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ANALYTICAL REPORT

Eurofins Seattle
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Tel: (253)922-2310

Laboratory Job ID: 580-108952-1
Client Project/Site: CV22F0106
Revision: 2

For:
AECOM
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1/13/2022 12:09:07 PM
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Job ID: 580-108952-1

Laboratory: Eurofins Seattle

Narrative

Report revised 1/13/2022 to provide the following additional information regarding the original DRO results:

For SDG 580-108952, the DRO analysis was inadvertently logged in using 1L containers when we received 250mL containers which were used for the analysis. The initial sample volume is a factor in the RL and MDL calculations so the limits were incorrectly elevated four times in the report. By revising the log in to reflect the correct initial sample volume, the calculation of both the RL and MDL were corrected.

Report revised 1/12/2022 to correct the DRO results - the incorrect container volume was used in the calculation (1L instead of 250 mL).

Job Narrative
580-108952-1

Comments
No additional comments.

Receipt
The samples were received on 1/5/2022 7:55 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 0.9º C.

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

GC/MS Semi VOA
Method 8270E: The following analyte have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: Hexachlorocyclopentadiene. These analytes may have a %D >60%.

Method 8270E: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-377665 was outside criteria for the following analytes: Bis(2-chloroethyl)ether and N-Nitrosodi-n-propylamine. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analytes is considered estimated.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 580-377587 and analytical batch 580-377665 recovered outside control limits. The individual recoveries of both the LCS and LCSD met the acceptance criteria.

Method 8270E: The following analyte has been identified, in the reference method and/or via historical data, to be a poor and/or erratic performer: Hexachlorocyclopentadiene. This analyte may have a %D <60%; the data have been qualified and reported. 20220104-F1-TY-02 (580-108952-2).

Method 8270E: Surrogate recovery for the following sample was outside control limits: 20220104-F1-TY-02 (580-108952-2). 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 580-377587, so a laboratory control sample/laboratory control sample duplicate were created and substituted for the 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 580-377700. Laboratory control sample/ laboratory control sample duplicate were created and substituted for MS/MSD/DUP.

Job ID: 580-108952-1 (Continued)

Laboratory: Eurofins Seattle (Continued)

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: CV22F0106

Job ID: 580-108952-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*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.
Q	One or more quality control criteria failed.
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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-F1-TY-01
Date Collected: 01/04/22 14:00
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-1
Matrix: Water

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	0.031	U	0.10	0.031	mg/L			01/05/22 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*69 - 133*		*01/05/22 15:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/05/22 15:02	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/05/22 15:02	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/05/22 15:02	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/05/22 15:02	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/05/22 15:02	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/05/22 15:02	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/05/22 15:02	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/05/22 15:02	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/05/22 15:02	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			01/05/22 15:02	1
Acetone	3.2	U	15	3.2	ug/L			01/05/22 15:02	1
Benzene	0.24	U	1.0	0.24	ug/L			01/05/22 15:02	1
Dichlorobromomethane	0.29	U	1.0	0.29	ug/L			01/05/22 15:02	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/05/22 15:02	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/05/22 15:02	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/05/22 15:02	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/05/22 15:02	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/05/22 15:02	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/05/22 15:02	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/05/22 15:02	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/05/22 15:02	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/05/22 15:02	1
Chlorodibromomethane	0.43	U	1.0	0.43	ug/L			01/05/22 15:02	1
1,2-Dibromo-3-Chloropropane	0.57	U	3.0	0.57	ug/L			01/05/22 15:02	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/05/22 15:02	1
Methylene Chloride	1.4	U	3.0	1.4	ug/L			01/05/22 15:02	1
Chloroethane	0.35	U	1.0	0.35	ug/L			01/05/22 15:02	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/05/22 15:02	1
2-Butanone (MEK)	4.7	U	15	4.7	ug/L			01/05/22 15:02	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/05/22 15:02	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/05/22 15:02	1
Styrene	0.53	U	1.0	0.53	ug/L			01/05/22 15:02	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/05/22 15:02	1
Toluene	0.39	U	1.0	0.39	ug/L			01/05/22 15:02	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/05/22 15:02	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/05/22 15:02	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/05/22 15:02	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/05/22 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*81 - 118*		*01/05/22 15:02*	*1*
4-Bromofluorobenzene (Surr)	*106*		*85 - 114*		*01/05/22 15:02*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 119*		*01/05/22 15:02*	*1*

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-F1-TY-01
Date Collected: 01/04/22 14:00
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-1
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		89 - 112		01/05/22 15:02	1

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-F1-TY-02
Date Collected: 01/04/22 14:05
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-2
Matrix: Water

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	0.031	U	0.10	0.031	mg/L			01/05/22 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*69 - 133*		*01/05/22 15:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/05/22 15:27	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/05/22 15:27	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/05/22 15:27	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/05/22 15:27	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/05/22 15:27	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/05/22 15:27	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/05/22 15:27	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/05/22 15:27	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/05/22 15:27	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			01/05/22 15:27	1
Acetone	3.2	U	15	3.2	ug/L			01/05/22 15:27	1
Benzene	0.24	U	1.0	0.24	ug/L			01/05/22 15:27	1
Dichlorobromomethane	0.29	U	1.0	0.29	ug/L			01/05/22 15:27	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/05/22 15:27	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/05/22 15:27	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/05/22 15:27	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/05/22 15:27	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/05/22 15:27	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/05/22 15:27	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/05/22 15:27	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/05/22 15:27	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/05/22 15:27	1
Chlorodibromomethane	0.43	U	1.0	0.43	ug/L			01/05/22 15:27	1
1,2-Dibromo-3-Chloropropane	0.57	U	3.0	0.57	ug/L			01/05/22 15:27	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/05/22 15:27	1
Methylene Chloride	1.4	U	3.0	1.4	ug/L			01/05/22 15:27	1
Chloroethane	0.35	U	1.0	0.35	ug/L			01/05/22 15:27	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/05/22 15:27	1
2-Butanone (MEK)	4.7	U	15	4.7	ug/L			01/05/22 15:27	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/05/22 15:27	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/05/22 15:27	1
Styrene	0.53	U	1.0	0.53	ug/L			01/05/22 15:27	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/05/22 15:27	1
Toluene	0.39	U	1.0	0.39	ug/L			01/05/22 15:27	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/05/22 15:27	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/05/22 15:27	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/05/22 15:27	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/05/22 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*81 - 118*		*01/05/22 15:27*	*1*
4-Bromofluorobenzene (Surr)	*101*		*85 - 114*		*01/05/22 15:27*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*01/05/22 15:27*	*1*

Client Sample ID: 20220104-F1-TY-02
Date Collected: 01/04/22 14:05
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-2
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*100*		*89 - 112*		*01/05/22 15:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.052	U	0.41	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Acenaphthylene	0.062	U	1.0	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
Anthracene	0.052	U	1.0	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Benzo[a]anthracene	0.052	U *1	0.26	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Benzo[a]pyrene	0.041	U	0.26	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
Benzo[b]fluoranthene	0.041	U	0.26	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
Benzo[g,h,i]perylene	0.041	U	0.26	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
Benzo[k]fluoranthene	0.052	U *1	0.26	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Bis(2-chloroethoxy)methane	0.052	U	0.62	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Bis(2-chloroethyl)ether	0.031	U	0.10	0.031	ug/L		01/06/22 10:50	01/06/22 23:06	1
Bis(2-ethylhexyl) phthalate	0.76	U *1	3.1	0.76	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Bromophenyl phenyl ether	0.062	U	0.62	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
Butyl benzyl phthalate	0.28	U *1	4.1	0.28	ug/L		01/06/22 10:50	01/06/22 23:06	1
Carbazole	0.10	U	0.62	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Chloroaniline	0.61	U	2.1	0.61	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Chloro-3-methylphenol	0.13	U	0.62	0.13	ug/L		01/06/22 10:50	01/06/22 23:06	1
2-Chloronaphthalene	0.072	U	1.0	0.072	ug/L		01/06/22 10:50	01/06/22 23:06	1
2-Chlorophenol	0.052	U	1.0	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Chlorophenyl phenyl ether	0.052	U	0.62	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Chrysene	0.041	U *1	0.26	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
Dibenz(a,h)anthracene	0.072	U	0.26	0.072	ug/L		01/06/22 10:50	01/06/22 23:06	1
Dibenzofuran	0.10	U	0.41	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
Di-n-butyl phthalate	0.20	U	3.1	0.20	ug/L		01/06/22 10:50	01/06/22 23:06	1
1,2-Dichlorobenzene	0.052	U	0.41	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
1,3-Dichlorobenzene	0.041	U	0.41	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
1,4-Dichlorobenzene	0.041	U	0.41	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
3,3'-Dichlorobenzidine	0.27	U *1	1.0	0.27	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4-Dichlorophenol	0.21	U *1	1.0	0.21	ug/L		01/06/22 10:50	01/06/22 23:06	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4-Dimethylphenol	0.16	U	4.1	0.16	ug/L		01/06/22 10:50	01/06/22 23:06	1
Dimethyl phthalate	0.062	U	0.62	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
4,6-Dinitro-2-methylphenol	0.57	U	2.1	0.57	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4-Dinitrophenol	1.6	U	5.2	1.6	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,6-Dinitrotoluene	0.10	U	0.41	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		01/06/22 10:50	01/06/22 23:06	1
Fluoranthene	0.062	U	0.26	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
Fluorene	0.052	U	0.26	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Hexachlorobenzene	0.041	U	0.62	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
Hexachlorobutadiene	0.062	U	1.0	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
Hexachlorocyclopentadiene	0.14	U Q	1.0	0.14	ug/L		01/06/22 10:50	01/06/22 23:06	1
Hexachloroethane	0.052	U	1.0	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
Indeno[1,2,3-cd]pyrene	0.13	U *1	0.41	0.13	ug/L		01/06/22 10:50	01/06/22 23:06	1
Isophorone	0.10	U	0.41	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
1-Methylnaphthalene	0.052	U	1.0	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-F1-TY-02
Date Collected: 01/04/22 14:05
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.062	U	0.41	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
2-Methylphenol	0.052	U	0.62	0.052	ug/L		01/06/22 10:50	01/06/22 23:06	1
3 & 4 Methylphenol	0.10	U	0.62	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
Naphthalene	0.16	U	0.41	0.16	ug/L		01/06/22 10:50	01/06/22 23:06	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
3-Nitroaniline	0.16	U	3.1	0.16	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Nitroaniline	0.22	U	2.1	0.22	ug/L		01/06/22 10:50	01/06/22 23:06	1
Nitrobenzene	0.041	U	1.0	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
4-Nitrophenol	1.8	U	10	1.8	ug/L		01/06/22 10:50	01/06/22 23:06	1
N-Nitrosodi-n-propylamine	0.062	U *1	0.41	0.062	ug/L		01/06/22 10:50	01/06/22 23:06	1
N-Nitrosodiphenylamine	0.072	U	1.0	0.072	ug/L		01/06/22 10:50	01/06/22 23:06	1
Pentachlorophenol	0.53	U	10	0.53	ug/L		01/06/22 10:50	01/06/22 23:06	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		01/06/22 10:50	01/06/22 23:06	1
Phenol	0.37	U	1.0	0.37	ug/L		01/06/22 10:50	01/06/22 23:06	1
Pyrene	0.041	U	1.0	0.041	ug/L		01/06/22 10:50	01/06/22 23:06	1
1,2,4-Trichlorobenzene	0.093	U	0.41	0.093	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4,5-Trichlorophenol	0.10	U	0.41	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1
2,4,6-Trichlorophenol	0.10	U	0.62	0.10	ug/L		01/06/22 10:50	01/06/22 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*44 - 119*	*01/06/22 10:50*	*01/06/22 23:06*	*1*
2-Fluorophenol (Surr)	*0.2*	*S1-*	*19 - 119*	*01/06/22 10:50*	*01/06/22 23:06*	*1*
Nitrobenzene-d5 (Surr)	*65*		*44 - 120*	*01/06/22 10:50*	*01/06/22 23:06*	*1*
Phenol-d5 (Surr)	*0.1*	*S1-*	*10 - 120*	*01/06/22 10:50*	*01/06/22 23:06*	*1*
Terphenyl-d14	*100*		*50 - 134*	*01/06/22 10:50*	*01/06/22 23:06*	*1*
2,4,6-Tribromophenol	*41*	*S1-*	*43 - 140*	*01/06/22 10:50*	*01/06/22 23:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	0.089	U	0.11	0.089	mg/L		01/07/22 14:03	01/08/22 00:33	1
C24-C40	0.18	U	0.34	0.18	mg/L		01/07/22 14:03	01/08/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*56 - 125*	*01/07/22 14:03*	*01/08/22 00:33*	*1*

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-A1-ZT02
Date Collected: 01/04/22 10:45
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-3
Matrix: Water

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	0.031	U	0.10	0.031	mg/L			01/05/22 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*69 - 133*		*01/05/22 15:52*	*1*

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-A1-ZT03

Date Collected: 01/04/22 10:50
Date Received: 01/05/22 07:55

Lab Sample ID: 580-108952-4

Matrix: Water

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	0.031	U	0.10	0.031	mg/L			01/05/22 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*69 - 133*		*01/05/22 16:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	0.092	U	0.11	0.092	mg/L		01/07/22 14:03	01/08/22 00:53	1
C24-C40	0.18	U	0.36	0.18	mg/L		01/07/22 14:03	01/08/22 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*56 - 125*	*01/07/22 14:03*	*01/08/22 00:53*	*1*

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-377704/5
Matrix: Water
Analysis Batch: 377704

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)	0.031	U	0.10	0.031	mg/L			01/05/22 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*69 - 133*		*01/05/22 12:58*	*1*

Lab Sample ID: LCS 580-377704/8
Matrix: Water
Analysis Batch: 377704

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)			1.00	1.04		mg/L		104	78 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*69 - 133*

Lab Sample ID: LCSD 580-377704/9
Matrix: Water
Analysis Batch: 377704

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)			1.00	1.03		mg/L		103	78 - 122	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*69 - 133*

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

Lab Sample ID: MB 580-377707/5
Matrix: Water
Analysis Batch: 377707

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/05/22 12:58	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/05/22 12:58	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/05/22 12:58	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/05/22 12:58	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/05/22 12:58	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/05/22 12:58	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/05/22 12:58	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/05/22 12:58	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/05/22 12:58	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			01/05/22 12:58	1
Acetone	3.2	U	15	3.2	ug/L			01/05/22 12:58	1
Benzene	0.24	U	1.0	0.24	ug/L			01/05/22 12:58	1
Dichlorobromomethane	0.29	U	1.0	0.29	ug/L			01/05/22 12:58	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/05/22 12:58	1

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

Lab Sample ID: MB 580-377707/5
Matrix: Water
Analysis Batch: 377707

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.21	U	1.0	0.21	ug/L			01/05/22 12:58	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/05/22 12:58	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/05/22 12:58	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/05/22 12:58	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/05/22 12:58	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/05/22 12:58	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/05/22 12:58	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/05/22 12:58	1
Chlorodibromomethane	0.43	U	1.0	0.43	ug/L			01/05/22 12:58	1
1,2-Dibromo-3-Chloropropane	0.57	U	3.0	0.57	ug/L			01/05/22 12:58	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/05/22 12:58	1
Methylene Chloride	1.4	U	3.0	1.4	ug/L			01/05/22 12:58	1
Chloroethane	0.35	U	1.0	0.35	ug/L			01/05/22 12:58	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/05/22 12:58	1
2-Butanone (MEK)	4.7	U	15	4.7	ug/L			01/05/22 12:58	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/05/22 12:58	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/05/22 12:58	1
Styrene	0.53	U	1.0	0.53	ug/L			01/05/22 12:58	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/05/22 12:58	1
Toluene	0.39	U	1.0	0.39	ug/L			01/05/22 12:58	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/05/22 12:58	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/05/22 12:58	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/05/22 12:58	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/05/22 12:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*81 - 118*		*01/05/22 12:58*	*1*
4-Bromofluorobenzene (Surr)	*107*		*85 - 114*		*01/05/22 12:58*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 119*		*01/05/22 12:58*	*1*
Toluene-d8 (Surr)	*105*		*89 - 112*		*01/05/22 12:58*	*1*

