

ANALYTICAL REPORT

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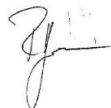
Laboratory Job ID: 460-189811-1

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

For:

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Latham, New York 12110

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Authorized for release by:

8/28/2019 6:00:29 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Definitions/Glossary

Client: AECOM

Job ID: 460-189811-1

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F4	MS/MSD RPD exceeds control limits due to sample size difference.
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

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

Job ID: 460-189811-1

Job ID: 460-189811-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative 460-189811-1

Receipt

The samples were received on 8/24/2019 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

Receipt Exceptions

The following samples were collected in an improper container: PWEXBM05166 (460-189811-1), PWEXBM05167 (460-189811-2), PWEXBM05168 (460-189811-3), PWEXBM05168 (460-189811-3[MSJ]) and PWEXBM05168 (460-189811-3[MSD]). VOC was collected as dirt in jar. Samples were not collected according to 5035L/5035A-L specifications.

GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-635062 was outside the method criteria for the following analyte: Chloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

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

GC/MS Semi VOA

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 460-634788 and analytical batch 460-634870 recovered outside control limits for the following analytes: Benzo[b]anthracene and Benzo[a]pyrene. The LCSD recovery was within limits; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Detection Summary

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.4		1.3	0.58	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.36	J	1.3	0.29	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	0.65	J	1.3	0.25	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	1.9	J	2.5	0.22	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	110	J	430	5.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	150	J	430	31	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	35	J	430	4.4	ug/Kg	1	☼	8270D	Total/NA
Anthracene	170	J	430	4.8	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	230		43	15	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	180	*	43	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	240	*	43	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	110	J	430	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	110		43	8.4	ug/Kg	1	☼	8270D	Total/NA
Biphenyl	25	J	430	5.7	ug/Kg	1	☼	8270D	Total/NA
Carbazole	64	J	430	5.0	ug/Kg	1	☼	8270D	Total/NA
Chrysene	250	J	430	7.3	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	110	J	430	6.0	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	660		430	5.6	ug/Kg	1	☼	8270D	Total/NA
Fluorene	110	J	430	5.8	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	130		43	17	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	590		430	7.4	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	730		430	7.5	ug/Kg	1	☼	8270D	Total/NA
Pyrene	540		430	11	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.5		1.2	0.54	ug/Kg	1	☼	8260C	Total/NA
Acetone	22		7.0	6.7	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	4.8	J	5.9	3.2	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.88	J	1.1	0.51	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	25	J F1	37	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	13	J * F1	37	9.6	ug/Kg	1	☼	8270D	Total/NA
Chrysene	16	J F1	370	6.3	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	32	J F1	370	4.8	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	17	J F1	370	6.5	ug/Kg	1	☼	8270D	Total/NA
Pyrene	37	J F1	370	9.3	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Date Collected: 08/23/19 11:25

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 77.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.3	0.55	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Bromomethane	ND		1.3	0.60	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Vinyl chloride	ND		1.3	0.69	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Chloroethane	ND		1.3	0.66	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Methylene Chloride	1.4		1.3	0.58	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Acetone	ND		7.5	7.2	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Carbon disulfide	ND		1.3	0.33	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Trichlorofluoromethane	ND		1.3	0.51	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1-Dichloroethene	ND		1.3	0.28	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1-Dichloroethane	ND		1.3	0.26	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
trans-1,2-Dichloroethene	ND		1.3	0.31	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
cis-1,2-Dichloroethene	ND		1.3	0.19	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Chloroform	ND		1.3	0.40	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2-Dichloroethane	ND		1.3	0.37	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
2-Butanone (MEK)	ND		6.3	3.4	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1,1-Trichloroethane	ND		1.3	0.29	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Carbon tetrachloride	ND		1.3	0.49	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Bromodichloromethane	ND		1.3	0.32	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2-Dichloropropane	ND		1.3	0.53	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
cis-1,3-Dichloropropene	ND		1.3	0.34	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Trichloroethene	ND		1.3	0.18	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Dibromochloromethane	ND		1.3	0.24	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1,2-Trichloroethane	ND		1.3	0.22	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Benzene	ND		1.3	0.32	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
trans-1,3-Dichloropropene	ND		1.3	0.33	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Bromoform	ND		1.3	0.53	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
4-Methyl-2-pentanone (MIBK)	ND		6.3	2.0	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
2-Hexanone	ND		6.3	2.2	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Tetrachloroethene	ND		1.3	0.18	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1,2,2-Tetrachloroethane	ND		1.3	0.27	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Toluene	0.36 J		1.3	0.29	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Chlorobenzene	ND		1.3	0.22	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Ethylbenzene	0.65 J		1.3	0.25	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Styrene	ND		1.3	0.35	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Xylenes, Total	1.9 J		2.5	0.22	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.3	0.38	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Methyl tert-butyl ether	ND		1.3	0.16	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Cyclohexane	ND		1.3	0.28	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2-Dibromoethane	ND		1.3	0.23	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,3-Dichlorobenzene	ND		1.3	0.20	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,4-Dichlorobenzene	ND		1.3	0.28	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2-Dichlorobenzene	ND		1.3	0.18	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Dichlorodifluoromethane	ND		1.3	0.42	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2,4-Trichlorobenzene	ND		1.3	0.45	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.58	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Isopropylbenzene	ND		1.3	0.16	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Methyl acetate	ND		6.3	5.4	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1
Methylcyclohexane	ND		1.3	0.63	ug/Kg	☼	08/26/19 02:04	08/27/19 04:29	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Date Collected: 08/23/19 11:25

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 77.0

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Naphthalene	78		ug/Kg	☼	13.04	91-20-3	08/26/19 02:04	08/27/19 04:29	1
Tentatively Identified Compound	None		ug/Kg	☼			08/26/19 02:04	08/27/19 04:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		78 - 135				08/26/19 02:04	08/27/19 04:29	1
Toluene-d8 (Surr)	94		73 - 121				08/26/19 02:04	08/27/19 04:29	1
4-Bromofluorobenzene	93		67 - 126				08/26/19 02:04	08/27/19 04:29	1
Dibromofluoromethane (Surr)	104		61 - 149				08/26/19 02:04	08/27/19 04:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		430	14	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,4,6-Trichlorophenol	ND		170	22	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,4-Dichlorophenol	ND		170	9.1	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,4-Dimethylphenol	ND		430	19	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,4-Dinitrophenol	ND		340	210	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,4-Dinitrotoluene	ND		87	22	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2,6-Dinitrotoluene	ND		87	14	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Chloronaphthalene	ND		430	20	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Chlorophenol	ND		430	6.0	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Methylnaphthalene	110	J	430	5.4	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Methylphenol	ND		430	6.9	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Nitroaniline	ND		430	16	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
2-Nitrophenol	ND		430	14	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
3,3'-Dichlorobenzidine	ND		170	65	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
3-Nitroaniline	ND		430	23	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4,6-Dinitro-2-methylphenol	ND		340	70	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Bromophenyl phenyl ether	ND		430	5.6	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Chloro-3-methylphenol	ND		430	7.1	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Chloroaniline	ND		430	30	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Chlorophenyl phenyl ether	ND		430	6.8	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Methylphenol	ND		430	7.3	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Nitroaniline	ND		430	16	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
4-Nitrophenol	ND		870	70	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Acenaphthene	150	J	430	31	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Acenaphthylene	35	J	430	4.4	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Acetophenone	ND		430	6.9	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Anthracene	170	J	430	4.8	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Atrazine	ND		170	11	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzaldehyde	ND		430	19	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzo[a]anthracene	230		43	15	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzo[a]pyrene	180	*	43	11	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzo[b]fluoranthene	240	*	43	11	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzo[g,h,i]perylene	110	J	430	13	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Benzo[k]fluoranthene	110		43	8.4	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Biphenyl	25	J	430	5.7	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
bis (2-chloroisopropyl) ether	ND		430	7.8	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Bis(2-chloroethoxy)methane	ND		430	15	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Bis(2-chloroethyl)ether	ND		43	5.2	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Bis(2-ethylhexyl) phthalate	ND		430	23	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Date Collected: 08/23/19 11:25

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 77.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	ND		430	20	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Caprolactam	ND		430	26	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Carbazole	64	J	430	5.0	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Chrysene	250	J	430	7.3	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Dibenz(a,h)anthracene	ND		43	19	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Dibenzofuran	110	J	430	6.0	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Diethyl phthalate	ND		430	6.2	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Dimethyl phthalate	ND		430	5.2	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Di-n-butyl phthalate	ND		430	76	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Di-n-octyl phthalate	ND		430	23	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Fluoranthene	660		430	5.6	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Fluorene	110	J	430	5.8	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Hexachlorobenzene	ND		43	6.3	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Hexachlorobutadiene	ND		87	9.1	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Hexachlorocyclopentadiene	ND		430	38	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Hexachloroethane	ND		43	6.6	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Indeno[1,2,3-cd]pyrene	130		43	17	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Isophorone	ND		170	11	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Naphthalene	590		430	7.4	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Nitrobenzene	ND		43	10	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
N-Nitrosodi-n-propylamine	ND		43	6.8	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
N-Nitrosodiphenylamine	ND		430	8.2	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Pentachlorophenol	ND		340	88	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Phenanthrene	730		430	7.5	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Phenol	ND		430	6.4	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1
Pyrene	540		430	11	ug/Kg	☼	08/25/19 07:57	08/26/19 08:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	3300	T A J	ug/Kg	☼	2.21		08/25/19 07:57	08/26/19 08:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	66		10 - 137	08/25/19 07:57	08/26/19 08:14	1
2-Fluorobiphenyl (Surr)	66		29 - 107	08/25/19 07:57	08/26/19 08:14	1
2-Fluorophenol (Surr)	67		20 - 115	08/25/19 07:57	08/26/19 08:14	1
Nitrobenzene-d5 (Surr)	64		25 - 113	08/25/19 07:57	08/26/19 08:14	1
Phenol-d5 (Surr)	67		28 - 109	08/25/19 07:57	08/26/19 08:14	1
Terphenyl-d14 (Surr)	70		27 - 123	08/25/19 07:57	08/26/19 08:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.0		1.0	1.0	%			08/26/19 09:26	1
Percent Solids	77.0		1.0	1.0	%			08/26/19 09:26	1

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.2	0.51	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Bromomethane	ND		1.2	0.56	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.2	0.64	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Chloroethane	ND		1.2	0.61	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Methylene Chloride	1.5		1.2	0.54	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Acetone	22		7.0	6.7	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Carbon disulfide	ND		1.2	0.31	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Trichlorofluoromethane	ND		1.2	0.48	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1-Dichloroethene	ND		1.2	0.26	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1-Dichloroethane	ND		1.2	0.24	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
trans-1,2-Dichloroethene	ND		1.2	0.29	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
cis-1,2-Dichloroethene	ND		1.2	0.18	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Chloroform	ND		1.2	0.37	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2-Dichloroethane	ND		1.2	0.35	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
2-Butanone (MEK)	4.8	J	5.9	3.2	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1,1-Trichloroethane	ND		1.2	0.27	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Carbon tetrachloride	ND		1.2	0.45	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Bromodichloromethane	ND		1.2	0.30	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2-Dichloropropane	ND		1.2	0.50	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
cis-1,3-Dichloropropene	ND		1.2	0.32	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Trichloroethene	ND		1.2	0.17	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Dibromochloromethane	ND		1.2	0.23	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1,2-Trichloroethane	ND		1.2	0.21	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Benzene	ND		1.2	0.30	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
trans-1,3-Dichloropropene	ND		1.2	0.31	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Bromoform	ND		1.2	0.50	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.9	1.8	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
2-Hexanone	ND		5.9	2.0	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Tetrachloroethene	ND		1.2	0.17	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1,2,2-Tetrachloroethane	ND		1.2	0.25	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Toluene	ND		1.2	0.27	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Chlorobenzene	ND		1.2	0.21	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Ethylbenzene	ND		1.2	0.23	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Styrene	ND		1.2	0.33	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Xylenes, Total	ND		2.3	0.20	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	0.35	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Methyl tert-butyl ether	ND		1.2	0.15	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Cyclohexane	ND		1.2	0.26	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2-Dibromoethane	ND		1.2	0.21	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,3-Dichlorobenzene	ND		1.2	0.19	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,4-Dichlorobenzene	ND		1.2	0.26	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2-Dichlorobenzene	ND		1.2	0.17	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Dichlorodifluoromethane	ND		1.2	0.40	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2,4-Trichlorobenzene	ND		1.2	0.42	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
1,2-Dibromo-3-Chloropropane	ND		1.2	0.54	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Isopropylbenzene	ND		1.2	0.15	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Methyl acetate	ND		5.9	5.0	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1
Methylcyclohexane	ND		1.2	0.58	ug/Kg	☼	08/26/19 02:05	08/27/19 02:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼			08/26/19 02:05	08/27/19 02:01	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 91.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		78 - 135	08/26/19 02:05	08/27/19 02:01	1
Toluene-d8 (Surr)	93		73 - 121	08/26/19 02:05	08/27/19 02:01	1
4-Bromofluorobenzene	93		67 - 126	08/26/19 02:05	08/27/19 02:01	1
Dibromofluoromethane (Surr)	104		61 - 149	08/26/19 02:05	08/27/19 02:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		360	12	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,4,6-Trichlorophenol	ND		150	18	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,4-Dichlorophenol	ND		150	7.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,4-Dimethylphenol	ND		360	16	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,4-Dinitrophenol	ND		290	180	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,4-Dinitrotoluene	ND		73	18	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2,6-Dinitrotoluene	ND		73	12	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Chloronaphthalene	ND		360	17	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Chlorophenol	ND		360	5.1	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Methylnaphthalene	ND		360	4.5	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Methylphenol	ND		360	5.8	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Nitroaniline	ND		360	14	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
2-Nitrophenol	ND		360	12	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
3,3'-Dichlorobenzidine	ND		150	55	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
3-Nitroaniline	ND		360	20	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4,6-Dinitro-2-methylphenol	ND		290	59	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Bromophenyl phenyl ether	ND		360	4.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Chloro-3-methylphenol	ND		360	6.0	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Chloroaniline	ND		360	25	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Chlorophenyl phenyl ether	ND		360	5.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Methylphenol	ND		360	6.2	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Nitroaniline	ND		360	13	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
4-Nitrophenol	ND		730	59	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Acenaphthene	ND		360	26	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Acenaphthylene	ND		360	3.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Acetophenone	ND		360	5.8	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Anthracene	ND		360	4.0	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Atrazine	ND		150	9.1	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzaldehyde	ND		360	16	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzo[a]anthracene	ND		36	13	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzo[a]pyrene	ND *		36	9.6	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzo[b]fluoranthene	ND *		36	9.4	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzo[g,h,i]perylene	ND		360	11	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Benzo[k]fluoranthene	ND		36	7.1	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Biphenyl	ND		360	4.8	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
bis (2-chloroisopropyl) ether	ND		360	6.6	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Bis(2-chloroethoxy)methane	ND		360	12	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Bis(2-chloroethyl)ether	ND		36	4.4	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Bis(2-ethylhexyl) phthalate	ND		360	19	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Butyl benzyl phthalate	ND		360	17	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Caprolactam	ND		360	22	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Carbazole	ND		360	4.2	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Chrysene	ND		360	6.1	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 91.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		36	16	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Dibenzofuran	ND		360	5.1	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Diethyl phthalate	ND		360	5.2	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Dimethyl phthalate	ND		360	4.4	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Di-n-butyl phthalate	ND		360	64	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Di-n-octyl phthalate	ND		360	19	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Fluoranthene	ND		360	4.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Fluorene	ND		360	4.9	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Hexachlorobenzene	ND		36	5.3	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Hexachlorobutadiene	ND		73	7.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Hexachlorocyclopentadiene	ND		360	32	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Hexachloroethane	ND		36	5.6	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Indeno[1,2,3-cd]pyrene	ND		36	14	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Isophorone	ND		150	9.5	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Naphthalene	ND		360	6.3	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Nitrobenzene	ND		36	8.7	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
N-Nitrosodi-n-propylamine	ND		36	5.8	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
N-Nitrosodiphenylamine	ND		360	6.9	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Pentachlorophenol	ND		290	74	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Phenanthrene	ND		360	6.4	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Phenol	ND		360	5.4	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1
Pyrene	ND		360	9.0	ug/Kg	☼	08/25/19 07:57	08/27/19 07:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	4300	T A J	ug/Kg	☼	2.60		08/25/19 07:57	08/27/19 07:43	1
17-(1,5-Dimethylhexyl)-10,13-dimethyl-4-vinylhexadecahydrocy	360	T J N	ug/Kg	☼	15.06	1000210-86-9	08/25/19 07:57	08/27/19 07:43	1
Lup-20(29)-en-3-one	600	T J N	ug/Kg	☼	15.43	1617-70-5	08/25/19 07:57	08/27/19 07:43	1
Hop-22(29)-en-3.beta.-ol	2600	T J N	ug/Kg	☼	15.68	58801-23-3	08/25/19 07:57	08/27/19 07:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	60		10 - 137	08/25/19 07:57	08/27/19 07:43	1
2-Fluorobiphenyl (Surr)	64		29 - 107	08/25/19 07:57	08/27/19 07:43	1
2-Fluorophenol (Surr)	64		20 - 115	08/25/19 07:57	08/27/19 07:43	1
Nitrobenzene-d5 (Surr)	49		25 - 113	08/25/19 07:57	08/27/19 07:43	1
Phenol-d5 (Surr)	66		28 - 109	08/25/19 07:57	08/27/19 07:43	1
Terphenyl-d14 (Surr)	74		27 - 123	08/25/19 07:57	08/27/19 07:43	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.6		1.0	1.0	%			08/26/19 09:26	1
Percent Solids	91.4		1.0	1.0	%			08/26/19 09:26	1

