TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
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Tel: (716)691-2600

TestAmerica Job ID: 480-148768-1
Client Project/Site: 60584654, Penn Yan Former MGP Phase 2
Revision: 1

For:
AECOM
40 British American Blvd
Latham, New York 12110

Attn: Mr. Matt Thorpe

Melissa Deyo

Authorized for release by:
2/18/2019 12:34:19 PM

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Definitions/Glossary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

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Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-148768-1

Revision I
This report was revised to include Chromium.

Receipt
The sample was received on 2/7/2019 10:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

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

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-458571 and analytical batch 480-458722 recovered outside control limits for the following analyte: Carbazole. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data have been reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-458722 recovered outside acceptance criteria, low biased, for Benzaldehyde. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated sample was non-detect for this analyte, the data have been reported.

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

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

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

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-458571.

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

Detection Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Client Sample ID: PWFTWWNA082

Lab Sample ID: 480-148768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	0.41	J B	5.0	0.31	ug/L	1		8270D	Total/NA
Phenol	0.45	J	5.0	0.39	ug/L	1		8270D	Total/NA
Nickel	0.0041	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0071	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Biochemical Oxygen Demand	3.0	b	2.0	2.0	mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Client Sample ID: PWFTWWNA082
Date Collected: 02/06/19 08:50
Date Received: 02/07/19 10:30

Lab Sample ID: 480-148768-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/08/19 19:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/08/19 19:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/08/19 19:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/08/19 19:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/08/19 19:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/08/19 19:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/08/19 19:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/08/19 19:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/08/19 19:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/08/19 19:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/08/19 19:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/08/19 19:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/08/19 19:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/08/19 19:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/08/19 19:40	1
2-Hexanone	ND		5.0	1.2	ug/L			02/08/19 19:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/08/19 19:40	1
Acetone	ND		10	3.0	ug/L			02/08/19 19:40	1
Benzene	ND		1.0	0.41	ug/L			02/08/19 19:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/08/19 19:40	1
Bromoform	ND		1.0	0.26	ug/L			02/08/19 19:40	1
Bromomethane	ND		1.0	0.69	ug/L			02/08/19 19:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/08/19 19:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/08/19 19:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/08/19 19:40	1
Chloroethane	ND		1.0	0.32	ug/L			02/08/19 19:40	1
Chloroform	ND		1.0	0.34	ug/L			02/08/19 19:40	1
Chloromethane	ND		1.0	0.35	ug/L			02/08/19 19:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/08/19 19:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/08/19 19:40	1
Cyclohexane	ND		1.0	0.18	ug/L			02/08/19 19:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/08/19 19:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/08/19 19:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/08/19 19:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/08/19 19:40	1
Methyl acetate	ND		2.5	1.3	ug/L			02/08/19 19:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/08/19 19:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/08/19 19:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/08/19 19:40	1
Styrene	ND		1.0	0.73	ug/L			02/08/19 19:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/08/19 19:40	1
Toluene	ND		1.0	0.51	ug/L			02/08/19 19:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/08/19 19:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/08/19 19:40	1
Trichloroethene	ND		1.0	0.46	ug/L			02/08/19 19:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/08/19 19:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/08/19 19:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/08/19 19:40	1

Client Sample ID: PWFTWWNA082
Date Collected: 02/06/19 08:50
Date Received: 02/07/19 10:30

Lab Sample ID: 480-148768-1
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					02/08/19 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		02/08/19 19:40	1
4-Bromofluorobenzene (Surr)	100		73 - 120		02/08/19 19:40	1
Dibromofluoromethane (Surr)	102		75 - 123		02/08/19 19:40	1
Toluene-d8 (Surr)	101		80 - 120		02/08/19 19:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 16:27	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Chlorophenol	ND		5.0	0.53	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Methylphenol	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Nitroaniline	ND		10	0.42	ug/L		02/11/19 14:32	02/12/19 16:27	1
2-Nitrophenol	ND		5.0	0.48	ug/L		02/11/19 14:32	02/12/19 16:27	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 16:27	1
3-Nitroaniline	ND		10	0.48	ug/L		02/11/19 14:32	02/12/19 16:27	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Chloroaniline	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Methylphenol	ND		10	0.36	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Nitroaniline	ND		10	0.25	ug/L		02/11/19 14:32	02/12/19 16:27	1
4-Nitrophenol	ND		10	1.5	ug/L		02/11/19 14:32	02/12/19 16:27	1
Acenaphthene	ND		5.0	0.41	ug/L		02/11/19 14:32	02/12/19 16:27	1
Acenaphthylene	ND		5.0	0.38	ug/L		02/11/19 14:32	02/12/19 16:27	1
Acetophenone	ND		5.0	0.54	ug/L		02/11/19 14:32	02/12/19 16:27	1
Anthracene	ND		5.0	0.28	ug/L		02/11/19 14:32	02/12/19 16:27	1
Atrazine	ND		5.0	0.46	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzaldehyde	ND		5.0	0.27	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 16:27	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		02/11/19 14:32	02/12/19 16:27	1
Biphenyl	ND		5.0	0.65	ug/L		02/11/19 14:32	02/12/19 16:27	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		02/11/19 14:32	02/12/19 16:27	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 16:27	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 16:27	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		02/11/19 14:32	02/12/19 16:27	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		02/11/19 14:32	02/12/19 16:27	1