Lab Sample ID: LCS 580-377707/6
Matrix: Water
Analysis Batch: 377707

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	10.3		ug/L		103	74 - 131
1,1,2,2-Tetrachloroethane	10.0	9.27		ug/L		93	71 - 121
1,1,2-Trichloroethane	10.0	9.86		ug/L		99	80 - 119
1,1-Dichloroethane	10.0	10.1		ug/L		101	77 - 125
1,1-Dichloroethene	10.0	10.4		ug/L		104	71 - 131
1,2-Dichloroethane	10.0	9.69		ug/L		97	73 - 128
1,2-Dichloroethene, Total	20.0	20.5		ug/L		103	78 - 123
1,2-Dichloropropane	10.0	9.98		ug/L		100	78 - 122
2-Hexanone	50.0	52.3		ug/L		105	57 - 139
4-Methyl-2-pentanone (MIBK)	50.0	51.9		ug/L		104	67 - 130
Acetone	50.0	47.5		ug/L		95	39 - 160
Benzene	10.0	10.4		ug/L		104	79 - 120

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

Lab Sample ID: LCS 580-377707/6
Matrix: Water
Analysis Batch: 377707

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dichlorobromomethane			10.0	10.2		ug/L		102	79 - 125		
Bromoform			10.0	11.2		ug/L		112	66 - 130		
Bromomethane			10.0	10.2		ug/L		102	53 - 141		
Carbon disulfide			10.0	10.2		ug/L		102	64 - 133		
Carbon tetrachloride			10.0	9.95		ug/L		99	72 - 136		
trans-1,2-Dichloroethene			10.0	10.4		ug/L		104	75 - 124		
Chlorobenzene			10.0	10.3		ug/L		103	82 - 118		
Chloroform			10.0	10.5		ug/L		105	79 - 124		
Chloromethane			10.0	8.66		ug/L		87	50 - 139		
cis-1,3-Dichloropropene			10.0	9.64		ug/L		96	75 - 124		
Chlorodibromomethane			10.0	10.8		ug/L		108	74 - 126		
1,2-Dibromo-3-Chloropropane			10.0	9.01		ug/L		90	62 - 128		
cis-1,2-Dichloroethene			10.0	10.1		ug/L		101	78 - 123		
Methylene Chloride			10.0	10.3		ug/L		103	74 - 124		
Chloroethane			10.0	9.47		ug/L		95	60 - 138		
Ethylbenzene			10.0	10.4		ug/L		104	79 - 121		
2-Butanone (MEK)			50.0	51.6		ug/L		103	56 - 143		
m-Xylene & p-Xylene			10.0	10.2		ug/L		102	80 - 121		
o-Xylene			10.0	10.5		ug/L		105	78 - 122		
Styrene			10.0	10.2		ug/L		102	78 - 123		
Tetrachloroethene			10.0	10.3		ug/L		103	74 - 129		
Toluene			10.0	10.5		ug/L		105	80 - 121		
trans-1,3-Dichloropropene			10.0	10.1		ug/L		101	73 - 127		
Trichloroethene			10.0	10.6		ug/L		106	79 - 123		
Vinyl chloride			10.0	9.61		ug/L		96	58 - 137		
Xylenes, Total			20.0	20.7		ug/L		104	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*
Dibromofluoromethane (Surr)	*99*		*80 - 119*
Toluene-d8 (Surr)	*103*		*89 - 112*

Lab Sample ID: LCSD 580-377707/7
Matrix: Water
Analysis Batch: 377707

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			10.0	10.2		ug/L		102	74 - 131	2	20
1,1,2,2-Tetrachloroethane			10.0	9.52		ug/L		95	71 - 121	3	20
1,1,2-Trichloroethane			10.0	10.0		ug/L		100	80 - 119	2	20
1,1-Dichloroethane			10.0	9.95		ug/L		99	77 - 125	1	20
1,1-Dichloroethene			10.0	10.1		ug/L		101	71 - 131	2	20
1,2-Dichloroethane			10.0	9.94		ug/L		99	73 - 128	3	20
1,2-Dichloroethene, Total			20.0	20.4		ug/L		102	78 - 123	0	20
1,2-Dichloropropane			10.0	9.64		ug/L		96	78 - 122	3	20
2-Hexanone			50.0	54.5		ug/L		109	57 - 139	4	20
4-Methyl-2-pentanone (MIBK)			50.0	52.7		ug/L		105	67 - 130	1	20

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

Lab Sample ID: LCSD 580-377707/7
Matrix: Water
Analysis Batch: 377707

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			50.0	49.5		ug/L		99	39 - 160	4	20
Benzene			10.0	10.4		ug/L		104	79 - 120	0	20
Dichlorobromomethane			10.0	10.1		ug/L		101	79 - 125	1	20
Bromoform			10.0	11.6		ug/L		116	66 - 130	4	20
Bromomethane			10.0	10.5		ug/L		105	53 - 141	3	20
Carbon disulfide			10.0	10.0		ug/L		100	64 - 133	2	20
Carbon tetrachloride			10.0	9.72		ug/L		97	72 - 136	2	20
trans-1,2-Dichloroethene			10.0	10.4		ug/L		104	75 - 124	0	20
Chlorobenzene			10.0	10.1		ug/L		101	82 - 118	3	20
Chloroform			10.0	10.3		ug/L		103	79 - 124	1	20
Chloromethane			10.0	8.58		ug/L		86	50 - 139	1	20
cis-1,3-Dichloropropene			10.0	9.43		ug/L		94	75 - 124	2	20
Chlorodibromomethane			10.0	10.7		ug/L		107	74 - 126	1	20
1,2-Dibromo-3-Chloropropane			10.0	9.47		ug/L		95	62 - 128	5	20
cis-1,2-Dichloroethene			10.0	10.0		ug/L		100	78 - 123	0	20
Methylene Chloride			10.0	10.2		ug/L		102	74 - 124	1	20
Chloroethane			10.0	9.71		ug/L		97	60 - 138	3	20
Ethylbenzene			10.0	10.2		ug/L		102	79 - 121	2	20
2-Butanone (MEK)			50.0	54.3		ug/L		109	56 - 143	5	20
m-Xylene & p-Xylene			10.0	10.1		ug/L		101	80 - 121	1	20
o-Xylene			10.0	10.3		ug/L		103	78 - 122	2	20
Styrene			10.0	10.1		ug/L		101	78 - 123	1	20
Tetrachloroethene			10.0	10.3		ug/L		103	74 - 129	0	20
Toluene			10.0	10.3		ug/L		103	80 - 121	2	20
trans-1,3-Dichloropropene			10.0	10.5		ug/L		105	73 - 127	3	20
Trichloroethene			10.0	10.4		ug/L		104	79 - 123	2	20
Vinyl chloride			10.0	9.57		ug/L		96	58 - 137	0	20
Xylenes, Total			20.0	20.4		ug/L		102	79 - 121	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
4-Bromofluorobenzene (Surr)	*105*		*85 - 114*
Dibromofluoromethane (Surr)	*102*		*80 - 119*
Toluene-d8 (Surr)	*105*		*89 - 112*

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

Lab Sample ID: MB 580-377587/1-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.050	U	0.40	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Anthracene	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[a]anthracene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[a]pyrene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[b]fluoranthene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[g,h,i]perylene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1

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

Lab Sample ID: MB 580-377587/1-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-chloroethoxy)methane	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-chloroethyl)ether	0.030	U	0.10	0.030	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-ethylhexyl) phthalate	0.74	U	3.0	0.74	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Bromophenyl phenyl ether	0.060	U	0.60	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Butyl benzyl phthalate	0.27	U	4.0	0.27	ug/L		01/06/22 10:50	01/06/22 21:57	1
Carbazole	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chloroaniline	0.59	U	2.0	0.59	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chloro-3-methylphenol	0.13	U	0.60	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Chloronaphthalene	0.070	U	1.0	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Chlorophenol	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chlorophenyl phenyl ether	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Chrysene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dibenz(a,h)anthracene	0.070	U	0.25	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dibenzofuran	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
Di-n-butyl phthalate	0.19	U	3.0	0.19	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,2-Dichlorobenzene	0.050	U	0.40	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,3-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,4-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
3,3'-Dichlorobenzidine	0.26	U	1.0	0.26	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dichlorophenol	0.20	U	1.0	0.20	ug/L		01/06/22 10:50	01/06/22 21:57	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dimethylphenol	0.16	U	4.0	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dimethyl phthalate	0.060	U	0.60	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
4,6-Dinitro-2-methylphenol	0.55	U	2.0	0.55	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dinitrophenol	1.6	U	5.0	1.6	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,6-Dinitrotoluene	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
Fluoranthene	0.060	U	0.25	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Fluorene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorobenzene	0.040	U	0.60	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorobutadiene	0.060	U	1.0	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorocyclopentadiene	0.14	U	1.0	0.14	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachloroethane	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.40	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
Isophorone	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
1-Methylnaphthalene	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Methylnaphthalene	0.060	U	0.40	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Methylphenol	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
3 & 4 Methylphenol	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
Naphthalene	0.16	U	0.40	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
3-Nitroaniline	0.16	U	3.0	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Nitroaniline	0.21	U	2.0	0.21	ug/L		01/06/22 10:50	01/06/22 21:57	1
Nitrobenzene	0.040	U	1.0	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		01/06/22 10:50	01/06/22 21:57	1
N-Nitrosodi-n-propylamine	0.060	U	0.40	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
N-Nitrosodiphenylamine	0.070	U	1.0	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1

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

Lab Sample ID: MB 580-377587/1-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.51	U	10	0.51	ug/L		01/06/22 10:50	01/06/22 21:57	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		01/06/22 10:50	01/06/22 21:57	1
Phenol	0.36	U	1.0	0.36	ug/L		01/06/22 10:50	01/06/22 21:57	1
Pyrene	0.040	U	1.0	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,2,4-Trichlorobenzene	0.090	U	0.40	0.090	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4,5-Trichlorophenol	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4,6-Trichlorophenol	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*44 - 119*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
2-Fluorophenol (Surr)	*40*		*19 - 119*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Nitrobenzene-d5 (Surr)	*62*		*44 - 120*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Phenol-d5 (Surr)	*23*		*10 - 120*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Terphenyl-d14	*95*		*50 - 134*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
2,4,6-Tribromophenol	*66*		*43 - 140*	*01/06/22 10:50*	*01/06/22 21:57*	*1*

Lab Sample ID: LCS 580-377587/2-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.35		ug/L		67	47 - 122
Acenaphthylene	2.00	1.32		ug/L		66	41 - 130
Anthracene	2.00	1.50		ug/L		75	57 - 123
Benzo[a]anthracene	2.00	1.40		ug/L		70	58 - 125
Benzo[a]pyrene	2.00	1.43		ug/L		71	54 - 128
Benzo[b]fluoranthene	2.00	1.45		ug/L		72	53 - 131
Benzo[g,h,i]perylene	2.00	1.40		ug/L		70	50 - 134
Benzo[k]fluoranthene	2.00	1.35		ug/L		68	57 - 129
Bis(2-chloroethoxy)methane	2.00	1.41		ug/L		71	48 - 120
Bis(2-ethylhexyl) phthalate	2.00	1.68	J	ug/L		84	55 - 135
4-Bromophenyl phenyl ether	2.00	1.39		ug/L		69	55 - 124
Butyl benzyl phthalate	2.00	1.65	J	ug/L		82	53 - 134
Carbazole	2.00	1.62		ug/L		81	60 - 122
4-Chloroaniline	2.00	1.17	J	ug/L		58	33 - 117
4-Chloro-3-methylphenol	2.00	1.25		ug/L		62	52 - 119
2-Chloronaphthalene	2.00	1.31		ug/L		66	40 - 116
2-Chlorophenol	2.00	1.25		ug/L		63	38 - 117
4-Chlorophenyl phenyl ether	2.00	1.43		ug/L		72	53 - 121
Chrysene	2.00	1.58		ug/L		79	59 - 123
Dibenz(a,h)anthracene	2.00	1.35		ug/L		67	51 - 134
Dibenzofuran	2.00	1.44		ug/L		72	53 - 118
Di-n-butyl phthalate	2.00	1.71	J	ug/L		85	59 - 127
1,2-Dichlorobenzene	2.00	1.11		ug/L		56	32 - 111
1,3-Dichlorobenzene	2.00	1.05		ug/L		52	28 - 110
1,4-Dichlorobenzene	2.00	1.07		ug/L		53	29 - 112
3,3'-Dichlorobenzidine	4.00	2.81		ug/L		70	27 - 129
2,4-Dichlorophenol	2.00	1.14		ug/L		57	47 - 121

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

Lab Sample ID: LCS 580-377587/2-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	2.00	1.80		ug/L		90	56 - 125
2,4-Dimethylphenol	2.00	1.40	J	ug/L		70	31 - 124
Dimethyl phthalate	2.00	1.70		ug/L		85	45 - 127
4,6-Dinitro-2-methylphenol	4.00	2.37		ug/L		59	44 - 137
2,4-Dinitrophenol	4.00	2.61	J	ug/L		65	23 - 143
2,4-Dinitrotoluene	2.00	1.48		ug/L		74	57 - 128
2,6-Dinitrotoluene	2.00	1.42		ug/L		71	57 - 124
Di-n-octyl phthalate	2.00	1.61		ug/L		81	51 - 140
Fluoranthene	2.00	1.62		ug/L		81	57 - 128
Fluorene	2.00	1.50		ug/L		75	52 - 124
Hexachlorobenzene	2.00	1.29		ug/L		64	53 - 125
Hexachlorobutadiene	2.00	1.03		ug/L		51	22 - 124
Hexachlorocyclopentadiene	2.00	0.445	J	ug/L		22	20 - 125
Hexachloroethane	2.00	1.05		ug/L		53	21 - 115
Indeno[1,2,3-cd]pyrene	2.00	1.16		ug/L		58	52 - 134
Isophorone	2.00	1.42		ug/L		71	42 - 124
1-Methylnaphthalene	2.00	1.17		ug/L		58	41 - 119
2-Methylnaphthalene	2.00	1.26		ug/L		63	40 - 121
2-Methylphenol	2.00	1.19		ug/L		59	30 - 117
3 & 4 Methylphenol	2.00	1.13		ug/L		56	29 - 110
Naphthalene	2.00	1.14		ug/L		57	40 - 121
2-Nitroaniline	2.00	1.38		ug/L		69	55 - 127
3-Nitroaniline	2.00	1.37	J	ug/L		69	41 - 128
4-Nitroaniline	2.00	1.50	J	ug/L		75	70 - 125
Nitrobenzene	2.00	1.44		ug/L		72	45 - 121
4-Nitrophenol	4.00	1.85	J	ug/L		46	35 - 145
N-Nitrosodi-n-propylamine	2.00	1.46		ug/L		73	49 - 119
N-Nitrosodiphenylamine	2.00	1.43		ug/L		71	51 - 123
Pentachlorophenol	4.00	2.01	J	ug/L		50	35 - 138
Phenanthrene	2.00	1.41		ug/L		71	59 - 120
Phenol	2.00	0.602	J	ug/L		30	13 - 120
Pyrene	2.00	1.63		ug/L		82	57 - 126
1,2,4-Trichlorobenzene	2.00	1.12		ug/L		56	29 - 116
2,4,5-Trichlorophenol	2.00	1.51		ug/L		75	53 - 123
2,4,6-Trichlorophenol	2.00	1.24		ug/L		62	50 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*63*		*44 - 119*
2-Fluorophenol (Surr)	*43*		*19 - 119*
Nitrobenzene-d5 (Surr)	*70*		*44 - 120*
Phenol-d5 (Surr)	*27*		*10 - 120*
Terphenyl-d14	*88*		*50 - 134*
2,4,6-Tribromophenol	*77*		*43 - 140*