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	F1	1.1	0.47	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.1	0.52	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Vinyl chloride	ND		1.1	0.60	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Chloroethane	ND		1.1	0.57	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Methylene Chloride	0.88	J	1.1	0.51	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Acetone	ND		6.6	6.2	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Carbon disulfide	ND	F1	1.1	0.29	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Trichlorofluoromethane	ND		1.1	0.44	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1-Dichloroethene	ND		1.1	0.25	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1-Dichloroethane	ND		1.1	0.22	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
trans-1,2-Dichloroethene	ND		1.1	0.27	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
cis-1,2-Dichloroethene	ND		1.1	0.17	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Chloroform	ND		1.1	0.35	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2-Dichloroethane	ND		1.1	0.32	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
2-Butanone (MEK)	ND		5.5	3.0	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1,1-Trichloroethane	ND		1.1	0.25	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Carbon tetrachloride	ND		1.1	0.42	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Bromodichloromethane	ND	F1	1.1	0.28	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2-Dichloropropane	ND	F1	1.1	0.46	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
cis-1,3-Dichloropropene	ND	F1	1.1	0.30	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Trichloroethene	ND		1.1	0.16	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Dibromochloromethane	ND		1.1	0.21	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1,2-Trichloroethane	ND		1.1	0.19	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Benzene	ND		1.1	0.28	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
trans-1,3-Dichloropropene	ND	F1	1.1	0.29	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Bromoform	ND		1.1	0.46	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
4-Methyl-2-pentanone (MIBK)	ND	F1	5.5	1.7	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
2-Hexanone	ND	F1	5.5	1.9	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Tetrachloroethene	ND		1.1	0.16	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1,2,2-Tetrachloroethane	ND		1.1	0.23	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Toluene	ND		1.1	0.26	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Chlorobenzene	ND		1.1	0.19	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Ethylbenzene	ND		1.1	0.22	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Styrene	ND		1.1	0.30	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Xylenes, Total	ND		2.2	0.19	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	0.33	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Methyl tert-butyl ether	ND	F1	1.1	0.14	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Cyclohexane	ND		1.1	0.24	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2-Dibromoethane	ND	F1	1.1	0.20	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,3-Dichlorobenzene	ND		1.1	0.17	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,4-Dichlorobenzene	ND	F1	1.1	0.25	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2-Dichlorobenzene	ND	F1	1.1	0.16	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Dichlorodifluoromethane	ND		1.1	0.37	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2,4-Trichlorobenzene	ND	F1 F2	1.1	0.39	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
1,2-Dibromo-3-Chloropropane	ND	F2	1.1	0.50	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Isopropylbenzene	ND		1.1	0.14	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Methyl acetate	ND		5.5	4.7	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1
Methylcyclohexane	ND		1.1	0.54	ug/Kg	☼	08/26/19 02:06	08/27/19 02:26	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼			08/26/19 02:06	08/27/19 02:26	1

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Client Sample Results

Client: AECOM

Job ID: 460-189811-1

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

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 88.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 135	08/26/19 02:06	08/27/19 02:26	1
Toluene-d8 (Surr)	94		73 - 121	08/26/19 02:06	08/27/19 02:26	1
4-Bromofluorobenzene	93		67 - 126	08/26/19 02:06	08/27/19 02:26	1
Dibromofluoromethane (Surr)	104		61 - 149	08/26/19 02:06	08/27/19 02:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND	F1	370	12	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,4,6-Trichlorophenol	ND	F1	150	19	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,4-Dichlorophenol	ND	F1	150	7.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,4-Dimethylphenol	ND	F1	370	16	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,4-Dinitrophenol	ND	F1	300	180	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,4-Dinitrotoluene	ND	F1	75	19	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2,6-Dinitrotoluene	ND	F1	75	12	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Chloronaphthalene	ND	F1	370	17	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Chlorophenol	ND	F1	370	5.2	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Methylnaphthalene	ND	F1	370	4.6	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Methylphenol	ND	F1	370	6.0	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Nitroaniline	ND		370	14	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
2-Nitrophenol	ND	F1	370	12	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
3,3'-Dichlorobenzidine	ND		150	56	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
3-Nitroaniline	ND		370	20	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4,6-Dinitro-2-methylphenol	ND	F1 F2	300	60	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Bromophenyl phenyl ether	ND	F1	370	4.8	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Chloro-3-methylphenol	ND	F1	370	6.2	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Chloroaniline	ND		370	26	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Chlorophenyl phenyl ether	ND	F1	370	5.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Methylphenol	ND	F1	370	6.3	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Nitroaniline	ND		370	14	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
4-Nitrophenol	ND	F2	750	61	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Acenaphthene	ND	F1	370	27	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Acenaphthylene	ND	F1	370	3.8	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Acetophenone	ND	F1	370	6.0	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Anthracene	ND	F1	370	4.2	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Atrazine	ND	F1	150	9.4	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzaldehyde	ND	F1	370	16	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzo[a]anthracene	25	J F1	37	13	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzo[a]pyrene	ND	* F1	37	9.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzo[b]fluoranthene	13	J * F1	37	9.6	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzo[g,h,i]perylene	ND	F1	370	11	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Benzo[k]fluoranthene	ND	F1	37	7.3	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Biphenyl	ND	F1	370	4.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
bis (2-chloroisopropyl) ether	ND		370	6.7	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Bis(2-chloroethoxy)methane	ND	F1	370	13	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Bis(2-chloroethyl)ether	ND	F1	37	4.5	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Bis(2-ethylhexyl) phthalate	ND	F1	370	20	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Butyl benzyl phthalate	ND	F1	370	17	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Caprolactam	ND	F2	370	22	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Carbazole	ND	F1	370	4.4	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Chrysene	16	J F1	370	6.3	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1

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Client Sample Results

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 88.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND	F1	37	16	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Dibenzofuran	ND	F1	370	5.2	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Diethyl phthalate	ND	F1	370	5.4	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Dimethyl phthalate	ND	F1	370	4.5	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Di-n-butyl phthalate	ND	F1	370	66	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Di-n-octyl phthalate	ND	F1	370	20	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Fluoranthene	32	J F1	370	4.8	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Fluorene	ND	F1	370	5.1	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Hexachlorobenzene	ND	F1	37	5.5	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Hexachlorobutadiene	ND	F1	75	7.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Hexachlorocyclopentadiene	ND	F1	370	33	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Hexachloroethane	ND	F1	37	5.7	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Indeno[1,2,3-cd]pyrene	ND	F1	37	15	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Isophorone	ND	F1	150	9.8	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Naphthalene	ND	F1	370	6.4	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Nitrobenzene	ND	F1	37	8.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
N-Nitrosodi-n-propylamine	ND	F1	37	5.9	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
N-Nitrosodiphenylamine	ND	F1	370	7.1	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Pentachlorophenol	ND	F1	300	76	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Phenanthrene	17	J F1	370	6.5	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Phenol	ND	F1	370	5.5	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1
Pyrene	37	J F1	370	9.3	ug/Kg	☼	08/25/19 07:57	08/26/19 07:24	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	2400	T A J	ug/Kg	☼	2.23		08/25/19 07:57	08/26/19 07:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	63		10 - 137	08/25/19 07:57	08/26/19 07:24	1
2-Fluorobiphenyl (Surr)	58		29 - 107	08/25/19 07:57	08/26/19 07:24	1
2-Fluorophenol (Surr)	61		20 - 115	08/25/19 07:57	08/26/19 07:24	1
Nitrobenzene-d5 (Surr)	59		25 - 113	08/25/19 07:57	08/26/19 07:24	1
Phenol-d5 (Surr)	59		28 - 109	08/25/19 07:57	08/26/19 07:24	1
Terphenyl-d14 (Surr)	71		27 - 123	08/25/19 07:57	08/26/19 07:24	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.2		1.0	1.0	%			08/26/19 09:26	1
Percent Solids	88.8		1.0	1.0	%			08/26/19 09:26	1

Surrogate Summary

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

Job ID: 460-189811-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (78-135)	TOL (73-121)	BFB (67-126)	DBFM (61-149)
460-189811-1	PWEXBM05166	93	94	93	104
460-189811-2	PWEXBM05167	90	93	93	104
460-189811-3	PWEXBM05168	92	94	93	104
460-189811-3 MS	PWEXBM05168	90	96	94	104
460-189811-3 MSD	PWEXBM05168	87	96	94	105
LB3 460-634861/1-A	Method Blank	91	99	101	101
LCS 460-635062/5	Lab Control Sample	91	100	95	107
LCS 460-635064/3	Lab Control Sample	94	98	101	103
LCSD 460-635064/4	Lab Control Sample Dup	93	98	101	102
MB 460-635062/10	Method Blank	96	99	99	108
MB 460-635064/8	Method Blank	97	99	103	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-137)	FBP (29-107)	2FP (20-115)	NBZ (25-113)	PHL (28-109)	TPHL (27-123)
460-189811-1	PWEXBM05166	66	66	67	64	67	70
460-189811-2	PWEXBM05167	60	64	64	49	66	74
460-189811-3	PWEXBM05168	63	58	61	59	59	71
460-189811-3 MS	PWEXBM05168	57	51	57	53	62	54
460-189811-3 MSD	PWEXBM05168	53	48	50	50	51	52
LCS 460-634788/2-A	Lab Control Sample	74	69	69	71	71	74
LCS 460-634788/4-A	Lab Control Sample	78	77	79	79	80	85
LCSD 460-634788/3-A	Lab Control Sample Dup	85	80	80	84	82	85
MB 460-634788/1-A	Method Blank	69	69	71	70	71	76

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LB3 460-634861/1-A

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 634861

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Bromomethane	ND		1.0	0.47	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Vinyl chloride	ND		1.0	0.55	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Chloroethane	ND		1.0	0.52	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Methylene Chloride	ND		1.0	0.46	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Acetone	ND		6.0	5.7	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Carbon disulfide	ND		1.0	0.27	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Chloroform	ND		1.0	0.32	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Trichloroethene	ND		1.0	0.14	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Benzene	ND		1.0	0.26	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Bromoform	ND		1.0	0.43	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
2-Hexanone	ND		5.0	1.7	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Toluene	ND		1.0	0.23	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Chlorobenzene	ND		1.0	0.18	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Ethylbenzene	ND		1.0	0.20	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Styrene	ND		1.0	0.28	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Xylenes, Total	ND		2.0	0.17	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Cyclohexane	ND		1.0	0.22	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Methyl acetate	ND		5.0	4.3	ug/Kg		08/26/19 01:49	08/26/19 21:40	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg		08/26/19 01:49	08/26/19 21:40	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LB3 460-634861/1-A

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 634861

	LB3	LB3							
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg				08/26/19 01:49	08/26/19 21:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 135				08/26/19 01:49	08/26/19 21:40	1
Toluene-d8 (Surr)	99		73 - 121				08/26/19 01:49	08/26/19 21:40	1
4-Bromofluorobenzene	101		67 - 126				08/26/19 01:49	08/26/19 21:40	1
Dibromofluoromethane (Surr)	101		61 - 149				08/26/19 01:49	08/26/19 21:40	1

Lab Sample ID: 460-189811-3 MS

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chloromethane	ND	F1	23.6	15.3	F1	ug/Kg	☼	65	66 - 128
Bromomethane	ND		23.6	19.6		ug/Kg	☼	83	59 - 136
Vinyl chloride	ND		23.6	17.8		ug/Kg	☼	75	70 - 134
Chloroethane	ND		23.6	16.9		ug/Kg	☼	72	50 - 139
Methylene Chloride	0.88	J	23.6	21.7		ug/Kg	☼	88	79 - 128
Acetone	ND		118	109		ug/Kg	☼	93	75 - 120
Carbon disulfide	ND	F1	23.6	15.2	F1	ug/Kg	☼	65	74 - 130
Trichlorofluoromethane	ND		23.6	18.4		ug/Kg	☼	78	68 - 136
1,1-Dichloroethene	ND		23.6	21.9		ug/Kg	☼	93	79 - 132
1,1-Dichloroethane	ND		23.6	20.1		ug/Kg	☼	85	80 - 124
trans-1,2-Dichloroethene	ND		23.6	23.0		ug/Kg	☼	97	80 - 129
cis-1,2-Dichloroethene	ND		23.6	22.7		ug/Kg	☼	96	80 - 123
Chloroform	ND		23.6	21.0		ug/Kg	☼	89	80 - 122
1,2-Dichloroethane	ND		23.6	19.1		ug/Kg	☼	81	68 - 120
2-Butanone (MEK)	ND		118	110		ug/Kg	☼	94	61 - 140
1,1,1-Trichloroethane	ND		23.6	19.1		ug/Kg	☼	81	80 - 125
Carbon tetrachloride	ND		23.6	18.6		ug/Kg	☼	79	77 - 138
Bromodichloromethane	ND	F1	23.6	17.9		ug/Kg	☼	76	76 - 129
1,2-Dichloropropane	ND	F1	23.6	18.3		ug/Kg	☼	77	77 - 124
cis-1,3-Dichloropropene	ND	F1	23.6	18.1		ug/Kg	☼	77	75 - 124
Trichloroethene	ND		23.6	20.4		ug/Kg	☼	87	79 - 122
Dibromochloromethane	ND		23.6	17.9		ug/Kg	☼	76	67 - 143
1,1,2-Trichloroethane	ND		23.6	21.1		ug/Kg	☼	89	76 - 124
Benzene	ND		23.6	21.1		ug/Kg	☼	89	75 - 127
trans-1,3-Dichloropropene	ND	F1	23.6	16.9		ug/Kg	☼	72	72 - 121
Bromoform	ND		23.6	17.7		ug/Kg	☼	75	19 - 150
4-Methyl-2-pentanone (MIBK)	ND	F1	118	95.4		ug/Kg	☼	81	80 - 120
2-Hexanone	ND	F1	118	91.4		ug/Kg	☼	78	78 - 120
Tetrachloroethene	ND		23.6	20.6		ug/Kg	☼	87	73 - 130
1,1,2,2-Tetrachloroethane	ND		23.6	21.7		ug/Kg	☼	92	72 - 131
Toluene	ND		23.6	20.0		ug/Kg	☼	85	75 - 122
Chlorobenzene	ND		23.6	20.2		ug/Kg	☼	86	80 - 120
Ethylbenzene	ND		23.6	20.6		ug/Kg	☼	87	79 - 124
Styrene	ND		23.6	20.8		ug/Kg	☼	88	78 - 123

Eurofins TestAmerica, Edison

QC Sample Results

Client: AECOM

Job ID: 460-189811-1

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

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

Lab Sample ID: 460-189811-3 MS

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		23.6	21.5		ug/Kg	☼	91	78 - 132
Methyl tert-butyl ether	ND	F1	23.6	19.2		ug/Kg	☼	82	80 - 120
Cyclohexane	ND		23.6	20.4		ug/Kg	☼	87	67 - 135
1,2-Dibromoethane	ND	F1	23.6	20.8		ug/Kg	☼	88	80 - 122
1,3-Dichlorobenzene	ND		23.6	19.8		ug/Kg	☼	84	79 - 124
1,4-Dichlorobenzene	ND	F1	23.6	19.7		ug/Kg	☼	84	79 - 121
1,2-Dichlorobenzene	ND	F1	23.6	20.5		ug/Kg	☼	87	80 - 121
Dichlorodifluoromethane	ND		23.6	18.6		ug/Kg	☼	79	72 - 127
1,2,4-Trichlorobenzene	ND	F1 F2	23.6	19.8		ug/Kg	☼	84	74 - 124
1,2-Dibromo-3-Chloropropane	ND	F2	23.6	20.8		ug/Kg	☼	88	65 - 129
Isopropylbenzene	ND		23.6	20.5		ug/Kg	☼	87	80 - 125
Methyl acetate	ND		47.1	43.3		ug/Kg	☼	92	73 - 123
Methylcyclohexane	ND		23.6	20.1		ug/Kg	☼	85	71 - 137
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
1,2-Dichloroethane-d4 (Surr)	90		78 - 135						
Toluene-d8 (Surr)	96		73 - 121						
4-Bromofluorobenzene	94		67 - 126						
Dibromofluoromethane (Surr)	104		61 - 149						

Lab Sample ID: 460-189811-3 MSD

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloromethane	ND	F1	20.1	13.6		ug/Kg	☼	68	66 - 128	12	30
Bromomethane	ND		20.1	16.9		ug/Kg	☼	84	59 - 136	15	30
Vinyl chloride	ND		20.1	15.9		ug/Kg	☼	79	70 - 134	11	30
Chloroethane	ND		20.1	14.9		ug/Kg	☼	74	50 - 139	13	30
Methylene Chloride	0.88	J	20.1	17.6		ug/Kg	☼	83	79 - 128	21	30
Acetone	ND		100	95.5		ug/Kg	☼	95	75 - 120	13	30
Carbon disulfide	ND	F1	20.1	13.4	F1	ug/Kg	☼	67	74 - 130	13	30
Trichlorofluoromethane	ND		20.1	16.4		ug/Kg	☼	82	68 - 136	11	30
1,1-Dichloroethene	ND		20.1	18.8		ug/Kg	☼	94	79 - 132	15	30
1,1-Dichloroethane	ND		20.1	16.8		ug/Kg	☼	84	80 - 124	18	30
trans-1,2-Dichloroethene	ND		20.1	19.0		ug/Kg	☼	95	80 - 129	19	30
cis-1,2-Dichloroethene	ND		20.1	18.2		ug/Kg	☼	90	80 - 123	22	30
Chloroform	ND		20.1	17.6		ug/Kg	☼	88	80 - 122	17	30
1,2-Dichloroethane	ND		20.1	14.9		ug/Kg	☼	74	68 - 120	25	30
2-Butanone (MEK)	ND		100	88.7		ug/Kg	☼	88	61 - 140	22	30
1,1,1-Trichloroethane	ND		20.1	16.1		ug/Kg	☼	80	80 - 125	17	30
Carbon tetrachloride	ND		20.1	16.0		ug/Kg	☼	79	77 - 138	15	30
Bromodichloromethane	ND	F1	20.1	14.2	F1	ug/Kg	☼	71	76 - 129	23	30
1,2-Dichloropropane	ND	F1	20.1	14.5	F1	ug/Kg	☼	72	77 - 124	23	30
cis-1,3-Dichloropropene	ND	F1	20.1	14.4	F1	ug/Kg	☼	71	75 - 124	23	30
Trichloroethene	ND		20.1	16.6		ug/Kg	☼	83	79 - 122	21	30
Dibromochloromethane	ND		20.1	14.4		ug/Kg	☼	72	67 - 143	22	30
1,1,2-Trichloroethane	ND		20.1	16.1		ug/Kg	☼	80	76 - 124	27	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: AECOM

