Indeno[1,2,3-cd]pyrene	2.00	2.16		ug/L		108	52 - 134	9	20
Isophorone	2.00	1.64		ug/L		82	42 - 124	14	20
2-Methylphenol	2.00	1.31		ug/L		65	30 - 117	18	20
3 & 4 Methylphenol	2.00	1.22	*1	ug/L		61	29 - 110	21	20
Naphthalene	2.00	1.43	*1	ug/L		71	40 - 121	21	20
2-Nitroaniline	2.00	1.72		ug/L		86	55 - 127	10	20
3-Nitroaniline	2.00	1.34	J	ug/L		67	41 - 128	8	20
4-Nitroaniline	2.00	1.74	J	ug/L		87	70 - 125	6	20
Nitrobenzene	2.00	1.56		ug/L		78	45 - 121	19	20
4-Nitrophenol	4.00	1.7	U	ug/L		40	35 - 145	6	20
N-Nitrosodi-n-propylamine	2.00	1.66		ug/L		83	49 - 119	17	20
N-Nitrosodiphenylamine	2.00	1.82		ug/L		91	51 - 123	8	20
Pentachlorophenol	4.00	1.83	J *1	ug/L		46	35 - 138	29	20
Phenanthrene	2.00	1.97		ug/L		99	59 - 120	13	20
Phenol	2.00	0.644	J *1	ug/L		32	13 - 120	25	20
Pyrene	2.00	2.11		ug/L		105	57 - 126	11	20
1,2,4-Trichlorobenzene	2.00	1.46		ug/L		73	29 - 116	20	20
2,4,5-Trichlorophenol	2.00	1.66		ug/L		83	53 - 123	11	20
2,4,6-Trichlorophenol	2.00	1.51		ug/L		76	50 - 125	20	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	66		44 - 119
2-Fluorophenol (Surr)	44		19 - 119
Nitrobenzene-d5 (Surr)	72		44 - 120
Phenol-d5 (Surr)	27		10 - 120
Terphenyl-d14	102		50 - 134
2,4,6-Tribromophenol	87		43 - 140

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QC Sample Results

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 580-377861/1-A

Matrix: Water

Analysis Batch: 377867

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	45	U	55	45	ug/L		01/08/22 15:21	01/10/22 02:19	1
C24-C40	90	U	180	90	ug/L		01/08/22 15:21	01/10/22 02:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		53 - 120				01/08/22 15:21	01/10/22 02:19	1

Lab Sample ID: LCS 580-377861/2-A

Matrix: Water

Analysis Batch: 377867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
C9-C25	4000	3030		ug/L		76	55 - 134		
C24-C40	4000	3910		ug/L		98	36 - 143		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	83		53 - 120						

Lab Sample ID: LCSD 580-377861/3-A

Matrix: Water

Analysis Batch: 377867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377861

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
C9-C25	4000	3000		ug/L		75	55 - 134	1	26
C24-C40	4000	3880		ug/L		97	36 - 143	1	24
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
o-Terphenyl	84		53 - 120						

Lab Chronicle

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Client Sample ID: 20220106-C1-ZT05

Lab Sample ID: 580-109090-1

Date Collected: 01/06/22 15:25

Matrix: Water

Date Received: 01/08/22 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	377913	01/09/22 22:06	JSM	FGS SEA

Client Sample ID: 20220106-C1-ZT06

Lab Sample ID: 580-109090-2

Date Collected: 01/06/22 15:30

Matrix: Water

Date Received: 01/08/22 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	377913	01/09/22 22:31	JSM	FGS SEA
Total/NA	Prep	3510C			377861	01/09/22 13:27	JHR	FGS SEA
Total/NA	Analysis	8015D		1	377867	01/10/22 03:20	JAE	FGS SEA

Client Sample ID: 20220106-F2-ZT07

Lab Sample ID: 580-109090-3

Date Collected: 01/06/22 18:25

Matrix: Water

Date Received: 01/08/22 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	377913	01/09/22 22:56	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377858	01/09/22 22:56	JSM	FGS SEA
Total/NA	Analysis	8260D	RA	1	377820	01/08/22 21:20	T1W	FGS SEA

Client Sample ID: 20220106-F2-ZT08

Lab Sample ID: 580-109090-4

Date Collected: 01/06/22 18:30

Matrix: Water

Date Received: 01/08/22 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	377913	01/09/22 23:20	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377858	01/09/22 23:20	JSM	FGS SEA
Total/NA	Analysis	8260D	RA	1	377820	01/08/22 21:44	T1W	FGS SEA
Total/NA	Prep	3510C			377860	01/09/22 13:22	JHR	FGS SEA
Total/NA	Analysis	8270E		1	377876	01/10/22 19:40	T1L	FGS SEA
Total/NA	Prep	3510C			377861	01/09/22 13:27	JHR	FGS SEA
Total/NA	Analysis	8015D		1	377867	01/10/22 03:40	JAE	FGS SEA

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Eurofins Seattle

Accreditation/Certification Summary

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Laboratory: Eurofins Seattle

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2236	01-19-22
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
8260D		Water	1,2-Dichloroethene, Total

Sample Summary

Client: AECOM
Project/Site: Red Hill CV22FO106

Job ID: 580-109090-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-109090-1	20220106-C1-ZT05	Water	01/06/22 15:25	01/08/22 11:00
580-109090-2	20220106-C1-ZT06	Water	01/06/22 15:30	01/08/22 11:00
580-109090-3	20220106-F2-ZT07	Water	01/06/22 18:25	01/08/22 11:00
580-109090-4	20220106-F2-ZT08	Water	01/06/22 18:30	01/08/22 11:00

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A large, dense, black and white image showing a close-up of a textured surface, possibly a book cover or a piece of paper with a complex pattern. The texture is highly irregular, with many small, dark, vertical and horizontal lines and speckles, giving it a grainy, almost abstract appearance. The overall effect is one of a highly detailed, tactile surface.

Environment Testing
America

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Environment Testing
America

Ver: 01/16/20191/11/2022

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-109090-1

Login Number: 109090

List Number: 1

Creator: Presley, Kim A

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
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?	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	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Work Orders: 2A10037

Project: 60674414, COC # 01082022 DW-04

Attn: Margie Pascua

Client: AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Report Date: 1/13/2022

Received Date: 1/10/2022

Turnaround Time: 3 workdays

Phones: (808) 529-7277

Fax: (808) 524-0246

P.O. #: reference number
60571032.02.46.01

Billing Code:

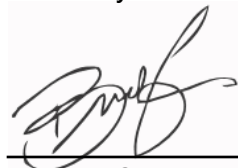
ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH #4047 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP
#CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Margie Pascua,

Enclosed are the results of analyses for samples received 1/10/22 with the Chain-of-Custody document. The samples were received in good condition, at 2.6 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Brandon Gee For Kim G. Tu
Project Manager



AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Project Number: 60674414, COC # 01082022 DW-04