Client Sample ID: PWFTWWNA082
Date Collected: 02/06/19 08:50
Date Received: 02/07/19 10:30

Lab Sample ID: 480-148768-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		5.0	2.2	ug/L		02/11/19 14:32	02/12/19 16:27	1
Carbazole	ND	*	5.0	0.30	ug/L		02/11/19 14:32	02/12/19 16:27	1
Chrysene	ND		5.0	0.33	ug/L		02/11/19 14:32	02/12/19 16:27	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		02/11/19 14:32	02/12/19 16:27	1
Dibenzofuran	ND		10	0.51	ug/L		02/11/19 14:32	02/12/19 16:27	1
Diethyl phthalate	ND		5.0	0.22	ug/L		02/11/19 14:32	02/12/19 16:27	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 16:27	1
Di-n-butyl phthalate	**0.41**	**J B**	5.0	0.31	ug/L		02/11/19 14:32	02/12/19 16:27	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 16:27	1
Fluoranthene	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 16:27	1
Fluorene	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 16:27	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 16:27	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		02/11/19 14:32	02/12/19 16:27	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 16:27	1
Hexachloroethane	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 16:27	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 16:27	1
Isophorone	ND		5.0	0.43	ug/L		02/11/19 14:32	02/12/19 16:27	1
Naphthalene	ND		5.0	0.76	ug/L		02/11/19 14:32	02/12/19 16:27	1
Nitrobenzene	ND		5.0	0.29	ug/L		02/11/19 14:32	02/12/19 16:27	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		02/11/19 14:32	02/12/19 16:27	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 16:27	1
Pentachlorophenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 16:27	1
Phenanthrene	ND		5.0	0.44	ug/L		02/11/19 14:32	02/12/19 16:27	1
Phenol	**0.45**	**J**	5.0	0.39	ug/L		02/11/19 14:32	02/12/19 16:27	1
Pyrene	ND		5.0	0.34	ug/L		02/11/19 14:32	02/12/19 16:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane	*1.6*	*T J N*	*ug/L*		*2.66*	*110-82-7*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
Unknown	*3.8*	*T J*	*ug/L*		*3.00*		*02/11/19 14:32*	*02/12/19 16:27*	*1*
Unknown	*53*	*T J*	*ug/L*		*3.43*		*02/11/19 14:32*	*02/12/19 16:27*	*1*
2-Propanone, 1-chloro-	*2.2*	*T J N*	*ug/L*		*3.47*	*78-95-5*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
Unknown	*15*	*T J*	*ug/L*		*5.21*		*02/11/19 14:32*	*02/12/19 16:27*	*1*
Cyclotetrasiloxane, octamethyl-	*1.9*	*T J N*	*ug/L*		*6.27*	*556-67-2*	*02/11/19 14:32*	*02/12/19 16:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*88*		*41 - 120*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
2-Fluorobiphenyl	*96*		*48 - 120*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
2-Fluorophenol (Surr)	*76*		*35 - 120*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
Nitrobenzene-d5 (Surr)	*92*		*46 - 120*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
Phenol-d5 (Surr)	*53*		*22 - 120*	*02/11/19 14:32*	*02/12/19 16:27*	*1*
p-Terphenyl-d14 (Surr)	*104*		*59 - 136*	*02/11/19 14:32*	*02/12/19 16:27*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		02/11/19 10:46	02/13/19 11:46	1
Cadmium	ND		0.0020	0.00050	mg/L		02/11/19 10:46	02/13/19 11:46	1
Chromium	ND		0.0040	0.0010	mg/L		02/11/19 10:46	02/13/19 11:46	1
Copper	ND		0.010	0.0016	mg/L		02/11/19 10:46	02/13/19 11:46	1
Lead	ND		0.010	0.0030	mg/L		02/11/19 10:46	02/13/19 11:46	1
Molybdenum	ND		0.010	0.0036	mg/L		02/11/19 10:46	02/13/19 11:46	1

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Client Sample ID: PWFTWWNA082
Date Collected: 02/06/19 08:50
Date Received: 02/07/19 10:30

Lab Sample ID: 480-148768-1
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.0041	J	0.010	0.0013	mg/L		02/11/19 10:46	02/13/19 11:46	1
Selenium	ND		0.025	0.0087	mg/L		02/11/19 10:46	02/13/19 11:46	1
Zinc	0.0071	J	0.010	0.0015	mg/L		02/11/19 10:46	02/13/19 11:46	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/11/19 12:10	02/11/19 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		02/12/19 12:15	02/12/19 14:28	1
Biochemical Oxygen Demand	3.0	b	2.0	2.0	mg/L			02/07/19 11:49	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	4.0	mg/L			02/11/19 03:47	1

Surrogate Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)							
		DCA	BFB	DBFM	TOL				
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)				
480-148768-1	PWFTWWNA082	103	100	102	101				
LCS 480-458288/5	Lab Control Sample	100	102	104	100				
MB 480-458288/7	Method Blank	104	105	108	103				

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL	TPHd14		
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(59-136)		
480-148768-1	PWFTWWNA082	88	96	76	92	53	104		
LCS 480-458571/2-A	Lab Control Sample	106	92	81	98	63	113		
LCSD 480-458571/3-A	Lab Control Sample Dup	97	83	74	92	58	107		
MB 480-458571/1-A	Method Blank	85	86	72	85	51	113		