Job ID: 460-189811-1

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

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

Lab Sample ID: 460-189811-3 MSD

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		20.1	17.4		ug/Kg	☼	87	75 - 127	19	30
trans-1,3-Dichloropropene	ND	F1	20.1	13.7	F1	ug/Kg	☼	68	72 - 121	21	30
Bromoform	ND		20.1	13.3		ug/Kg	☼	66	19 - 150	29	30
4-Methyl-2-pentanone (MIBK)	ND	F1	100	77.6	F1	ug/Kg	☼	77	80 - 120	20	30
2-Hexanone	ND	F1	100	74.7	F1	ug/Kg	☼	74	78 - 120	20	30
Tetrachloroethene	ND		20.1	17.2		ug/Kg	☼	86	73 - 130	18	30
1,1,2,2-Tetrachloroethane	ND		20.1	16.1		ug/Kg	☼	80	72 - 131	30	30
Toluene	ND		20.1	16.3		ug/Kg	☼	81	75 - 122	20	30
Chlorobenzene	ND		20.1	16.2		ug/Kg	☼	81	80 - 120	22	30
Ethylbenzene	ND		20.1	16.8		ug/Kg	☼	84	79 - 124	20	30
Styrene	ND		20.1	16.4		ug/Kg	☼	82	78 - 123	23	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20.1	18.7		ug/Kg	☼	93	78 - 132	14	30
Methyl tert-butyl ether	ND	F1	20.1	15.4	F1	ug/Kg	☼	77	80 - 120	22	30
Cyclohexane	ND		20.1	17.3		ug/Kg	☼	86	67 - 135	17	30
1,2-Dibromoethane	ND	F1	20.1	15.6	F1	ug/Kg	☼	78	80 - 122	28	30
1,3-Dichlorobenzene	ND		20.1	16.1		ug/Kg	☼	80	79 - 124	21	30
1,4-Dichlorobenzene	ND	F1	20.1	15.5	F1	ug/Kg	☼	77	79 - 121	24	30
1,2-Dichlorobenzene	ND	F1	20.1	15.7	F1	ug/Kg	☼	78	80 - 121	27	30
Dichlorodifluoromethane	ND		20.1	16.6		ug/Kg	☼	83	72 - 127	11	30
1,2,4-Trichlorobenzene	ND	F1 F2	20.1	14.4	F1 F4	ug/Kg	☼	72	74 - 124	31	30
1,2-Dibromo-3-Chloropropane	ND	F2	20.1	13.9	F4	ug/Kg	☼	69	65 - 129	40	30
Isopropylbenzene	ND		20.1	16.6		ug/Kg	☼	83	80 - 125	21	30
Methyl acetate	ND		40.2	31.9		ug/Kg	☼	79	73 - 123	30	30
Methylcyclohexane	ND		20.1	17.1		ug/Kg	☼	85	71 - 137	16	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	87		78 - 135
Toluene-d8 (Surr)	96		73 - 121
4-Bromofluorobenzene	94		67 - 126
Dibromofluoromethane (Surr)	105		61 - 149

Lab Sample ID: MB 460-635062/10

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg			08/26/19 21:06	1
Bromomethane	ND		1.0	0.47	ug/Kg			08/26/19 21:06	1
Vinyl chloride	ND		1.0	0.55	ug/Kg			08/26/19 21:06	1
Chloroethane	ND		1.0	0.52	ug/Kg			08/26/19 21:06	1
Methylene Chloride	ND		1.0	0.46	ug/Kg			08/26/19 21:06	1
Acetone	ND		6.0	5.7	ug/Kg			08/26/19 21:06	1
Carbon disulfide	ND		1.0	0.27	ug/Kg			08/26/19 21:06	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg			08/26/19 21:06	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg			08/26/19 21:06	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg			08/26/19 21:06	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg			08/26/19 21:06	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg			08/26/19 21:06	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: MB 460-635062/10

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.32	ug/Kg			08/26/19 21:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg			08/26/19 21:06	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg			08/26/19 21:06	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			08/26/19 21:06	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg			08/26/19 21:06	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg			08/26/19 21:06	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg			08/26/19 21:06	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/26/19 21:06	1
Trichloroethene	ND		1.0	0.14	ug/Kg			08/26/19 21:06	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg			08/26/19 21:06	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg			08/26/19 21:06	1
Benzene	ND		1.0	0.26	ug/Kg			08/26/19 21:06	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/26/19 21:06	1
Bromoform	ND		1.0	0.43	ug/Kg			08/26/19 21:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg			08/26/19 21:06	1
2-Hexanone	ND		5.0	1.7	ug/Kg			08/26/19 21:06	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg			08/26/19 21:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg			08/26/19 21:06	1
Toluene	ND		1.0	0.23	ug/Kg			08/26/19 21:06	1
Chlorobenzene	ND		1.0	0.18	ug/Kg			08/26/19 21:06	1
Ethylbenzene	ND		1.0	0.20	ug/Kg			08/26/19 21:06	1
Styrene	ND		1.0	0.28	ug/Kg			08/26/19 21:06	1
Xylenes, Total	ND		2.0	0.17	ug/Kg			08/26/19 21:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg			08/26/19 21:06	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg			08/26/19 21:06	1
Cyclohexane	ND		1.0	0.22	ug/Kg			08/26/19 21:06	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg			08/26/19 21:06	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg			08/26/19 21:06	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg			08/26/19 21:06	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg			08/26/19 21:06	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg			08/26/19 21:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg			08/26/19 21:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg			08/26/19 21:06	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg			08/26/19 21:06	1
Methyl acetate	ND		5.0	4.3	ug/Kg			08/26/19 21:06	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg			08/26/19 21:06	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg					08/26/19 21:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		78 - 135		08/26/19 21:06	1
Toluene-d8 (Surr)	99		73 - 121		08/26/19 21:06	1
4-Bromofluorobenzene	99		67 - 126		08/26/19 21:06	1
Dibromofluoromethane (Surr)	108		61 - 149		08/26/19 21:06	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCS 460-635062/5

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	13.8		ug/Kg		69	66 - 128
Bromomethane	20.0	17.5		ug/Kg		87	59 - 136
Vinyl chloride	20.0	15.7		ug/Kg		79	70 - 134
Chloroethane	20.0	15.2		ug/Kg		76	50 - 139
Methylene Chloride	20.0	24.5		ug/Kg		122	79 - 128
Acetone	100	96.6		ug/Kg		97	75 - 120
Carbon disulfide	20.0	15.1		ug/Kg		75	74 - 130
Trichlorofluoromethane	20.0	16.1		ug/Kg		80	68 - 136
1,1-Dichloroethene	20.0	20.6		ug/Kg		103	79 - 132
1,1-Dichloroethane	20.0	19.0		ug/Kg		95	80 - 124
trans-1,2-Dichloroethene	20.0	21.2		ug/Kg		106	80 - 129
cis-1,2-Dichloroethene	20.0	20.9		ug/Kg		105	80 - 123
Chloroform	20.0	19.5		ug/Kg		98	80 - 122
1,2-Dichloroethane	20.0	17.8		ug/Kg		89	68 - 120
2-Butanone (MEK)	100	103		ug/Kg		103	61 - 140
1,1,1-Trichloroethane	20.0	17.8		ug/Kg		89	80 - 125
Carbon tetrachloride	20.0	17.4		ug/Kg		87	77 - 138
Bromodichloromethane	20.0	16.5		ug/Kg		83	76 - 129
1,2-Dichloropropane	20.0	17.0		ug/Kg		85	77 - 124
cis-1,3-Dichloropropene	20.0	17.3		ug/Kg		87	75 - 124
Trichloroethene	20.0	18.9		ug/Kg		94	79 - 122
Dibromochloromethane	20.0	16.9		ug/Kg		84	67 - 143
1,1,2-Trichloroethane	20.0	19.0		ug/Kg		95	76 - 124
Benzene	20.0	19.7		ug/Kg		99	75 - 127
trans-1,3-Dichloropropene	20.0	16.1		ug/Kg		80	72 - 121
Bromoform	20.0	17.2		ug/Kg		86	19 - 150
4-Methyl-2-pentanone (MIBK)	100	88.2		ug/Kg		88	80 - 120
2-Hexanone	100	83.7		ug/Kg		84	78 - 120
Tetrachloroethene	20.0	19.5		ug/Kg		98	73 - 130
1,1,2,2-Tetrachloroethane	20.0	19.6		ug/Kg		98	72 - 131
Toluene	20.0	18.8		ug/Kg		94	75 - 122
Chlorobenzene	20.0	19.0		ug/Kg		95	80 - 120
Ethylbenzene	20.0	19.3		ug/Kg		96	79 - 124
Styrene	20.0	19.4		ug/Kg		97	78 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.1		ug/Kg		101	78 - 132
Methyl tert-butyl ether	20.0	17.6		ug/Kg		88	80 - 120
Cyclohexane	20.0	18.6		ug/Kg		93	67 - 135
1,2-Dibromoethane	20.0	18.7		ug/Kg		94	80 - 122
1,3-Dichlorobenzene	20.0	19.4		ug/Kg		97	79 - 124
1,4-Dichlorobenzene	20.0	19.3		ug/Kg		97	79 - 121
1,2-Dichlorobenzene	20.0	19.6		ug/Kg		98	80 - 121
Dichlorodifluoromethane	20.0	16.0		ug/Kg		80	72 - 127
1,2,4-Trichlorobenzene	20.0	20.6		ug/Kg		103	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/Kg		89	65 - 129
Isopropylbenzene	20.0	19.4		ug/Kg		97	80 - 125
Methyl acetate	40.0	39.0		ug/Kg		97	73 - 123
Methylcyclohexane	20.0	18.7		ug/Kg		94	71 - 137

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCS 460-635062/5

Matrix: Solid

Analysis Batch: 635062

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		78 - 135
Toluene-d8 (Surr)	100		73 - 121
4-Bromofluorobenzene	95		67 - 126
Dibromofluoromethane (Surr)	107		61 - 149

Lab Sample ID: MB 460-635064/8

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg			08/26/19 20:22	1
Bromomethane	ND		1.0	0.47	ug/Kg			08/26/19 20:22	1
Vinyl chloride	ND		1.0	0.55	ug/Kg			08/26/19 20:22	1
Chloroethane	ND		1.0	0.52	ug/Kg			08/26/19 20:22	1
Methylene Chloride	ND		1.0	0.46	ug/Kg			08/26/19 20:22	1
Acetone	ND		6.0	5.7	ug/Kg			08/26/19 20:22	1
Carbon disulfide	ND		1.0	0.27	ug/Kg			08/26/19 20:22	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg			08/26/19 20:22	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg			08/26/19 20:22	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg			08/26/19 20:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg			08/26/19 20:22	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg			08/26/19 20:22	1
Chloroform	ND		1.0	0.32	ug/Kg			08/26/19 20:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg			08/26/19 20:22	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg			08/26/19 20:22	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			08/26/19 20:22	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg			08/26/19 20:22	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg			08/26/19 20:22	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg			08/26/19 20:22	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/26/19 20:22	1
Trichloroethene	ND		1.0	0.14	ug/Kg			08/26/19 20:22	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg			08/26/19 20:22	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg			08/26/19 20:22	1
Benzene	ND		1.0	0.26	ug/Kg			08/26/19 20:22	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/26/19 20:22	1
Bromoform	ND		1.0	0.43	ug/Kg			08/26/19 20:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg			08/26/19 20:22	1
2-Hexanone	ND		5.0	1.7	ug/Kg			08/26/19 20:22	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg			08/26/19 20:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg			08/26/19 20:22	1
Toluene	ND		1.0	0.23	ug/Kg			08/26/19 20:22	1
Chlorobenzene	ND		1.0	0.18	ug/Kg			08/26/19 20:22	1
Ethylbenzene	ND		1.0	0.20	ug/Kg			08/26/19 20:22	1
Styrene	ND		1.0	0.28	ug/Kg			08/26/19 20:22	1
Xylenes, Total	ND		2.0	0.17	ug/Kg			08/26/19 20:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg			08/26/19 20:22	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg			08/26/19 20:22	1
Cyclohexane	ND		1.0	0.22	ug/Kg			08/26/19 20:22	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: MB 460-635064/8

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg			08/26/19 20:22	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg			08/26/19 20:22	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg			08/26/19 20:22	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg			08/26/19 20:22	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg			08/26/19 20:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg			08/26/19 20:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg			08/26/19 20:22	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg			08/26/19 20:22	1
Methyl acetate	ND		5.0	4.3	ug/Kg			08/26/19 20:22	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg			08/26/19 20:22	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg					08/26/19 20:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		78 - 135		08/26/19 20:22	1
Toluene-d8 (Surr)	99		73 - 121		08/26/19 20:22	1
4-Bromofluorobenzene	103		67 - 126		08/26/19 20:22	1
Dibromofluoromethane (Surr)	104		61 - 149		08/26/19 20:22	1

Lab Sample ID: LCS 460-635064/3

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	22.3		ug/Kg		111	66 - 128
Bromomethane	20.0	20.5		ug/Kg		103	59 - 136
Vinyl chloride	20.0	21.5		ug/Kg		107	70 - 134
Chloroethane	20.0	20.7		ug/Kg		103	50 - 139
Methylene Chloride	20.0	23.5		ug/Kg		117	79 - 128
Acetone	100	105		ug/Kg		105	75 - 120
Carbon disulfide	20.0	20.5		ug/Kg		103	74 - 130
Trichlorofluoromethane	20.0	22.1		ug/Kg		111	68 - 136
1,1-Dichloroethene	20.0	20.4		ug/Kg		102	79 - 132
1,1-Dichloroethane	20.0	20.7		ug/Kg		103	80 - 124
trans-1,2-Dichloroethene	20.0	21.1		ug/Kg		105	80 - 129
cis-1,2-Dichloroethene	20.0	21.1		ug/Kg		105	80 - 123
Chloroform	20.0	20.3		ug/Kg		101	80 - 122
1,2-Dichloroethane	20.0	19.5		ug/Kg		98	68 - 120
2-Butanone (MEK)	100	106		ug/Kg		106	61 - 140
1,1,1-Trichloroethane	20.0	19.7		ug/Kg		98	80 - 125
Carbon tetrachloride	20.0	19.5		ug/Kg		97	77 - 138
Bromodichloromethane	20.0	20.1		ug/Kg		100	76 - 129
1,2-Dichloropropane	20.0	20.6		ug/Kg		103	77 - 124
cis-1,3-Dichloropropene	20.0	19.6		ug/Kg		98	75 - 124
Trichloroethene	20.0	20.2		ug/Kg		101	79 - 122
Dibromochloromethane	20.0	19.4		ug/Kg		97	67 - 143
1,1,2-Trichloroethane	20.0	20.1		ug/Kg		100	76 - 124

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCS 460-635064/3

Matrix: Solid

Analysis Batch: 635064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.8		ug/Kg		99	75 - 127
trans-1,3-Dichloropropene	20.0	19.0		ug/Kg		95	72 - 121
Bromoform	20.0	19.5		ug/Kg		97	19 - 150
4-Methyl-2-pentanone (MIBK)	100	104		ug/Kg		104	80 - 120
2-Hexanone	100	105		ug/Kg		105	78 - 120
Tetrachloroethene	20.0	19.8		ug/Kg		99	73 - 130
1,1,2,2-Tetrachloroethane	20.0	20.1		ug/Kg		100	72 - 131
Toluene	20.0	19.1		ug/Kg		96	75 - 122
Chlorobenzene	20.0	19.6		ug/Kg		98	80 - 120
Ethylbenzene	20.0	19.8		ug/Kg		99	79 - 124
Styrene	20.0	19.5		ug/Kg		98	78 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.4		ug/Kg		102	78 - 132
Methyl tert-butyl ether	20.0	19.9		ug/Kg		99	80 - 120
Cyclohexane	20.0	20.6		ug/Kg		103	67 - 135
1,2-Dibromoethane	20.0	18.9		ug/Kg		94	80 - 122
1,3-Dichlorobenzene	20.0	19.1		ug/Kg		95	79 - 124
1,4-Dichlorobenzene	20.0	19.5		ug/Kg		97	79 - 121
1,2-Dichlorobenzene	20.0	18.7		ug/Kg		93	80 - 121
Dichlorodifluoromethane	20.0	20.4		ug/Kg		102	72 - 127
1,2,4-Trichlorobenzene	20.0	19.7		ug/Kg		98	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	17.9		ug/Kg		89	65 - 129
Isopropylbenzene	20.0	19.9		ug/Kg		99	80 - 125
Methyl acetate	40.0	39.8		ug/Kg		100	73 - 123
Methylcyclohexane	20.0	21.2		ug/Kg		106	71 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		78 - 135
Toluene-d8 (Surr)	98		73 - 121
4-Bromofluorobenzene	101		67 - 126
Dibromofluoromethane (Surr)	103		61 - 149