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

Lab Sample ID: LCSD 580-377587/3-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene			2.00	1.52		ug/L		76	47 - 122	12	20
Acenaphthylene			2.00	1.56		ug/L		78	41 - 130	17	20
Anthracene			2.00	1.51		ug/L		75	57 - 123	0	20
Benzo[a]anthracene			2.00	1.76	*1	ug/L		88	58 - 125	23	20
Benzo[a]pyrene			2.00	1.74		ug/L		87	54 - 128	20	20
Benzo[b]fluoranthene			2.00	1.57		ug/L		78	53 - 131	8	20
Benzo[g,h,i]perylene			2.00	1.66		ug/L		83	50 - 134	17	20
Benzo[k]fluoranthene			2.00	1.91	*1	ug/L		96	57 - 129	34	20
Bis(2-chloroethoxy)methane			2.00	1.65		ug/L		83	48 - 120	16	20
Bis(2-ethylhexyl) phthalate			2.00	2.13	J *1	ug/L		106	55 - 135	23	20
4-Bromophenyl phenyl ether			2.00	1.50		ug/L		75	55 - 124	8	20
Butyl benzyl phthalate			2.00	2.06	J *1	ug/L		103	53 - 134	22	20
Carbazole			2.00	1.81		ug/L		90	60 - 122	11	20
4-Chloroaniline			2.00	1.09	J	ug/L		54	33 - 117	7	20
4-Chloro-3-methylphenol			2.00	1.50		ug/L		75	52 - 119	19	20
2-Chloronaphthalene			2.00	1.47		ug/L		73	40 - 116	11	20
2-Chlorophenol			2.00	1.47		ug/L		74	38 - 117	16	20
4-Chlorophenyl phenyl ether			2.00	1.65		ug/L		82	53 - 121	14	20
Chrysene			2.00	2.01	*1	ug/L		101	59 - 123	24	20
Dibenz(a,h)anthracene			2.00	1.61		ug/L		80	51 - 134	18	20
Dibenzofuran			2.00	1.64		ug/L		82	53 - 118	13	20
Di-n-butyl phthalate			2.00	1.89	J	ug/L		94	59 - 127	10	20
1,2-Dichlorobenzene			2.00	1.19		ug/L		59	32 - 111	7	20
1,3-Dichlorobenzene			2.00	1.11		ug/L		56	28 - 110	6	20
1,4-Dichlorobenzene			2.00	1.11		ug/L		56	29 - 112	4	20
3,3'-Dichlorobenzidine			4.00	3.47	*1	ug/L		87	27 - 129	21	20
2,4-Dichlorophenol			2.00	1.42	*1	ug/L		71	47 - 121	22	20
Diethyl phthalate			2.00	1.98		ug/L		99	56 - 125	10	20
2,4-Dimethylphenol			2.00	1.68	J	ug/L		84	31 - 124	18	20
Dimethyl phthalate			2.00	1.80		ug/L		90	45 - 127	6	20
4,6-Dinitro-2-methylphenol			4.00	2.74		ug/L		68	44 - 137	14	20
2,4-Dinitrophenol			4.00	3.21	J	ug/L		80	23 - 143	20	20
2,4-Dinitrotoluene			2.00	1.69		ug/L		84	57 - 128	13	20
2,6-Dinitrotoluene			2.00	1.65		ug/L		82	57 - 124	15	20
Di-n-octyl phthalate			2.00	1.97		ug/L		99	51 - 140	20	20
Fluoranthene			2.00	1.75		ug/L		87	57 - 128	8	20
Fluorene			2.00	1.66		ug/L		83	52 - 124	10	20
Hexachlorobenzene			2.00	1.46		ug/L		73	53 - 125	13	20
Hexachlorobutadiene			2.00	1.00		ug/L		50	22 - 124	2	20
Hexachlorocyclopentadiene			2.00	0.460	J	ug/L		23	20 - 125	3	20
Hexachloroethane			2.00	1.13		ug/L		56	21 - 115	7	20
Indeno[1,2,3-cd]pyrene			2.00	1.46	*1	ug/L		73	52 - 134	23	20
Isophorone			2.00	1.60		ug/L		80	42 - 124	12	20
1-Methylnaphthalene			2.00	1.35		ug/L		67	41 - 119	14	20
2-Methylnaphthalene			2.00	1.34		ug/L		67	40 - 121	6	20
2-Methylphenol			2.00	1.45		ug/L		73	30 - 117	20	20
3 & 4 Methylphenol			2.00	1.30		ug/L		65	29 - 110	14	20
Naphthalene			2.00	1.33		ug/L		66	40 - 121	15	20

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

Lab Sample ID: LCSD 580-377587/3-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitroaniline			2.00	1.56		ug/L		78	55 - 127	12	20
3-Nitroaniline			2.00	1.44	J	ug/L		72	41 - 128	5	20
4-Nitroaniline			2.00	1.84	J	ug/L		92	70 - 125	20	20
Nitrobenzene			2.00	1.62		ug/L		81	45 - 121	12	20
4-Nitrophenol			4.00	1.95	J	ug/L		49	35 - 145	5	20
N-Nitrosodi-n-propylamine			2.00	1.80	*1	ug/L		90	49 - 119	21	20
N-Nitrosodiphenylamine			2.00	1.55		ug/L		78	51 - 123	9	20
Pentachlorophenol			4.00	2.13	J	ug/L		53	35 - 138	6	20
Phenanthrene			2.00	1.54		ug/L		77	59 - 120	8	20
Phenol			2.00	0.655	J	ug/L		33	13 - 120	8	20
Pyrene			2.00	1.78		ug/L		89	57 - 126	8	20
1,2,4-Trichlorobenzene			2.00	1.26		ug/L		63	29 - 116	12	20
2,4,5-Trichlorophenol			2.00	1.47		ug/L		73	53 - 123	3	20
2,4,6-Trichlorophenol			2.00	1.45		ug/L		73	50 - 125	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*44 - 119*
2-Fluorophenol (Surr)	*51*		*19 - 119*
Nitrobenzene-d5 (Surr)	*82*		*44 - 120*
Phenol-d5 (Surr)	*31*		*10 - 120*
Terphenyl-d14	*96*		*50 - 134*
2,4,6-Tribromophenol	*80*		*43 - 140*

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

Lab Sample ID: MB 580-377700/1-A
Matrix: Water
Analysis Batch: 377794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	0.090	U	0.11	0.090	mg/L		01/07/22 10:54	01/07/22 20:31	1
C24-C40	0.18	U	0.35	0.18	mg/L		01/07/22 10:54	01/07/22 20:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*56 - 125*	*01/07/22 10:54*	*01/07/22 20:31*	*1*

Lab Sample ID: LCS 580-377700/2-A
Matrix: Water
Analysis Batch: 377794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377700

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C9-C25			4.00	2.87		mg/L		72	36 - 132
C24-C40			4.00	3.62		mg/L		91	41 - 113

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*77*		*56 - 125*

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

Lab Sample ID: LCSD 580-377700/3-A
Matrix: Water
Analysis Batch: 377794

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377700

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C9-C25			4.00	2.89		mg/L		72	36 - 132	1	20
C24-C40			4.00	3.57		mg/L		89	41 - 113	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*76*		*56 - 125*

Lab Chronicle

Client: AECOM
Project/Site: CV22F0106

Job ID: 580-108952-1

Client Sample ID: 20220104-F1-TY-01
Lab Sample ID: 580-108952-1
Date Collected: 01/04/22 14:00
Matrix: Water
Date Received: 01/05/22 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377704	01/05/22 15:02	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377707	01/05/22 15:02	JSM	FGS SEA

Client Sample ID: 20220104-F1-TY-02
Lab Sample ID: 580-108952-2
Date Collected: 01/04/22 14:05
Matrix: Water
Date Received: 01/05/22 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377704	01/05/22 15:27	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377707	01/05/22 15:27	JSM	FGS SEA
Total/NA	Prep	3510C			377587	01/06/22 10:50	M1E	FGS SEA
Total/NA	Analysis	8270E		1	377665	01/06/22 23:06	E1L	FGS SEA
Total/NA	Prep	3510C			377700	01/07/22 14:03	M1E	FGS SEA
Total/NA	Analysis	8015D DRO		1	377794	01/08/22 00:33	JAE	FGS SEA

Client Sample ID: 20220104-A1-ZT02
Lab Sample ID: 580-108952-3
Date Collected: 01/04/22 10:45
Matrix: Water
Date Received: 01/05/22 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377704	01/05/22 15:52	JSM	FGS SEA

Client Sample ID: 20220104-A1-ZT03
Lab Sample ID: 580-108952-4
Date Collected: 01/04/22 10:50
Matrix: Water
Date Received: 01/05/22 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377704	01/05/22 16:17	JSM	FGS SEA
Total/NA	Prep	3510C			377700	01/07/22 14:03	M1E	FGS SEA
Total/NA	Analysis	8015D DRO		1	377794	01/08/22 00:53	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
Project/Site: CV22F0106

Job ID: 580-108952-1

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: CV22F0106

Job ID: 580-108952-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-108952-1	20220104-F1-TY-01	Water	01/04/22 14:00	01/05/22 07:55
580-108952-2	20220104-F1-TY-02	Water	01/04/22 14:05	01/05/22 07:55
580-108952-3	20220104-A1-ZT02	Water	01/04/22 10:45	01/05/22 07:55
580-108952-4	20220104-A1-ZT03	Water	01/04/22 10:50	01/05/22 07:55

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: AECOM	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 01042022DW-03
Client Contact: Alethea Ramos (alternate: Margie Pascua)	Phone:	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract			
City: Honolulu	TAT Requested (days):			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-521-3051 (direct: 808-529-7283) (alternate: 808-356-5373)	PO #:			
Email: alethea.ramos@aecom.com (alternate: margie.pascua@aecom.com)	WO #:			
Project Name: CV22F0106	Project #: 60674414			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TPH-g (C6-C10) by 8260 and VOCs	TPH-d, TPH-o (C10-C24, C24-C40) by 8015	8270 SVOCs	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	N	N		
20220104-FI-TY-01	01/04/22	1400	G	W	N	N	X			2	Trip Blank
20220104-FI-TY-02	01/04/22	1405	G	W	N	N	X	X	X	7	

01/04/2022

580-108952 Chain of Custody

Therm. ID: IR8 Cor: 0.9 ° Unc: 0.7 °
Cooler Dsc: LB
Packing: Bub
Cust. Seal: Yes No
Blue Ice (Wet) Dry, None
FedEx: FO
UPS:
Lab Cour:
Other:

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

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

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

Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

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

	Date/Time	Company		Date/Time	Company
Relinquished by: Stewart Anderson	01/04/2022 1500	AECOM	Received by: Conner Rotha	1/4/22 1500	AECOM
Relinquished by: Conner Rotha	1/4/22 1530	AECOM	Received by: DIANA VALLELUNGA	1/4/22 755	EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: AECOM	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 61042022OW-02
Client Contact: Alethea Ramos (alternate: Margie Pascua)	Phone:	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract			
City: Honolulu	TAT Requested (days):			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-521-3051 (direct: 808-529-7283) (alternate: 808-356-5373)	PO #:			
Email: alethea.ramos@aecom.com (alternate: margie.pascua@aecom.com)	WO #:			
Project Name: CV22F0106	Project #: 60674414			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TPH-g (C6-C10) by 8260	TPH-d, TPH-o (C10-C24, C24-C40) by 8015	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	N		
20220104-AI-ZTB2	1/4/22	1045	TB				X		2	
20220104-AI-ZTB3	1/4/22	1050	G	W			X	X	5	

CR 1/4/22

Therm. ID: IR8 Cor: 0.9° Unc: 0.7°
Cooler Dsc: LB
Packing: Bulk
Cust. Seal: Yes No
Blue Ice: (Wet) Dry, None
FedEx: FO
UPS:
Lab Cour:
Other:

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

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

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

Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Mike Garrett	1/4/22 1210	AECOM	Mike Easterday	1/4/22 1241	AECOM
Mike Easterday	1/4/22 1303	AECOM	Carrie Rothe	1/4/22 1303	AECOM
Carrie Rothe	1/4/22 1500	AECOM	DIANA VALLELUNGA	1/4/22 0755	EFHS

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

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-108952-1

Login Number: 108952
List Number: 1
Creator: Vallelunga, Diana L

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 580-109011-1
Client Project/Site: Red Hill CV18F0126

For:
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813

Attn: Margie F Pascua

Kristine D. Allen

Authorized for release by:
1/10/2022 4:57:59 PM
Kristine Allen, Client Service Manager
(253)248-4970
Kristine.Allen@Eurofinset.com

Designee for

Elaine Walker, Project Manager II
(253)248-4972
m.elaine.walker@eurofinset.com

Table of Contents

Job ID: 580-109011-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative
580-109011-1

Comments
No additional comments.

Receipt
The samples were received on 1/6/2022 10:50 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 0.8º C.

GC/MS VOA
Methods 8260/CALUFT DOD, 8260B/CA_LUFTMS: Internal standard, Chlorobenzene-d5, is low in the method blank. This creates a high bias in the surrogate for the method blank. IS recovery is within limits for all samples and have been reported. (MB 580-377733/5)

Method 8260D: The continuing calibration verification (CCV) associated with batch 580-377826 recovered above the upper control limit for trans-1,2-Dichloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: 20220105-D3-ZT01 (580-109011-1) and (CCVIS 580-377826/3).

Method 8260D: Surrogate recovery for the following sample was outside control limits for Toluene-d8 : 20220105-D3-ZT01 (580-109011-1). 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/MS Semi VOA
Method 8270E: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-377665 was outside criteria for the following analytes: Bis(2-chloroethyl)ether and N-Nitrosodi-n-propylamine. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analytes is considered estimated.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 580-377587 and analytical batch 580-377665 recovered outside control limits for several analytes. Individual recoveries of both the LCS and LCSD met the acceptance criteria.

Method 8270E: The following analyte have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: Hexachlorocyclopentadiene. These analytes may have a %D <60%.

Method 8270E: Surrogate recovery for the following sample was outside control limits: 20220105-D3-ZT01 (580-109011-1). 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 580-377587, so a laboratory control sample/laboratory control sample duplicate were created and substituted for the MS/MSD/DUP.

Method 3510C: The following sample: 20220105-F1-ZT02 (580-109011-2) was decanted prior to preparation, per client's request. The client-provided 500 mLs of sample which was decanted to 250 mL, then surrogated in the bottle. The bottle was also rinsed with solvent as per the standard operating procedure (SOP). The sample was otherwise processed normally according to the SOP.