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-458288/7
Matrix: Water
Analysis Batch: 458288

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	ND		1.0	0.82	ug/L			02/08/19 14:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/08/19 14:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/08/19 14:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/08/19 14:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/08/19 14:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/08/19 14:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/08/19 14:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/08/19 14:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/08/19 14:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/08/19 14:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/08/19 14:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/08/19 14:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/08/19 14:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/08/19 14:53	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/08/19 14:53	1
2-Hexanone	ND		5.0	1.2	ug/L			02/08/19 14:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/08/19 14:53	1
Acetone	ND		10	3.0	ug/L			02/08/19 14:53	1
Benzene	ND		1.0	0.41	ug/L			02/08/19 14:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/08/19 14:53	1
Bromoform	ND		1.0	0.26	ug/L			02/08/19 14:53	1
Bromomethane	ND		1.0	0.69	ug/L			02/08/19 14:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/08/19 14:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/08/19 14:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/08/19 14:53	1
Chloroethane	ND		1.0	0.32	ug/L			02/08/19 14:53	1
Chloroform	ND		1.0	0.34	ug/L			02/08/19 14:53	1
Chloromethane	ND		1.0	0.35	ug/L			02/08/19 14:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/08/19 14:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/08/19 14:53	1
Cyclohexane	ND		1.0	0.18	ug/L			02/08/19 14:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/08/19 14:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/08/19 14:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/08/19 14:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/08/19 14:53	1
Methyl acetate	ND		2.5	1.3	ug/L			02/08/19 14:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/08/19 14:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/08/19 14:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			02/08/19 14:53	1
Styrene	ND		1.0	0.73	ug/L			02/08/19 14:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/08/19 14:53	1
Toluene	ND		1.0	0.51	ug/L			02/08/19 14:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/08/19 14:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/08/19 14:53	1
Trichloroethene	ND		1.0	0.46	ug/L			02/08/19 14:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/08/19 14:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/08/19 14:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/08/19 14:53	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					02/08/19 14:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		02/08/19 14:53	1
4-Bromofluorobenzene (Surr)	105		73 - 120		02/08/19 14:53	1
Dibromofluoromethane (Surr)	108		75 - 123		02/08/19 14:53	1
Toluene-d8 (Surr)	103		80 - 120		02/08/19 14:53	1

Lab Sample ID: LCS 480-458288/5
Matrix: Water
Analysis Batch: 458288

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	25.0	24.3		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		102	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.3		ug/L		101	61 - 148
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	76 - 122
1,1-Dichloroethane	25.0	24.7		ug/L		99	77 - 120
1,1-Dichloroethene	25.0	23.9		ug/L		96	66 - 127
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	56 - 134
1,2-Dibromoethane	25.0	24.1		ug/L		96	77 - 120
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	23.0		ug/L		92	75 - 120
1,2-Dichloropropane	25.0	23.7		ug/L		95	76 - 120
1,3-Dichlorobenzene	25.0	23.7		ug/L		95	77 - 120
1,4-Dichlorobenzene	25.0	22.8		ug/L		91	80 - 120
2-Butanone (MEK)	125	124		ug/L		99	57 - 140
2-Hexanone	125	126		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		102	71 - 125
Acetone	125	114		ug/L		91	56 - 142
Benzene	25.0	23.8		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122
Bromoform	25.0	25.0		ug/L		100	61 - 132
Bromomethane	25.0	22.3		ug/L		89	55 - 144
Carbon disulfide	25.0	24.9		ug/L		100	59 - 134
Carbon tetrachloride	25.0	24.2		ug/L		97	72 - 134
Chlorobenzene	25.0	24.0		ug/L		96	80 - 120
Chloroethane	25.0	23.8		ug/L		95	69 - 136
Chloroform	25.0	23.9		ug/L		95	73 - 127
Chloromethane	25.0	23.1		ug/L		93	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	74 - 124
Cyclohexane	25.0	24.5		ug/L		98	59 - 135
Dibromochloromethane	25.0	25.6		ug/L		103	75 - 125
Dichlorodifluoromethane	25.0	24.2		ug/L		97	59 - 135
Ethylbenzene	25.0	23.7		ug/L		95	77 - 123
Isopropylbenzene	25.0	24.5		ug/L		98	77 - 122
Methyl acetate	50.0	49.0		ug/L		98	74 - 133
Methyl tert-butyl ether	25.0	24.9		ug/L		100	77 - 120
Methylcyclohexane	25.0	24.5		ug/L		98	68 - 134
Methylene Chloride	25.0	25.1		ug/L		100	75 - 124