Reported:
01/13/2022 17:57

Project Manager: Margie Pascua

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
220107-F2-YT03	AECOM	2A10037-01	Water	01/07/22 18:18	
220107-F2-YT04	AECOM	2A10037-02	Water	01/07/22 18:13	

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Project Number: 60674414, COC # 01082022 DW-04

Project Manager: Margie Pascua

Reported:
01/13/2022 17:57

Sample Results

Sample: 220107-F2-YT03
2A10037-01 (Water) Sampled: 01/07/22 18:18 by AECOM

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B

Instr: TOC02

Batch ID: W2A0451

Preparation: _NONE (TOC/TOX)

Prepared: 01/11/22 09:24

Analyst: ajc

Total Organic Carbon (TOC)	ND	0.190	0.300	mg/l	1	01/12/22	U
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Metals by EPA 200 Series Methods

Method: EPA 200.8

Instr: ICPMS04

Batch ID: W2A0580

Preparation: EPA 200.2

Prepared: 01/10/22 14:25

Analyst: chc

Antimony, Total	ND	0.0889	0.500	ug/l	1	01/11/22	U
Arsenic, Total	ND	0.0741	0.400	ug/l	1	01/11/22	U
Barium, Total	2.85	0.142	1.00	ug/l	1	01/11/22	
Beryllium, Total	ND	0.0624	0.100	ug/l	1	01/11/22	U
Cadmium, Total	ND	0.0416	0.200	ug/l	1	01/11/22	U
Chromium, Total	1.46	0.0887	0.200	ug/l	1	01/11/22	
Copper, Total	6.44	0.225	0.500	ug/l	1	01/11/22	
Lead, Total	0.387	0.0827	0.200	ug/l	1	01/11/22	
Selenium, Total	0.0703	0.0666	0.400	ug/l	1	01/11/22	J
Thallium, Total	ND	0.0210	0.200	ug/l	1	01/11/22	U

Method: EPA 245.1

Instr: HG03

Batch ID: W2A0582

Preparation: Method (Hot Block)

Prepared: 01/10/22 12:15

Analyst: kvm

Mercury, Total	ND	0.0170	0.0500	ug/l	1	01/10/22	U
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Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2

Instr: GCMS16

Batch ID: W2A0581

Preparation: Method (SPE)

Prepared: 01/10/22 12:15

Analyst: rmr

1-Methylnaphthalene	ND	0.00801	0.0500	ug/l	1	01/11/22	U
2-Methylnaphthalene	0.00986	0.00904	0.0500	ug/l	1	01/11/22	J
Alachlor	ND	0.0110	0.100	ug/l	1	01/11/22	U
Atrazine	ND	0.00734	0.100	ug/l	1	01/11/22	U
Benzo (a) pyrene	ND	0.0117	0.100	ug/l	1	01/11/22	Q-02, U
Bis(2-ethylhexyl)adipate	ND	0.00962	5.00	ug/l	1	01/11/22	U
Bis(2-ethylhexyl)phthalate	ND	0.437	3.00	ug/l	1	01/11/22	U
Endrin	ND	0.00991	0.200	ug/l	1	01/11/22	U
gamma-BHC (Lindane)	ND	0.00633	0.100	ug/l	1	01/11/22	U
Heptachlor	ND	0.00965	0.100	ug/l	1	01/11/22	BS-04, U
Heptachlor epoxide	ND	0.0122	0.100	ug/l	1	01/11/22	U
Hexachlorobenzene	ND	0.0980	0.100	ug/l	1	01/11/22	U
Hexachlorocyclopentadiene	ND	0.00594	1.00	ug/l	1	01/11/22	U
Methoxychlor	ND	0.00863	0.200	ug/l	1	01/11/22	U
Naphthalene	ND	0.0103	0.0500	ug/l	1	01/11/22	U
Pentachlorophenol	ND	0.0242	1.00	ug/l	1	01/11/22	U

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Project Number: 60674414, COC # 01082022 DW-04

Project Manager: Margie Pascua

Reported:
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Sample Results

(Continued)

Sample: 220107-F2-YT03
2A10037-01 (Water) Sampled: 01/07/22 18:18 by AECOM
(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organic Compounds by GC/MS (Continued)

Method: EPA 525.2

Instr: GCMS16

Batch ID: W2A0581

Preparation: Method (SPE)

Prepared: 01/10/22 12:15

Analyst: rmr

Simazine	ND	0.00734	0.100	ug/l	1	01/11/22	U
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Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	102%	Conc: 5.24	70-130	01/11/22
Perylene-d12	89%	Conc: 4.56	70-130	01/11/22
Triphenyl phosphate	103%	Conc: 5.28	70-130	01/11/22

Volatile Organic Compounds by P&T and GC/MS

Method: EPA 524.2

Instr: GCMS14

Batch ID: W2A0576

Preparation: Method (P+T)

Prepared: 01/10/22 17:00

Analyst: cam

1,1,1-Trichloroethane	ND	0.256	0.500	ug/l	1	01/10/22	U
1,1,2-Trichloroethane	ND	0.190	0.500	ug/l	1	01/10/22	U
1,1-Dichloroethene	ND	0.160	0.500	ug/l	1	01/10/22	U
1,2,4-Trichlorobenzene	ND	0.170	0.500	ug/l	1	01/10/22	U
1,2-Dichloroethane	ND	0.243	0.500	ug/l	1	01/10/22	U
1,2-Dichloropropane	ND	0.130	0.500	ug/l	1	01/10/22	U
Benzene	ND	0.150	0.500	ug/l	1	01/10/22	U
Carbon tetrachloride	ND	0.270	0.500	ug/l	1	01/10/22	U
Chlorobenzene	ND	0.150	0.500	ug/l	1	01/10/22	U
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/l	1	01/10/22	U
Ethylbenzene	ND	0.210	0.500	ug/l	1	01/10/22	U
m,p-Xylene	ND	0.330	0.500	ug/l	1	01/10/22	U
Methylene chloride	ND	0.303	0.500	ug/l	1	01/10/22	U
o-Dichlorobenzene	ND	0.190	0.500	ug/l	1	01/10/22	U
o-Xylene	ND	0.200	0.500	ug/l	1	01/10/22	U
p-Dichlorobenzene	ND	0.180	0.500	ug/l	1	01/10/22	U
Styrene	ND	0.190	0.500	ug/l	1	01/10/22	U
Tetrachloroethene	ND	0.180	0.500	ug/l	1	01/10/22	U
THMs, Total	0.540		0.500	ug/l	1	01/10/22	
Toluene	ND	0.294	0.500	ug/l	1	01/10/22	U
trans-1,2-Dichloroethene	ND	0.259	0.500	ug/l	1	01/10/22	U
Trichloroethene	ND	0.180	0.500	ug/l	1	01/10/22	U
Vinyl chloride	ND	0.180	0.500	ug/l	1	01/10/22	U

Surrogate(s)

1,2-Dichlorobenzene-d4	81%	Conc: 8.06	70-130	01/10/22
4-Bromofluorobenzene	80%	Conc: 8.02	70-130	01/10/22

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Reported:
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Sample Results

(Continued)