Lab Sample ID: LCSD 460-635064/4

Matrix: Solid

Analysis Batch: 635064

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
Chloromethane	20.0	22.5		ug/Kg		113	66 - 128	1	30
Bromomethane	20.0	21.0		ug/Kg		105	59 - 136	2	30
Vinyl chloride	20.0	22.0		ug/Kg		110	70 - 134	2	30
Chloroethane	20.0	21.3		ug/Kg		106	50 - 139	3	30
Methylene Chloride	20.0	23.5		ug/Kg		118	79 - 128	0	30
Acetone	100	108		ug/Kg		108	75 - 120	3	30
Carbon disulfide	20.0	21.1		ug/Kg		105	74 - 130	3	30
Trichlorofluoromethane	20.0	19.3		ug/Kg		97	68 - 136	13	30
1,1-Dichloroethene	20.0	20.7		ug/Kg		103	79 - 132	1	30
1,1-Dichloroethane	20.0	21.1		ug/Kg		105	80 - 124	2	30
trans-1,2-Dichloroethene	20.0	21.5		ug/Kg		108	80 - 129	2	30
cis-1,2-Dichloroethene	20.0	21.8		ug/Kg		109	80 - 123	3	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCSD 460-635064/4

Matrix: Solid

Analysis Batch: 635064

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
Chloroform	20.0	20.8		ug/Kg		104	80 - 122	3	30
1,2-Dichloroethane	20.0	20.6		ug/Kg		103	68 - 120	5	30
2-Butanone (MEK)	100	105		ug/Kg		105	61 - 140	1	30
1,1,1-Trichloroethane	20.0	20.0		ug/Kg		100	80 - 125	2	30
Carbon tetrachloride	20.0	19.8		ug/Kg		99	77 - 138	2	30
Bromodichloromethane	20.0	20.4		ug/Kg		102	76 - 129	2	30
1,2-Dichloropropane	20.0	21.4		ug/Kg		107	77 - 124	4	30
cis-1,3-Dichloropropene	20.0	20.5		ug/Kg		102	75 - 124	5	30
Trichloroethene	20.0	21.2		ug/Kg		106	79 - 122	5	30
Dibromochloromethane	20.0	20.6		ug/Kg		103	67 - 143	6	30
1,1,2-Trichloroethane	20.0	21.0		ug/Kg		105	76 - 124	4	30
Benzene	20.0	20.2		ug/Kg		101	75 - 127	2	30
trans-1,3-Dichloropropene	20.0	19.5		ug/Kg		97	72 - 121	2	30
Bromoform	20.0	20.7		ug/Kg		104	19 - 150	6	30
4-Methyl-2-pentanone (MIBK)	100	106		ug/Kg		106	80 - 120	2	30
2-Hexanone	100	106		ug/Kg		106	78 - 120	1	30
Tetrachloroethene	20.0	20.3		ug/Kg		102	73 - 130	3	30
1,1,2,2-Tetrachloroethane	20.0	21.6		ug/Kg		108	72 - 131	7	30
Toluene	20.0	19.7		ug/Kg		99	75 - 122	3	30
Chlorobenzene	20.0	20.2		ug/Kg		101	80 - 120	3	30
Ethylbenzene	20.0	20.1		ug/Kg		100	79 - 124	1	30
Styrene	20.0	20.6		ug/Kg		103	78 - 123	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.3		ug/Kg		101	78 - 132	1	30
Methyl tert-butyl ether	20.0	20.3		ug/Kg		101	80 - 120	2	30
Cyclohexane	20.0	20.8		ug/Kg		104	67 - 135	1	30
1,2-Dibromoethane	20.0	20.3		ug/Kg		101	80 - 122	7	30
1,3-Dichlorobenzene	20.0	19.6		ug/Kg		98	79 - 124	3	30
1,4-Dichlorobenzene	20.0	20.0		ug/Kg		100	79 - 121	3	30
1,2-Dichlorobenzene	20.0	19.5		ug/Kg		98	80 - 121	4	30
Dichlorodifluoromethane	20.0	21.4		ug/Kg		107	72 - 127	5	30
1,2,4-Trichlorobenzene	20.0	19.0		ug/Kg		95	74 - 124	4	30
1,2-Dibromo-3-Chloropropane	20.0	19.6		ug/Kg		98	65 - 129	9	30
Isopropylbenzene	20.0	19.9		ug/Kg		100	80 - 125	0	30
Methyl acetate	40.0	38.0		ug/Kg		95	73 - 123	5	30
Methylcyclohexane	20.0	19.8		ug/Kg		99	71 - 137	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	93		78 - 135
Toluene-d8 (Surr)	98		73 - 121
4-Bromofluorobenzene	101		67 - 126
Dibromofluoromethane (Surr)	102		61 - 149

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: MB 460-634788/1-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 634788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		330	11	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,4,6-Trichlorophenol	ND		130	17	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,4-Dichlorophenol	ND		130	7.0	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,4-Dimethylphenol	ND		330	15	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,4-Dinitrophenol	ND		270	160	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,4-Dinitrotoluene	ND		67	17	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2,6-Dinitrotoluene	ND		67	11	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Chloronaphthalene	ND		330	15	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Chlorophenol	ND		330	4.6	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Methylnaphthalene	ND		330	4.1	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Methylphenol	ND		330	5.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Nitroaniline	ND		330	12	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
2-Nitrophenol	ND		330	11	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
3,3'-Dichlorobenzidine	ND		130	50	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
3-Nitroaniline	ND		330	18	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4,6-Dinitro-2-methylphenol	ND		270	54	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Bromophenyl phenyl ether	ND		330	4.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Chloro-3-methylphenol	ND		330	5.5	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Chloroaniline	ND		330	23	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Chlorophenyl phenyl ether	ND		330	5.2	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Methylphenol	ND		330	5.6	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Nitroaniline	ND		330	12	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
4-Nitrophenol	ND		670	54	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Acenaphthene	ND		330	24	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Acenaphthylene	ND		330	3.4	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Acetophenone	ND		330	5.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Anthracene	ND		330	3.7	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Atrazine	ND		130	8.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzaldehyde	ND		330	14	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzo[a]anthracene	ND		33	12	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzo[a]pyrene	ND		33	8.8	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzo[b]fluoranthene	ND		33	8.6	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzo[g,h,i]perylene	ND		330	9.8	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Benzo[k]fluoranthene	ND		33	6.5	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Biphenyl	ND		330	4.4	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
bis (2-chloroisopropyl) ether	ND		330	6.0	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Bis(2-chloroethoxy)methane	ND		330	11	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Bis(2-chloroethyl)ether	ND		33	4.0	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Bis(2-ethylhexyl) phthalate	ND		330	17	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Butyl benzyl phthalate	ND		330	16	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Caprolactam	ND		330	20	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Carbazole	ND		330	3.9	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Chrysene	ND		330	5.6	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Dibenz(a,h)anthracene	ND		33	14	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Dibenzofuran	ND		330	4.6	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Diethyl phthalate	ND		330	4.8	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Dimethyl phthalate	ND		330	4.0	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Di-n-butyl phthalate	ND		330	58	ug/Kg		08/25/19 07:57	08/26/19 06:16	1

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QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: MB 460-634788/1-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 634788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		330	18	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Fluoranthene	ND		330	4.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Fluorene	ND		330	4.5	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Hexachlorobenzene	ND		33	4.8	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Hexachlorobutadiene	ND		67	7.0	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Hexachlorocyclopentadiene	ND		330	29	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Hexachloroethane	ND		33	5.1	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Indeno[1,2,3-cd]pyrene	ND		33	13	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Isophorone	ND		130	8.7	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Naphthalene	ND		330	5.7	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Nitrobenzene	ND		33	7.9	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
N-Nitrosodi-n-propylamine	ND		33	5.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
N-Nitrosodiphenylamine	ND		330	6.3	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Pentachlorophenol	ND		270	68	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Phenanthrene	ND		330	5.8	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Phenol	ND		330	4.9	ug/Kg		08/25/19 07:57	08/26/19 06:16	1
Pyrene	ND		330	8.2	ug/Kg		08/25/19 07:57	08/26/19 06:16	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	921	T A J	ug/Kg		2.19		08/25/19 07:57	08/26/19 06:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	69		10 - 137	08/25/19 07:57	08/26/19 06:16	1
2-Fluorobiphenyl (Surr)	69		29 - 107	08/25/19 07:57	08/26/19 06:16	1
2-Fluorophenol (Surr)	71		20 - 115	08/25/19 07:57	08/26/19 06:16	1
Nitrobenzene-d5 (Surr)	70		25 - 113	08/25/19 07:57	08/26/19 06:16	1
Phenol-d5 (Surr)	71		28 - 109	08/25/19 07:57	08/26/19 06:16	1
Terphenyl-d14 (Surr)	76		27 - 123	08/25/19 07:57	08/26/19 06:16	1

Lab Sample ID: LCS 460-634788/2-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4,5-Trichlorophenol	3330	2280		ug/Kg		69	60 - 106
2,4,6-Trichlorophenol	3330	2260		ug/Kg		68	62 - 110
2,4-Dichlorophenol	3330	2410		ug/Kg		72	61 - 103
2,4-Dimethylphenol	3330	2200		ug/Kg		66	63 - 101
2,4-Dinitrophenol	6670	3860		ug/Kg		58	56 - 122
2,4-Dinitrotoluene	3330	2560		ug/Kg		77	66 - 122
2,6-Dinitrotoluene	3330	2510		ug/Kg		75	70 - 114
2-Chloronaphthalene	3330	2330		ug/Kg		70	63 - 107
2-Chlorophenol	3330	2310		ug/Kg		69	62 - 97
2-Methylnaphthalene	3330	2280		ug/Kg		68	65 - 104
2-Methylphenol	3330	2420		ug/Kg		73	61 - 103
2-Nitroaniline	3330	2610		ug/Kg		78	57 - 114
2-Nitrophenol	3330	2240		ug/Kg		67	65 - 104
3,3'-Dichlorobenzidine	3330	1980		ug/Kg		59	18 - 88

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QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCS 460-634788/2-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Nitroaniline	3330	1950		ug/Kg		59	30 - 94
4,6-Dinitro-2-methylphenol	6670	5130		ug/Kg		77	67 - 120
4-Bromophenyl phenyl ether	3330	2310		ug/Kg		69	59 - 122
4-Chloro-3-methylphenol	3330	2390		ug/Kg		72	62 - 111
4-Chloroaniline	3330	1690		ug/Kg		51	18 - 94
4-Chlorophenyl phenyl ether	3330	2340		ug/Kg		70	66 - 110
4-Methylphenol	3330	2370		ug/Kg		71	61 - 105
4-Nitroaniline	3330	2100		ug/Kg		63	49 - 118
4-Nitrophenol	6670	4270		ug/Kg		64	43 - 141
Acenaphthene	3330	2340		ug/Kg		70	62 - 108
Acenaphthylene	3330	2380		ug/Kg		71	67 - 107
Acetophenone	3330	2330		ug/Kg		70	60 - 109
Anthracene	3330	2540		ug/Kg		76	69 - 111
Benzo[a]anthracene	3330	2430		ug/Kg		73	68 - 110
Benzo[a]pyrene	3330	2260	*	ug/Kg		68	72 - 115
Benzo[b]fluoranthene	3330	2260	*	ug/Kg		68	69 - 119
Benzo[g,h,i]perylene	3330	2310		ug/Kg		69	54 - 128
Benzo[k]fluoranthene	3330	2480		ug/Kg		74	70 - 115
Biphenyl	3330	2350		ug/Kg		70	64 - 108
bis (2-chloroisopropyl) ether	3330	2500		ug/Kg		75	39 - 122
Bis(2-chloroethoxy)methane	3330	2300		ug/Kg		69	65 - 106
Bis(2-chloroethyl)ether	3330	2270		ug/Kg		68	64 - 105
Bis(2-ethylhexyl) phthalate	3330	2740		ug/Kg		82	63 - 125
Butyl benzyl phthalate	3330	2690		ug/Kg		81	65 - 125
Carbazole	3330	2500		ug/Kg		75	66 - 115
Chrysene	3330	2740		ug/Kg		82	70 - 111
Dibenz(a,h)anthracene	3330	2490		ug/Kg		75	60 - 130
Dibenzofuran	3330	2370		ug/Kg		71	67 - 107
Diethyl phthalate	3330	2390		ug/Kg		72	66 - 117
Dimethyl phthalate	3330	2390		ug/Kg		72	68 - 112
Di-n-butyl phthalate	3330	2560		ug/Kg		77	67 - 119
Di-n-octyl phthalate	3330	2560		ug/Kg		77	57 - 138
Fluoranthene	3330	2470		ug/Kg		74	64 - 114
Fluorene	3330	2390		ug/Kg		72	66 - 110
Hexachlorobenzene	3330	2450		ug/Kg		73	57 - 128
Hexachlorobutadiene	3330	2190		ug/Kg		66	60 - 108
Hexachlorocyclopentadiene	3330	2150		ug/Kg		64	50 - 129
Hexachloroethane	3330	2330		ug/Kg		70	63 - 99
Indeno[1,2,3-cd]pyrene	3330	2390		ug/Kg		72	53 - 137
Isophorone	3330	2420		ug/Kg		73	68 - 111
Naphthalene	3330	2330		ug/Kg		70	65 - 102
Nitrobenzene	3330	2420		ug/Kg		72	66 - 108
N-Nitrosodi-n-propylamine	3330	2480		ug/Kg		74	63 - 117
N-Nitrosodiphenylamine	3330	2480		ug/Kg		74	65 - 114
Pentachlorophenol	6670	5200		ug/Kg		78	56 - 116
Phenanthrene	3330	2460		ug/Kg		74	68 - 111
Phenol	3330	2500		ug/Kg		75	58 - 103
Pyrene	3330	2530		ug/Kg		76	64 - 121

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCS 460-634788/2-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 634788

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		10 - 137
2-Fluorobiphenyl (Surr)	69		29 - 107
2-Fluorophenol (Surr)	69		20 - 115
Nitrobenzene-d5 (Surr)	71		25 - 113
Phenol-d5 (Surr)	71		28 - 109
Terphenyl-d14 (Surr)	74		27 - 123

Lab Sample ID: LCS 460-634788/4-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	6670	6830		ug/Kg		102	62 - 137
Benzaldehyde	6670	5580		ug/Kg		84	52 - 113
Caprolactam	6670	7420		ug/Kg		111	53 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	78		10 - 137
2-Fluorobiphenyl (Surr)	77		29 - 107
2-Fluorophenol (Surr)	79		20 - 115
Nitrobenzene-d5 (Surr)	79		25 - 113
Phenol-d5 (Surr)	80		28 - 109
Terphenyl-d14 (Surr)	85		27 - 123