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

Lab Sample ID: LCS 480-458288/5
Matrix: Water
Analysis Batch: 458288

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	25.0	24.6		ug/L		98	80 - 120
Tetrachloroethene	25.0	23.9		ug/L		96	74 - 122
Toluene	25.0	23.4		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	23.8		ug/L		95	80 - 120
Trichloroethene	25.0	23.6		ug/L		94	74 - 123
Trichlorofluoromethane	25.0	22.7		ug/L		91	62 - 150
Vinyl chloride	25.0	23.6		ug/L		94	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: MB 480-458571/1-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 14:57	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Chlorophenol	ND		5.0	0.53	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Methylphenol	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Nitroaniline	ND		10	0.42	ug/L		02/11/19 14:32	02/12/19 14:57	1
2-Nitrophenol	ND		5.0	0.48	ug/L		02/11/19 14:32	02/12/19 14:57	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 14:57	1
3-Nitroaniline	ND		10	0.48	ug/L		02/11/19 14:32	02/12/19 14:57	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Chloroaniline	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Methylphenol	ND		10	0.36	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Nitroaniline	ND		10	0.25	ug/L		02/11/19 14:32	02/12/19 14:57	1
4-Nitrophenol	ND		10	1.5	ug/L		02/11/19 14:32	02/12/19 14:57	1
Acenaphthene	ND		5.0	0.41	ug/L		02/11/19 14:32	02/12/19 14:57	1
Acenaphthylene	ND		5.0	0.38	ug/L		02/11/19 14:32	02/12/19 14:57	1
Acetophenone	ND		5.0	0.54	ug/L		02/11/19 14:32	02/12/19 14:57	1

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

Lab Sample ID: MB 480-458571/1-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		5.0	0.28	ug/L		02/11/19 14:32	02/12/19 14:57	1
Atrazine	ND		5.0	0.46	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzaldehyde	ND		5.0	0.27	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 14:57	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		02/11/19 14:32	02/12/19 14:57	1
Biphenyl	ND		5.0	0.65	ug/L		02/11/19 14:32	02/12/19 14:57	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		02/11/19 14:32	02/12/19 14:57	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		02/11/19 14:32	02/12/19 14:57	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 14:57	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		02/11/19 14:32	02/12/19 14:57	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		02/11/19 14:32	02/12/19 14:57	1
Caprolactam	ND		5.0	2.2	ug/L		02/11/19 14:32	02/12/19 14:57	1
Carbazole	ND		5.0	0.30	ug/L		02/11/19 14:32	02/12/19 14:57	1
Chrysene	ND		5.0	0.33	ug/L		02/11/19 14:32	02/12/19 14:57	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		02/11/19 14:32	02/12/19 14:57	1
Dibenzofuran	ND		10	0.51	ug/L		02/11/19 14:32	02/12/19 14:57	1
Diethyl phthalate	ND		5.0	0.22	ug/L		02/11/19 14:32	02/12/19 14:57	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 14:57	1
Di-n-butyl phthalate	0.373	J	5.0	0.31	ug/L		02/11/19 14:32	02/12/19 14:57	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 14:57	1
Fluoranthene	ND		5.0	0.40	ug/L		02/11/19 14:32	02/12/19 14:57	1
Fluorene	ND		5.0	0.36	ug/L		02/11/19 14:32	02/12/19 14:57	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 14:57	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		02/11/19 14:32	02/12/19 14:57	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 14:57	1
Hexachloroethane	ND		5.0	0.59	ug/L		02/11/19 14:32	02/12/19 14:57	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		02/11/19 14:32	02/12/19 14:57	1
Isophorone	ND		5.0	0.43	ug/L		02/11/19 14:32	02/12/19 14:57	1
Naphthalene	ND		5.0	0.76	ug/L		02/11/19 14:32	02/12/19 14:57	1
Nitrobenzene	ND		5.0	0.29	ug/L		02/11/19 14:32	02/12/19 14:57	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		02/11/19 14:32	02/12/19 14:57	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		02/11/19 14:32	02/12/19 14:57	1
Pentachlorophenol	ND		10	2.2	ug/L		02/11/19 14:32	02/12/19 14:57	1
Phenanthrene	ND		5.0	0.44	ug/L		02/11/19 14:32	02/12/19 14:57	1
Phenol	ND		5.0	0.39	ug/L		02/11/19 14:32	02/12/19 14:57	1
Pyrene	ND		5.0	0.34	ug/L		02/11/19 14:32	02/12/19 14:57	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*3.91*	*T J*	*ug/L*		*3.00*		*02/11/19 14:32*	*02/12/19 14:57*	*1*
Unknown	*47.7*	*T J*	*ug/L*		*3.43*		*02/11/19 14:32*	*02/12/19 14:57*	*1*
2-Propanone, 1-chloro-	*3.36*	*T J N*	*ug/L*		*3.47*	*78-95-5*	*02/11/19 14:32*	*02/12/19 14:57*	*1*
Unknown	*20.6*	*T J*	*ug/L*		*5.21*		*02/11/19 14:32*	*02/12/19 14:57*	*1*

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

Lab Sample ID: MB 480-458571/1-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458571

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		41 - 120	02/11/19 14:32	02/12/19 14:57	1
2-Fluorobiphenyl	86		48 - 120	02/11/19 14:32	02/12/19 14:57	1
2-Fluorophenol (Surr)	72		35 - 120	02/11/19 14:32	02/12/19 14:57	1
Nitrobenzene-d5 (Surr)	85		46 - 120	02/11/19 14:32	02/12/19 14:57	1
Phenol-d5 (Surr)	51		22 - 120	02/11/19 14:32	02/12/19 14:57	1
p-Terphenyl-d14 (Surr)	113		59 - 136	02/11/19 14:32	02/12/19 14:57	1