Sample: 220107-F2-YT03 Sampled: 01/07/22 18:18 by AECOM

2A10037-01RE1 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Chlorinated Pesticides and/or PCBs by GC/ECD

Method: EPA 508.1

Instr: GC08

Batch ID: W2A0806

Preparation: Method (SPE)

Prepared: 01/12/22 14:11

Analyst: rjg

Aroclor 1016	ND	0.0157	0.100	ug/l	1	01/13/22	U
Aroclor 1221	ND	0.0436	0.100	ug/l	1	01/13/22	U
Aroclor 1232	ND	0.0102	0.100	ug/l	1	01/13/22	U
Aroclor 1242	ND	0.0737	0.100	ug/l	1	01/13/22	U
Aroclor 1248	ND	0.0941	0.100	ug/l	1	01/13/22	U
Aroclor 1254	ND	0.0869	0.100	ug/l	1	01/13/22	U
Aroclor 1260	ND	0.0379	0.100	ug/l	1	01/13/22	U
Chlordane (tech)	ND	0.0669	0.100	ug/l	1	01/13/22	U
PCBs, Total	ND		0.500	ug/l	1	01/13/22	U

Surrogate(s)

4,4-Dibromobiphenyl 97% Conc: 0.0981 70-130 01/13/22

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Reported:
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Sample Results

(Continued)

Sample: 220107-F2-YT04
2A10037-02 (Water)

Sampled: 01/07/22 18:13 by AECOM

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Volatile Organic Compounds by P&T and GC/MS

Method: EPA 524.2

Instr: GCMS14

Batch ID: W2A0576

Preparation: Method (P+T)

Prepared: 01/10/22 17:00

Analyst: cam

1,1,1-Trichloroethane	ND	0.256	0.500	ug/l	1	01/11/22	U
1,1,2-Trichloroethane	ND	0.190	0.500	ug/l	1	01/11/22	U
1,1-Dichloroethene	ND	0.160	0.500	ug/l	1	01/11/22	U
1,2,4-Trichlorobenzene	ND	0.170	0.500	ug/l	1	01/11/22	U
1,2-Dichloroethane	ND	0.243	0.500	ug/l	1	01/11/22	U
1,2-Dichloropropane	ND	0.130	0.500	ug/l	1	01/11/22	U
Benzene	ND	0.150	0.500	ug/l	1	01/11/22	U
Carbon tetrachloride	ND	0.270	0.500	ug/l	1	01/11/22	U
Chlorobenzene	ND	0.150	0.500	ug/l	1	01/11/22	U
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/l	1	01/11/22	U
Ethylbenzene	ND	0.210	0.500	ug/l	1	01/11/22	U
m,p-Xylene	ND	0.330	0.500	ug/l	1	01/11/22	U
Methylene chloride	ND	0.303	0.500	ug/l	1	01/11/22	U
o-Dichlorobenzene	ND	0.190	0.500	ug/l	1	01/11/22	U
o-Xylene	ND	0.200	0.500	ug/l	1	01/11/22	U
p-Dichlorobenzene	ND	0.180	0.500	ug/l	1	01/11/22	U
Styrene	ND	0.190	0.500	ug/l	1	01/11/22	U
Tetrachloroethene	ND	0.180	0.500	ug/l	1	01/11/22	U
THMs, Total	ND		0.500	ug/l	1	01/11/22	U
Toluene	ND	0.294	0.500	ug/l	1	01/11/22	U
trans-1,2-Dichloroethene	ND	0.259	0.500	ug/l	1	01/11/22	U
Trichloroethene	ND	0.180	0.500	ug/l	1	01/11/22	U
Vinyl chloride	ND	0.180	0.500	ug/l	1	01/11/22	U

Surrogate(s)

1,2-Dichlorobenzene-d4	86%	Conc: 8.60	70-130	01/11/22
4-Bromofluorobenzene	94%	Conc: 9.36	70-130	01/11/22

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Quality Control Results

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0806 - EPA 508.1											
Blank (W2A0806-BLK1)						Prepared: 01/12/22 Analyzed: 01/13/22					
Aroclor 1016	ND	0.0157	0.100	ug/l							U
Aroclor 1221	ND	0.0436	0.100	ug/l							U
Aroclor 1232	ND	0.0102	0.100	ug/l							U
Aroclor 1242	ND	0.0737	0.100	ug/l							U
Aroclor 1248	ND	0.0941	0.100	ug/l							U
Aroclor 1254	ND	0.0869	0.100	ug/l							U
Aroclor 1260	ND	0.0379	0.100	ug/l							U
Chlordane (tech)	ND	0.0669	0.100	ug/l							U
PCBs, Total	ND		0.500	ug/l							U
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.0942			ug/l	0.100		94	70-130			
LCS (W2A0806-BS1)						Prepared: 01/12/22 Analyzed: 01/13/22					
Aroclor 1016	0.425	0.0157	0.100	ug/l	0.500		85	70-130			
Aroclor 1260	0.443	0.0379	0.100	ug/l	0.500		89	70-130			
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.0934			ug/l	0.100		93	70-130			
LCS Dup (W2A0806-BSD1)						Prepared: 01/12/22 Analyzed: 01/13/22					
Aroclor 1016	0.413	0.0157	0.100	ug/l	0.500		83	70-130	3	30	
Aroclor 1260	0.435	0.0379	0.100	ug/l	0.500		87	70-130	2	30	
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.0886			ug/l	0.100		89	70-130			

Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0451 - SM 5310B											
Blank (W2A0451-BLK1)						Prepared: 01/07/22 Analyzed: 01/12/22					
Total Organic Carbon (TOC)	ND	0.190	0.300	mg/l							U
LCS (W2A0451-BS1)						Prepared: 01/07/22 Analyzed: 01/12/22					
Total Organic Carbon (TOC)	1.08	0.190	0.300	mg/l	1.00		108	85-115			
Matrix Spike (W2A0451-MS1)						Source: 2A03057-01 Prepared: 01/07/22 Analyzed: 01/12/22					
Total Organic Carbon (TOC)	5.83	0.190	0.300	mg/l	5.00	1.62	84	76-115			
Matrix Spike Dup (W2A0451-MSD1)						Source: 2A03057-01 Prepared: 01/07/22 Analyzed: 01/12/22					
Total Organic Carbon (TOC)	5.83	0.190	0.300	mg/l	5.00	1.62	84	76-115	0.02	20	