Lab Sample ID: LCSD 460-634788/3-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	3330	2770		ug/Kg		83	60 - 106	19	30
2,4,6-Trichlorophenol	3330	2680		ug/Kg		80	62 - 110	17	30
2,4-Dichlorophenol	3330	2870		ug/Kg		86	61 - 103	17	30
2,4-Dimethylphenol	3330	2690		ug/Kg		81	63 - 101	20	30
2,4-Dinitrophenol	6670	4770		ug/Kg		72	56 - 122	21	30
2,4-Dinitrotoluene	3330	3040		ug/Kg		91	66 - 122	17	30
2,6-Dinitrotoluene	3330	3020		ug/Kg		91	70 - 114	18	30
2-Chloronaphthalene	3330	2770		ug/Kg		83	63 - 107	17	30
2-Chlorophenol	3330	2750		ug/Kg		83	62 - 97	18	30
2-Methylnaphthalene	3330	2660		ug/Kg		80	65 - 104	15	30
2-Methylphenol	3330	2850		ug/Kg		86	61 - 103	16	30
2-Nitroaniline	3330	3080		ug/Kg		92	57 - 114	17	30
2-Nitrophenol	3330	2720		ug/Kg		81	65 - 104	19	30
3,3'-Dichlorobenzidine	3330	2320		ug/Kg		70	18 - 88	16	30
3-Nitroaniline	3330	2350		ug/Kg		71	30 - 94	19	30
4,6-Dinitro-2-methylphenol	6670	6160		ug/Kg		92	67 - 120	18	30
4-Bromophenyl phenyl ether	3330	2720		ug/Kg		82	59 - 122	16	30
4-Chloro-3-methylphenol	3330	2890		ug/Kg		87	62 - 111	19	30
4-Chloroaniline	3330	2070		ug/Kg		62	18 - 94	20	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCSD 460-634788/3-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorophenyl phenyl ether	3330	2770		ug/Kg		83	66 - 110	17	30
4-Methylphenol	3330	2720		ug/Kg		82	61 - 105	14	30
4-Nitroaniline	3330	2560		ug/Kg		77	49 - 118	20	30
4-Nitrophenol	6670	5360		ug/Kg		80	43 - 141	23	30
Acenaphthene	3330	2800		ug/Kg		84	62 - 108	18	30
Acenaphthylene	3330	2810		ug/Kg		84	67 - 107	16	30
Acetophenone	3330	2760		ug/Kg		83	60 - 109	17	30
Anthracene	3330	2990		ug/Kg		90	69 - 111	16	30
Benzo[a]anthracene	3330	2840		ug/Kg		85	68 - 110	16	30
Benzo[a]pyrene	3330	2690		ug/Kg		81	72 - 115	17	30
Benzo[b]fluoranthene	3330	2760		ug/Kg		83	69 - 119	20	30
Benzo[g,h,i]perylene	3330	2730		ug/Kg		82	54 - 128	17	30
Benzo[k]fluoranthene	3330	2820		ug/Kg		85	70 - 115	13	30
Biphenyl	3330	2830		ug/Kg		85	64 - 108	19	30
bis (2-chloroisopropyl) ether	3330	2900		ug/Kg		87	39 - 122	15	30
Bis(2-chloroethoxy)methane	3330	2760		ug/Kg		83	65 - 106	18	30
Bis(2-chloroethyl)ether	3330	2680		ug/Kg		80	64 - 105	17	30
Bis(2-ethylhexyl) phthalate	3330	3210		ug/Kg		96	63 - 125	16	30
Butyl benzyl phthalate	3330	3130		ug/Kg		94	65 - 125	15	30
Carbazole	3330	2980		ug/Kg		89	66 - 115	17	30
Chrysene	3330	3230		ug/Kg		97	70 - 111	16	30
Dibenz(a,h)anthracene	3330	2910		ug/Kg		87	60 - 130	16	30
Dibenzofuran	3330	2790		ug/Kg		84	67 - 107	16	30
Diethyl phthalate	3330	2800		ug/Kg		84	66 - 117	16	30
Dimethyl phthalate	3330	2790		ug/Kg		84	68 - 112	15	30
Di-n-butyl phthalate	3330	3040		ug/Kg		91	67 - 119	17	30
Di-n-octyl phthalate	3330	3010		ug/Kg		90	57 - 138	16	30
Fluoranthene	3330	2900		ug/Kg		87	64 - 114	16	30
Fluorene	3330	2790		ug/Kg		84	66 - 110	16	30
Hexachlorobenzene	3330	2840		ug/Kg		85	57 - 128	15	30
Hexachlorobutadiene	3330	2620		ug/Kg		79	60 - 108	18	30
Hexachlorocyclopentadiene	3330	2620		ug/Kg		79	50 - 129	20	30
Hexachloroethane	3330	2700		ug/Kg		81	63 - 99	15	30
Indeno[1,2,3-cd]pyrene	3330	2810		ug/Kg		84	53 - 137	16	30
Isophorone	3330	2860		ug/Kg		86	68 - 111	16	30
Naphthalene	3330	2750		ug/Kg		82	65 - 102	16	30
Nitrobenzene	3330	2890		ug/Kg		87	66 - 108	18	30
N-Nitrosodi-n-propylamine	3330	2940		ug/Kg		88	63 - 117	17	30
N-Nitrosodiphenylamine	3330	2910		ug/Kg		87	65 - 114	16	30
Pentachlorophenol	6670	6250		ug/Kg		94	56 - 116	18	30
Phenanthrene	3330	2880		ug/Kg		86	68 - 111	16	30
Phenol	3330	2980		ug/Kg		89	58 - 103	17	30
Pyrene	3330	2950		ug/Kg		88	64 - 121	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	85		10 - 137
2-Fluorobiphenyl (Surr)	80		29 - 107
2-Fluorophenol (Surr)	80		20 - 115

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: LCSD 460-634788/3-A

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 634788

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	84		25 - 113
Phenol-d5 (Surr)	82		28 - 109
Terphenyl-d14 (Surr)	85		27 - 123

Lab Sample ID: 460-189811-3 MS

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2,4,5-Trichlorophenol	ND	F1	3740	2170	F1	ug/Kg	☼	58	60 - 106
2,4,6-Trichlorophenol	ND	F1	3740	2080	F1	ug/Kg	☼	56	62 - 110
2,4-Dichlorophenol	ND	F1	3740	2320		ug/Kg	☼	62	61 - 103
2,4-Dimethylphenol	ND	F1	3740	2280	F1	ug/Kg	☼	61	63 - 101
2,4-Dinitrophenol	ND	F1	7490	403	F1	ug/Kg	☼	5	56 - 122
2,4-Dinitrotoluene	ND	F1	3740	2270	F1	ug/Kg	☼	61	66 - 122
2,6-Dinitrotoluene	ND	F1	3740	2300	F1	ug/Kg	☼	61	70 - 114
2-Chloronaphthalene	ND	F1	3740	2010	F1	ug/Kg	☼	54	63 - 107
2-Chlorophenol	ND	F1	3740	2340		ug/Kg	☼	63	62 - 97
2-Methylnaphthalene	ND	F1	3740	1950	F1	ug/Kg	☼	52	65 - 104
2-Methylphenol	ND	F1	3740	2870		ug/Kg	☼	77	61 - 103
2-Nitroaniline	ND		3740	2440		ug/Kg	☼	65	57 - 114
2-Nitrophenol	ND	F1	3740	1940	F1	ug/Kg	☼	52	65 - 104
3,3'-Dichlorobenzidine	ND		3740	2270		ug/Kg	☼	61	18 - 88
3-Nitroaniline	ND		3740	2270		ug/Kg	☼	61	30 - 94
4,6-Dinitro-2-methylphenol	ND	F1 F2	7490	1200	F1	ug/Kg	☼	16	67 - 120
4-Bromophenyl phenyl ether	ND	F1	3740	1980	F1	ug/Kg	☼	53	59 - 122
4-Chloro-3-methylphenol	ND	F1	3740	2380		ug/Kg	☼	64	62 - 111
4-Chloroaniline	ND		3740	2140		ug/Kg	☼	57	18 - 94
4-Chlorophenyl phenyl ether	ND	F1	3740	2120	F1	ug/Kg	☼	57	66 - 110
4-Methylphenol	ND	F1	3740	2240	F1	ug/Kg	☼	60	61 - 105
4-Nitroaniline	ND		3740	1920		ug/Kg	☼	51	49 - 118
4-Nitrophenol	ND	F2	7490	4840		ug/Kg	☼	65	43 - 141
Acenaphthene	ND	F1	3740	2110	F1	ug/Kg	☼	56	62 - 108
Acenaphthylene	ND	F1	3740	2150	F1	ug/Kg	☼	57	67 - 107
Acetophenone	ND	F1	3740	2260		ug/Kg	☼	60	60 - 109
Anthracene	ND	F1	3740	2240	F1	ug/Kg	☼	60	69 - 111
Atrazine	ND	F1	7490	4910		ug/Kg	☼	66	62 - 137
Benzaldehyde	ND	F1	7490	4310		ug/Kg	☼	58	52 - 113
Benzo[a]anthracene	25	J F1	3740	2070	F1	ug/Kg	☼	55	68 - 110
Benzo[a]pyrene	ND	* F1	3740	1920	F1	ug/Kg	☼	51	72 - 115
Benzo[b]fluoranthene	13	J * F1	3740	1950	F1	ug/Kg	☼	52	69 - 119
Benzo[g,h,i]perylene	ND	F1	3740	2000	F1	ug/Kg	☼	53	54 - 128
Benzo[k]fluoranthene	ND	F1	3740	2140	F1	ug/Kg	☼	57	70 - 115
Biphenyl	ND	F1	3740	2050	F1	ug/Kg	☼	55	64 - 108
bis (2-chloroisopropyl) ether	ND		3740	2120		ug/Kg	☼	57	39 - 122
Bis(2-chloroethoxy)methane	ND	F1	3740	2140	F1	ug/Kg	☼	57	65 - 106
Bis(2-chloroethyl)ether	ND	F1	3740	2120	F1	ug/Kg	☼	57	64 - 105
Bis(2-ethylhexyl) phthalate	ND	F1	3740	2330	F1	ug/Kg	☼	62	63 - 125

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: 460-189811-3 MS

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Butyl benzyl phthalate	ND	F1	3740	2320	F1	ug/Kg	☼	62	65 - 125
Caprolactam	ND	F2	7490	5820		ug/Kg	☼	78	53 - 148
Carbazole	ND	F1	3740	2270	F1	ug/Kg	☼	61	66 - 115
Chrysene	16	J F1	3740	2370	F1	ug/Kg	☼	63	70 - 111
Dibenz(a,h)anthracene	ND	F1	3740	2150	F1	ug/Kg	☼	57	60 - 130
Dibenzofuran	ND	F1	3740	2140	F1	ug/Kg	☼	57	67 - 107
Diethyl phthalate	ND	F1	3740	2240	F1	ug/Kg	☼	60	66 - 117
Dimethyl phthalate	ND	F1	3740	2270	F1	ug/Kg	☼	61	68 - 112
Di-n-butyl phthalate	ND	F1	3740	2230	F1	ug/Kg	☼	60	67 - 119
Di-n-octyl phthalate	ND	F1	3740	2170		ug/Kg	☼	58	57 - 138
Fluoranthene	32	J F1	3740	2130	F1	ug/Kg	☼	56	64 - 114
Fluorene	ND	F1	3740	2130	F1	ug/Kg	☼	57	66 - 110
Hexachlorobenzene	ND	F1	3740	2070	F1	ug/Kg	☼	55	57 - 128
Hexachlorobutadiene	ND	F1	3740	1660	F1	ug/Kg	☼	44	60 - 108
Hexachlorocyclopentadiene	ND	F1	3740	1440	F1	ug/Kg	☼	38	50 - 129
Hexachloroethane	ND	F1	3740	1750	F1	ug/Kg	☼	47	63 - 99
Indeno[1,2,3-cd]pyrene	ND	F1	3740	1820	F1	ug/Kg	☼	49	53 - 137
Isophorone	ND	F1	3740	2310	F1	ug/Kg	☼	62	68 - 111
Naphthalene	ND	F1	3740	1950	F1	ug/Kg	☼	52	65 - 102
Nitrobenzene	ND	F1	3740	2210	F1	ug/Kg	☼	59	66 - 108
N-Nitrosodi-n-propylamine	ND	F1	3740	2390		ug/Kg	☼	64	63 - 117
N-Nitrosodiphenylamine	ND	F1	3740	2140	F1	ug/Kg	☼	57	65 - 114
Pentachlorophenol	ND	F1	7490	4190		ug/Kg	☼	56	56 - 116
Phenanthrene	17	J F1	3740	2170	F1	ug/Kg	☼	57	68 - 111
Phenol	ND	F1	3740	2550		ug/Kg	☼	68	58 - 103
Pyrene	37	J F1	3740	2210	F1	ug/Kg	☼	58	64 - 121

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	57		10 - 137
2-Fluorobiphenyl (Surr)	51		29 - 107
2-Fluorophenol (Surr)	57		20 - 115
Nitrobenzene-d5 (Surr)	53		25 - 113
Phenol-d5 (Surr)	62		28 - 109
Terphenyl-d14 (Surr)	54		27 - 123

Lab Sample ID: 460-189811-3 MSD

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4,5-Trichlorophenol	ND	F1	3750	2020	F1	ug/Kg	☼	54	60 - 106	7	30
2,4,6-Trichlorophenol	ND	F1	3750	1940	F1	ug/Kg	☼	52	62 - 110	7	30
2,4-Dichlorophenol	ND	F1	3750	2000	F1	ug/Kg	☼	53	61 - 103	15	30
2,4-Dimethylphenol	ND	F1	3750	1960	F1	ug/Kg	☼	52	63 - 101	15	30
2,4-Dinitrophenol	ND	F1	7510	474	F1	ug/Kg	☼	6	56 - 122	16	30
2,4-Dinitrotoluene	ND	F1	3750	2170	F1	ug/Kg	☼	58	66 - 122	5	30
2,6-Dinitrotoluene	ND	F1	3750	2170	F1	ug/Kg	☼	58	70 - 114	6	30
2-Chloronaphthalene	ND	F1	3750	1900	F1	ug/Kg	☼	51	63 - 107	5	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: AECOM

Job ID: 460-189811-1

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

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

Lab Sample ID: 460-189811-3 MSD

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	ND	F1	3750	1950	F1	ug/Kg	☼	52	62 - 97	18	30
2-Methylnaphthalene	ND	F1	3750	1820	F1	ug/Kg	☼	48	65 - 104	7	30
2-Methylphenol	ND	F1	3750	2120	F1	ug/Kg	☼	56	61 - 103	30	30
2-Nitroaniline	ND		3750	2280		ug/Kg	☼	61	57 - 114	7	30
2-Nitrophenol	ND	F1	3750	1770	F1	ug/Kg	☼	47	65 - 104	9	30
3,3'-Dichlorobenzidine	ND		3750	2120		ug/Kg	☼	56	18 - 88	7	30
3-Nitroaniline	ND		3750	2020		ug/Kg	☼	54	30 - 94	11	30
4,6-Dinitro-2-methylphenol	ND	F1 F2	7510	1770	F1 F2	ug/Kg	☼	24	67 - 120	39	30
4-Bromophenyl phenyl ether	ND	F1	3750	1930	F1	ug/Kg	☼	51	59 - 122	3	30
4-Chloro-3-methylphenol	ND	F1	3750	2120	F1	ug/Kg	☼	56	62 - 111	12	30
4-Chloroaniline	ND		3750	1670		ug/Kg	☼	45	18 - 94	25	30
4-Chlorophenyl phenyl ether	ND	F1	3750	1980	F1	ug/Kg	☼	53	66 - 110	7	30
4-Methylphenol	ND	F1	3750	2040	F1	ug/Kg	☼	54	61 - 105	9	30
4-Nitroaniline	ND		3750	1820		ug/Kg	☼	49	49 - 118	5	30
4-Nitrophenol	ND	F2	7510	3500	F2	ug/Kg	☼	47	43 - 141	32	30
Acenaphthene	ND	F1	3750	2000	F1	ug/Kg	☼	53	62 - 108	5	30
Acenaphthylene	ND	F1	3750	2010	F1	ug/Kg	☼	54	67 - 107	7	30
Acetophenone	ND	F1	3750	1940	F1	ug/Kg	☼	52	60 - 109	15	30
Anthracene	ND	F1	3750	2220	F1	ug/Kg	☼	59	69 - 111	1	30
Atrazine	ND	F1	7510	4460	F1	ug/Kg	☼	59	62 - 137	10	30
Benzaldehyde	ND	F1	7510	3600	F1	ug/Kg	☼	48	52 - 113	18	30
Benzo[a]anthracene	25	J F1	3750	2100	F1	ug/Kg	☼	55	68 - 110	2	30
Benzo[a]pyrene	ND	* F1	3750	1900	F1	ug/Kg	☼	51	72 - 115	1	30
Benzo[b]fluoranthene	13	J * F1	3750	1940	F1	ug/Kg	☼	51	69 - 119	0	30
Benzo[g,h,i]perylene	ND	F1	3750	1960	F1	ug/Kg	☼	52	54 - 128	2	30
Benzo[k]fluoranthene	ND	F1	3750	2040	F1	ug/Kg	☼	54	70 - 115	5	30
Biphenyl	ND	F1	3750	1950	F1	ug/Kg	☼	52	64 - 108	5	30
bis (2-chloroisopropyl) ether	ND		3750	1920		ug/Kg	☼	51	39 - 122	10	30
Bis(2-chloroethoxy)methane	ND	F1	3750	1900	F1	ug/Kg	☼	51	65 - 106	12	30
Bis(2-chloroethyl)ether	ND	F1	3750	1780	F1	ug/Kg	☼	48	64 - 105	17	30
Bis(2-ethylhexyl) phthalate	ND	F1	3750	2240	F1	ug/Kg	☼	60	63 - 125	4	30
Butyl benzyl phthalate	ND	F1	3750	2270	F1	ug/Kg	☼	61	65 - 125	2	30
Caprolactam	ND	F2	7510	4000	F2	ug/Kg	☼	53	53 - 148	37	30
Carbazole	ND	F1	3750	2170	F1	ug/Kg	☼	58	66 - 115	5	30
Chrysene	16	J F1	3750	2340	F1	ug/Kg	☼	62	70 - 111	1	30
Dibenz(a,h)anthracene	ND	F1	3750	2100	F1	ug/Kg	☼	56	60 - 130	2	30
Dibenzofuran	ND	F1	3750	2030	F1	ug/Kg	☼	54	67 - 107	5	30
Diethyl phthalate	ND	F1	3750	2080	F1	ug/Kg	☼	55	66 - 117	7	30
Dimethyl phthalate	ND	F1	3750	2110	F1	ug/Kg	☼	56	68 - 112	7	30
Di-n-butyl phthalate	ND	F1	3750	2210	F1	ug/Kg	☼	59	67 - 119	1	30
Di-n-octyl phthalate	ND	F1	3750	2100	F1	ug/Kg	☼	56	57 - 138	3	30
Fluoranthene	32	J F1	3750	2180	F1	ug/Kg	☼	57	64 - 114	2	30
Fluorene	ND	F1	3750	2050	F1	ug/Kg	☼	55	66 - 110	4	30
Hexachlorobenzene	ND	F1	3750	2040	F1	ug/Kg	☼	54	57 - 128	2	30
Hexachlorobutadiene	ND	F1	3750	1550	F1	ug/Kg	☼	41	60 - 108	7	30
Hexachlorocyclopentadiene	ND	F1	3750	1260	F1	ug/Kg	☼	34	50 - 129	13	30
Hexachloroethane	ND	F1	3750	1520	F1	ug/Kg	☼	41	63 - 99	14	30
Indeno[1,2,3-cd]pyrene	ND	F1	3750	1870	F1	ug/Kg	☼	50	53 - 137	3	30
Isophorone	ND	F1	3750	2030	F1	ug/Kg	☼	54	68 - 111	13	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189811-1