Lab Sample ID: LCS 480-458571/2-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-Trichlorophenol	32.0	30.9		ug/L		97	65 - 126
2,4,6-Trichlorophenol	32.0	30.1		ug/L		94	64 - 120
2,4-Dichlorophenol	32.0	31.4		ug/L		98	63 - 120
2,4-Dimethylphenol	32.0	31.0		ug/L		97	47 - 120
2,4-Dinitrophenol	64.0	62.7		ug/L		98	31 - 137
2,4-Dinitrotoluene	32.0	32.8		ug/L		103	69 - 120
2,6-Dinitrotoluene	32.0	32.2		ug/L		101	68 - 120
2-Chloronaphthalene	32.0	28.9		ug/L		90	58 - 120
2-Chlorophenol	32.0	31.2		ug/L		97	48 - 120
2-Methylnaphthalene	32.0	30.7		ug/L		96	59 - 120
2-Methylphenol	32.0	30.8		ug/L		96	39 - 120
2-Nitroaniline	32.0	31.0		ug/L		97	54 - 127
2-Nitrophenol	32.0	31.3		ug/L		98	52 - 125
3,3'-Dichlorobenzidine	64.0	73.8		ug/L		115	49 - 135
3-Nitroaniline	32.0	34.5		ug/L		108	51 - 120
4,6-Dinitro-2-methylphenol	64.0	75.8		ug/L		118	46 - 136
4-Bromophenyl phenyl ether	32.0	32.7		ug/L		102	65 - 120
4-Chloro-3-methylphenol	32.0	32.6		ug/L		102	61 - 123
4-Chloroaniline	32.0	25.1		ug/L		79	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.3		ug/L		95	62 - 120
4-Methylphenol	32.0	30.0		ug/L		94	29 - 131
4-Nitroaniline	32.0	33.7		ug/L		105	65 - 120
4-Nitrophenol	64.0	47.3		ug/L		74	45 - 120
Acenaphthene	32.0	29.3		ug/L		92	60 - 120
Acenaphthylene	32.0	30.5		ug/L		95	63 - 120
Acetophenone	32.0	32.9		ug/L		103	45 - 120
Anthracene	32.0	35.2		ug/L		110	67 - 120
Atrazine	64.0	73.5		ug/L		115	71 - 130
Benzaldehyde	64.0	57.5		ug/L		90	10 - 140
Benzo[a]anthracene	32.0	32.0		ug/L		100	70 - 121
Benzo[a]pyrene	32.0	33.7		ug/L		105	60 - 123
Benzo[b]fluoranthene	32.0	34.1		ug/L		107	66 - 126
Benzo[g,h,i]perylene	32.0	34.2		ug/L		107	66 - 150
Benzo[k]fluoranthene	32.0	32.5		ug/L		102	65 - 124
Biphenyl	32.0	29.2		ug/L		91	59 - 120
bis (2-chloroisopropyl) ether	32.0	30.2		ug/L		95	21 - 136

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

Lab Sample ID: LCS 480-458571/2-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	32.0	32.0		ug/L		100	50 - 128
Bis(2-chloroethyl)ether	32.0	33.0		ug/L		103	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	35.1		ug/L		110	63 - 139
Butyl benzyl phthalate	32.0	33.6		ug/L		105	70 - 129
Caprolactam	64.0	24.7		ug/L		39	22 - 120
Carbazole	32.0	41.5	*	ug/L		130	66 - 123
Chrysene	32.0	34.0		ug/L		106	69 - 120
Dibenz(a,h)anthracene	32.0	34.2		ug/L		107	65 - 135
Dibenzofuran	32.0	30.2		ug/L		94	66 - 120
Diethyl phthalate	32.0	32.4		ug/L		101	59 - 127
Dimethyl phthalate	32.0	33.1		ug/L		103	68 - 120
Di-n-butyl phthalate	32.0	35.7		ug/L		111	69 - 131
Di-n-octyl phthalate	32.0	36.0		ug/L		112	63 - 140
Fluoranthene	32.0	34.6		ug/L		108	69 - 126
Fluorene	32.0	31.5		ug/L		98	66 - 120
Hexachlorobenzene	32.0	33.3		ug/L		104	61 - 120
Hexachlorobutadiene	32.0	27.1		ug/L		85	35 - 120
Hexachlorocyclopentadiene	32.0	24.8		ug/L		77	31 - 120
Hexachloroethane	32.0	27.8		ug/L		87	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	33.7		ug/L		105	69 - 146
Isophorone	32.0	32.5		ug/L		102	55 - 120
Naphthalene	32.0	30.1		ug/L		94	57 - 120
Nitrobenzene	32.0	31.8		ug/L		99	53 - 123
N-Nitrosodi-n-propylamine	32.0	32.3		ug/L		101	32 - 140
N-Nitrosodiphenylamine	32.0	33.7		ug/L		105	61 - 120
Pentachlorophenol	64.0	67.8		ug/L		106	29 - 136
Phenanthrene	32.0	33.4		ug/L		104	68 - 120
Phenol	32.0	22.5		ug/L		70	17 - 120
Pyrene	32.0	33.1		ug/L		104	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*106*		*41 - 120*
2-Fluorobiphenyl	*92*		*48 - 120*
2-Fluorophenol (Surr)	*81*		*35 - 120*
Nitrobenzene-d5 (Surr)	*98*		*46 - 120*
Phenol-d5 (Surr)	*63*		*22 - 120*
p-Terphenyl-d14 (Surr)	*113*		*59 - 136*