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

VOA Prep

Job ID: 580-109011-1 (Continued)

Laboratory: Eurofins Seattle (Continued)

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

Client: AECOM
Job ID: 580-109011-1
Project/Site: Red Hill CV18F0126

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
Q	One or more quality control criteria failed.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*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.
Q	One or more quality control criteria failed.
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 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: AECOM
Job ID: 580-109011-1
Project/Site: Red Hill CV18F0126

Client Sample ID: 20220105-D3-ZT01
Lab Sample ID: 580-109011-1
Date Collected: 01/05/22 13:21
Matrix: Water
Date Received: 01/06/22 10:50

Method: 8260/CALUFT DOD - 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			01/08/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*69 - 133*		*01/08/22 16:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	3.2	U	15	3.2	ug/L			01/08/22 16:08	1
Benzene	0.24	U	1.0	0.24	ug/L			01/08/22 16:08	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			01/08/22 16:08	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/08/22 16:08	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/08/22 16:08	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/08/22 16:08	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/08/22 16:08	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/08/22 16:08	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/08/22 16:08	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/08/22 16:08	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/08/22 16:08	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/08/22 16:08	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			01/08/22 16:08	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/08/22 16:08	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/08/22 16:08	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/08/22 16:08	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/08/22 16:08	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			01/08/22 16:08	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/08/22 16:08	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/08/22 16:08	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			01/08/22 16:08	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/08/22 16:08	1
Methyl Ethyl Ketone	4.7	U	15	4.7	ug/L			01/08/22 16:08	1
Methyl isobutyl ketone (MIBK)	2.5	U	5.0	2.5	ug/L			01/08/22 16:08	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/08/22 16:08	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/08/22 16:08	1
Styrene	0.53	U	1.0	0.53	ug/L			01/08/22 16:08	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/08/22 16:08	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/08/22 16:08	1
Toluene	0.39	U	1.0	0.39	ug/L			01/08/22 16:08	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/08/22 16:08	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/08/22 16:08	1
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/08/22 16:08	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/22 16:08	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/08/22 16:08	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/08/22 16:08	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/08/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*01/08/22 16:08*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 119*		*01/08/22 16:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*81 - 118*		*01/08/22 16:08*	*1*
Toluene-d8 (Surr)	*6*	*S1-*	*89 - 112*		*01/08/22 16:08*	*1*

Client: AECOM
Job ID: 580-109011-1
Project/Site: Red Hill CV18F0126

Client Sample ID: 20220105-D3-ZT01
Lab Sample ID: 580-109011-1
Date Collected: 01/05/22 13:21
Matrix: Water
Date Received: 01/06/22 10:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.054	U	0.43	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Acenaphthylene	0.065	U	1.1	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
Anthracene	0.054	U	1.1	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Benzo[a]anthracene	0.054	U *1	0.27	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Benzo[a]pyrene	0.043	U	0.27	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
Benzo[b]fluoranthene	0.043	U	0.27	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
Benzo[g,h,i]perylene	0.043	U	0.27	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
Benzo[k]fluoranthene	0.054	U *1	0.27	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Bis(2-chloroethoxy)methane	0.054	U	0.65	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Bis(2-chloroethyl)ether	0.032	U	0.11	0.032	ug/L		01/06/22 17:37	01/07/22 02:11	1
Bis(2-ethylhexyl) phthalate	0.80	U *1	3.2	0.80	ug/L		01/06/22 17:37	01/07/22 02:11	1
4-Bromophenyl phenyl ether	0.065	U	0.65	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
Butyl benzyl phthalate	0.29	U *1	4.3	0.29	ug/L		01/06/22 17:37	01/07/22 02:11	1
Carbazole	0.11	U	0.65	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
4-Chloroaniline	0.64	U	2.2	0.64	ug/L		01/06/22 17:37	01/07/22 02:11	1
4-Chloro-3-methylphenol	0.14	U	0.65	0.14	ug/L		01/06/22 17:37	01/07/22 02:11	1
2-Chloronaphthalene	0.075	U	1.1	0.075	ug/L		01/06/22 17:37	01/07/22 02:11	1
2-Chlorophenol	0.054	U	1.1	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
4-Chlorophenyl phenyl ether	0.054	U	0.65	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Chrysene	0.043	U *1	0.27	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
Dibenz(a,h)anthracene	0.075	U	0.27	0.075	ug/L		01/06/22 17:37	01/07/22 02:11	1
Dibenzofuran	0.11	U	0.43	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
1,2-Dichlorobenzene	0.054	U	0.43	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
1,3-Dichlorobenzene	0.043	U	0.43	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
1,4-Dichlorobenzene	0.043	U	0.43	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
3,3'-Dichlorobenzidine	0.28	U *1	1.1	0.28	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4-Dichlorophenol	0.22	U *1	1.1	0.22	ug/L		01/06/22 17:37	01/07/22 02:11	1
Diethyl phthalate	0.16	U	1.1	0.16	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4-Dimethylphenol	0.17	U	4.3	0.17	ug/L		01/06/22 17:37	01/07/22 02:11	1
Dimethyl phthalate	0.065	U	0.65	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
Di-n-butyl phthalate	0.20	U	3.2	0.20	ug/L		01/06/22 17:37	01/07/22 02:11	1
4,6-Dinitro-2-methylphenol	0.59	U	2.2	0.59	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4-Dinitrophenol	1.7	U	5.4	1.7	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4-Dinitrotoluene	0.11	U	1.1	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,6-Dinitrotoluene	0.11	U	0.43	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
Di-n-octyl phthalate	0.14	U	1.1	0.14	ug/L		01/06/22 17:37	01/07/22 02:11	1
Fluoranthene	0.065	U	0.27	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
Fluorene	0.054	U	0.27	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Hexachlorobenzene	0.043	U	0.65	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
Hexachlorobutadiene	0.065	U	1.1	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
Hexachlorocyclopentadiene	0.15	U Q	1.1	0.15	ug/L		01/06/22 17:37	01/07/22 02:11	1
Hexachloroethane	0.054	U	1.1	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
Indeno[1,2,3-cd]pyrene	0.14	U *1	0.43	0.14	ug/L		01/06/22 17:37	01/07/22 02:11	1
Isophorone	0.11	U	0.43	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
2-Methylphenol	0.054	U	0.65	0.054	ug/L		01/06/22 17:37	01/07/22 02:11	1
3 & 4 Methylphenol	0.11	U	0.65	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
Naphthalene	0.17	U	0.43	0.17	ug/L		01/06/22 17:37	01/07/22 02:11	1
2-Nitroaniline	0.11	U	1.1	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
3-Nitroaniline	0.17	U	3.2	0.17	ug/L		01/06/22 17:37	01/07/22 02:11	1

Client: AECOM
Project/Site: Red Hill CV18F0126

Job ID: 580-109011-1

Client Sample ID: 20220105-D3-ZT01
Date Collected: 01/05/22 13:21
Date Received: 01/06/22 10:50

Lab Sample ID: 580-109011-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	0.23	U	2.2	0.23	ug/L		01/06/22 17:37	01/07/22 02:11	1
Nitrobenzene	0.043	U	1.1	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
4-Nitrophenol	1.8	U	11	1.8	ug/L		01/06/22 17:37	01/07/22 02:11	1
N-Nitrosodi-n-propylamine	0.065	U *1	0.43	0.065	ug/L		01/06/22 17:37	01/07/22 02:11	1
N-Nitrosodiphenylamine	0.075	U	1.1	0.075	ug/L		01/06/22 17:37	01/07/22 02:11	1
Pentachlorophenol	0.55	U	11	0.55	ug/L		01/06/22 17:37	01/07/22 02:11	1
Phenanthrene	0.13	U	1.1	0.13	ug/L		01/06/22 17:37	01/07/22 02:11	1
Phenol	0.39	U	1.1	0.39	ug/L		01/06/22 17:37	01/07/22 02:11	1
Pyrene	0.043	U	1.1	0.043	ug/L		01/06/22 17:37	01/07/22 02:11	1
1,2,4-Trichlorobenzene	0.097	U	0.43	0.097	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4,5-Trichlorophenol	0.11	U	0.43	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1
2,4,6-Trichlorophenol	0.11	U	0.65	0.11	ug/L		01/06/22 17:37	01/07/22 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*44 - 119*	*01/06/22 17:37*	*01/07/22 02:11*	*1*
2-Fluorophenol (Surr)	*1*	*S1-*	*19 - 119*	*01/06/22 17:37*	*01/07/22 02:11*	*1*
Nitrobenzene-d5 (Surr)	*82*		*44 - 120*	*01/06/22 17:37*	*01/07/22 02:11*	*1*
Phenol-d5 (Surr)	*0.5*	*S1-*	*10 - 120*	*01/06/22 17:37*	*01/07/22 02:11*	*1*
Terphenyl-d14	*107*		*50 - 134*	*01/06/22 17:37*	*01/07/22 02:11*	*1*
2,4,6-Tribromophenol	*151*	*S1+*	*43 - 140*	*01/06/22 17:37*	*01/07/22 02:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	90	U	110	90	ug/L		01/06/22 17:38	01/07/22 01:09	1
C24-C40	180	U	350	180	ug/L		01/06/22 17:38	01/07/22 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*56 - 125*	*01/06/22 17:38*	*01/07/22 01:09*	*1*

Client: AECOM
Project/Site: Red Hill CV18F0126

Job ID: 580-109011-1

Client Sample ID: 20220105-F1-ZT02
Date Collected: 01/05/22 14:30
Date Received: 01/06/22 10:50

Lab Sample ID: 580-109011-2
Matrix: Water

Method: 8260/CALUFT DOD - 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			01/06/22 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*	*Q*	*69 - 133*		*01/06/22 16:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	96	U	120	96	ug/L		01/06/22 17:38	01/07/22 01:29	1
C24-C40	190	U	370	190	ug/L		01/06/22 17:38	01/07/22 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*56 - 125*	*01/06/22 17:38*	*01/07/22 01:29*	*1*

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-377733/5
Matrix: Water
Analysis Batch: 377733

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			01/06/22 12:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*	**3*	*69 - 133*		*01/06/22 12:54*	*1*

Lab Sample ID: LCS 580-377733/8
Matrix: Water
Analysis Batch: 377733

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	995		ug/L		99	78 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*69 - 133*

Lab Sample ID: LCSD 580-377733/9
Matrix: Water
Analysis Batch: 377733

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	1070		ug/L		107	78 - 122	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*69 - 133*

Lab Sample ID: MB 580-377829/4
Matrix: Water
Analysis Batch: 377829

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			01/08/22 14:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*69 - 133*		*01/08/22 14:09*	*1*

Lab Sample ID: LCS 580-377829/5
Matrix: Water
Analysis Batch: 377829

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	942		ug/L		94	78 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*69 - 133*

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-377829/6
Matrix: Water
Analysis Batch: 377829

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	942		ug/L		94	78 - 122	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*69 - 133*

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

Lab Sample ID: MB 580-377826/4
Matrix: Water
Analysis Batch: 377826

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 14:09	1
Benzene	0.24	U	1.0	0.24	ug/L			01/08/22 14:09	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			01/08/22 14:09	1
Bromoform	0.51	U	1.0	0.51	ug/L			01/08/22 14:09	1
Bromomethane	0.21	U	1.0	0.21	ug/L			01/08/22 14:09	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			01/08/22 14:09	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			01/08/22 14:09	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			01/08/22 14:09	1
Chloroform	0.26	U	1.0	0.26	ug/L			01/08/22 14:09	1
Chloromethane	0.28	U	1.0	0.28	ug/L			01/08/22 14:09	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			01/08/22 14:09	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			01/08/22 14:09	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			01/08/22 14:09	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			01/08/22 14:09	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			01/08/22 14:09	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			01/08/22 14:09	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			01/08/22 14:09	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			01/08/22 14:09	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			01/08/22 14:09	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			01/08/22 14:09	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			01/08/22 14:09	1
2-Hexanone	4.0	U	15	4.0	ug/L			01/08/22 14:09	1
Methyl Ethyl Ketone	4.7	U	15	4.7	ug/L			01/08/22 14:09	1
Methyl isobutyl ketone (MIBK)	2.5	U	5.0	2.5	ug/L			01/08/22 14:09	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			01/08/22 14:09	1
o-Xylene	0.39	U	1.0	0.39	ug/L			01/08/22 14:09	1
Styrene	0.53	U	1.0	0.53	ug/L			01/08/22 14:09	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			01/08/22 14:09	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			01/08/22 14:09	1
Toluene	0.39	U	1.0	0.39	ug/L			01/08/22 14:09	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			01/08/22 14:09	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			01/08/22 14:09	1
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			01/08/22 14:09	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			01/08/22 14:09	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			01/08/22 14:09	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			01/08/22 14:09	1

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

Lab Sample ID: MB 580-377826/4
Matrix: Water
Analysis Batch: 377826

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	0.53	U	2.0	0.53	ug/L			01/08/22 14:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*85 - 114*		*01/08/22 14:09*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 119*		*01/08/22 14:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*81 - 118*		*01/08/22 14:09*	*1*
Toluene-d8 (Surr)	*106*		*89 - 112*		*01/08/22 14:09*	*1*

Lab Sample ID: LCS 580-377826/5
Matrix: Water
Analysis Batch: 377826

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	47.1		ug/L		94	39 - 160
Benzene	10.0	11.8		ug/L		118	79 - 120
Bromodichloromethane	10.0	10.2		ug/L		102	79 - 125
Bromoform	10.0	9.60		ug/L		96	66 - 130
Bromomethane	10.0	12.3		ug/L		123	53 - 141
Carbon disulfide	10.0	10.7		ug/L		107	64 - 133
Carbon tetrachloride	10.0	11.0		ug/L		110	72 - 136
Chlorobenzene	10.0	11.6		ug/L		116	82 - 118
Chloroform	10.0	11.6		ug/L		116	79 - 124
Chloromethane	10.0	11.8		ug/L		118	50 - 139
cis-1,2-Dichloroethene	10.0	11.8		ug/L		118	78 - 123
cis-1,3-Dichloropropene	10.0	9.86		ug/L		99	75 - 124
Dibromochloromethane	10.0	9.85		ug/L		98	74 - 126
1,1-Dichloroethane	10.0	11.4		ug/L		114	77 - 125
1,2-Dichloroethane	10.0	11.0		ug/L		110	73 - 128
1,1-Dichloroethene	10.0	11.9		ug/L		119	71 - 131
1,2-Dichloroethene, Total	20.0	24.0		ug/L		120	78 - 123
Dichloromethane	10.0	11.6		ug/L		116	74 - 124
1,2-Dichloropropane	10.0	11.2		ug/L		112	78 - 122
Ethylbenzene	10.0	11.1		ug/L		111	79 - 121
Ethyl Chloride	10.0	12.2		ug/L		122	60 - 138
2-Hexanone	50.0	44.3		ug/L		89	57 - 139
Methyl Ethyl Ketone	50.0	53.2		ug/L		106	56 - 143
Methyl isobutyl ketone (MIBK)	50.0	46.5		ug/L		93	67 - 130
m-Xylene & p-Xylene	10.0	10.9		ug/L		109	80 - 121
o-Xylene	10.0	10.5		ug/L		105	78 - 122
Styrene	10.0	10.6		ug/L		106	78 - 123
1,1,2,2-Tetrachloroethane	10.0	8.82		ug/L		88	71 - 121
Tetrachloroethene	10.0	11.8		ug/L		118	74 - 129
Toluene	10.0	11.7		ug/L		117	80 - 121
trans-1,2-Dichloroethene	10.0	12.2		ug/L		122	75 - 124
trans-1,3-Dichloropropene	10.0	9.54		ug/L		95	73 - 127
1,1,1-Trichloroethane	10.0	9.33		ug/L		93	74 - 131
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	80 - 119
Trichloroethene	10.0	11.7		ug/L		117	79 - 123

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

Lab Sample ID: LCS 580-377826/5
Matrix: Water
Analysis Batch: 377826

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Vinyl chloride			10.0	11.1		ug/L		111	58 - 137		
Xylenes, Total			20.0	21.4		ug/L		107	79 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*97*		*81 - 118*
Toluene-d8 (Surr)	*106*		*89 - 112*