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

Lab Sample ID: 460-189811-3 MSD

Matrix: Solid

Analysis Batch: 634870

Client Sample ID: PWEXBM05168

Prep Type: Total/NA

Prep Batch: 634788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	ND	F1	3750	1840	F1	ug/Kg	☼	49	65 - 102	6	30
Nitrobenzene	ND	F1	3750	1990	F1	ug/Kg	☼	53	66 - 108	11	30
N-Nitrosodi-n-propylamine	ND	F1	3750	2030	F1	ug/Kg	☼	54	63 - 117	17	30
N-Nitrosodiphenylamine	ND	F1	3750	2120	F1	ug/Kg	☼	56	65 - 114	1	30
Pentachlorophenol	ND	F1	7510	3840	F1	ug/Kg	☼	51	56 - 116	9	30
Phenanthrene	17	J F1	3750	2190	F1	ug/Kg	☼	58	68 - 111	1	30
Phenol	ND	F1	3750	2130	F1	ug/Kg	☼	57	58 - 103	18	30
Pyrene	37	J F1	3750	2230	F1	ug/Kg	☼	58	64 - 121	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	53		10 - 137
2-Fluorobiphenyl (Surr)	48		29 - 107
2-Fluorophenol (Surr)	50		20 - 115
Nitrobenzene-d5 (Surr)	50		25 - 113
Phenol-d5 (Surr)	51		28 - 109
Terphenyl-d14 (Surr)	52		27 - 123

QC Association Summary

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

Job ID: 460-189811-1

GC/MS VOA

Prep Batch: 634861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-1	PWEXBM05166	Total/NA	Solid	5035	
460-189811-2	PWEXBM05167	Total/NA	Solid	5035	
460-189811-3	PWEXBM05168	Total/NA	Solid	5035	
LB3 460-634861/1-A	Method Blank	Total/NA	Solid	5035	
460-189811-3 MS	PWEXBM05168	Total/NA	Solid	5035	
460-189811-3 MSD	PWEXBM05168	Total/NA	Solid	5035	

Analysis Batch: 635062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-1	PWEXBM05166	Total/NA	Solid	8260C	634861
460-189811-2	PWEXBM05167	Total/NA	Solid	8260C	634861
460-189811-3	PWEXBM05168	Total/NA	Solid	8260C	634861
MB 460-635062/10	Method Blank	Total/NA	Solid	8260C	
LCS 460-635062/5	Lab Control Sample	Total/NA	Solid	8260C	
460-189811-3 MS	PWEXBM05168	Total/NA	Solid	8260C	634861
460-189811-3 MSD	PWEXBM05168	Total/NA	Solid	8260C	634861

Analysis Batch: 635064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 460-634861/1-A	Method Blank	Total/NA	Solid	8260C	634861
MB 460-635064/8	Method Blank	Total/NA	Solid	8260C	
LCS 460-635064/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-635064/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 634788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-1	PWEXBM05166	Total/NA	Solid	3546	
460-189811-2	PWEXBM05167	Total/NA	Solid	3546	
460-189811-3	PWEXBM05168	Total/NA	Solid	3546	
MB 460-634788/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-634788/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 460-634788/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-634788/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-189811-3 MS	PWEXBM05168	Total/NA	Solid	3546	
460-189811-3 MSD	PWEXBM05168	Total/NA	Solid	3546	

Analysis Batch: 634870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-1	PWEXBM05166	Total/NA	Solid	8270D	634788
460-189811-3	PWEXBM05168	Total/NA	Solid	8270D	634788
MB 460-634788/1-A	Method Blank	Total/NA	Solid	8270D	634788
LCS 460-634788/2-A	Lab Control Sample	Total/NA	Solid	8270D	634788
LCS 460-634788/4-A	Lab Control Sample	Total/NA	Solid	8270D	634788
LCSD 460-634788/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	634788
460-189811-3 MS	PWEXBM05168	Total/NA	Solid	8270D	634788
460-189811-3 MSD	PWEXBM05168	Total/NA	Solid	8270D	634788

QC Association Summary

Client: AECOM

Job ID: 460-189811-1

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

GC/MS Semi VOA

Analysis Batch: 635105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-2	PWEXBM05167	Total/NA	Solid	8270D	634788

General Chemistry

Analysis Batch: 634962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189811-1	PWEXBM05166	Total/NA	Solid	Moisture	
460-189811-2	PWEXBM05167	Total/NA	Solid	Moisture	
460-189811-3	PWEXBM05168	Total/NA	Solid	Moisture	
460-189811-3 MS	PWEXBM05168	Total/NA	Solid	Moisture	
460-189811-3 MSD	PWEXBM05168	Total/NA	Solid	Moisture	

Lab Chronicle

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

Job ID: 460-189811-1

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Date Collected: 08/23/19 11:25

Matrix: Solid

Date Received: 08/24/19 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	634962	08/26/19 09:26	MMC	TAL EDI

Client Sample ID: PWEXBM05166

Lab Sample ID: 460-189811-1

Date Collected: 08/23/19 11:25

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			634861	08/26/19 02:04	AVM	TAL EDI
Total/NA	Analysis	8260C		1	635062	08/27/19 04:29	VBP	TAL EDI
Total/NA	Prep	3546			634788	08/25/19 07:57	DXD	TAL EDI
Total/NA	Analysis	8270D		1	634870	08/26/19 08:14	P1M	TAL EDI

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	634962	08/26/19 09:26	MMC	TAL EDI

Client Sample ID: PWEXBM05167

Lab Sample ID: 460-189811-2

Date Collected: 08/23/19 11:55

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			634861	08/26/19 02:05	AVM	TAL EDI
Total/NA	Analysis	8260C		1	635062	08/27/19 02:01	VBP	TAL EDI
Total/NA	Prep	3546			634788	08/25/19 07:57	DXD	TAL EDI
Total/NA	Analysis	8270D		1	635105	08/27/19 07:43	SK	TAL EDI

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	634962	08/26/19 09:26	MMC	TAL EDI

Client Sample ID: PWEXBM05168

Lab Sample ID: 460-189811-3

Date Collected: 08/23/19 12:05

Matrix: Solid

Date Received: 08/24/19 11:20

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			634861	08/26/19 02:06	AVM	TAL EDI
Total/NA	Analysis	8260C		1	635062	08/27/19 02:26	VBP	TAL EDI
Total/NA	Prep	3546			634788	08/25/19 07:57	DXD	TAL EDI
Total/NA	Analysis	8270D		1	634870	08/26/19 07:24	P1M	TAL EDI

Eurofins TestAmerica, Edison

Lab Chronicle

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

Job ID: 460-189811-1

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

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Accreditation/Certification Summary

Client: AECOM

Job ID: 460-189811-1

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

Laboratory: Eurofins TestAmerica, Edison

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-20

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method Summary

Client: AECOM

Job ID: 460-189811-1

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

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM

Job ID: 460-189811-1

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-189811-1	PWEXBM05166	Solid	08/23/19 11:25	08/24/19 11:20	
460-189811-2	PWEXBM05167	Solid	08/23/19 11:55	08/24/19 11:20	
460-189811-3	PWEXBM05168	Solid	08/23/19 12:05	08/24/19 11:20	

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 06-16-2001 BY 60322 UCBAW

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 460-189811-1

Login Number: 189811

List Number: 1

Creator: Hall, Alonzo

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	864740
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-189997-1

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

For:

AECOM
40 British American Blvd
Latham, New York 12110

Attn: Mr. Matt Thorpe



Authorized for release by:
8/30/2019 3:06:01 PM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Definitions/Glossary

Client: AECOM

Job ID: 460-189997-1

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

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.

GC/MS Semi VOA TICs

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Job ID: 460-189997-1

Job ID: 460-189997-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative 460-189997-1

Receipt

The samples were received on 8/28/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 460-635719 recovered outside control limits for the following analytes: Dichlorodifluoromethane and Methyl acetate (biased low). These analytes not detected in the associated samples.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-635907 was outside the method criteria for the following analyte(s): Chloromethane (biased high) and Dichlorodifluoromethane (biased low). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 460-635907 recovered outside control limits for the following analyte: Dichlorodifluoromethane (biased low). This analyte was not detected in the associated sample.

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

GC/MS Semi VOA

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 460-635704 was outside the method criteria for the following analyte(s): < 2,4-Dinitrophenol, 2,6-Dinitrotoluene, 2-Nitrophenol and Hexachlorocyclopentadiene>. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

Organic Prep

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

VOA Prep

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

Detection Summary

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08169

Lab Sample ID: 460-189997-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.85	J	1.2	0.58	ug/Kg	1	✱	8260C	Total/NA

Client Sample ID: PWEXBM08170

Lab Sample ID: 460-189997-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.75	J	0.97	0.45	ug/Kg	1	✱	8260C	Total/NA
Acetone	8.1		5.8	5.6	ug/Kg	1	✱	8260C	Total/NA
2-Methylnaphthalene	23	J	380	4.8	ug/Kg	1	✱	8270D	Total/NA
Dibenzofuran	24	J	380	5.4	ug/Kg	1	✱	8270D	Total/NA
Fluoranthene	25	J	380	5.0	ug/Kg	1	✱	8270D	Total/NA
Fluorene	24	J	380	5.2	ug/Kg	1	✱	8270D	Total/NA
Naphthalene	29	J	380	6.6	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	70	J	380	6.7	ug/Kg	1	✱	8270D	Total/NA
Pyrene	17	J	380	9.5	ug/Kg	1	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08169

Lab Sample ID: 460-189997-1

Date Collected: 08/27/19 10:50

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.2	0.54	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Bromomethane	ND		1.2	0.59	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Vinyl chloride	ND		1.2	0.68	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Chloroethane	ND		1.2	0.65	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Methylene Chloride	0.85	J	1.2	0.58	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Acetone	ND		7.4	7.1	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Carbon disulfide	ND		1.2	0.33	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Trichlorofluoromethane	ND		1.2	0.50	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1-Dichloroethene	ND		1.2	0.28	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1-Dichloroethane	ND		1.2	0.26	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
trans-1,2-Dichloroethene	ND		1.2	0.31	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
cis-1,2-Dichloroethene	ND		1.2	0.19	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Chloroform	ND		1.2	0.40	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2-Dichloroethane	ND		1.2	0.37	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
2-Butanone (MEK)	ND		6.2	3.4	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1,1-Trichloroethane	ND		1.2	0.29	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Carbon tetrachloride	ND		1.2	0.48	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Bromodichloromethane	ND		1.2	0.32	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2-Dichloropropane	ND		1.2	0.53	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
cis-1,3-Dichloropropene	ND		1.2	0.34	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Trichloroethene	ND		1.2	0.18	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Dibromochloromethane	ND		1.2	0.24	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1,2-Trichloroethane	ND		1.2	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Benzene	ND		1.2	0.32	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
trans-1,3-Dichloropropene	ND		1.2	0.33	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Bromoform	ND		1.2	0.53	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
4-Methyl-2-pentanone (MIBK)	ND		6.2	1.9	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
2-Hexanone	ND		6.2	2.1	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Tetrachloroethene	ND		1.2	0.18	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1,2,2-Tetrachloroethane	ND		1.2	0.27	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Toluene	ND		1.2	0.29	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Chlorobenzene	ND		1.2	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Ethylbenzene	ND		1.2	0.25	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Styrene	ND		1.2	0.35	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Xylenes, Total	ND		2.5	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	0.37	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Methyl tert-butyl ether	ND		1.2	0.16	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Cyclohexane	ND		1.2	0.27	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2-Dibromoethane	ND		1.2	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,3-Dichlorobenzene	ND		1.2	0.20	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,4-Dichlorobenzene	ND		1.2	0.28	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2-Dichlorobenzene	ND		1.2	0.18	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Dichlorodifluoromethane	ND	*	1.2	0.42	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2,4-Trichlorobenzene	ND		1.2	0.44	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
1,2-Dibromo-3-Chloropropane	ND		1.2	0.57	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Isopropylbenzene	ND		1.2	0.16	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Methyl acetate	ND		6.2	5.3	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1
Methylcyclohexane	ND		1.2	0.62	ug/Kg	☼	08/29/19 03:27	08/29/19 20:52	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08169

Lab Sample ID: 460-189997-1

Date Collected: 08/27/19 10:50

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 88.7

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/Kg</i>	<i>☼</i>			<i>08/29/19 03:27</i>	<i>08/29/19 20:52</i>	<i>1</i>
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		78 - 135				08/29/19 03:27	08/29/19 20:52	1
Toluene-d8 (Surr)	101		73 - 121				08/29/19 03:27	08/29/19 20:52	1
4-Bromofluorobenzene	102		67 - 126				08/29/19 03:27	08/29/19 20:52	1
Dibromofluoromethane (Surr)	108		61 - 149				08/29/19 03:27	08/29/19 20:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		370	12	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,4,6-Trichlorophenol	ND		150	19	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,4-Dichlorophenol	ND		150	7.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,4-Dimethylphenol	ND		370	16	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,4-Dinitrophenol	ND		300	180	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,4-Dinitrotoluene	ND		75	19	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2,6-Dinitrotoluene	ND		75	12	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Chloronaphthalene	ND		370	17	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Chlorophenol	ND		370	5.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Methylnaphthalene	ND		370	4.7	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Methylphenol	ND		370	6.0	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Nitroaniline	ND		370	14	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
2-Nitrophenol	ND		370	12	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
3,3'-Dichlorobenzidine	ND		150	56	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
3-Nitroaniline	ND		370	20	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4,6-Dinitro-2-methylphenol	ND		300	60	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Bromophenyl phenyl ether	ND		370	4.8	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Chloro-3-methylphenol	ND		370	6.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Chloroaniline	ND		370	26	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Chlorophenyl phenyl ether	ND		370	5.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Methylphenol	ND		370	6.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Nitroaniline	ND		370	14	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
4-Nitrophenol	ND		750	61	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Acenaphthene	ND		370	27	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Acenaphthylene	ND		370	3.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Acetophenone	ND		370	6.0	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Anthracene	ND		370	4.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Atrazine	ND		150	9.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzaldehyde	ND		370	16	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzo[a]anthracene	ND		37	13	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzo[a]pyrene	ND		37	9.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzo[b]fluoranthene	ND		37	9.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzo[g,h,i]perylene	ND		370	11	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Benzo[k]fluoranthene	ND		37	7.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Biphenyl	ND		370	4.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
bis (2-chloroisopropyl) ether	ND		370	6.7	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Bis(2-chloroethoxy)methane	ND		370	13	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Bis(2-chloroethyl)ether	ND		37	4.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Bis(2-ethylhexyl) phthalate	ND		370	20	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Butyl benzyl phthalate	ND		370	17	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08169

Lab Sample ID: 460-189997-1

Date Collected: 08/27/19 10:50

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 88.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		370	22	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Carbazole	ND		370	4.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Chrysene	ND		370	6.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Dibenz(a,h)anthracene	ND		37	16	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Dibenzofuran	ND		370	5.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Diethyl phthalate	ND		370	5.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Dimethyl phthalate	ND		370	4.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Di-n-butyl phthalate	ND		370	66	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Di-n-octyl phthalate	ND		370	20	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Fluoranthene	ND		370	4.8	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Fluorene	ND		370	5.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Hexachlorobenzene	ND		37	5.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Hexachlorobutadiene	ND		75	7.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Hexachlorocyclopentadiene	ND		370	33	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Hexachloroethane	ND		37	5.7	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Indeno[1,2,3-cd]pyrene	ND		37	15	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Isophorone	ND		150	9.8	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Naphthalene	ND		370	6.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Nitrobenzene	ND		37	8.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
N-Nitrosodi-n-propylamine	ND		37	5.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
N-Nitrosodiphenylamine	ND		370	7.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Pentachlorophenol	ND		300	76	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Phenanthrene	ND		370	6.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Phenol	ND		370	5.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1
Pyrene	ND		370	9.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	760000	T A J	ug/Kg	☼	2.94		08/28/19 21:26	08/29/19 08:11	1
5-t-Butyl-4-methylimidazole	960	T J N	ug/Kg	☼	3.18	146979-50-2	08/28/19 21:26	08/29/19 08:11	1
Unknown	2500	T J	ug/Kg	☼	3.40		08/28/19 21:26	08/29/19 08:11	1
Unknown	370	T J	ug/Kg	☼	3.81		08/28/19 21:26	08/29/19 08:11	1
Unknown	910	T J	ug/Kg	☼	5.15		08/28/19 21:26	08/29/19 08:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	50		10 - 137	08/28/19 21:26	08/29/19 08:11	1
2-Fluorobiphenyl (Surr)	71		29 - 107	08/28/19 21:26	08/29/19 08:11	1
2-Fluorophenol (Surr)	62		20 - 115	08/28/19 21:26	08/29/19 08:11	1
Nitrobenzene-d5 (Surr)	72		25 - 113	08/28/19 21:26	08/29/19 08:11	1
Phenol-d5 (Surr)	70		28 - 109	08/28/19 21:26	08/29/19 08:11	1
Terphenyl-d14 (Surr)	79		27 - 123	08/28/19 21:26	08/29/19 08:11	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.3		1.0	1.0	%			08/28/19 13:08	1
Percent Solids	88.7		1.0	1.0	%			08/28/19 13:08	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08170