Lab Sample ID: LCSD 480-458571/3-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 458571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	32.0	28.9		ug/L		90	65 - 126	7	18
2,4,6-Trichlorophenol	32.0	27.9		ug/L		87	64 - 120	8	19
2,4-Dichlorophenol	32.0	29.8		ug/L		93	63 - 120	5	19
2,4-Dimethylphenol	32.0	29.2		ug/L		91	47 - 120	6	42
2,4-Dinitrophenol	64.0	57.3		ug/L		90	31 - 137	9	22

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

Lab Sample ID: LCSD 480-458571/3-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 458571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	32.0	31.1		ug/L		97	69 - 120	5	20
2,6-Dinitrotoluene	32.0	30.0		ug/L		94	68 - 120	7	15
2-Chloronaphthalene	32.0	26.6		ug/L		83	58 - 120	8	21
2-Chlorophenol	32.0	28.9		ug/L		90	48 - 120	8	25
2-Methylnaphthalene	32.0	29.7		ug/L		93	59 - 120	3	21
2-Methylphenol	32.0	28.7		ug/L		90	39 - 120	7	27
2-Nitroaniline	32.0	28.0		ug/L		87	54 - 127	10	15
2-Nitrophenol	32.0	30.1		ug/L		94	52 - 125	4	18
3,3'-Dichlorobenzidine	64.0	70.5		ug/L		110	49 - 135	4	25
3-Nitroaniline	32.0	34.7		ug/L		108	51 - 120	1	19
4,6-Dinitro-2-methylphenol	64.0	70.0		ug/L		109	46 - 136	8	15
4-Bromophenyl phenyl ether	32.0	29.9		ug/L		93	65 - 120	9	15
4-Chloro-3-methylphenol	32.0	30.3		ug/L		95	61 - 123	8	27
4-Chloroaniline	32.0	26.3		ug/L		82	30 - 120	5	22
4-Chlorophenyl phenyl ether	32.0	28.3		ug/L		88	62 - 120	7	16
4-Methylphenol	32.0	28.1		ug/L		88	29 - 131	7	24
4-Nitroaniline	32.0	32.3		ug/L		101	65 - 120	4	24
4-Nitrophenol	64.0	43.7		ug/L		68	45 - 120	8	48
Acenaphthene	32.0	27.2		ug/L		85	60 - 120	7	24
Acenaphthylene	32.0	28.5		ug/L		89	63 - 120	7	18
Acetophenone	32.0	31.4		ug/L		98	45 - 120	5	20
Anthracene	32.0	31.8		ug/L		99	67 - 120	10	15
Atrazine	64.0	67.6		ug/L		106	71 - 130	8	20
Benzaldehyde	64.0	55.0		ug/L		86	10 - 140	4	20
Benzo[a]anthracene	32.0	29.5		ug/L		92	70 - 121	8	15
Benzo[a]pyrene	32.0	31.7		ug/L		99	60 - 123	6	15
Benzo[b]fluoranthene	32.0	32.1		ug/L		100	66 - 126	6	15
Benzo[g,h,i]perylene	32.0	32.4		ug/L		101	66 - 150	5	15
Benzo[k]fluoranthene	32.0	30.1		ug/L		94	65 - 124	8	22
Biphenyl	32.0	26.8		ug/L		84	59 - 120	9	20
bis (2-chloroisopropyl) ether	32.0	28.8		ug/L		90	21 - 136	5	24
Bis(2-chloroethoxy)methane	32.0	29.8		ug/L		93	50 - 128	7	17
Bis(2-chloroethyl)ether	32.0	30.5		ug/L		95	44 - 120	8	21
Bis(2-ethylhexyl) phthalate	32.0	31.9		ug/L		100	63 - 139	10	15
Butyl benzyl phthalate	32.0	31.0		ug/L		97	70 - 129	8	16
Caprolactam	64.0	23.9		ug/L		37	22 - 120	3	20
Carbazole	32.0	38.2		ug/L		119	66 - 123	8	20
Chrysene	32.0	32.1		ug/L		100	69 - 120	6	15
Dibenz(a,h)anthracene	32.0	32.0		ug/L		100	65 - 135	7	15
Dibenzofuran	32.0	27.7		ug/L		86	66 - 120	9	15
Diethyl phthalate	32.0	29.3		ug/L		91	59 - 127	10	15
Dimethyl phthalate	32.0	30.6		ug/L		96	68 - 120	8	15
Di-n-butyl phthalate	32.0	32.7		ug/L		102	69 - 131	9	15
Di-n-octyl phthalate	32.0	33.4		ug/L		104	63 - 140	7	16
Fluoranthene	32.0	31.2		ug/L		98	69 - 126	10	15
Fluorene	32.0	29.1		ug/L		91	66 - 120	8	15
Hexachlorobenzene	32.0	30.1		ug/L		94	61 - 120	10	15
Hexachlorobutadiene	32.0	26.7		ug/L		83	35 - 120	2	44

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

Lab Sample ID: LCSD 480-458571/3-A
Matrix: Water
Analysis Batch: 458722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 458571