Lab Sample ID: LCSD 580-377826/6
Matrix: Water
Analysis Batch: 377826

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			50.0	51.9		ug/L		104	39 - 160	10	20
Benzene			10.0	11.8		ug/L		118	79 - 120	1	20
Bromodichloromethane			10.0	10.5		ug/L		105	79 - 125	3	20
Bromoform			10.0	9.84		ug/L		98	66 - 130	2	20
Bromomethane			10.0	10.8		ug/L		108	53 - 141	14	20
Carbon disulfide			10.0	10.2		ug/L		102	64 - 133	4	20
Carbon tetrachloride			10.0	11.1		ug/L		111	72 - 136	1	20
Chlorobenzene			10.0	11.7		ug/L		117	82 - 118	1	20
Chloroform			10.0	11.5		ug/L		115	79 - 124	1	20
Chloromethane			10.0	10.9		ug/L		109	50 - 139	8	20
cis-1,2-Dichloroethene			10.0	12.2		ug/L		122	78 - 123	3	20
cis-1,3-Dichloropropene			10.0	10.0		ug/L		100	75 - 124	2	20
Dibromochloromethane			10.0	10.2		ug/L		102	74 - 126	3	20
1,1-Dichloroethane			10.0	11.8		ug/L		118	77 - 125	3	20
1,2-Dichloroethane			10.0	11.5		ug/L		115	73 - 128	4	20
1,1-Dichloroethene			10.0	12.4		ug/L		124	71 - 131	4	20
1,2-Dichloroethene, Total			20.0	24.4		ug/L		122	78 - 123	2	20
Dichloromethane			10.0	9.49		ug/L		95	74 - 124	20	20
1,2-Dichloropropane			10.0	11.4		ug/L		114	78 - 122	2	20
Ethylbenzene			10.0	11.3		ug/L		113	79 - 121	2	20
Ethyl Chloride			10.0	11.3		ug/L		113	60 - 138	8	20
2-Hexanone			50.0	46.6		ug/L		93	57 - 139	5	20
Methyl Ethyl Ketone			50.0	53.4		ug/L		107	56 - 143	0	20
Methyl isobutyl ketone (MIBK)			50.0	50.0		ug/L		100	67 - 130	7	20
m-Xylene & p-Xylene			10.0	11.1		ug/L		111	80 - 121	2	20
o-Xylene			10.0	10.8		ug/L		108	78 - 122	2	20
Styrene			10.0	10.6		ug/L		106	78 - 123	1	20
1,1,2,2-Tetrachloroethane			10.0	9.11		ug/L		91	71 - 121	3	20
Tetrachloroethene			10.0	11.7		ug/L		117	74 - 129	1	20
Toluene			10.0	12.0		ug/L		120	80 - 121	2	20
trans-1,2-Dichloroethene			10.0	12.2		ug/L		122	75 - 124	0	20
trans-1,3-Dichloropropene			10.0	10.0		ug/L		100	73 - 127	5	20
1,1,1-Trichloroethane			10.0	8.85		ug/L		89	74 - 131	5	20
1,1,2-Trichloroethane			10.0	11.4		ug/L		114	80 - 119	4	20

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

Lab Sample ID: LCSD 580-377826/6
Matrix: Water
Analysis Batch: 377826

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
Trichloroethene			10.0	11.9		ug/L		119	79 - 123	1	20
Vinyl chloride			10.0	10.4		ug/L		104	58 - 137	7	20
Xylenes, Total			20.0	21.9		ug/L		110	79 - 121	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*85 - 114*
Dibromofluoromethane (Surr)	*107*		*80 - 119*
1,2-Dichloroethane-d4 (Surr)	*99*		*81 - 118*
Toluene-d8 (Surr)	*108*		*89 - 112*

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

Lab Sample ID: MB 580-377587/1-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.050	U	0.40	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Anthracene	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[a]anthracene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[a]pyrene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[b]fluoranthene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[g,h,i]perylene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Benzo[k]fluoranthene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-chloroethoxy)methane	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-chloroethyl)ether	0.030	U	0.10	0.030	ug/L		01/06/22 10:50	01/06/22 21:57	1
Bis(2-ethylhexyl) phthalate	0.74	U	3.0	0.74	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Bromophenyl phenyl ether	0.060	U	0.60	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Butyl benzyl phthalate	0.27	U	4.0	0.27	ug/L		01/06/22 10:50	01/06/22 21:57	1
Carbazole	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chloroaniline	0.59	U	2.0	0.59	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chloro-3-methylphenol	0.13	U	0.60	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Chloronaphthalene	0.070	U	1.0	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Chlorophenol	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Chlorophenyl phenyl ether	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Chrysene	0.040	U	0.25	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dibenz(a,h)anthracene	0.070	U	0.25	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dibenzofuran	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,2-Dichlorobenzene	0.050	U	0.40	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,3-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,4-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
3,3'-Dichlorobenzidine	0.26	U	1.0	0.26	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dichlorophenol	0.20	U	1.0	0.20	ug/L		01/06/22 10:50	01/06/22 21:57	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dimethylphenol	0.16	U	4.0	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
Dimethyl phthalate	0.060	U	0.60	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Di-n-butyl phthalate	0.19	U	3.0	0.19	ug/L		01/06/22 10:50	01/06/22 21:57	1
4,6-Dinitro-2-methylphenol	0.55	U	2.0	0.55	ug/L		01/06/22 10:50	01/06/22 21:57	1

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

Lab Sample ID: MB 580-377587/1-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	1.6	U	5.0	1.6	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,6-Dinitrotoluene	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
Fluoranthene	0.060	U	0.25	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Fluorene	0.050	U	0.25	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorobenzene	0.040	U	0.60	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorobutadiene	0.060	U	1.0	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachlorocyclopentadiene	0.14	U	1.0	0.14	ug/L		01/06/22 10:50	01/06/22 21:57	1
Hexachloroethane	0.050	U	1.0	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.40	0.13	ug/L		01/06/22 10:50	01/06/22 21:57	1
Isophorone	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Methylphenol	0.050	U	0.60	0.050	ug/L		01/06/22 10:50	01/06/22 21:57	1
3 & 4 Methylphenol	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
Naphthalene	0.16	U	0.40	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
3-Nitroaniline	0.16	U	3.0	0.16	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Nitroaniline	0.21	U	2.0	0.21	ug/L		01/06/22 10:50	01/06/22 21:57	1
Nitrobenzene	0.040	U	1.0	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		01/06/22 10:50	01/06/22 21:57	1
N-Nitrosodi-n-propylamine	0.060	U	0.40	0.060	ug/L		01/06/22 10:50	01/06/22 21:57	1
N-Nitrosodiphenylamine	0.070	U	1.0	0.070	ug/L		01/06/22 10:50	01/06/22 21:57	1
Pentachlorophenol	0.51	U	10	0.51	ug/L		01/06/22 10:50	01/06/22 21:57	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		01/06/22 10:50	01/06/22 21:57	1
Phenol	0.36	U	1.0	0.36	ug/L		01/06/22 10:50	01/06/22 21:57	1
Pyrene	0.040	U	1.0	0.040	ug/L		01/06/22 10:50	01/06/22 21:57	1
1,2,4-Trichlorobenzene	0.090	U	0.40	0.090	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4,5-Trichlorophenol	0.10	U	0.40	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1
2,4,6-Trichlorophenol	0.10	U	0.60	0.10	ug/L		01/06/22 10:50	01/06/22 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*44 - 119*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
2-Fluorophenol (Surr)	*40*		*19 - 119*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Nitrobenzene-d5 (Surr)	*62*		*44 - 120*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Phenol-d5 (Surr)	*23*		*10 - 120*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
Terphenyl-d14	*95*		*50 - 134*	*01/06/22 10:50*	*01/06/22 21:57*	*1*
2,4,6-Tribromophenol	*66*		*43 - 140*	*01/06/22 10:50*	*01/06/22 21:57*	*1*

Lab Sample ID: LCS 580-377587/2-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.35		ug/L		67	47 - 122
Acenaphthylene	2.00	1.32		ug/L		66	41 - 130
Anthracene	2.00	1.50		ug/L		75	57 - 123
Benzo[a]anthracene	2.00	1.40		ug/L		70	58 - 125
Benzo[a]pyrene	2.00	1.43		ug/L		71	54 - 128

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

Lab Sample ID: LCS 580-377587/2-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[b]fluoranthene	2.00	1.45		ug/L		72	53 - 131
Benzo[g,h,i]perylene	2.00	1.40		ug/L		70	50 - 134
Benzo[k]fluoranthene	2.00	1.35		ug/L		68	57 - 129
Bis(2-chloroethoxy)methane	2.00	1.41		ug/L		71	48 - 120
Bis(2-ethylhexyl) phthalate	2.00	1.68	J	ug/L		84	55 - 135
4-Bromophenyl phenyl ether	2.00	1.39		ug/L		69	55 - 124
Butyl benzyl phthalate	2.00	1.65	J	ug/L		82	53 - 134
Carbazole	2.00	1.62		ug/L		81	60 - 122
4-Chloroaniline	2.00	1.17	J	ug/L		58	33 - 117
4-Chloro-3-methylphenol	2.00	1.25		ug/L		62	52 - 119
2-Chloronaphthalene	2.00	1.31		ug/L		66	40 - 116
2-Chlorophenol	2.00	1.25		ug/L		63	38 - 117
4-Chlorophenyl phenyl ether	2.00	1.43		ug/L		72	53 - 121
Chrysene	2.00	1.58		ug/L		79	59 - 123
Dibenz(a,h)anthracene	2.00	1.35		ug/L		67	51 - 134
Dibenzofuran	2.00	1.44		ug/L		72	53 - 118
1,2-Dichlorobenzene	2.00	1.11		ug/L		56	32 - 111
1,3-Dichlorobenzene	2.00	1.05		ug/L		52	28 - 110
1,4-Dichlorobenzene	2.00	1.07		ug/L		53	29 - 112
3,3'-Dichlorobenzidine	4.00	2.81		ug/L		70	27 - 129
2,4-Dichlorophenol	2.00	1.14		ug/L		57	47 - 121
Diethyl phthalate	2.00	1.80		ug/L		90	56 - 125
2,4-Dimethylphenol	2.00	1.40	J	ug/L		70	31 - 124
Dimethyl phthalate	2.00	1.70		ug/L		85	45 - 127
Di-n-butyl phthalate	2.00	1.71	J	ug/L		85	59 - 127
4,6-Dinitro-2-methylphenol	4.00	2.37		ug/L		59	44 - 137
2,4-Dinitrophenol	4.00	2.61	J	ug/L		65	23 - 143
2,4-Dinitrotoluene	2.00	1.48		ug/L		74	57 - 128
2,6-Dinitrotoluene	2.00	1.42		ug/L		71	57 - 124
Di-n-octyl phthalate	2.00	1.61		ug/L		81	51 - 140
Fluoranthene	2.00	1.62		ug/L		81	57 - 128
Fluorene	2.00	1.50		ug/L		75	52 - 124
Hexachlorobenzene	2.00	1.29		ug/L		64	53 - 125
Hexachlorobutadiene	2.00	1.03		ug/L		51	22 - 124
Hexachlorocyclopentadiene	2.00	0.445	J	ug/L		22	20 - 125
Hexachloroethane	2.00	1.05		ug/L		53	21 - 115
Indeno[1,2,3-cd]pyrene	2.00	1.16		ug/L		58	52 - 134
Isophorone	2.00	1.42		ug/L		71	42 - 124
2-Methylphenol	2.00	1.19		ug/L		59	30 - 117
3 & 4 Methylphenol	2.00	1.13		ug/L		56	29 - 110
Naphthalene	2.00	1.14		ug/L		57	40 - 121
2-Nitroaniline	2.00	1.38		ug/L		69	55 - 127
3-Nitroaniline	2.00	1.37	J	ug/L		69	41 - 128
4-Nitroaniline	2.00	1.50	J	ug/L		75	70 - 125
Nitrobenzene	2.00	1.44		ug/L		72	45 - 121
4-Nitrophenol	4.00	1.85	J	ug/L		46	35 - 145
N-Nitrosodi-n-propylamine	2.00	1.46		ug/L		73	49 - 119
N-Nitrosodiphenylamine	2.00	1.43		ug/L		71	51 - 123
Pentachlorophenol	4.00	2.01	J	ug/L		50	35 - 138

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

Lab Sample ID: LCS 580-377587/2-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenanthrene			2.00	1.41		ug/L		71	59 - 120		
Phenol			2.00	0.602	J	ug/L		30	13 - 120		
Pyrene			2.00	1.63		ug/L		82	57 - 126		
1,2,4-Trichlorobenzene			2.00	1.12		ug/L		56	29 - 116		
2,4,5-Trichlorophenol			2.00	1.51		ug/L		75	53 - 123		
2,4,6-Trichlorophenol			2.00	1.24		ug/L		62	50 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*63*		*44 - 119*
2-Fluorophenol (Surr)	*43*		*19 - 119*
Nitrobenzene-d5 (Surr)	*70*		*44 - 120*
Phenol-d5 (Surr)	*27*		*10 - 120*
Terphenyl-d14	*88*		*50 - 134*
2,4,6-Tribromophenol	*77*		*43 - 140*

Lab Sample ID: LCSD 580-377587/3-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene			2.00	1.52		ug/L		76	47 - 122	12	20
Acenaphthylene			2.00	1.56		ug/L		78	41 - 130	17	20
Anthracene			2.00	1.51		ug/L		75	57 - 123	0	20
Benzo[a]anthracene			2.00	1.76	*1	ug/L		88	58 - 125	23	20
Benzo[a]pyrene			2.00	1.74		ug/L		87	54 - 128	20	20
Benzo[b]fluoranthene			2.00	1.57		ug/L		78	53 - 131	8	20
Benzo[g,h,i]perylene			2.00	1.66		ug/L		83	50 - 134	17	20
Benzo[k]fluoranthene			2.00	1.91	*1	ug/L		96	57 - 129	34	20
Bis(2-chloroethoxy)methane			2.00	1.65		ug/L		83	48 - 120	16	20
Bis(2-ethylhexyl) phthalate			2.00	2.13	J *1	ug/L		106	55 - 135	23	20
4-Bromophenyl phenyl ether			2.00	1.50		ug/L		75	55 - 124	8	20
Butyl benzyl phthalate			2.00	2.06	J *1	ug/L		103	53 - 134	22	20
Carbazole			2.00	1.81		ug/L		90	60 - 122	11	20
4-Chloroaniline			2.00	1.09	J	ug/L		54	33 - 117	7	20
4-Chloro-3-methylphenol			2.00	1.50		ug/L		75	52 - 119	19	20
2-Chloronaphthalene			2.00	1.47		ug/L		73	40 - 116	11	20
2-Chlorophenol			2.00	1.47		ug/L		74	38 - 117	16	20
4-Chlorophenyl phenyl ether			2.00	1.65		ug/L		82	53 - 121	14	20
Chrysene			2.00	2.01	*1	ug/L		101	59 - 123	24	20
Dibenz(a,h)anthracene			2.00	1.61		ug/L		80	51 - 134	18	20
Dibenzofuran			2.00	1.64		ug/L		82	53 - 118	13	20
1,2-Dichlorobenzene			2.00	1.19		ug/L		59	32 - 111	7	20
1,3-Dichlorobenzene			2.00	1.11		ug/L		56	28 - 110	6	20
1,4-Dichlorobenzene			2.00	1.11		ug/L		56	29 - 112	4	20
3,3'-Dichlorobenzidine			4.00	3.47	*1	ug/L		87	27 - 129	21	20
2,4-Dichlorophenol			2.00	1.42	*1	ug/L		71	47 - 121	22	20
Diethyl phthalate			2.00	1.98		ug/L		99	56 - 125	10	20
2,4-Dimethylphenol			2.00	1.68	J	ug/L		84	31 - 124	18	20