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W2A0580 - EPA 200.8											
Blank (W2A0580-BLK1)					Prepared: 01/10/22 Analyzed: 01/11/22						
Antimony, Total	ND	0.0889	0.500	ug/l							U
Arsenic, Total	ND	0.0741	0.400	ug/l							U
Barium, Total	ND	0.142	1.00	ug/l							U
Beryllium, Total	ND	0.0624	0.100	ug/l							U
Cadmium, Total	ND	0.0416	0.200	ug/l							U
Chromium, Total	ND	0.0887	0.200	ug/l							U
Copper, Total	ND	0.225	0.500	ug/l							U
Lead, Total	ND	0.0827	0.200	ug/l							U
Selenium, Total	ND	0.0666	0.400	ug/l							U
Thallium, Total	ND	0.0210	0.200	ug/l							U
LCS (W2A0580-BS1)					Prepared: 01/10/22 Analyzed: 01/11/22						
Antimony, Total	47.2	0.0889	0.500	ug/l	50.0		94	85-115			
Arsenic, Total	45.6	0.0741	0.400	ug/l	50.0		91	85-115			
Barium, Total	47.1	0.142	1.00	ug/l	50.0		94	85-115			
Beryllium, Total	46.0	0.0624	0.100	ug/l	50.0		92	85-115			
Cadmium, Total	43.5	0.0416	0.200	ug/l	50.0		87	85-115			
Chromium, Total	46.1	0.0887	0.200	ug/l	50.0		92	85-115			
Copper, Total	49.3	0.225	0.500	ug/l	50.0		99	85-115			
Lead, Total	47.7	0.0827	0.200	ug/l	50.0		95	85-115			
Selenium, Total	44.8	0.0666	0.400	ug/l	50.0		90	85-115			
Thallium, Total	47.1	0.0210	0.200	ug/l	50.0		94	85-115			
Matrix Spike (W2A0580-MS1)					Source: 2A10032-01 Prepared: 01/10/22 Analyzed: 01/11/22						
Antimony, Total	44.8	0.0889	0.500	ug/l	50.0	ND	90	70-130			
Arsenic, Total	47.7	0.0741	0.400	ug/l	50.0	0.0785	95	70-130			
Barium, Total	47.4	0.142	1.00	ug/l	50.0	2.89	89	70-130			
Beryllium, Total	44.3	0.0624	0.100	ug/l	50.0	ND	89	70-130			
Cadmium, Total	45.7	0.0416	0.200	ug/l	50.0	ND	91	70-130			
Chromium, Total	50.0	0.0887	0.200	ug/l	50.0	1.28	97	70-130			
Copper, Total	54.2	0.225	0.500	ug/l	50.0	10.8	87	70-130			
Lead, Total	45.0	0.0827	0.200	ug/l	50.0	0.812	88	70-130			
Selenium, Total	46.4	0.0666	0.400	ug/l	50.0	0.165	92	70-130			
Thallium, Total	43.3	0.0210	0.200	ug/l	50.0	ND	87	70-130			
Matrix Spike Dup (W2A0580-MSD1)					Source: 2A10032-01 Prepared: 01/10/22 Analyzed: 01/11/22						
Antimony, Total	49.2	0.0889	0.500	ug/l	50.0	ND	98	70-130	9	30	
Arsenic, Total	50.3	0.0741	0.400	ug/l	50.0	0.0785	100	70-130	5	30	
Barium, Total	52.4	0.142	1.00	ug/l	50.0	2.89	99	70-130	10	30	
Beryllium, Total	48.9	0.0624	0.100	ug/l	50.0	ND	98	70-130	10	30	
Cadmium, Total	48.5	0.0416	0.200	ug/l	50.0	ND	97	70-130	6	30	
Chromium, Total	51.7	0.0887	0.200	ug/l	50.0	1.28	101	70-130	3	30	

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Project Manager: Margie Pascua

Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W2A0580 - EPA 200.8 (Continued)											
Matrix Spike Dup (W2A0580-MSD1)				Source: 2A10032-01		Prepared: 01/10/22 Analyzed: 01/11/22					
Copper, Total	59.6	0.225	0.500	ug/l	50.0	10.8	98	70-130	10	30	
Lead, Total	49.2	0.0827	0.200	ug/l	50.0	0.812	97	70-130	9	30	
Selenium, Total	50.0	0.0666	0.400	ug/l	50.0	0.165	100	70-130	8	30	
Thallium, Total	47.7	0.0210	0.200	ug/l	50.0	ND	95	70-130	10	30	
Batch: W2A0582 - EPA 245.1											
Blank (W2A0582-BLK1)				Prepared & Analyzed: 01/10/22							
Mercury, Total	ND	0.0170	0.0500	ug/l							U
LCS (W2A0582-BS1)				Prepared & Analyzed: 01/10/22							
Mercury, Total	1.07	0.0170	0.0500	ug/l	1.00		107	85-115			
Matrix Spike (W2A0582-MS1)				Source: 2A10032-01		Prepared & Analyzed: 01/10/22					
Mercury, Total	1.07	0.0170	0.0500	ug/l	1.00	ND	107	70-130			
Matrix Spike Dup (W2A0582-MSD1)				Source: 2A10032-01		Prepared & Analyzed: 01/10/22					
Mercury, Total	1.09	0.0170	0.0500	ug/l	1.00	ND	109	70-130	2	20	

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Project Manager: Margie Pascua

Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0581 - EPA 525.2											
Blank (W2A0581-BLK1)						Prepared: 01/10/22 Analyzed: 01/11/22					
1-Methylnaphthalene	ND	0.00801	0.0500	ug/l							U
2-Methylnaphthalene	0.00987	0.00904	0.0500	ug/l							J
Alachlor	ND	0.0110	0.100	ug/l							U
Atrazine	ND	0.00734	0.100	ug/l							U
Benzo (a) pyrene	ND	0.0117	0.100	ug/l							U
Bis(2-ethylhexyl)adipate	ND	0.00962	5.00	ug/l							U
Bis(2-ethylhexyl)phthalate	ND	0.437	3.00	ug/l							U
Endrin	ND	0.00991	0.200	ug/l							U
gamma-BHC (Lindane)	ND	0.00633	0.100	ug/l							U
Heptachlor	ND	0.00965	0.100	ug/l							U
Heptachlor epoxide	ND	0.0122	0.100	ug/l							U
Hexachlorobenzene	ND	0.0980	0.100	ug/l							U
Hexachlorocyclopentadiene	ND	0.00594	1.00	ug/l							U
Methoxychlor	ND	0.00863	0.200	ug/l							U
Naphthalene	ND	0.0103	0.0500	ug/l							U
Pentachlorophenol	ND	0.0242	1.00	ug/l							U
Simazine	ND	0.00734	0.100	ug/l							U
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	4.80			ug/l	5.00		96	70-130			
Perylene-d12	4.44			ug/l	5.00		89	70-130			
Triphenyl phosphate	4.34			ug/l	5.00		87	70-130			
LCS (W2A0581-BS1)						Prepared: 01/10/22 Analyzed: 01/11/22					
1-Methylnaphthalene	0.211	0.00801	0.0500	ug/l	0.250		84	70-130			
2-Methylnaphthalene	0.207	0.00904	0.0500	ug/l	0.250		83	70-130			
Alachlor	0.389	0.0110	0.100	ug/l	0.500		78	70-130			
Atrazine	0.215	0.00734	0.100	ug/l	0.250		86	70-130			
Benzo (a) pyrene	0.110	0.0117	0.100	ug/l	0.250		44	60-130			Q-02
Bis(2-ethylhexyl)adipate	0.153	0.00962	5.00	ug/l	0.250		61	50-150			J
Bis(2-ethylhexyl)phthalate	0.172	0.00	3.00	ug/l	0.250		69	50-150			J
Endrin	0.223	0.00991	0.200	ug/l	0.250		89	70-130			
gamma-BHC (Lindane)	0.276	0.00633	0.100	ug/l	0.250		110	70-130			
Heptachlor	0.167	0.00965	0.100	ug/l	0.250		67	70-130			BS-04
Heptachlor epoxide	0.219	0.0122	0.100	ug/l	0.250		87	70-130			
Hexachlorobenzene	0.0392	0.00	0.100	ug/l	0.0500		78	70-130			J
Hexachlorocyclopentadiene	0.154	0.00594	1.00	ug/l	0.250		62	33-106			J
Methoxychlor	0.197	0.00863	0.200	ug/l	0.250		79	70-130			J
Naphthalene	0.218	0.0103	0.0500	ug/l	0.250		87	70-130			
Pentachlorophenol	0.258	0.0242	1.00	ug/l	0.250		103	50-120			J
Simazine	0.221	0.00734	0.100	ug/l	0.250		88	60-130			

AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Project Number: 60674414, COC # 01082022 DW-04

Project Manager: Margie Pascua

Reported:
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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0581 - EPA 525.2 (Continued)											
LCS (W2A0581-BS1)				Prepared: 01/10/22 Analyzed: 01/11/22							
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	4.82			ug/l	5.00		96	70-130			
Perylene-d12	4.66			ug/l	5.00		93	70-130			
Triphenyl phosphate	4.71			ug/l	5.00		94	70-130			
LCS (W2A0581-BS2)				Prepared: 01/10/22 Analyzed: 01/11/22							
1-Methylnaphthalene	0.0482	0.00801	0.0500	ug/l	0.0500		96	50-150			J
2-Methylnaphthalene	0.0490	0.00904	0.0500	ug/l	0.0500		98	50-150			J
Alachlor	0.0858	0.0110	0.100	ug/l	0.100		86	50-150			J
Atrazine	0.0619	0.00734	0.100	ug/l	0.0500		124	50-150			J
Benzo (a) pyrene	0.0704	0.0117	0.100	ug/l	0.0500		141	50-150			J
Bis(2-ethylhexyl)adipate	0.0808	0.00962	5.00	ug/l	0.0500		162	50-150			J
Bis(2-ethylhexyl)phthalate	0.0983	0.00	3.00	ug/l	0.0500		197	50-150			J
Endrin	0.0682	0.00991	0.200	ug/l	0.0500		136	50-150			J
gamma-BHC (Lindane)	0.0473	0.00633	0.100	ug/l	0.0500		95	50-150			J
Heptachlor	0.0523	0.00965	0.100	ug/l	0.0500		105	50-150			J
Heptachlor epoxide	0.0431	0.0122	0.100	ug/l	0.0500		86	50-150			J
Hexachlorobenzene	0.00931	0.00	0.100	ug/l	0.0100		93	50-150			J
Hexachlorocyclopentadiene	0.129	0.00594	1.00	ug/l	0.0500		259	50-150			J
Methoxychlor	0.0670	0.00863	0.200	ug/l	0.0500		134	50-150			J
Naphthalene	0.0501	0.0103	0.0500	ug/l	0.0500		100	50-150			
Pentachlorophenol	0.116	0.0242	1.00	ug/l	0.0500		233	50-150			J
Simazine	0.0705	0.00734	0.100	ug/l	0.0500		141	60-150			J
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	4.93			ug/l	5.00		99	70-130			
Perylene-d12	4.70			ug/l	5.00		94	70-130			
Triphenyl phosphate	5.11			ug/l	5.00		102	70-130			
LCS (W2A0581-BS3)				Prepared: 01/10/22 Analyzed: 01/11/22							
1-Methylnaphthalene	0.0483	0.00801	0.0500	ug/l	0.0500		97	50-150			J
2-Methylnaphthalene	0.0479	0.00904	0.0500	ug/l	0.0500		96	50-150			J
Alachlor	0.0866	0.0110	0.100	ug/l	0.100		87	50-150			J
Atrazine	0.0611	0.00734	0.100	ug/l	0.0500		122	50-150			J
Benzo (a) pyrene	0.0705	0.0117	0.100	ug/l	0.0500		141	50-150			J
Bis(2-ethylhexyl)adipate	0.0781	0.00962	5.00	ug/l	0.0500		156	50-150			J
Bis(2-ethylhexyl)phthalate	0.0987	0.00	3.00	ug/l	0.0500		197	50-150			J
Endrin	0.0880	0.00991	0.200	ug/l	0.0500		176	50-150			Q-08, J
gamma-BHC (Lindane)	0.0499	0.00633	0.100	ug/l	0.0500		100	50-150			J
Heptachlor	0.0536	0.00965	0.100	ug/l	0.0500		107	50-150			J
Heptachlor epoxide	0.0492	0.0122	0.100	ug/l	0.0500		98	50-150			J
Hexachlorobenzene	0.00763	0.00	0.100	ug/l	0.0100		76	50-150			

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Project Number: 60674414, COC # 01082022 DW-04