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorocyclopentadiene	32.0	23.0		ug/L		72	31 - 120	7	49
Hexachloroethane	32.0	26.8		ug/L		84	43 - 120	4	46
Indeno[1,2,3-cd]pyrene	32.0	31.7		ug/L		99	69 - 146	6	15
Isophorone	32.0	30.5		ug/L		95	55 - 120	6	17
Naphthalene	32.0	28.3		ug/L		88	57 - 120	6	29
Nitrobenzene	32.0	30.0		ug/L		94	53 - 123	6	24
N-Nitrosodi-n-propylamine	32.0	30.8		ug/L		96	32 - 140	5	31
N-Nitrosodiphenylamine	32.0	30.7		ug/L		96	61 - 120	9	15
Pentachlorophenol	64.0	61.2		ug/L		96	29 - 136	10	37
Phenanthrene	32.0	30.7		ug/L		96	68 - 120	8	15
Phenol	32.0	20.7		ug/L		65	17 - 120	8	34
Pyrene	32.0	30.6		ug/L		96	70 - 125	8	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*97*		*41 - 120*
2-Fluorobiphenyl	*83*		*48 - 120*
2-Fluorophenol (Surr)	*74*		*35 - 120*
Nitrobenzene-d5 (Surr)	*92*		*46 - 120*
Phenol-d5 (Surr)	*58*		*22 - 120*
p-Terphenyl-d14 (Surr)	*107*		*59 - 136*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-458471/1-A
Matrix: Water
Analysis Batch: 458972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		02/11/19 10:46	02/13/19 11:32	1
Cadmium	ND		0.0020	0.00050	mg/L		02/11/19 10:46	02/13/19 11:32	1
Chromium	ND		0.0040	0.0010	mg/L		02/11/19 10:46	02/13/19 11:32	1
Copper	ND		0.010	0.0016	mg/L		02/11/19 10:46	02/13/19 11:32	1
Lead	ND		0.010	0.0030	mg/L		02/11/19 10:46	02/13/19 11:32	1
Molybdenum	ND		0.010	0.0036	mg/L		02/11/19 10:46	02/13/19 11:32	1
Nickel	ND		0.010	0.0013	mg/L		02/11/19 10:46	02/13/19 11:32	1
Selenium	ND		0.025	0.0087	mg/L		02/11/19 10:46	02/13/19 11:32	1
Zinc	ND		0.010	0.0015	mg/L		02/11/19 10:46	02/13/19 11:32	1

Lab Sample ID: LCS 480-458471/2-A
Matrix: Water
Analysis Batch: 458972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.198		mg/L		99	85 - 115
Cadmium	0.200	0.194		mg/L		97	85 - 115
Chromium	0.200	0.194		mg/L		97	85 - 115
Copper	0.200	0.187		mg/L		93	85 - 115
Lead	0.200	0.189		mg/L		94	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-458471/2-A
Matrix: Water
Analysis Batch: 458972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.200	0.191		mg/L		95	85 - 115
Nickel	0.200	0.193		mg/L		97	85 - 115
Selenium	0.200	0.192		mg/L		96	85 - 115
Zinc	0.200	0.195		mg/L		98	85 - 115

Lab Sample ID: 480-148768-1 MS
Matrix: Water
Analysis Batch: 458972

Client Sample ID: PWFTWWNA082
Prep Type: Total/NA
Prep Batch: 458471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.200	0.206		mg/L		103	70 - 130
Cadmium	ND		0.200	0.198		mg/L		99	70 - 130
Chromium	ND		0.200	0.193		mg/L		96	70 - 130
Copper	ND		0.200	0.191		mg/L		96	70 - 130
Lead	ND		0.200	0.194		mg/L		97	70 - 130
Molybdenum	ND		0.200	0.197		mg/L		98	70 - 130
Nickel	0.0041	J	0.200	0.200		mg/L		98	70 - 130
Selenium	ND		0.200	0.199		mg/L		100	70 - 130
Zinc	0.0071	J	0.200	0.205		mg/L		99	70 - 130

Lab Sample ID: 480-148768-1 MSD
Matrix: Water
Analysis Batch: 458972

Client Sample ID: PWFTWWNA082
Prep Type: Total/NA
Prep Batch: 458471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0.200	0.205		mg/L		103	70 - 130	0	20
Cadmium	ND		0.200	0.200		mg/L		100	70 - 130	1	20
Chromium	ND		0.200	0.195		mg/L		97	70 - 130	1	20
Copper	ND		0.200	0.193		mg/L		96	70 - 130	1	20
Lead	ND		0.200	0.194		mg/L		97	70 - 130	0	20
Molybdenum	ND		0.200	0.197		mg/L		98	70 - 130	0	20
Nickel	0.0041	J	0.200	0.202		mg/L		99	70 - 130	1	20
Selenium	ND		0.200	0.201		mg/L		101	70 - 130	1	20
Zinc	0.0071	J	0.200	0.204		mg/L		98	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-458514/1-A
Matrix: Water
Analysis Batch: 458598

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/11/19 12:10	02/11/19 15:20	1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-458514/2-A
Matrix: Water
Analysis Batch: 458598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00672		mg/L		101	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-458744/1-A
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		02/12/19 12:15	02/12/19 14:00	1

Lab Sample ID: LCS 480-458744/2-A
Matrix: Water
Analysis Batch: 458777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.276		mg/L		110	90 - 110

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-458438/1
Matrix: Water
Analysis Batch: 458438

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	1.0	mg/L			02/11/19 03:47	1

Lab Sample ID: LCS 480-458438/2
Matrix: Water
Analysis Batch: 458438

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	240	237.6		mg/L		99	88 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-458211/1
Matrix: Water
Analysis Batch: 458211

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			02/07/19 11:49	1

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 480-458211/2
Matrix: Water
Analysis Batch: 458211