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

Lab Sample ID: LCSD 580-377587/3-A
Matrix: Water
Analysis Batch: 377665

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl phthalate			2.00	1.80		ug/L		90	45 - 127	6	20
Di-n-butyl phthalate			2.00	1.89	J	ug/L		94	59 - 127	10	20
4,6-Dinitro-2-methylphenol			4.00	2.74		ug/L		68	44 - 137	14	20
2,4-Dinitrophenol			4.00	3.21	J	ug/L		80	23 - 143	20	20
2,4-Dinitrotoluene			2.00	1.69		ug/L		84	57 - 128	13	20
2,6-Dinitrotoluene			2.00	1.65		ug/L		82	57 - 124	15	20
Di-n-octyl phthalate			2.00	1.97		ug/L		99	51 - 140	20	20
Fluoranthene			2.00	1.75		ug/L		87	57 - 128	8	20
Fluorene			2.00	1.66		ug/L		83	52 - 124	10	20
Hexachlorobenzene			2.00	1.46		ug/L		73	53 - 125	13	20
Hexachlorobutadiene			2.00	1.00		ug/L		50	22 - 124	2	20
Hexachlorocyclopentadiene			2.00	0.460	J	ug/L		23	20 - 125	3	20
Hexachloroethane			2.00	1.13		ug/L		56	21 - 115	7	20
Indeno[1,2,3-cd]pyrene			2.00	1.46	*1	ug/L		73	52 - 134	23	20
Isophorone			2.00	1.60		ug/L		80	42 - 124	12	20
2-Methylphenol			2.00	1.45		ug/L		73	30 - 117	20	20
3 & 4 Methylphenol			2.00	1.30		ug/L		65	29 - 110	14	20
Naphthalene			2.00	1.33		ug/L		66	40 - 121	15	20
2-Nitroaniline			2.00	1.56		ug/L		78	55 - 127	12	20
3-Nitroaniline			2.00	1.44	J	ug/L		72	41 - 128	5	20
4-Nitroaniline			2.00	1.84	J	ug/L		92	70 - 125	20	20
Nitrobenzene			2.00	1.62		ug/L		81	45 - 121	12	20
4-Nitrophenol			4.00	1.95	J	ug/L		49	35 - 145	5	20
N-Nitrosodi-n-propylamine			2.00	1.80	*1	ug/L		90	49 - 119	21	20
N-Nitrosodiphenylamine			2.00	1.55		ug/L		78	51 - 123	9	20
Pentachlorophenol			4.00	2.13	J	ug/L		53	35 - 138	6	20
Phenanthrene			2.00	1.54		ug/L		77	59 - 120	8	20
Phenol			2.00	0.655	J	ug/L		33	13 - 120	8	20
Pyrene			2.00	1.78		ug/L		89	57 - 126	8	20
1,2,4-Trichlorobenzene			2.00	1.26		ug/L		63	29 - 116	12	20
2,4,5-Trichlorophenol			2.00	1.47		ug/L		73	53 - 123	3	20
2,4,6-Trichlorophenol			2.00	1.45		ug/L		73	50 - 125	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*44 - 119*
2-Fluorophenol (Surr)	*51*		*19 - 119*
Nitrobenzene-d5 (Surr)	*82*		*44 - 120*
Phenol-d5 (Surr)	*31*		*10 - 120*
Terphenyl-d14	*96*		*50 - 134*
2,4,6-Tribromophenol	*80*		*43 - 140*

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

Lab Sample ID: MB 580-377585/1-A
Matrix: Water
Analysis Batch: 377651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	90	U	110	90	ug/L		01/06/22 10:45	01/06/22 21:07	1

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

Lab Sample ID: MB 580-377585/1-A
Matrix: Water
Analysis Batch: 377651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 377585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C24-C40	180	U	350	180	ug/L		01/06/22 10:45	01/06/22 21:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*56 - 125*	*01/06/22 10:45*	*01/06/22 21:07*	*1*

Lab Sample ID: LCS 580-377585/2-A
Matrix: Water
Analysis Batch: 377651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 377585

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C9-C25			4000	2790		ug/L		70	36 - 132		
C24-C40			4000	3320		ug/L		83	41 - 113		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*70*		*56 - 125*

Lab Sample ID: LCSD 580-377585/3-A
Matrix: Water
Analysis Batch: 377651

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 377585

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C9-C25			4000	2980		ug/L		74	36 - 132	7	20
C24-C40			4000	3670		ug/L		92	41 - 113	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*80*		*56 - 125*

Lab Chronicle

Client: AECOM
Project/Site: Red Hill CV18F0126

Job ID: 580-109011-1

Client Sample ID: 20220105-D3-ZT01

Lab Sample ID: 580-109011-1

Date Collected: 01/05/22 13:21

Matrix: Water

Date Received: 01/06/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377829	01/08/22 16:08	CJ	FGS SEA
Total/NA	Analysis	8260D		1	377826	01/08/22 16:08	JSM	FGS SEA
Total/NA	Prep	3510C			377587	01/06/22 17:37	M1E	FGS SEA
Total/NA	Analysis	8270E		1	377665	01/07/22 02:11	E1L	FGS SEA
Total/NA	Prep	3510C			377585	01/06/22 17:38	M1E	FGS SEA
Total/NA	Analysis	8015D DRO		1	377651	01/07/22 01:09	JAE	FGS SEA

Client Sample ID: 20220105-F1-ZT02

Lab Sample ID: 580-109011-2

Date Collected: 01/05/22 14:30

Matrix: Water

Date Received: 01/06/22 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377733	01/06/22 16:44	JSM	FGS SEA
Total/NA	Prep	3510C			377585	01/06/22 17:38	M1E	FGS SEA
Total/NA	Analysis	8015D DRO		1	377651	01/07/22 01:29	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: 580-109011-1
Project/Site: Red Hill CV18F0126

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
Job ID: 580-109011-1
Project/Site: Red Hill CV18F0126

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-109011-1	20220105-D3-ZT01	Water	01/05/22 13:21	01/06/22 10:50
580-109011-2	20220105-F1-ZT02	Water	01/05/22 14:30	01/06/22 10:50

Eurofins FGS, Seattle
5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: AECOM	Lab PM: Elaine Walker	Carrier Tracking No(s): FedEx	COC No: 610520221Dw-03
Client Contact: Alethea Ramos (alternate: Margie Pascua)	Phone:	E-Mail: M.Elaine.Walker@EurofinsET.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 1001 Bishop St. Suite 1600	Due Date Requested: see subcontract			
City: Honolulu	TAT Requested (days): Rush			
State, Zip: Hawaii 96813	Compliance Project: Δ Yes Δ No			
Phone: 808-521-3051 (direct: 808-529-7283) (alternate: 808-356-5373)	PO #:			
Email: alethea.ramos@aecom.com (alternate: margie.pascua@aecom.com)	WO #:			
Project Name: CV18F0126	Project #: 60674414			
Site: RHSF	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (Full Suite + TIC) by 8260	TPH-g (C6-C10) by 8260	SVOCs (Full Suite + TIC) by 8270	TPH-d, TPH-o (C10-C24, C24-C40) by 8015	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A	I	I		
20220105-D3-ZT01	1/5/22	1321	G	W	N	N	X	X	X	X	8	
20220105-FI-ZT02	1/5/22	1430	G	W	N	N		X		X	5	

580-109011 Chain of Custody

Therm. ID: IR9 Cor: 0.1 ° Unc: 0.5 °
Cooler Dsc: LB
Packing: bubble
Cust. Seal: Yes X No
Blue Ice, Wet, Dry, None
FedEx: FD
UPS:
Lab Cour:
Other:

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

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

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

Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQuIS EDD.

Special Instructions/QC Requirements: DOD QSM project.

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Samantha Wells	1/5/22 1450	AECOM		1/5/22 @1450	AECOM
2		1/5/22 @ 1515			1/6/22 1050	EFGS
3						

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-109011-1

Login Number: 109011

List Source: Eurofins Seattle

List Number: 1

Creator: Vallelunga, Diana L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

AECOM

JBPHHH DW Sampling

SGS Job Number: DA40628

Sampling Date: 01/05/22

Report to:

AECOM, INC.

brian.rothmeyer@aecom.com

ATTN: Brian Rothmeyer

Total number of pages in report: 45

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Jason Savoie
General Manager

Client Service contact: Larisa DiMarco 303-425-6021

Certifications: CO (CO00049), NE (NE-OS-06-04), ND (R-027), UT (NELAP CO00049) LA (LA150028), TX (T104704511), WY (8TMS-L), HI (CO00049), NJ (CO011)

Sections: 1 2 3 4 5 6 7 8 9 10

Table of Contents

Sample Summary

AECOM

Job No: DA40628

JBPHHH DW Sampling

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
DA40628-1	01/05/22	14:30	SW	01/06/22	DW	Drinking Water	20220105-F1-ZT02
DA40628-2	01/05/22	14:25	SW	01/06/22	DW	Drinking Water	20220105-F1-ZT04

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	AECOM	**Job No:**	DA40628
Site:	JBPHHH Post Flush Housing	**Report Date**	1/7/2022 11:20:35 AM

On 01/06/2022, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 5.6 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA40628 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Volatiles By Method EPA 524.2

Matrix: AQ **Batch ID:** V8V1018

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA40628-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: DA40628
Account: AECOM
Project: JBPHHH DW Sampling
Collected: 01/05/22

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
DA40628-1	**20220105-F1-ZT02**					
Arsenic		1.2 J	2.0	0.50	ug/l	EPA 200.8
Barium		2.2	2.0	0.50	ug/l	EPA 200.8
Chromium		2.2	2.0	0.50	ug/l	EPA 200.8
Copper		5.7	2.0	0.50	ug/l	EPA 200.8
Lead		0.70	0.50	0.13	ug/l	EPA 200.8
Mercury		0.058 J	0.10	0.050	ug/l	EPA 245.1
DA40628-2	**20220105-F1-ZT04**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	20220105-F1-ZT02		
Lab Sample ID:	DA40628-1	**Date Sampled:**	01/05/22
Matrix:	DW - Drinking Water	**Date Received:**	01/06/22
Method:	EPA 524.2	**Percent Solids:**	n/a
Project:	JBPHHH DW Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8V21849.D	1	01/06/22 13:40	DC	n/a	n/a	V8V1018
Run #2							

	Purge Volume
Run #1	25.0 ml
Run #2	

VOA List

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	5.0	0.50	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	5.0	0.50	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	100	0.50	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	600	0.50	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	75	0.50	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	5.0	0.50	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	7.0	0.50	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	70	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	100	0.50	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	5.0	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	700	0.50	0.50	ug/l	
75-09-2	Methylene chloride	0.50 U	5.0	0.50	0.50	ug/l	
100-42-5	Styrene	0.50 U	100	0.50	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	5.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1000	0.50	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	70	0.50	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	200	0.50	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	5.0	0.50	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	5.0	0.50	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	2.0	0.50	0.50	ug/l	
	m,p-Xylene	0.50 U		0.50	0.50	ug/l	
95-47-6	o-Xylene	0.50 U		0.50	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		70-130%
2199-69-1	1,2-Dichlorobenzene-d4	104%		70-130%

U = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 141) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	20220105-F1-ZT02		
Lab Sample ID:	DA40628-1	**Date Sampled:**	01/05/22
Matrix:	DW - Drinking Water	**Date Received:**	01/06/22
Method:	EPA 525.2 EPA 525.2	**Percent Solids:**	n/a
Project:	JBPHHH DW Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	1G157189.D	1	01/06/22 17:55	DC	01/06/22 10:30	OP21020	E1G3084
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

SVOC Special List

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
15972-60-8	Alachlor	0.19 U	2.0	0.19	0.19	ug/l	
1912-24-9	Atrazine	0.096 U	3.0	0.096	0.096	ug/l	
50-32-8	Benzo(a)pyrene	0.019 U	0.20	0.019	0.019	ug/l	
103-23-1	bis(2-Ethylhexyl)adipate	0.58 U	400	0.58	0.58	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.58 U	6.0	0.58	0.58	ug/l	
76-44-8	Heptachlor	0.019 U	0.40	0.038	0.019	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U		0.48	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U		0.48	0.48	ug/l	
91-20-3	Naphthalene	0.48 U		0.48	0.48	ug/l	
122-34-9	Simazine	0.067 U	4.0	0.067	0.067	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	Perylene-d12	104%		70-130%
	Pyrene-d10	112%		70-130%
115-86-6	Triphenyl phosphate	115%		70-130%

(a) Sample was not preserved to a pH of 2 during collection.

U = Not detected MDL = Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 141)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	20220105-F1-ZT02		
Lab Sample ID:	DA40628-1	**Date Sampled:**	01/05/22
Matrix:	DW - Drinking Water	**Date Received:**	01/06/22
Method:	EPA 505 EPA 505	**Percent Solids:**	n/a
Project:	JBPHHH DW Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GEH50075.D	1	01/06/22 21:14	NO	01/06/22 09:00	OP21021	GEH1899
Run #2	GEH50066.D	1	01/06/22 19:02	NO	01/06/22 09:00	OP21021	GEH1899

	Initial Volume	Final Volume
Run #1	35.0 ml	2.0 ml
Run #2	35.0 ml	2.0 ml

PCB 505 List

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	0.010 U [a]	0.20	0.010	0.010	ug/l	
12789-03-6	Chlordane	0.20 U [a]	2.0	0.20	0.20	ug/l	
72-20-8	Endrin	0.010 U [a]	2.0	0.010	0.010	ug/l	
1024-57-3	Heptachlor epoxide	0.020 U [a]	0.20	0.020	0.020	ug/l	
118-74-1	Hexachlorobenzene	0.020 U [a]	1.0	0.020	0.020	ug/l	
77-47-4	Hexachlorocyclopentadiene	0.040 U [a]	50	0.040	0.040	ug/l	
72-43-5	Methoxychlor	0.020 U [a]	40	0.020	0.020	ug/l	
12674-11-2	Aroclor 1016	0.080 U	0.50	0.080	0.080	ug/l	
11104-28-2	Aroclor 1221	0.10 U	0.50	0.10	0.10	ug/l	
11141-16-5	Aroclor 1232	0.10 U	0.50	0.10	0.10	ug/l	
53469-21-9	Aroclor 1242	0.10 U	0.50	0.10	0.10	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.50	0.10	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.50	0.10	0.10	ug/l	
11096-82-5	Aroclor 1260	0.10 U	0.50	0.10	0.10	ug/l	
1336-36-3	Total PCBs	0.10 U	0.50	0.10	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%	106%	70-140%
877-09-8	Tetrachloro-m-xylene	102%	90%	70-140%

(a) Result is from Run# 2

U = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 141) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 20220105-F1-ZT02
Lab Sample ID: DA40628-1
Matrix: DW - Drinking Water
Project: JBPHHH DW Sampling

Date Sampled: 01/05/22
Date Received: 01/06/22
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.10 U	6.0	0.40	0.10	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Arsenic	1.2 J	10	2.0	0.50	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Barium	2.2	2000	2.0	0.50	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Beryllium	0.15 U	4.0	0.30	0.15	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Cadmium	0.050 U	5.0	0.15	0.050	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Chromium	2.2	100	2.0	0.50	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Copper	5.7	1300	2.0	0.50	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Lead	0.70	15	0.50	0.13	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Mercury	0.058 J	2.0	0.10	0.050	ug/l	1	01/06/22	01/07/22	CDL	EPA 245.1 [1]	EPA 245.1 [4]
Selenium	0.30 U	50	0.70	0.30	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]
Thallium	0.050 U	2.0	0.20	0.050	ug/l	1	01/06/22	01/07/22	GH	EPA 200.8 [2]	EPA 200.8 [3]