Project Manager: Margie Pascua

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0581 - EPA 525.2 (Continued)											
LCS (W2A0581-BS3)						Prepared: 01/10/22 Analyzed: 01/11/22					
Hexachlorocyclopentadiene	0.120	0.00594	1.00	ug/l	0.0500		239	50-150			J
Methoxychlor	0.0663	0.00863	0.200	ug/l	0.0500		133	50-150			J
Naphthalene	0.0458	0.0103	0.0500	ug/l	0.0500		92	50-150			J
Pentachlorophenol	0.117	0.0242	1.00	ug/l	0.0500		233	50-150			J
Simazine	0.0736	0.00734	0.100	ug/l	0.0500		147	50-150			J
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	4.90			ug/l	5.00		98	70-130			
Perylene-d12	4.92			ug/l	5.00		98	70-130			
Triphenyl phosphate	5.03			ug/l	5.00		101	70-130			
LCS Dup (W2A0581-BSD1)						Prepared: 01/10/22 Analyzed: 01/11/22					
1-Methylnaphthalene	0.216	0.00801	0.0500	ug/l	0.250		87	70-130	3	30	
2-Methylnaphthalene	0.216	0.00904	0.0500	ug/l	0.250		86	70-130	4	30	
Alachlor	0.411	0.0110	0.100	ug/l	0.500		82	70-130	6	30	
Atrazine	0.221	0.00734	0.100	ug/l	0.250		88	70-130	3	30	
Benzo (a) pyrene	0.142	0.0117	0.100	ug/l	0.250		57	60-130	25	30	Q-02
Bis(2-ethylhexyl)adipate	0.205	0.00962	5.00	ug/l	0.250		82	50-150	29	30	J
Bis(2-ethylhexyl)phthalate	0.224	0.00	3.00	ug/l	0.250		90	50-150	26	30	J
Endrin	0.306	0.00991	0.200	ug/l	0.250		122	70-130	31	30	Q-12
gamma-BHC (Lindane)	0.284	0.00633	0.100	ug/l	0.250		114	70-130	3	30	
Heptachlor	0.206	0.00965	0.100	ug/l	0.250		82	70-130	21	30	
Heptachlor epoxide	0.238	0.0122	0.100	ug/l	0.250		95	70-130	8	30	
Hexachlorobenzene	0.0439	0.00	0.100	ug/l	0.0500		88	70-130	11	30	J
Hexachlorocyclopentadiene	0.181	0.00594	1.00	ug/l	0.250		72	33-106	16	30	J
Methoxychlor	0.246	0.00863	0.200	ug/l	0.250		99	70-130	22	30	
Naphthalene	0.224	0.0103	0.0500	ug/l	0.250		90	70-130	3	30	
Pentachlorophenol	0.285	0.0242	1.00	ug/l	0.250		114	50-120	10	30	J
Simazine	0.231	0.00734	0.100	ug/l	0.250		93	60-130	5	30	
<i>Surrogate(s)</i>											
1,3-Dimethyl-2-nitrobenzene	4.86			ug/l	5.00		97	70-130			
Perylene-d12	4.73			ug/l	5.00		95	70-130			
Triphenyl phosphate	5.25			ug/l	5.00		105	70-130			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0576 - EPA 524.2											
Blank (W2A0576-BLK1)						Prepared & Analyzed: 01/10/22					
1,1,1-Trichloroethane	ND	0.256	0.500	ug/l							U
1,1,2-Trichloroethane	ND	0.190	0.500	ug/l							U
1,1-Dichloroethene	ND	0.160	0.500	ug/l							U
1,2,4-Trichlorobenzene	ND	0.170	0.500	ug/l							U
1,2-Dichloroethane	ND	0.243	0.500	ug/l							U
1,2-Dichloropropane	ND	0.130	0.500	ug/l							U
Benzene	ND	0.150	0.500	ug/l							U
Carbon tetrachloride	ND	0.270	0.500	ug/l							U
Chlorobenzene	ND	0.150	0.500	ug/l							U
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/l							U
Ethylbenzene	ND	0.210	0.500	ug/l							U
m,p-Xylene	ND	0.330	0.500	ug/l							U
Methylene chloride	ND	0.303	0.500	ug/l							U
o-Dichlorobenzene	ND	0.190	0.500	ug/l							U
o-Xylene	ND	0.200	0.500	ug/l							U
p-Dichlorobenzene	ND	0.180	0.500	ug/l							U
Styrene	ND	0.190	0.500	ug/l							U
Tetrachloroethene	ND	0.180	0.500	ug/l							U
THMs, Total	ND		0.500	ug/l							U
Toluene	ND	0.294	0.500	ug/l							U
trans-1,2-Dichloroethene	ND	0.259	0.500	ug/l							U
Trichloroethene	ND	0.180	0.500	ug/l							U
Vinyl chloride	ND	0.180	0.500	ug/l							U
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	8.16			ug/l	10.0		82	70-130			
4-Bromofluorobenzene	7.95			ug/l	10.0		80	70-130			
LCS (W2A0576-BS1)						Prepared & Analyzed: 01/10/22					
1,1,1-Trichloroethane	4.94	0.256	0.500	ug/l	5.00		99	70-130			
1,1,2-Trichloroethane	4.98	0.190	0.500	ug/l	5.00		100	70-130			
1,1-Dichloroethene	5.05	0.160	0.500	ug/l	5.00		101	70-130			
1,2,4-Trichlorobenzene	5.41	0.170	0.500	ug/l	5.00		108	70-130			
1,2-Dichloroethane	4.99	0.243	0.500	ug/l	5.00		100	70-130			
1,2-Dichloropropane	5.08	0.130	0.500	ug/l	5.00		102	70-130			
Benzene	5.05	0.150	0.500	ug/l	5.00		101	70-130			
Carbon tetrachloride	4.96	0.270	0.500	ug/l	5.00		99	70-130			
Chlorobenzene	5.10	0.150	0.500	ug/l	5.00		102	70-130			
cis-1,2-Dichloroethene	5.12	0.250	0.500	ug/l	5.00		102	70-130			
Ethylbenzene	5.71	0.210	0.500	ug/l	5.00		114	70-130			
m,p-Xylene	5.68	0.330	0.500	ug/l	5.00		114	70-130			

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Project Number: 60674414, COC # 01082022 DW-04

Reported:
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Project Manager: Margie Pascua

Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0576 - EPA 524.2 (Continued)											
LCS (W2A0576-BS1)						Prepared & Analyzed: 01/10/22					
Methylene chloride	5.18	0.303	0.500	ug/l	5.00		104	70-130			
o-Dichlorobenzene	5.01	0.190	0.500	ug/l	5.00		100	70-130			
o-Xylene	5.59	0.200	0.500	ug/l	5.00		112	70-130			
p-Dichlorobenzene	4.94	0.180	0.500	ug/l	5.00		99	70-130			
Styrene	5.45	0.190	0.500	ug/l	5.00		109	70-130			
Tetrachloroethene	4.80	0.180	0.500	ug/l	5.00		96	70-130			
Toluene	5.34	0.294	0.500	ug/l	5.00		107	70-130			
trans-1,2-Dichloroethene	5.20	0.259	0.500	ug/l	5.00		104	70-130			
Trichloroethene	5.14	0.180	0.500	ug/l	5.00		103	70-130			
Vinyl chloride	4.96	0.180	0.500	ug/l	5.00		99	70-130			
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	10.2			ug/l	10.0		102	70-130			
4-Bromofluorobenzene	10.3			ug/l	10.0		103	70-130			
LCS Dup (W2A0576-BSD1)						Prepared & Analyzed: 01/10/22					
1,1,1-Trichloroethane	4.73	0.256	0.500	ug/l	5.00		95	70-130	4	30	
1,1,2-Trichloroethane	4.80	0.190	0.500	ug/l	5.00		96	70-130	4	30	
1,1-Dichloroethene	4.73	0.160	0.500	ug/l	5.00		95	70-130	6	30	
1,2,4-Trichlorobenzene	5.20	0.170	0.500	ug/l	5.00		104	70-130	4	30	
1,2-Dichloroethane	4.78	0.243	0.500	ug/l	5.00		96	70-130	4	30	
1,2-Dichloropropane	4.87	0.130	0.500	ug/l	5.00		97	70-130	4	30	
Benzene	4.82	0.150	0.500	ug/l	5.00		96	70-130	5	30	
Carbon tetrachloride	4.61	0.270	0.500	ug/l	5.00		92	70-130	7	30	
Chlorobenzene	4.87	0.150	0.500	ug/l	5.00		97	70-130	5	30	
cis-1,2-Dichloroethene	4.88	0.250	0.500	ug/l	5.00		98	70-130	5	30	
Ethylbenzene	5.40	0.210	0.500	ug/l	5.00		108	70-130	6	30	
m,p-Xylene	5.41	0.330	0.500	ug/l	5.00		108	70-130	5	30	
Methylene chloride	5.10	0.303	0.500	ug/l	5.00		102	70-130	1	30	
o-Dichlorobenzene	4.76	0.190	0.500	ug/l	5.00		95	70-130	5	30	
o-Xylene	5.29	0.200	0.500	ug/l	5.00		106	70-130	5	30	
p-Dichlorobenzene	4.68	0.180	0.500	ug/l	5.00		94	70-130	5	30	
Styrene	5.19	0.190	0.500	ug/l	5.00		104	70-130	5	30	
Tetrachloroethene	4.55	0.180	0.500	ug/l	5.00		91	70-130	5	30	
Toluene	5.08	0.294	0.500	ug/l	5.00		102	70-130	5	30	
trans-1,2-Dichloroethene	4.93	0.259	0.500	ug/l	5.00		99	70-130	5	30	
Trichloroethene	4.80	0.180	0.500	ug/l	5.00		96	70-130	7	30	
Vinyl chloride	4.86	0.180	0.500	ug/l	5.00		97	70-130	2	30	
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	10.3			ug/l	10.0		103	70-130			
4-Bromofluorobenzene	10.2			ug/l	10.0		102	70-130			