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	203.7		mg/L		103	85 - 115

QC Association Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

GC/MS VOA

Analysis Batch: 458288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	8260C	
MB 480-458288/7	Method Blank	Total/NA	Water	8260C	
LCS 480-458288/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 458571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	3510C	
MB 480-458571/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-458571/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-458571/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 458722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	8270D	458571
MB 480-458571/1-A	Method Blank	Total/NA	Water	8270D	458571
LCS 480-458571/2-A	Lab Control Sample	Total/NA	Water	8270D	458571
LCSD 480-458571/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	458571

Metals

Prep Batch: 458471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	200.7	
MB 480-458471/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-458471/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-148768-1 MS	PWFTWWNA082	Total/NA	Water	200.7	
480-148768-1 MSD	PWFTWWNA082	Total/NA	Water	200.7	

Prep Batch: 458514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	245.1	
MB 480-458514/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-458514/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 458598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	245.1	458514
MB 480-458514/1-A	Method Blank	Total/NA	Water	245.1	458514
LCS 480-458514/2-A	Lab Control Sample	Total/NA	Water	245.1	458514

Analysis Batch: 458972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	200.7 Rev 4.4	458471
MB 480-458471/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	458471
LCS 480-458471/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	458471
480-148768-1 MS	PWFTWWNA082	Total/NA	Water	200.7 Rev 4.4	458471
480-148768-1 MSD	PWFTWWNA082	Total/NA	Water	200.7 Rev 4.4	458471

QC Association Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

General Chemistry

Analysis Batch: 458211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	SM 5210B	
USB 480-458211/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-458211/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 458438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	SM 2540D	
MB 480-458438/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-458438/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Prep Batch: 458744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	Distill/CN	
MB 480-458744/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-458744/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 458777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148768-1	PWFTWWNA082	Total/NA	Water	335.4	458744
MB 480-458744/1-A	Method Blank	Total/NA	Water	335.4	458744
LCS 480-458744/2-A	Lab Control Sample	Total/NA	Water	335.4	458744

Lab Chronicle

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Client Sample ID: PWFTWWNA082
Date Collected: 02/06/19 08:50
Date Received: 02/07/19 10:30

Lab Sample ID: 480-148768-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	458288	02/08/19 19:40	AMM	TAL BUF
Total/NA	Prep	3510C			458571	02/11/19 14:32	ATG	TAL BUF
Total/NA	Analysis	8270D		1	458722	02/12/19 16:27	RJS	TAL BUF
Total/NA	Prep	200.7			458471	02/11/19 10:46	MV	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	458972	02/13/19 11:46	EMB	TAL BUF
Total/NA	Prep	245.1			458514	02/11/19 12:10	BMB	TAL BUF
Total/NA	Analysis	245.1		1	458598	02/11/19 15:47	BMB	TAL BUF
Total/NA	Prep	Distill/CN			458744	02/12/19 12:15	MDL	TAL BUF
Total/NA	Analysis	335.4		1	458777	02/12/19 14:28	MDL	TAL BUF
Total/NA	Analysis	SM 2540D		1	458438	02/11/19 03:47	MLS	TAL BUF
Total/NA	Analysis	SM 5210B		1	458211	02/07/19 11:49	SAH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: AECOM
TestAmerica Job ID: 480-148768-1
Project/Site: 60584654, Penn Yan Former MGP Phase 2

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

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
335.4	Distill/CN	Water	Cyanide, Total

Method Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: AECOM
Project/Site: 60584654, Penn Yan Former MGP Phase 2

TestAmerica Job ID: 480-148768-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-148768-1	PWFTWWNA082	Water	02/06/19 08:50	02/07/19 10:30

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: George Hermance	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-118922-27369.1
Client Contact: Mr. Matt Thorpe	Phone: 716-861-7882	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 2

Company: AECOM
Address: 40 British American Blvd
City: Latham
State, Zip: NY, 12110
Phone: 518-428-4383(Tel)
Email: matthew.thorpe@aecom.com
Project Name: 60584654, Penn Yan Former MGP
Site: Penn Yan Former MGP Phase 2

Due Date Requested: 13-Feb
TAT Requested (days): 5
PO #: 107852
WO #: Matthew.Thorpe@aecom.com
Project #: 48015558
SSOW#:

480-148768 Chain of Custody

Analysis Requested

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)	8270D - TCL SVOCs + 20 TICs	200.7, 245.1	8260C - TCL VOCs + 10 TICs	5210B - BOD	2540D - TSS	335.4 - Cyanide	8260C - TCL VOCs + TICs	6010C, 7470A, 8270D	8260C - TCLP Volatiles	8082A, 8270D	9012_ReactiveCN, 9034_Reactive	1010A, 9045D	6010C, 7471B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	N	N	B	N	N	N	N	N	N	N		
PWFTWWNA082	2/6/19	0850	G	Water	N		X	X	X	X	X	X									AFTER TREATMENT
				Water																	
				Water																	
				Water																	
				Water																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	
				Solid																	

G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
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)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	George Hermance	2/6/19 11:30	AECOM	FedEx		
2	Relinquished by:	Date/Time:	Company	Received by: Cwalker	Date/Time: 2/7/19 1030	Company: TAB
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6 #1

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-148768-1

Login Number: 148768

List Source: TestAmerica Buffalo

List Number: 1

Creator: Harper, Marcus D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	