(1) Instrument QC Batch: MA14503
(2) Instrument QC Batch: MA14504
(3) Prep QC Batch: MP33996
(4) Prep QC Batch: MP33997

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 141) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	20220105-F1-ZT02		
Lab Sample ID:	DA40628-1	**Date Sampled:**	01/05/22
Matrix:	DW - Drinking Water	**Date Received:**	01/06/22
		Percent Solids:	n/a
Project:	JBPHHH DW Sampling		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	0.22 U	0.50	0.22	mg/l	1	01/06/22 12:03	JB	SM 5310C-2011

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	20220105-F1-ZT04		
Lab Sample ID:	DA40628-2	**Date Sampled:**	01/05/22
Matrix:	DW - Drinking Water	**Date Received:**	01/06/22
Method:	EPA 524.2	**Percent Solids:**	n/a
Project:	JBPHHH DW Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	8V21851.D	1	01/06/22 14:35	DC	n/a	n/a	V8V1018
Run #2							

	Purge Volume
Run #1	25.0 ml
Run #2	

VOA List

CAS No.	Compound	Result	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.50 U	5.0	0.50	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	5.0	0.50	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	100	0.50	0.50	ug/l	
95-50-1	o-Dichlorobenzene	0.50 U	600	0.50	0.50	ug/l	
106-46-7	p-Dichlorobenzene	0.50 U	75	0.50	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	5.0	0.50	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	7.0	0.50	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	70	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	100	0.50	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	5.0	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	0.50 U	700	0.50	0.50	ug/l	
75-09-2	Methylene chloride	0.50 U	5.0	0.50	0.50	ug/l	
100-42-5	Styrene	0.50 U	100	0.50	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	5.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1000	0.50	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	70	0.50	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	200	0.50	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	5.0	0.50	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	5.0	0.50	0.50	ug/l	
75-01-4	Vinyl chloride	0.50 U	2.0	0.50	0.50	ug/l	
	m,p-Xylene	0.50 U		0.50	0.50	ug/l	
95-47-6	o-Xylene	0.50 U		0.50	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		70-130%
2199-69-1	1,2-Dichlorobenzene-d4	103%		70-130%

U = Not detected MDL = Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 141)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

DA40628 Page 1 of 1

SGS North America Inc. - Wheat Ridge
4036 Youngfield Street
Wheat Ridge, CO 80033-3862
303-425-6021; 877-737-4521
FAX: 303-425-6854
www.sgs.com/ehsus2

SGS Job # 0105 2022 DW 04

Client/Reporting Information	Billing Information (If different from reporting)	Project Information
Company: AECOM	Company:	PWSID or Project #: 6067444
Street: 1001 Bishop Street	Street:	System Name:
City: Honolulu State: HI ZIP: 96813	City: State: ZIP:	System Address:
Contact: Margie Pascua Phone: 808-523-3874	Attention:	City: State: ZIP:
Email: margie.pascua@aecom.com	Client PO #:	Contact Person:
Sampler: SW Phone:	SGS Quote/Bottle Order #:	Tel: Email:

Turn Around Time (Business days)
- ☐ Standard 10 Business Days
- ☐ 5 Business Days RUSH
- ☐ 3 Business Days RUSH
- ☒ 2 Business Days RUSH
- ☐ 1 Business Day EMERGENCY

State Form Information
Compliance Samples Yes ☐ No ☐
Submit Results to State Portal Yes ☐ No ☐

Drinking Water Analyses (check analysis)

Sample Location or ID	Date	Time	No. of Containers	THM 524.2	VOC 524.2	Haloacetic Acids 552.2	EDB/DBCP 504.1	~~Pesticides~~/PCBs 505	Herbicides 515.4	SOC + OP Pesticides 525.2	Carbamates 531.1	Glyphosate 547	Endothall 548.1	Diquat 549.2	Nitrate-N ☐	Nitrite-N ☐	Fluoride ☐	Alkalinity ☐	Langlier Index	TOC ☐ 5310C	DOC ☐	SUVA ☐ UV254 ☐	11 Inorganic Metals *	Lead & Copper 200.8	Uranium 200.8	5 HAA 552.2	Dalapon 552.2	Ra 226 + Ra 228	Gross-A + Total Solid	Gross- A+B	Ra 226 ☐ Ra 228 ☐	Total Coliform (p/a)	Lab Use Only
20220105-FI-2T02	1/5/22	1430	10		X			X												X						X						01
20220105-FI-2T04	1/5/22	1425	1		X																											02

Special Instructions:

* Inorganic Metals Include: Sb, As, Ba, Be, Cd, Cr, Hg, Ni, Se, Na, Tl

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:
1 Sam Wells	1/5/22 1615	1 Conner Rothe	1/5/22 1615	2 Conner Rothe	1645
Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
2		3		3	1/6/22 0758

Custody Seal # Intact ☐ Not Intact ☐ Absent ☐ Preserved where applicable: ☐ Cooler Temp. (°C): 5.6 Therm. ID: [illegible] On Ice: ☑

http://www.sgs.com/terms_and_conditions

EHSA-QAC-0026-02-FORM-Wheat Ridge - DW COC. Rev. Date 8/18/20

DA40628: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: DA40628 **Client:** AECOM **Project:** 60674414

Date / Time Received: 1/6/2022 8:50:00 AM **Delivery Method:** **Airbill #'s:** HD

Cooler Temps (Initial/Adjusted): 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Comments

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

DA40628: Chain of Custody
Page 2 of 2

MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V8V1018-MB	8V21848.D	1	01/06/22	DC	n/a	n/a	V8V1018

The QC reported here applies to the following samples: **Method:** EPA 524.2

DA40628-1, DA40628-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	0.50	ug/l	
108-90-7	Chlorobenzene	ND	0.50	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	0.50	ug/l	
75-09-2	Methylene chloride	ND	0.50	0.50	ug/l	
100-42-5	Styrene	ND	0.50	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	0.50	ug/l	
108-88-3	Toluene	ND	0.50	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.50	ug/l	
79-01-6	Trichloroethylene	ND	0.50	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	0.50	ug/l	
	m,p-Xylene	ND	0.50	0.50	ug/l	
95-47-6	o-Xylene	ND	0.50	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	97%	70-130%
2199-69-1	1,2-Dichlorobenzene-d4	103%	70-130%

Blank Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V8V1018-BS	8V21847.D	1	01/06/22	DC	n/a	n/a	V8V1018

The QC reported here applies to the following samples: **Method:** EPA 524.2

DA40628-1, DA40628-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	5	5.5	110	70-130
56-23-5	Carbon tetrachloride	5	5.8	116	70-130
108-90-7	Chlorobenzene	5	6.0	120	70-130
95-50-1	o-Dichlorobenzene	5	5.3	106	70-130
106-46-7	p-Dichlorobenzene	5	5.6	112	70-130
107-06-2	1,2-Dichloroethane	5	5.7	114	70-130
75-35-4	1,1-Dichloroethylene	5	5.6	112	70-130
156-59-2	cis-1,2-Dichloroethylene	5	5.6	112	70-130
156-60-5	trans-1,2-Dichloroethylene	5	5.5	110	70-130
78-87-5	1,2-Dichloropropane	5	5.7	114	70-130
100-41-4	Ethylbenzene	5	5.7	114	70-130
75-09-2	Methylene chloride	5	5.4	108	70-130
100-42-5	Styrene	5	5.6	112	70-130
127-18-4	Tetrachloroethylene	5	5.8	116	70-130
108-88-3	Toluene	5	6.2	124	70-130
120-82-1	1,2,4-Trichlorobenzene	5	5.6	112	70-130
71-55-6	1,1,1-Trichloroethane	5	5.6	112	70-130
79-00-5	1,1,2-Trichloroethane	5	5.8	116	70-130
79-01-6	Trichloroethylene	5	5.8	116	70-130
75-01-4	Vinyl chloride	5	5.9	118	70-130
	m,p-Xylene	10	12.6	126	70-130
95-47-6	o-Xylene	5	6.0	120	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	108%	70-130%
2199-69-1	1,2-Dichlorobenzene-d4	106%	70-130%

* = Outside of Control Limits.

Duplicate Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA40628-1DUP	8V21850.D	1	01/06/22	DC	n/a	n/a	V8V1018
DA40628-1	8V21849.D	1	01/06/22	DC	n/a	n/a	V8V1018

The QC reported here applies to the following samples: **Method:** EPA 524.2

DA40628-1, DA40628-2

CAS No.	Compound	DA40628-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	0.50 U		ND		nc	30
56-23-5	Carbon tetrachloride	0.50 U		ND		nc	30
108-90-7	Chlorobenzene	0.50 U		ND		nc	30
95-50-1	o-Dichlorobenzene	0.50 U		ND		nc	30
106-46-7	p-Dichlorobenzene	0.50 U		ND		nc	30
107-06-2	1,2-Dichloroethane	0.50 U		ND		nc	30
75-35-4	1,1-Dichloroethylene	0.50 U		ND		nc	30
156-59-2	cis-1,2-Dichloroethylene	0.50 U		ND		nc	30
156-60-5	trans-1,2-Dichloroethylene	0.50 U		ND		nc	30
78-87-5	1,2-Dichloropropane	0.50 U		ND		nc	30
100-41-4	Ethylbenzene	0.50 U		ND		nc	30
75-09-2	Methylene chloride	0.50 U		ND		nc	30
100-42-5	Styrene	0.50 U		ND		nc	30
127-18-4	Tetrachloroethylene	0.50 U		ND		nc	30
108-88-3	Toluene	0.50 U		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	0.50 U		ND		nc	30
71-55-6	1,1,1-Trichloroethane	0.50 U		ND		nc	30
79-00-5	1,1,2-Trichloroethane	0.50 U		ND		nc	30
79-01-6	Trichloroethylene	0.50 U		ND		nc	30
75-01-4	Vinyl chloride	0.50 U		ND		nc	30
	m,p-Xylene	0.50 U		ND		nc	30
95-47-6	o-Xylene	0.50 U		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	DA40628-1	Limits
460-00-4	4-Bromofluorobenzene	91%	94%	70-130%
2199-69-1	1,2-Dichlorobenzene-d4	104%	104%	70-130%

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Method: EPA 524.2 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2
DA40628-1	8V21849.D	94	104
DA40628-2	8V21851.D	95	103
DA40628-1DUP	8V21850.D	91	104
V8V1018-BS	8V21847.D	108	106
V8V1018-MB	8V21848.D	97	103

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	70-130%
S2 = 1,2-Dichlorobenzene-d4	70-130%

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21020-MB	1G157185.D	1	01/06/22	DC	01/06/22	OP21020	E1G3084

The QC reported here applies to the following samples: **Method:** EPA 525.2

DA40628-1

CAS No.	Compound	Result	RL	MDL	Units	Q
15972-60-8	Alachlor	ND	0.20	0.20	ug/l	
1912-24-9	Atrazine	ND	0.10	0.10	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.020	0.020	ug/l	
103-23-1	bis(2-Ethylhexyl)adipate	ND	0.60	0.60	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.60	0.60	ug/l	
76-44-8	Heptachlor	ND	0.040	0.020	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.50	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.50	0.50	ug/l	
91-20-3	Naphthalene	ND	0.50	0.50	ug/l	
122-34-9	Simazine	ND	0.070	0.070	ug/l	

CAS No.	Surrogate Recoveries		Limits
	Perylene-d12	101%	70-130%
	Pyrene-d10	111%	70-130%
115-86-6	Triphenyl phosphate	110%	70-130%

Blank Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21020-BS	1G157186.D	1	01/06/22	DC	01/06/22	OP21020	E1G3084

The QC reported here applies to the following samples: **Method:** EPA 525.2

DA40628-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
15972-60-8	Alachlor	1	1.2	120	70-130
1912-24-9	Atrazine	1	1.2	120	70-130
50-32-8	Benzo(a)pyrene	2	2.1	105	70-130
103-23-1	bis(2-Ethylhexyl)adipate	1	1.2	120	70-130
117-81-7	bis(2-Ethylhexyl)phthalate	1	1.3	130	70-130
76-44-8	Heptachlor	1	1.2	120	70-130
122-34-9	Simazine	1	1.1	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	Perylene-d12	104%	70-130%
	Pyrene-d10	108%	70-130%
115-86-6	Triphenyl phosphate	112%	70-130%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21020-MS	1G157188.D	1	01/06/22	DC	01/06/22	OP21020	E1G3084
DA40628-1 [a]	1G157189.D	1	01/06/22	DC	01/06/22	OP21020	E1G3084

The QC reported here applies to the following samples: **Method:** EPA 525.2

DA40628-1

CAS No.	Compound	DA40628-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
15972-60-8	Alachlor	0.19 U		0.962	1.2	125	70-130
1912-24-9	Atrazine	0.096 U		0.962	1.1	114	70-130
50-32-8	Benzo(a)pyrene	0.019 U		1.92	2.1	109	70-130
103-23-1	bis(2-Ethylhexyl)adipate	0.58 U		0.962	1.2	125	70-130
117-81-7	bis(2-Ethylhexyl)phthalate	0.58 U		0.962	1.4	146* [b]	70-130
76-44-8	Heptachlor	0.038 U		0.962	1.2	125	70-130
122-34-9	Simazine	0.067 U		0.962	1.0	104	70-130

CAS No.	Surrogate Recoveries	MS	DA40628-1	Limits
	Perylene-d12	104%	104%	70-130%
	Pyrene-d10	109%	112%	70-130%
115-86-6	Triphenyl phosphate	112%	115%	70-130%

(a) Sample was not preserved to a pH of 2 during collection.
(b) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Method: EPA 525.2 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
DA40628-1	1G157189.D	104	112	115
OP21020-BS	1G157186.D	104	108	112
OP21020-MB	1G157185.D	101	111	110
OP21020-MS	1G157188.D	104	109	112

Surrogate Compounds	Recovery Limits
S1 = Perylene-d12	70-130%
S2 = Pyrene-d10	70-130%
S3 = Triphenyl phosphate	70-130%

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21021-MB	GEH50063.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899

The QC reported here applies to the following samples: **Method:** EPA 505

DA40628-1

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.010	ug/l	
12789-03-6	Chlordane	ND	0.20	0.20	ug/l	
72-20-8	Endrin	ND	0.010	0.010	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.020	0.020	ug/l	
118-74-1	Hexachlorobenzene	ND	0.020	0.020	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.040	0.040	ug/l	
72-43-5	Methoxychlor	ND	0.020	0.020	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	95%	70-140%
877-09-8	Tetrachloro-m-xylene	78%	70-140%

Method Blank Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21021-MB	GEH50073.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899

The QC reported here applies to the following samples: **Method:** EPA 505

DA40628-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.080	0.080	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	0.10	ug/l	
1336-36-3	Total PCBs	ND	0.10	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	87%	70-140%
877-09-8	Tetrachloro-m-xylene	89%	70-140%

Blank Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21021-BS1	GEH50064.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899

The QC reported here applies to the following samples: **Method:** EPA 505

DA40628-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	0.5	0.53	106	70-130
72-20-8	Endrin	0.5	0.55	110	70-130
1024-57-3	Heptachlor epoxide	0.5	0.58	116	70-130
118-74-1	Hexachlorobenzene	0.5	0.59	118	70-130
77-47-4	Hexachlorocyclopentadiene	1	1.0	100	70-130
72-43-5	Methoxychlor	0.5	0.55	110	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	109%	70-140%
877-09-8	Tetrachloro-m-xylene	107%	70-140%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21021-BS2	GEH50074.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899