Lab Sample ID: 460-189997-2

Date Collected: 08/27/19 13:25

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.97	0.42	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Bromomethane	ND		0.97	0.46	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Vinyl chloride	ND		0.97	0.53	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Chloroethane	ND		0.97	0.51	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Methylene Chloride	0.75	J	0.97	0.45	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Acetone	8.1		5.8	5.6	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Carbon disulfide	ND		0.97	0.26	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Trichlorofluoromethane	ND		0.97	0.40	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1-Dichloroethene	ND		0.97	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1-Dichloroethane	ND		0.97	0.20	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
trans-1,2-Dichloroethene	ND		0.97	0.24	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
cis-1,2-Dichloroethene	ND		0.97	0.15	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Chloroform	ND		0.97	0.31	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2-Dichloroethane	ND		0.97	0.29	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
2-Butanone (MEK)	ND		4.9	2.6	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1,1-Trichloroethane	ND		0.97	0.23	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Carbon tetrachloride	ND		0.97	0.38	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Bromodichloromethane	ND		0.97	0.25	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2-Dichloropropane	ND		0.97	0.41	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
cis-1,3-Dichloropropene	ND		0.97	0.27	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Trichloroethene	ND		0.97	0.14	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Dibromochloromethane	ND		0.97	0.19	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1,2-Trichloroethane	ND		0.97	0.17	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Benzene	ND		0.97	0.25	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
trans-1,3-Dichloropropene	ND		0.97	0.26	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Bromoform	ND		0.97	0.41	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
4-Methyl-2-pentanone (MIBK)	ND		4.9	1.5	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
2-Hexanone	ND		4.9	1.7	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Tetrachloroethene	ND		0.97	0.14	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1,2,2-Tetrachloroethane	ND		0.97	0.21	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Toluene	ND		0.97	0.23	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Chlorobenzene	ND		0.97	0.17	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Ethylbenzene	ND		0.97	0.19	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Styrene	ND		0.97	0.27	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Xylenes, Total	ND		1.9	0.17	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.97	0.29	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Methyl tert-butyl ether	ND		0.97	0.12	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Cyclohexane	ND		0.97	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2-Dibromoethane	ND		0.97	0.18	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,3-Dichlorobenzene	ND		0.97	0.15	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,4-Dichlorobenzene	ND		0.97	0.22	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2-Dichlorobenzene	ND		0.97	0.14	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Dichlorodifluoromethane	ND	*	0.97	0.33	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2,4-Trichlorobenzene	ND		0.97	0.35	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
1,2-Dibromo-3-Chloropropane	ND		0.97	0.45	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Isopropylbenzene	ND		0.97	0.12	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Methyl acetate	ND	*	4.9	4.2	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1
Methylcyclohexane	ND		0.97	0.49	ug/Kg	☼	08/29/19 03:27	08/29/19 12:33	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08170

Lab Sample ID: 460-189997-2

Date Collected: 08/27/19 13:25

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 86.5

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/Kg</i>	☼			<i>08/29/19 03:27</i>	<i>08/29/19 12:33</i>	<i>1</i>
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		78 - 135				08/29/19 03:27	08/29/19 12:33	1
Toluene-d8 (Surr)	98		73 - 121				08/29/19 03:27	08/29/19 12:33	1
4-Bromofluorobenzene	98		67 - 126				08/29/19 03:27	08/29/19 12:33	1
Dibromofluoromethane (Surr)	102		61 - 149				08/29/19 03:27	08/29/19 12:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		380	13	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,4,6-Trichlorophenol	ND		150	19	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,4-Dichlorophenol	ND		150	8.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,4-Dimethylphenol	ND		380	17	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,4-Dinitrophenol	ND		310	190	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,4-Dinitrotoluene	ND		77	19	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2,6-Dinitrotoluene	ND		77	12	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Chloronaphthalene	ND		380	18	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Chlorophenol	ND		380	5.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Methylnaphthalene	23 J		380	4.8	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Methylphenol	ND		380	6.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Nitroaniline	ND		380	14	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
2-Nitrophenol	ND		380	12	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
3,3'-Dichlorobenzidine	ND		150	58	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
3-Nitroaniline	ND		380	21	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4,6-Dinitro-2-methylphenol	ND		310	62	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Bromophenyl phenyl ether	ND		380	4.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Chloro-3-methylphenol	ND		380	6.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Chloroaniline	ND		380	27	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Chlorophenyl phenyl ether	ND		380	6.0	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Methylphenol	ND		380	6.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Nitroaniline	ND		380	14	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
4-Nitrophenol	ND		770	62	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Acenaphthene	ND		380	28	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Acenaphthylene	ND		380	4.0	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Acetophenone	ND		380	6.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Anthracene	ND		380	4.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Atrazine	ND		150	9.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzaldehyde	ND		380	17	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzo[a]anthracene	ND		38	13	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzo[a]pyrene	ND		38	10	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzo[b]fluoranthene	ND		38	9.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzo[g,h,i]perylene	ND		380	11	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Benzo[k]fluoranthene	ND		38	7.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Biphenyl	ND		380	5.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
bis (2-chloroisopropyl) ether	ND		380	6.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Bis(2-chloroethoxy)methane	ND		380	13	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Bis(2-chloroethyl)ether	ND		38	4.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Bis(2-ethylhexyl) phthalate	ND		380	20	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Butyl benzyl phthalate	ND		380	18	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08170

Lab Sample ID: 460-189997-2

Date Collected: 08/27/19 13:25

Matrix: Solid

Date Received: 08/28/19 09:45

Percent Solids: 86.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		380	23	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Carbazole	ND		380	4.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Chrysene	ND		380	6.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Dibenz(a,h)anthracene	ND		38	17	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Dibenzofuran	24	J	380	5.4	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Diethyl phthalate	ND		380	5.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Dimethyl phthalate	ND		380	4.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Di-n-butyl phthalate	ND		380	67	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Di-n-octyl phthalate	ND		380	20	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Fluoranthene	25	J	380	5.0	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Fluorene	24	J	380	5.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Hexachlorobenzene	ND		38	5.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Hexachlorobutadiene	ND		77	8.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Hexachlorocyclopentadiene	ND		380	34	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Hexachloroethane	ND		38	5.9	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Indeno[1,2,3-cd]pyrene	ND		38	15	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Isophorone	ND		150	10	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Naphthalene	29	J	380	6.6	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Nitrobenzene	ND		38	9.2	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
N-Nitrosodi-n-propylamine	ND		38	6.1	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
N-Nitrosodiphenylamine	ND		380	7.3	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Pentachlorophenol	ND		310	78	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Phenanthrene	70	J	380	6.7	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Phenol	ND		380	5.7	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1
Pyrene	17	J	380	9.5	ug/Kg	☼	08/28/19 21:26	08/29/19 08:33	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	760000	T A J	ug/Kg	☼	2.93		08/28/19 21:26	08/29/19 08:33	1
Unknown	1100	T J	ug/Kg	☼	3.18		08/28/19 21:26	08/29/19 08:33	1
Unknown	2600	T J	ug/Kg	☼	3.40		08/28/19 21:26	08/29/19 08:33	1
Unknown	830	T J	ug/Kg	☼	5.15		08/28/19 21:26	08/29/19 08:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	50		10 - 137	08/28/19 21:26	08/29/19 08:33	1
2-Fluorobiphenyl (Surr)	65		29 - 107	08/28/19 21:26	08/29/19 08:33	1
2-Fluorophenol (Surr)	58		20 - 115	08/28/19 21:26	08/29/19 08:33	1
Nitrobenzene-d5 (Surr)	67		25 - 113	08/28/19 21:26	08/29/19 08:33	1
Phenol-d5 (Surr)	63		28 - 109	08/28/19 21:26	08/29/19 08:33	1
Terphenyl-d14 (Surr)	70		27 - 123	08/28/19 21:26	08/29/19 08:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.5		1.0	1.0	%			08/28/19 13:08	1
Percent Solids	86.5		1.0	1.0	%			08/28/19 13:08	1

Eurofins TestAmerica, Edison

Surrogate Summary

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

Job ID: 460-189997-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (78-135)	TOL (73-121)	BFB (67-126)	DBFM (61-149)
460-189997-1	PWEXBM08169	113	101	102	108
460-189997-2	PWEXBM08170	100	98	98	102
LB3 460-635700/1-A	Method Blank	91	94	99	99
LCS 460-635719/3	Lab Control Sample	98	101	95	100
LCS 460-635907/3	Lab Control Sample	99	97	99	103
LCSD 460-635719/14	Lab Control Sample Dup	94	97	96	100
LCSD 460-635907/4	Lab Control Sample Dup	99	100	94	103
MB 460-635719/8	Method Blank	105	103	101	107
MB 460-635907/8	Method Blank	111	101	99	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (10-137)	FBP (29-107)	2FP (20-115)	NBZ (25-113)	PHL (28-109)	TPHL (27-123)
460-189997-1	PWEXBM08169	50	71	62	72	70	79
460-189997-2	PWEXBM08170	50	65	58	67	63	70
LCS 460-635675/2-A	Lab Control Sample	93	78	73	78	78	90
LCS 460-635675/4-A	Lab Control Sample	88	78	76	79	79	85
LCSD 460-635675/3-A	Lab Control Sample Dup	95	79	75	80	79	93
MB 460-635675/1-A	Method Blank	90	79	76	83	79	92

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LB3 460-635700/1-A

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 635700

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Bromomethane	ND		1.0	0.47	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Vinyl chloride	ND		1.0	0.55	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Chloroethane	ND		1.0	0.52	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Methylene Chloride	ND		1.0	0.46	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Acetone	ND		6.0	5.7	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Carbon disulfide	ND		1.0	0.27	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Chloroform	ND		1.0	0.32	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Trichloroethene	ND		1.0	0.14	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Benzene	ND		1.0	0.26	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Bromoform	ND		1.0	0.43	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
2-Hexanone	ND		5.0	1.7	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Toluene	ND		1.0	0.23	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Chlorobenzene	ND		1.0	0.18	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Ethylbenzene	ND		1.0	0.20	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Styrene	ND		1.0	0.28	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Xylenes, Total	ND		2.0	0.17	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Cyclohexane	ND		1.0	0.22	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Methyl acetate	ND		5.0	4.3	ug/Kg		08/29/19 03:26	08/29/19 11:19	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg		08/29/19 03:26	08/29/19 11:19	1

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QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LB3 460-635700/1-A

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 635700

	LB3	LB3							
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg				08/29/19 03:26	08/29/19 11:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		78 - 135				08/29/19 03:26	08/29/19 11:19	1
Toluene-d8 (Surr)	94		73 - 121				08/29/19 03:26	08/29/19 11:19	1
4-Bromofluorobenzene	99		67 - 126				08/29/19 03:26	08/29/19 11:19	1
Dibromofluoromethane (Surr)	99		61 - 149				08/29/19 03:26	08/29/19 11:19	1

Lab Sample ID: MB 460-635719/8

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg			08/29/19 07:57	1
Bromomethane	ND		1.0	0.47	ug/Kg			08/29/19 07:57	1
Vinyl chloride	ND		1.0	0.55	ug/Kg			08/29/19 07:57	1
Chloroethane	ND		1.0	0.52	ug/Kg			08/29/19 07:57	1
Methylene Chloride	ND		1.0	0.46	ug/Kg			08/29/19 07:57	1
Acetone	ND		6.0	5.7	ug/Kg			08/29/19 07:57	1
Carbon disulfide	ND		1.0	0.27	ug/Kg			08/29/19 07:57	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg			08/29/19 07:57	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg			08/29/19 07:57	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg			08/29/19 07:57	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg			08/29/19 07:57	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg			08/29/19 07:57	1
Chloroform	ND		1.0	0.32	ug/Kg			08/29/19 07:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg			08/29/19 07:57	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg			08/29/19 07:57	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			08/29/19 07:57	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg			08/29/19 07:57	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg			08/29/19 07:57	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg			08/29/19 07:57	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/29/19 07:57	1
Trichloroethene	ND		1.0	0.14	ug/Kg			08/29/19 07:57	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg			08/29/19 07:57	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg			08/29/19 07:57	1
Benzene	ND		1.0	0.26	ug/Kg			08/29/19 07:57	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/29/19 07:57	1
Bromoform	ND		1.0	0.43	ug/Kg			08/29/19 07:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg			08/29/19 07:57	1
2-Hexanone	ND		5.0	1.7	ug/Kg			08/29/19 07:57	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg			08/29/19 07:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg			08/29/19 07:57	1
Toluene	ND		1.0	0.23	ug/Kg			08/29/19 07:57	1
Chlorobenzene	ND		1.0	0.18	ug/Kg			08/29/19 07:57	1
Ethylbenzene	ND		1.0	0.20	ug/Kg			08/29/19 07:57	1
Styrene	ND		1.0	0.28	ug/Kg			08/29/19 07:57	1
Xylenes, Total	ND		2.0	0.17	ug/Kg			08/29/19 07:57	1

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QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: MB 460-635719/8

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg			08/29/19 07:57	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg			08/29/19 07:57	1
Cyclohexane	ND		1.0	0.22	ug/Kg			08/29/19 07:57	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg			08/29/19 07:57	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg			08/29/19 07:57	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg			08/29/19 07:57	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg			08/29/19 07:57	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg			08/29/19 07:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg			08/29/19 07:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg			08/29/19 07:57	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg			08/29/19 07:57	1
Methyl acetate	ND		5.0	4.3	ug/Kg			08/29/19 07:57	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg			08/29/19 07:57	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg					08/29/19 07:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		78 - 135		08/29/19 07:57	1
Toluene-d8 (Surr)	103		73 - 121		08/29/19 07:57	1
4-Bromofluorobenzene	101		67 - 126		08/29/19 07:57	1
Dibromofluoromethane (Surr)	107		61 - 149		08/29/19 07:57	1

Lab Sample ID: LCS 460-635719/3

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	21.1		ug/Kg		105	66 - 128
Bromomethane	20.0	20.3		ug/Kg		101	59 - 136
Vinyl chloride	20.0	21.6		ug/Kg		108	70 - 134
Chloroethane	20.0	20.9		ug/Kg		104	50 - 139
Methylene Chloride	20.0	20.6		ug/Kg		103	79 - 128
Acetone	100	102		ug/Kg		102	75 - 120
Carbon disulfide	20.0	19.4		ug/Kg		97	74 - 130
Trichlorofluoromethane	20.0	21.0		ug/Kg		105	68 - 136
1,1-Dichloroethene	20.0	19.5		ug/Kg		98	79 - 132
1,1-Dichloroethane	20.0	20.1		ug/Kg		101	80 - 124
trans-1,2-Dichloroethene	20.0	19.6		ug/Kg		98	80 - 129
cis-1,2-Dichloroethene	20.0	19.7		ug/Kg		99	80 - 123
Chloroform	20.0	19.7		ug/Kg		99	80 - 122
1,2-Dichloroethane	20.0	18.4		ug/Kg		92	68 - 120
2-Butanone (MEK)	100	94.0		ug/Kg		94	61 - 140
1,1,1-Trichloroethane	20.0	20.6		ug/Kg		103	80 - 125
Carbon tetrachloride	20.0	20.8		ug/Kg		104	77 - 138
Bromodichloromethane	20.0	18.4		ug/Kg		92	76 - 129
1,2-Dichloropropane	20.0	19.0		ug/Kg		95	77 - 124
cis-1,3-Dichloropropene	20.0	18.7		ug/Kg		93	75 - 124

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCS 460-635719/3

Matrix: Solid

Analysis Batch: 635719

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	19.0		ug/Kg		95	79 - 122
Dibromochloromethane	20.0	18.3		ug/Kg		92	67 - 143
1,1,2-Trichloroethane	20.0	18.0		ug/Kg		90	76 - 124
Benzene	20.0	19.3		ug/Kg		96	75 - 127
trans-1,3-Dichloropropene	20.0	19.3		ug/Kg		96	72 - 121
Bromoform	20.0	18.0		ug/Kg		90	19 - 150
4-Methyl-2-pentanone (MIBK)	100	89.0		ug/Kg		89	80 - 120
2-Hexanone	100	90.0		ug/Kg		90	78 - 120
Tetrachloroethene	20.0	20.0		ug/Kg		100	73 - 130
1,1,2,2-Tetrachloroethane	20.0	18.7		ug/Kg		94	72 - 131
Toluene	20.0	19.9		ug/Kg		100	75 - 122
Chlorobenzene	20.0	19.7		ug/Kg		98	80 - 120
Ethylbenzene	20.0	20.6		ug/Kg		103	79 - 124
Styrene	20.0	20.7		ug/Kg		103	78 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.5		ug/Kg		102	78 - 132
Methyl tert-butyl ether	20.0	18.8		ug/Kg		94	80 - 120
Cyclohexane	20.0	20.5		ug/Kg		102	67 - 135
1,2-Dibromoethane	20.0	18.6		ug/Kg		93	80 - 122
1,3-Dichlorobenzene	20.0	19.6		ug/Kg		98	79 - 124
1,4-Dichlorobenzene	20.0	19.4		ug/Kg		97	79 - 121
1,2-Dichlorobenzene	20.0	19.4		ug/Kg		97	80 - 121
Dichlorodifluoromethane	20.0	15.9		ug/Kg		80	72 - 127
1,2,4-Trichlorobenzene	20.0	20.1		ug/Kg		100	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	19.8		ug/Kg		99	65 - 129
Isopropylbenzene	20.0	20.9		ug/Kg		104	80 - 125
Methyl acetate	40.0	37.1		ug/Kg		93	73 - 123
Methylcyclohexane	20.0	20.6		ug/Kg		103	71 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		78 - 135
Toluene-d8 (Surr)	101		73 - 121
4-Bromofluorobenzene	95		67 - 126
Dibromofluoromethane (Surr)	100		61 - 149