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Project Number: 60674414, COC # 01082022 DW-04

Project Manager: Margie Pascua

Reported:
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Notes and Definitions

Item	Definition
BS-04	The recovery of this analyte in LCS or LCSD was outside control limit. Sample was accepted based on the remaining LCS, LCSD or LCS-LL.
J	Estimated conc. detected <MRL and >MDL.
Q-02	Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
Q-08	High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
U	Analyte included in the analysis, but not detected
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



Weck Laboratories, Inc.

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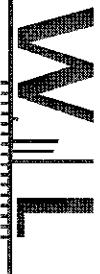
14859 Clark Avenue : Industry : CA 91745

Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

2A10037
COC# 01082022 DW-04

CLIENT NAME:		PROJECT:		ANALYSES REQUESTED										SPECIAL HANDLING				
AECOM		60674414		VOCs (Full Suite) Acetic Acid + HCl by 524.2 SVOCs by 525.2 (sodium sulfite + HCl) Metals by 200.8/245.1 (nitric acid) TOC by 5310B (HCl) Pesticides/ PCBs by 505										☐ Same Day Rush 150% ☐ 24 Hour Rush 100% ☐ 48-72 Hour Rush 75% ☐ 4 - 5 Day Rush 30% ☐ Rush Extractions 50% ☐ 10 - 15 Business Days ☐ QA/QC Data Package				
ADDRESS:		PHONE: 808-364-8050																
1001 Bishop St., Ste. 1600		FAX:												Charges will apply for weekends/holidays				
Honolulu, HI 96813		EMAIL: margie.pascua@aecom.com												Method of Shipment: FedEx				
PROJECT MANAGER		SAMPLER												COMMENTS				
Margie Pascua		AECOM																
ID# (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	Cl ₂ Y/N	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.												
	1/7/22	1818	DW		220107-F2-YT03	9	X	X	X	X	X	X	X	X	X			
	1/7/22	1813			220107-F2-YT04	2	X											
CP 4/8/22																		
RELINQUISHED BY		DATE / TIME		RECEIVED BY		DATE / TIME		SAMPLE CONDITION:		SAMPLE TYPE CODE:								
Anthony Bird		1/7/22		Cormier-Roth		01/08/2022		Actual Temperature: 7.6C		Thermometer #: T-0611		DW = Drinking Water						
RELINQUISHED BY		DATE / TIME		RECEIVED BY		DATE / TIME		Received On Ice		C / N		WW = Waste Water						
Cormier-Roth		01/08/22 1100		J. N.		1/10/22 10:20		Samples Preserved		C / N		GW = Ground Water						
RELINQUISHED BY		DATE / TIME		RECEIVED BY		DATE / TIME		Evidence Seals Present		Y / N		SF = Surface Water						
James Roth / AECOM		4/10/22 1030		J. N.				Container Attached		Y / N		SW = Sea Water						
PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS																		
Client agrees to Terms & Conditions at: www.wecklabs.com																		
SPECIAL REQUIREMENTS / BILLING INFORMATION																		

COC version 210805



Sample Receipt Checklist

WECK LABORATORIES, INC.

Weck WKO: 2A10037

Date/Time Received: 1/10/22 @ 10:20

WKO Logged by: Lester Abad

of Samples: 02

Samples Checked by: LKA

Delivered by: James Booth

Task	Yes	No	N/A	Comments
COC present at receipt?	☒	☐		
COC properly completed?	☒	☐		
COC matches sample labels?	☒	☐		
Project Manager notified?	☐	☐	☒	
Sample Temperature				
Samples received on ice?	☐	☒		
Ice Type (Blue/Wet)				
All samples intact?	☒	☐		
Samples in proper containers?	☒	☐		
Sufficient sample volume?	☒	☐		
Samples intact?	☒	☐		
Received within holding time?	☒	☐		
Project Manager notified?	☐	☐	☒	
Sample labels checked for correct preservation?	☒	☐	☐	
VOC Headspace: none, <6mm/<Pea size?				
524.2, 524.3, 624.1, 8260, 1666 P/T, LUFT	☐	☐	☒	
pH verified upon receipt?	☐	☐	☒	
Metals <2; H2SO4 pres tests <2; 522<4; TOC <2; 608.3 5-9	☐	☐	☒	
Free Chlorine Tested <0.1	☐	☐	☒	
O&G pH <2 verified?	☒	☐	☐	pH paper Lot#
pH adjusted for O&G	☐	☐	☐	pH Reading:
Project Manager notified?	☐	☐	☒	Acid Lot#
				Amt added

PM Comments

Sample Receipt Checklist Prepared by:

Signature: _____

Date: 01/10/22

Memorandum

To	Karen Mixon, Data Validation Manager	Info	Complete
Subject	Summary Data Quality Review Joint Base Pearl Harbor-Hickam, Hawaii Red Hill Bulk Fuel Storage Facility		
From	Jennifer B. Garner, Chemist		
Date	January 14, 2022		

The summary data quality review of 2 water samples and 2 trip blanks collected on January 6, 2022, has been completed. The samples were collected by AECOM personnel and were analyzed at Eurofins TestAmerica, in Seattle, Washington, for volatile organic compounds (VOCs) by EPA Method 8260D, semivolatile organic compounds (SVOCs) by EPA Method 8270E, and/or total petroleum hydrocarbons (TPHs) by EPA Method 8260/CALUFT (gasoline-range, C6-C12 hydrocarbons) and EPA Method 8015D (diesel range, C9-C25 hydrocarbons, and motor oil range, C24-C40 hydrocarbons). The analyses were performed in general accordance with the methods specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)*. The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data. The following samples are associated with Eurofins TestAmerica-Seattle laboratory group 580-109090-1:

Sample ID	Laboratory ID	Requested Analyses
20220106-C1-ZT05 (trip blank)	580-109090-1	TPH (gasoline range)
20220106-C1-ZT06	580-109090-2	TPH
20220106-F2-ZT07 (trip blank)	580-109090-3	VOCs, TPH (gasoline range)
20220106-F2-ZT08	580-109090-4	VOCs, SVOCs, TPH

Upon receipt by Eurofins TestAmerica-Seattle, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperatures were recorded. No discrepancies relating to sample identification were noted by the laboratory. Two coolers submitted in association with laboratory group 580-109090-1 were received at temperatures below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at -0.6°C and -0.3°C. No sample containers were received frozen; therefore, no data were qualified based on the cooler temperatures.