The QC reported here applies to the following samples: **Method:** EPA 505

DA40628-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	1.5	1.8	120	70-130
11096-82-5	Aroclor 1260	1.5	1.9	127	70-130
1336-36-3	Total PCBs	3	3.7	123	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	109%	70-140%
877-09-8	Tetrachloro-m-xylene	109%	70-140%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP21021-MS1	GEH50065.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899
DA40628-1	GEH50066.D	1	01/06/22	NO	01/06/22	OP21021	GEH1899

The QC reported here applies to the following samples: **Method:** EPA 505

DA40628-1

CAS No.	Compound	DA40628-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
58-89-9	gamma-BHC (Lindane)	0.010	U	0.5	0.53	106	65-135
72-20-8	Endrin	0.010	U	0.5	0.54	108	65-135
1024-57-3	Heptachlor epoxide	0.020	U	0.5	0.58	116	65-135
118-74-1	Hexachlorobenzene	0.020	U	0.5	0.58	116	65-135
77-47-4	Hexachlorocyclopentadiene	0.040	U	1	1.0	100	65-135
72-43-5	Methoxychlor	0.020	U	0.5	0.60	120	65-135

CAS No.	Surrogate Recoveries	MS	DA40628-1	Limits
877-09-8	Tetrachloro-m-xylene	108%	106%	70-140%
877-09-8	Tetrachloro-m-xylene	117%	90%	70-140%

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: DA40628
Account: AECOMHIH AECOM
Project: JBPHHH DW Sampling

Method: EPA 505 **Matrix:** DW

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
DA40628-1	GEH50066.D	106	90
DA40628-1	GEH50075.D	95	102
OP21021-BS1	GEH50064.D	109	107
OP21021-BS2	GEH50074.D	109	109
OP21021-MB	GEH50063.D	95	78
OP21021-MB	GEH50073.D	87	89
OP21021-MS1	GEH50065.D	108	117

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	70-140%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33996 Methods: EPA 200.8
Matrix Type: DRINKING WATER Units: mg/l

Prep Date: 01/06/22

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.050	.001	.02		
Antimony	0.00040	.00001	.0001	0.000052	<0.00040
Arsenic	0.0020	.00032	.0005	-0.000093	<0.0020
Barium	0.0020	.0001	.0005	0.00037	<0.0020
Beryllium	0.00030	.000077	.00015	0.000044	<0.00030
Boron	0.040	.021	.03		
Cadmium	0.00015	.000023	.00005	-0.000030	<0.00015
Calcium	0.40	.025	.1		
Chromium	0.0020	.00005	.0005	-0.00014	<0.0020
Cobalt	0.00020	.000051	.000075		
Copper	0.0020	.000054	.0005	0.00012	<0.0020
Iron	0.020	.0029	.01		
Lead	0.00050	.000026	.00013	0.000020	<0.00050
Magnesium	0.10	.01	.025		
Manganese	0.0010	.000045	.0004		
Molybdenum	0.0010	.000026	.00025		
Nickel	0.0020	.000037	.001		
Potassium	0.20	.006	.05		
Selenium	0.00070	.00014	.0003	-0.000022	<0.00070
Silver	0.00010	.000005	.000025		
Sodium	0.50	.01	.13		
Strontium	0.020	.0001	.005		
Thallium	0.00020	.000016	.00005	0.0000078	<0.00020
Tin	0.010	.00022	.0025		
Titanium	0.0050	.00011	.0019		
Uranium	0.00020	.000015	.00005		
Vanadium	0.040	.002	.005		
Zinc	0.010	.00005	.0025		

Associated samples MP33996: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33996
Matrix Type: DRINKING WATER

Methods: EPA 200.8
Units: mg/l

Prep Date: 01/06/22

Metal	DA40427-1 Original	MS	Spikelot ICPALL4	% Rec	QC Limits
Aluminum					
Antimony	0.000083	0.13	0.10	129.9	70-130
Arsenic	0.00070	0.21	0.20	104.7	70-130
Barium	0.060	0.51	0.40	112.5	70-130
Beryllium	0.0	0.11	0.10	110.0	70-130
Boron					
Cadmium	0.0	0.10	0.10	100.0	70-130
Calcium					
Chromium	0.00049	0.094	0.10	93.5	70-130
Cobalt					
Copper	0.0013	0.10	0.10	98.7	70-130
Iron	anr				
Lead	0.00023	0.20	0.20	99.9	70-130
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	0.00078	0.20	0.20	99.6	70-130
Silver					
Sodium	anr				
Strontium					
Thallium	0.000072	0.20	0.20	100.0	70-130
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	anr				

Associated samples MP33996: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33996
Matrix Type: DRINKING WATER

Methods: EPA 200.8
Units: mg/l

Prep Date: 01/06/22

Metal	DA40427-1 Original	MSD	Spikelot ICPALL4	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.000083	0.13	0.10	129.9	0.0	20
Arsenic	0.00070	0.22	0.20	109.7	4.7	20
Barium	0.060	0.50	0.40	110.0	2.0	20
Beryllium	0.0	0.10	0.10	100.0	9.5	20
Boron						
Cadmium	0.0	0.10	0.10	100.0	0.0	20
Calcium						
Chromium	0.00049	0.098	0.10	97.5	4.2	20
Cobalt						
Copper	0.0013	0.10	0.10	98.7	0.0	20
Iron	anr					
Lead	0.00023	0.21	0.20	104.9	4.9	20
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	0.00078	0.21	0.20	104.6	4.9	20
Silver						
Sodium	anr					
Strontium						
Thallium	0.000072	0.21	0.20	105.0	4.9	20
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP33996: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33996
Matrix Type: DRINKING WATER

Methods: EPA 200.8
Units: mg/l

Prep Date: 01/06/22

Metal	BSP Result	Spikelot ICPALL4	% Rec	QC Limits
Aluminum				
Antimony	0.13	0.10	130.0*(a	85-115
Arsenic	0.21	0.20	105.0	85-115
Barium	0.44	0.40	110.0	85-115
Beryllium	0.10	0.10	100.0	85-115
Boron				
Cadmium	0.10	0.10	100.0	85-115
Calcium				
Chromium	0.098	0.10	98.0	85-115
Cobalt				
Copper	0.10	0.10	100.0	85-115
Iron	anr			
Lead	0.21	0.20	105.0	85-115
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	0.20	0.20	100.0	85-115
Silver				
Sodium	anr			
Strontium				
Thallium	0.21	0.20	105.0	85-115
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP33996: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Outside control limits biased high. Reported samples are ND.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33997 Methods: EPA 245.1
Matrix Type: DRINKING WATER Units: mg/l

Prep Date: 01/06/22

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00010	.000015	.00005	-0.000023	<0.00010

Associated samples MP33997: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33997 Methods: EPA 245.1
Matrix Type: DRINKING WATER Units: mg/l

Prep Date: 01/06/22

Metal	DA40427-1 Original	MS	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.000029	0.0036	0.0031	114.3	70-130

Associated samples MP33997: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33997 Methods: EPA 245.1
Matrix Type: DRINKING WATER Units: mg/l

Prep Date: 01/06/22

Metal	DA40427-1 Original	MSD	Spikelot HGWSR1	% Rec	MSD RPD	QC Limit
Mercury	0.000029	0.0036	0.0031	114.3	0.0	20

Associated samples MP33997: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

QC Batch ID: MP33997 Methods: EPA 245.1
Matrix Type: DRINKING WATER Units: mg/l

Prep Date: 01/06/22

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.0036	0.0031	115.2*(a	85-115

Associated samples MP33997: DA40628-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Outside control limits biased high. Reported samples are ND.

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Total Organic Carbon	GP30479/GN55107	0.50	0.0	mg/l	4.68	4.82	103.0	90-110%

Associated Samples:
Batch GP30479: DA40628-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Carbon	GP30479/GN55107	DA40628-1	mg/l	0.22 U	2	2.1	105.0	80-120%

Associated Samples:
Batch GP30479: DA40628-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: DA40628
Account: AECOMHIH - AECOM
Project: JBPHHH DW Sampling

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Total Organic Carbon	GP30479/GN55107	DA40628-1	mg/l	0.22 U	2	2.1	0.0	20%

Associated Samples:
Batch GP30479: DA40628-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

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Memorandum

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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 13, 2022		

The summary data quality review of 4 water samples and 1 trip blank collected on January 5 and 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 groups 580-109011-1 and 580-109054-1:

Sample ID	Laboratory ID	Requested Analyses
20220105-D3-ZT01	580-109011-1	VOCs, SVOCs, TPH
20220105-F1-ZT02	580-109011-2	TPH
20220105-C1-ZT03	580-109054-1	VOCs, SVOCs, TPH
20220105-D3-ZT02 (trip blank)	580-109054-2	TPH (gasoline range)
20220105-D3-ZT03	580-109054-3	TPH

Upon receipt by Eurofins TestAmerica-Seattle, the sample jar information was compared to the associated 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 580-109054-1 were received at temperatures below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at -0.7°C and -0.2°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 recovery for the VOC surrogate toluene-d8 was below the laboratory control limits of 89-112% in 20220105-D3-ZT01 (6%). The toluene-d8 recovery was below 10% in this sample; therefore, all VOC results were rejected.

- The percent recoveries for the following SVOC surrogates were outside the laboratory control limits:

Sample ID	2-Fluorophenol (19-119%)	Phenol-d5 (10-120%)	2,4,6-Tribromophenol (43-140%)
20220105-D3-ZT01	1%	0.5%	151%
20220105-C1-ZT03	6%	0.3%	acceptable

  Two or more acid-fraction SVOC surrogate recoveries were below 10% in each of the samples noted above; therefore, the results for all acid-fraction SVOCs reported as not detected in 20220105-D3-ZT01 and 20220105-C1-ZT03 were rejected. The results for bis(2-chloroethoxy)ether and 3&4-methylphenol in 20220105-C1-ZT03 were qualified as estimated and flagged 'J-."

- The laboratory noted that the minimum response factors (RFs) for bis-(2-chloroethyl)ether and n-nitroso-di-n-propylamine were outside the method control criteria in the continuing calibration verification (CCV) associated with analysis batch 580-377665. The results for bis-(2-chloroethyl)ether and n-nitroso-di-n-propylamine in 20220105-D3-ZT01 were qualified as estimated and flagged 'J.'

- The laboratory noted that the minimum RF for n-nitroso-di-n-propylamine was outside the method control criteria in the continuing calibration verification (CCV) associated with analysis batch 580-377805. The result for n-nitroso-di-n-propylamine in 20220105-C1-ZT03 was qualified as estimated and flagged 'J.'

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Memorandum

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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	Lucy Panteleeff, Chemist		
Date	January 15, 2022		

The summary data quality review of 6 water samples and 4 rinsate or trip blanks collected on January 1 and January 4, 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 groups 580-108869, 580-108952, and 580-109009-1:

Sample ID	Laboratory ID	Requested Analyses
D2-DWS-TBD2-429-010122-N (trip blank)	580-108869-1	TPH (gasoline-range)
D2-DWS-D2-429-010122-N	580-108869-2	TPHs
A2-DWS-A2-3-1-010122-N	580-108869-3	TPHs
20220104-F1-TY-01 (trip blank)	580-108952-1	VOCs, TPH
20220104-F1-TY-02	580-108952-2	VOCs, SVOCs, TPH
20220104-A1-ZT02 (trip blank)	580-108952-3	TPH (gasoline-range)
20220104-A1-ZT03	580-108952-4	TPHs
20220104-A2-ZT06 (rinsate blank)	580-109009-1	TPH (gasoline-range)
20220104-A2-ZT07	580-109009-2	TPHs
20220104-A2-ZT08	580-109009-3	TPHs

Upon receipt by Eurofins TestAmerica-Seattle, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperature was recorded. No discrepancies relating to sample identification were noted by the laboratory. One cooler associated with laboratory group 580-109009-1 was received at a temperature below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C, at 0.0°C. The laboratory did not note that any samples were received frozen; therefore, data were not qualified based on the low cooler temperature.

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 following SVOC surrogates were outside the laboratory control limits:

Sample ID	2-Fluorophenol (19-119%)	Phenol-d5 (10-120%)	2,4,6-Tribromophenol (43-140%)
20220104-F1-TY-02	0.2%	0.1%	41%

All of the acid-fraction SVOC surrogate recoveries were below 10% in the sample noted above; therefore, the results for all acid-fraction SVOCs reported as not detected in 20220104-F1-TY-02 were rejected. The acid-fraction SVOCs are listed below:

2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2-Chlorophenol
2-Methylphenol
3 & 4 Methylphenol
4,6-Dinitro-2-methylphenol
4-Chloro-3-methylphenol
4-Nitrophenol
Pentachlorophenol
Phenol

- The laboratory noted that the percent difference (%D) for hexachlorocyclopentadiene in the continuing calibration verification (CCV) associated with batch 377587 was below the method control criteria. The result for hexachlorocyclopentadiene in 20220104-F1-TY-02 was qualified as estimated and flagged 'UJ.'

- The laboratory noted that the minimum response factors (RFs) for bis(2-chloroethyl)ether and n-nitrosodi-n-propylamine were outside the method control criteria in the CCV associated with analysis batch 377587. The results for bis(2-chloroethyl)ether and n-nitrosodi-n-propylamine in 20220104-F1-TY-02 were qualified as estimated and flagged 'UJ.'

- The following analyte exceeded the Incident Specific Screening Criteria:

Sample Name	Analyte	Result	MDL	Incident Specific Screening Criteria	Units
20220104-F1-TY-02	Hexachlorobenzene	ND	0.041	0.0003	µg/L

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Memorandum

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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	Brian Nagy, Project Manager		
Date	January 15, 2022		

The summary data quality review of 1 drinking water sample and 1 trip blank collected on January 5, 2022, has been completed. The samples were collected by AECOM personnel and were analyzed at SGS North America, in Wheat Ridge, Colorado, for volatile organic compounds (VOCs) by EPA Method 524.2, semi-volatile organic compounds (SVOCs) by EPA Method 525.2, polychlorinated biphenyls (PCBs) by EPA Method 505, metals by EPA Method 200.8, mercury by EPA Method 245.1, and/or total organic carbon (TOC) by Standard Methods (SM) 5310C. The analyses were performed in general accordance with EPA's drinking water methods. The laboratory provided a summary report containing sample results and associated quality assurance (QA) and quality control (QC) data. The following samples are associated with SGS North America - Wheat Ridge laboratory group DA40628:

Sample ID	Laboratory ID	Requested Analyses
20220105-F1-ZT02	DA40628-1	524.2, 525.2, 505, 200.8, 245.1, SM5310C
20220105-F1-ZT04 (trip blank)	DA40628-2	524.2

Upon receipt by SGS North America - Wheat Ridge, the sample container information was compared to the associated chain-of-custody (COC) and the cooler temperature was recorded. No discrepancies relating to sample identification were noted by the laboratory. The one cooler submitted in association with laboratory group DA40628 was received at a temperature within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at 5.6°C.

Data validation is based on method performance criteria and QC criteria documented in the laboratory report. Holding times, 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.

No sample results required qualification.

- The following analytes exceeded the Incident Specific Screening Criteria:

Sample Name	Analyte	Result	MDL	Incident Specific Screening Criteria	Units
20220105-F1-ZT02	Chlordane	ND	0.2	0.004	µg/L
20220105-F1-ZT02	Endrin	ND	0.01	0.0023	µg/L
20220105-F1-ZT02	Heptachlor	ND	0.019	0.0036	µg/L
20220105-F1-ZT02	Heptachlor epoxide	ND	0.02	0.0036	µg/L
20220105-F1-ZT02	Hexachlorobenzene	ND	0.02	0.0003	µg/L