Data validation is based on method performance criteria and QC criteria documented in the laboratory reports. Holding times, field/method/trip blanks, surrogate recoveries, laboratory control sample results, and reporting limits were reviewed to assess compliance with applicable methods and laboratory control criteria. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA document *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020. The following results required qualification:

- The percent recoveries for the VOC surrogate 4-bromofluorobenzene were below the laboratory control limits of 85-114% in 20220106-F2-ZT08 (79%) and the reanalysis of 20220106-F2-ZT07 (80%). The results for all VOCs in 20220106-F2-ZT08 and the reanalysis of 20220106-F2-ZT07 were qualified as estimated and flagged 'J' or 'UJ.'
- The percent recoveries for the SVOC surrogates 2-fluorophenol (11%) and phenol-d5 (0.2%) were below the laboratory control limits of 19-119% and 10-120%, respectively, in 20220106-F2-ZT08. The results for all



Summary Data Quality Review
Joint Base Pearl Harbor-Hickam, Hawaii
Red Hill Bulk Fuel Storage Facility

acid fraction SVOCs in this sample were rejected and flagged 'R.' The results for all acid fraction SVOCs reported as detected in 20220106-F2-ZT08 were qualified as estimated with a low bias and flagged 'J-.'

- The laboratory noted that the minimum response factor (RF) for n-nitroso-di-n-propylamine was outside the method control criteria in the continuing calibration verification (CCV) associated with analysis batch 580-377876. The result for n-nitroso-di-n-propylamine in 20220106-F2-ZT08 was qualified as estimated and flagged 'UJ.'

Memorandum

To	Karen Mixon, Data Validation Manager	Info	Completed
Subject	Summary Data Quality Review Joint Base Pearl Harbor-Hickam, Hawaii Red Hill Bulk Fuel Storage Facility		
From	Kristin Rutherford, Chemist		
Date	January 15, 2022		

The summary data quality review of 1 water sample collected on January 7, 2022, has been completed. The sample was collected by AECOM personnel and was analyzed at Eurofins TestAmerica, in Seattle, Washington, for total petroleum hydrocarbons (TPHs) by EPA Method 8260/CALUFT (gasoline-range, C6-C12 hydrocarbons) and EPA Method 8015D (diesel range, C9-C25 hydrocarbons, and motor oil range, C24-C40 hydrocarbons). The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data. The following sample is associated with Eurofins TestAmerica-Seattle laboratory group 580-109117-2:

Sample ID	Laboratory IDs	Requested Analyses
20220107-F2-YT03	580-109117-10	TPH (gasoline range) TPH (diesel range) TPH (oil range)

Upon receipt by the laboratory, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperatures were recorded. The cooler temperatures were received within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C. The laboratory identified sample 220107-F2-YT03 (580-109117-10) as 20220107-F2-YT03 in the laboratory report and in the electronic data deliverable (EDD). No actions were taken except to note this discrepancy. The laboratory noted that there was insufficient sample volume available to perform a matrix spike/matrix spike duplicate/sample duplicate.

Data validation is based on method performance criteria and QC criteria documented in the laboratory reports. Holding times, field/method/trip blanks, surrogate recoveries, laboratory control sample results, and reporting limits were reviewed to assess compliance with applicable methods and laboratory control criteria. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA document *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020. The following results required qualification:

- No data were qualified in association with laboratory group 580-109117-2.

Memorandum

To	Karen Mixon, Data Validation Manager	Info	Completed
Subject	Summary Data Quality Review Joint Base Pearl Harbor-Hickam, Hawaii Red Hill Bulk Fuel Storage Facility		
From	Waverly Braunstein, Chemist		
Date	January 15, 2022		

The summary data quality review of two water samples collected on January 7, 2022, has been completed. The samples were collected by AECOM personnel and were analyzed at WECK Laboratories, in City of Industry, California, for volatile organic compounds (VOCs) by EPA Method 524.2, semivolatile organic compounds (SVOCs) and organochlorine pesticides by EPA Method 525.2, total metals by EPA Method 200.8, total mercury by EPA Method 245.1, PCBs (Aroclors) and chlordane by EPA Method 508.1, and total organic carbon (TOC) by Standard Methods 5310B. The analyses were performed in general accordance with the methods specified in EPA's drinking water program. The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data. The following samples are associated with WECK Laboratories group 2A10037:

Sample ID	Laboratory IDs	Requested Analyses
20220107-F2-YT03	2A10037-01	VOC, SVOC/Pest, Metals/Mercury, TOC, PCB
20220107-F2-YT04	2A10037-02	VOC

Upon receipt by the laboratory, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperatures were recorded. The cooler temperatures were received within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C.

Data validation is based on method performance criteria and QC criteria documented in the laboratory reports. Holding times, field/method/trip blanks, surrogate recoveries, laboratory control sample results, and reporting limits were reviewed to assess compliance with applicable methods and laboratory control criteria. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA documents *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020 and *National Functional Guidelines for Inorganic Superfund Methods Data Review*, November 2020. The following results required qualification:

- No data were qualified for VOCs, Metals/Mercury, TOC or PCBs in association with laboratory group 2A10037.
- The result for 2-methylnaphthalene in sample 20220107-F2-YT03 was qualified as nondetect and flagged 'U' due to method blank contamination.
- The following percent recoveries for the SVOC/Pesticide laboratory control sample (LCS) were below the laboratory control limits:

LCS	Analyte	%Recovery	Control Limits
LCS (W2A0581-BS1)	Benzo (a) pyrene	44%	60-130%
LCS (W2A0581-BS1D)	Benzo (a) pyrene	57%	60-130%



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LCS	Analyte	%Recovery	Control Limits
LCS (W2A0581-BS1)	Heptachlor	67%	70-130%

The nondetect results for benzo(a)pyrene and heptachlor in sample 20220107-F2-YT03 were qualified as estimated and flagged 'J' based on the LCS recoveries noted in the table above.

- The following analytes exceeded the Incident Specific Screening Criteria:

Sample Name	Analyte	Result	MDL	Incident Specific Screening Criteria	Units
20220107-F2-YT03	Endrin	ND	0.00991	0.0023	µg/L
20220107-F2-YT03	Heptachlor	ND	0.00965	0.0036	µg/L
20220107-F2-YT03	Heptachlor epoxide	ND	0.0122	0.0036	µg/L
20220107-F2-YT03	Hexachlorobenzene	ND	0.098	0.0003	µg/L