Lab Sample ID: LCSD 460-635719/14

Matrix: Solid

Analysis Batch: 635719

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
Chloromethane	20.0	17.7		ug/Kg		88	66 - 128	18	30
Bromomethane	20.0	17.8		ug/Kg		89	59 - 136	13	30
Vinyl chloride	20.0	18.1		ug/Kg		90	70 - 134	18	30
Chloroethane	20.0	18.3		ug/Kg		91	50 - 139	13	30
Methylene Chloride	20.0	19.3		ug/Kg		97	79 - 128	6	30
Acetone	100	94.0		ug/Kg		94	75 - 120	8	30
Carbon disulfide	20.0	17.7		ug/Kg		88	74 - 130	9	30
Trichlorofluoromethane	20.0	19.0		ug/Kg		95	68 - 136	10	30
1,1-Dichloroethene	20.0	18.3		ug/Kg		91	79 - 132	7	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCSD 460-635719/14

Matrix: Solid

Analysis Batch: 635719

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-Dichloroethane	20.0	18.4		ug/Kg		92	80 - 124	9	30
trans-1,2-Dichloroethene	20.0	18.4		ug/Kg		92	80 - 129	6	30
cis-1,2-Dichloroethene	20.0	18.6		ug/Kg		93	80 - 123	6	30
Chloroform	20.0	18.5		ug/Kg		92	80 - 122	6	30
1,2-Dichloroethane	20.0	17.2		ug/Kg		86	68 - 120	7	30
2-Butanone (MEK)	100	97.2		ug/Kg		97	61 - 140	3	30
1,1,1-Trichloroethane	20.0	18.5		ug/Kg		93	80 - 125	11	30
Carbon tetrachloride	20.0	17.9		ug/Kg		90	77 - 138	15	30
Bromodichloromethane	20.0	17.3		ug/Kg		87	76 - 129	6	30
1,2-Dichloropropane	20.0	17.6		ug/Kg		88	77 - 124	8	30
cis-1,3-Dichloropropene	20.0	16.9		ug/Kg		84	75 - 124	10	30
Trichloroethene	20.0	18.1		ug/Kg		90	79 - 122	5	30
Dibromochloromethane	20.0	17.6		ug/Kg		88	67 - 143	4	30
1,1,2-Trichloroethane	20.0	18.1		ug/Kg		91	76 - 124	0	30
Benzene	20.0	17.7		ug/Kg		89	75 - 127	8	30
trans-1,3-Dichloropropene	20.0	15.8		ug/Kg		79	72 - 121	20	30
Bromoform	20.0	17.3		ug/Kg		87	19 - 150	4	30
4-Methyl-2-pentanone (MIBK)	100	88.7		ug/Kg		89	80 - 120	0	30
2-Hexanone	100	88.9		ug/Kg		89	78 - 120	1	30
Tetrachloroethene	20.0	18.5		ug/Kg		92	73 - 130	8	30
1,1,2,2-Tetrachloroethane	20.0	17.1		ug/Kg		86	72 - 131	9	30
Toluene	20.0	17.8		ug/Kg		89	75 - 122	11	30
Chlorobenzene	20.0	17.8		ug/Kg		89	80 - 120	10	30
Ethylbenzene	20.0	18.0		ug/Kg		90	79 - 124	14	30
Styrene	20.0	18.5		ug/Kg		93	78 - 123	11	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.2		ug/Kg		91	78 - 132	12	30
Methyl tert-butyl ether	20.0	18.0		ug/Kg		90	80 - 120	4	30
Cyclohexane	20.0	18.0		ug/Kg		90	67 - 135	13	30
1,2-Dibromoethane	20.0	17.6		ug/Kg		88	80 - 122	5	30
1,3-Dichlorobenzene	20.0	17.7		ug/Kg		88	79 - 124	11	30
1,4-Dichlorobenzene	20.0	18.0		ug/Kg		90	79 - 121	7	30
1,2-Dichlorobenzene	20.0	18.0		ug/Kg		90	80 - 121	7	30
Dichlorodifluoromethane	20.0	12.1	*	ug/Kg		61	72 - 127	27	30
1,2,4-Trichlorobenzene	20.0	18.5		ug/Kg		92	74 - 124	8	30
1,2-Dibromo-3-Chloropropane	20.0	23.4		ug/Kg		117	65 - 129	17	30
Isopropylbenzene	20.0	18.5		ug/Kg		92	80 - 125	12	30
Methyl acetate	40.0	28.5	*	ug/Kg		71	73 - 123	26	30
Methylcyclohexane	20.0	18.5		ug/Kg		93	71 - 137	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	94		78 - 135
Toluene-d8 (Surr)	97		73 - 121
4-Bromofluorobenzene	96		67 - 126
Dibromofluoromethane (Surr)	100		61 - 149

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: MB 460-635907/8

Matrix: Solid

Analysis Batch: 635907

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg			08/29/19 19:33	1
Bromomethane	ND		1.0	0.47	ug/Kg			08/29/19 19:33	1
Vinyl chloride	ND		1.0	0.55	ug/Kg			08/29/19 19:33	1
Chloroethane	ND		1.0	0.52	ug/Kg			08/29/19 19:33	1
Methylene Chloride	ND		1.0	0.46	ug/Kg			08/29/19 19:33	1
Acetone	ND		6.0	5.7	ug/Kg			08/29/19 19:33	1
Carbon disulfide	ND		1.0	0.27	ug/Kg			08/29/19 19:33	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg			08/29/19 19:33	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg			08/29/19 19:33	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg			08/29/19 19:33	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg			08/29/19 19:33	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg			08/29/19 19:33	1
Chloroform	ND		1.0	0.32	ug/Kg			08/29/19 19:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg			08/29/19 19:33	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg			08/29/19 19:33	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			08/29/19 19:33	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg			08/29/19 19:33	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg			08/29/19 19:33	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg			08/29/19 19:33	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/29/19 19:33	1
Trichloroethene	ND		1.0	0.14	ug/Kg			08/29/19 19:33	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg			08/29/19 19:33	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg			08/29/19 19:33	1
Benzene	ND		1.0	0.26	ug/Kg			08/29/19 19:33	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/29/19 19:33	1
Bromoform	ND		1.0	0.43	ug/Kg			08/29/19 19:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg			08/29/19 19:33	1
2-Hexanone	ND		5.0	1.7	ug/Kg			08/29/19 19:33	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg			08/29/19 19:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg			08/29/19 19:33	1
Toluene	ND		1.0	0.23	ug/Kg			08/29/19 19:33	1
Chlorobenzene	ND		1.0	0.18	ug/Kg			08/29/19 19:33	1
Ethylbenzene	ND		1.0	0.20	ug/Kg			08/29/19 19:33	1
Styrene	ND		1.0	0.28	ug/Kg			08/29/19 19:33	1
Xylenes, Total	ND		2.0	0.17	ug/Kg			08/29/19 19:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg			08/29/19 19:33	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg			08/29/19 19:33	1
Cyclohexane	ND		1.0	0.22	ug/Kg			08/29/19 19:33	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg			08/29/19 19:33	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg			08/29/19 19:33	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg			08/29/19 19:33	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg			08/29/19 19:33	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg			08/29/19 19:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg			08/29/19 19:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg			08/29/19 19:33	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg			08/29/19 19:33	1
Methyl acetate	ND		5.0	4.3	ug/Kg			08/29/19 19:33	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg			08/29/19 19:33	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: MB 460-635907/8

Matrix: Solid

Analysis Batch: 635907

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		ug/Kg					08/29/19 19:33	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	111		78 - 135					08/29/19 19:33	1
Toluene-d8 (Surr)	101		73 - 121					08/29/19 19:33	1
4-Bromofluorobenzene	99		67 - 126					08/29/19 19:33	1
Dibromofluoromethane (Surr)	105		61 - 149					08/29/19 19:33	1

Lab Sample ID: LCS 460-635907/3

Matrix: Solid

Analysis Batch: 635907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
Chloromethane	20.0	19.1		ug/Kg		95	66 - 128
Bromomethane	20.0	19.9		ug/Kg		100	59 - 136
Vinyl chloride	20.0	19.8		ug/Kg		99	70 - 134
Chloroethane	20.0	20.5		ug/Kg		103	50 - 139
Methylene Chloride	20.0	18.3		ug/Kg		91	79 - 128
Acetone	100	92.5		ug/Kg		92	75 - 120
Carbon disulfide	20.0	18.3		ug/Kg		91	74 - 130
Trichlorofluoromethane	20.0	20.9		ug/Kg		105	68 - 136
1,1-Dichloroethene	20.0	19.1		ug/Kg		95	79 - 132
1,1-Dichloroethane	20.0	19.7		ug/Kg		98	80 - 124
trans-1,2-Dichloroethene	20.0	20.1		ug/Kg		100	80 - 129
cis-1,2-Dichloroethene	20.0	19.8		ug/Kg		99	80 - 123
Chloroform	20.0	20.0		ug/Kg		100	80 - 122
1,2-Dichloroethane	20.0	18.7		ug/Kg		94	68 - 120
2-Butanone (MEK)	100	101		ug/Kg		101	61 - 140
1,1,1-Trichloroethane	20.0	20.4		ug/Kg		102	80 - 125
Carbon tetrachloride	20.0	20.1		ug/Kg		100	77 - 138
Bromodichloromethane	20.0	19.6		ug/Kg		98	76 - 129
1,2-Dichloropropane	20.0	18.4		ug/Kg		92	77 - 124
cis-1,3-Dichloropropene	20.0	18.4		ug/Kg		92	75 - 124
Trichloroethene	20.0	19.4		ug/Kg		97	79 - 122
Dibromochloromethane	20.0	19.4		ug/Kg		97	67 - 143
1,1,2-Trichloroethane	20.0	18.5		ug/Kg		92	76 - 124
Benzene	20.0	18.7		ug/Kg		94	75 - 127
trans-1,3-Dichloropropene	20.0	19.3		ug/Kg		97	72 - 121
Bromoform	20.0	19.2		ug/Kg		96	19 - 150
4-Methyl-2-pentanone (MIBK)	100	91.6		ug/Kg		92	80 - 120
2-Hexanone	100	91.7		ug/Kg		92	78 - 120
Tetrachloroethene	20.0	20.4		ug/Kg		102	73 - 130
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/Kg		100	72 - 131
Toluene	20.0	19.1		ug/Kg		95	75 - 122
Chlorobenzene	20.0	19.3		ug/Kg		96	80 - 120
Ethylbenzene	20.0	19.2		ug/Kg		96	79 - 124
Styrene	20.0	19.9		ug/Kg		100	78 - 123

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCS 460-635907/3

Matrix: Solid

Analysis Batch: 635907

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.1		ug/Kg		95	78 - 132
Methyl tert-butyl ether	20.0	20.1		ug/Kg		100	80 - 120
Cyclohexane	20.0	20.1		ug/Kg		101	67 - 135
1,2-Dibromoethane	20.0	20.3		ug/Kg		101	80 - 122
1,3-Dichlorobenzene	20.0	19.3		ug/Kg		96	79 - 124
1,4-Dichlorobenzene	20.0	19.8		ug/Kg		99	79 - 121
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 121
Dichlorodifluoromethane	20.0	14.9		ug/Kg		74	72 - 127
1,2,4-Trichlorobenzene	20.0	19.7		ug/Kg		99	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	20.2		ug/Kg		101	65 - 129
Isopropylbenzene	20.0	19.7		ug/Kg		99	80 - 125
Methyl acetate	40.0	37.3		ug/Kg		93	73 - 123
Methylcyclohexane	20.0	20.2		ug/Kg		101	71 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		78 - 135
Toluene-d8 (Surr)	97		73 - 121
4-Bromofluorobenzene	99		67 - 126
Dibromofluoromethane (Surr)	103		61 - 149

Lab Sample ID: LCSD 460-635907/4

Matrix: Solid

Analysis Batch: 635907

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
Chloromethane	20.0	19.6		ug/Kg		98	66 - 128	2	30
Bromomethane	20.0	19.7		ug/Kg		98	59 - 136	1	30
Vinyl chloride	20.0	20.6		ug/Kg		103	70 - 134	4	30
Chloroethane	20.0	19.7		ug/Kg		98	50 - 139	4	30
Methylene Chloride	20.0	18.5		ug/Kg		93	79 - 128	1	30
Acetone	100	91.5		ug/Kg		91	75 - 120	1	30
Carbon disulfide	20.0	18.4		ug/Kg		92	74 - 130	1	30
Trichlorofluoromethane	20.0	20.2		ug/Kg		101	68 - 136	3	30
1,1-Dichloroethene	20.0	19.3		ug/Kg		96	79 - 132	1	30
1,1-Dichloroethane	20.0	19.7		ug/Kg		99	80 - 124	0	30
trans-1,2-Dichloroethene	20.0	20.7		ug/Kg		103	80 - 129	3	30
cis-1,2-Dichloroethene	20.0	19.7		ug/Kg		98	80 - 123	1	30
Chloroform	20.0	20.1		ug/Kg		101	80 - 122	1	30
1,2-Dichloroethane	20.0	19.4		ug/Kg		97	68 - 120	3	30
2-Butanone (MEK)	100	99.7		ug/Kg		100	61 - 140	2	30
1,1,1-Trichloroethane	20.0	19.8		ug/Kg		99	80 - 125	3	30
Carbon tetrachloride	20.0	18.9		ug/Kg		94	77 - 138	6	30
Bromodichloromethane	20.0	19.3		ug/Kg		96	76 - 129	2	30
1,2-Dichloropropane	20.0	18.2		ug/Kg		91	77 - 124	1	30
cis-1,3-Dichloropropene	20.0	20.1		ug/Kg		101	75 - 124	9	30
Trichloroethene	20.0	19.3		ug/Kg		97	79 - 122	0	30
Dibromochloromethane	20.0	19.6		ug/Kg		98	67 - 143	1	30
1,1,2-Trichloroethane	20.0	20.3		ug/Kg		102	76 - 124	10	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCSD 460-635907/4

Matrix: Solid

Analysis Batch: 635907

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
Benzene	20.0	20.3		ug/Kg		101	75 - 127	8	30
trans-1,3-Dichloropropene	20.0	19.5		ug/Kg		97	72 - 121	1	30
Bromoform	20.0	19.4		ug/Kg		97	19 - 150	1	30
4-Methyl-2-pentanone (MIBK)	100	97.0		ug/Kg		97	80 - 120	6	30
2-Hexanone	100	95.3		ug/Kg		95	78 - 120	4	30
Tetrachloroethene	20.0	20.3		ug/Kg		102	73 - 130	1	30
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/Kg		98	72 - 131	1	30
Toluene	20.0	19.6		ug/Kg		98	75 - 122	3	30
Chlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	4	30
Ethylbenzene	20.0	19.4		ug/Kg		97	79 - 124	1	30
Styrene	20.0	20.8		ug/Kg		104	78 - 123	5	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.0		ug/Kg		95	78 - 132	1	30
Methyl tert-butyl ether	20.0	20.4		ug/Kg		102	80 - 120	2	30
Cyclohexane	20.0	19.8		ug/Kg		99	67 - 135	2	30
1,2-Dibromoethane	20.0	20.9		ug/Kg		104	80 - 122	3	30
1,3-Dichlorobenzene	20.0	19.4		ug/Kg		97	79 - 124	0	30
1,4-Dichlorobenzene	20.0	19.8		ug/Kg		99	79 - 121	0	30
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 121	0	30
Dichlorodifluoromethane	20.0	13.8	*	ug/Kg		69	72 - 127	8	30
1,2,4-Trichlorobenzene	20.0	20.1		ug/Kg		100	74 - 124	2	30
1,2-Dibromo-3-Chloropropane	20.0	20.2		ug/Kg		101	65 - 129	0	30
Isopropylbenzene	20.0	20.6		ug/Kg		103	80 - 125	4	30
Methyl acetate	40.0	40.7		ug/Kg		102	73 - 123	8	30
Methylcyclohexane	20.0	19.3		ug/Kg		96	71 - 137	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	99		78 - 135
Toluene-d8 (Surr)	100		73 - 121
4-Bromofluorobenzene	94		67 - 126
Dibromofluoromethane (Surr)	103		61 - 149

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

Lab Sample ID: MB 460-635675/1-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 635675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		330	11	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,4,6-Trichlorophenol	ND		130	17	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,4-Dichlorophenol	ND		130	7.0	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,4-Dimethylphenol	ND		330	15	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,4-Dinitrophenol	ND		270	160	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,4-Dinitrotoluene	ND		67	17	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2,6-Dinitrotoluene	ND		67	11	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2-Chloronaphthalene	ND		330	15	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2-Chlorophenol	ND		330	4.6	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2-Methylnaphthalene	ND		330	4.1	ug/Kg		08/28/19 21:26	08/29/19 06:40	1

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QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: MB 460-635675/1-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 635675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		330	5.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2-Nitroaniline	ND		330	12	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
2-Nitrophenol	ND		330	11	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
3,3'-Dichlorobenzidine	ND		130	50	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
3-Nitroaniline	ND		330	18	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4,6-Dinitro-2-methylphenol	ND		270	54	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Bromophenyl phenyl ether	ND		330	4.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Chloro-3-methylphenol	ND		330	5.5	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Chloroaniline	ND		330	23	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Chlorophenyl phenyl ether	ND		330	5.2	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Methylphenol	ND		330	5.6	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Nitroaniline	ND		330	12	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
4-Nitrophenol	ND		670	54	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Acenaphthene	ND		330	24	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Acenaphthylene	ND		330	3.4	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Acetophenone	ND		330	5.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Anthracene	ND		330	3.7	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Atrazine	ND		130	8.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzaldehyde	ND		330	14	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzo[a]anthracene	ND		33	12	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzo[a]pyrene	ND		33	8.8	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzo[b]fluoranthene	ND		33	8.6	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzo[g,h,i]perylene	ND		330	9.8	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Benzo[k]fluoranthene	ND		33	6.5	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Biphenyl	ND		330	4.4	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
bis (2-chloroisopropyl) ether	ND		330	6.0	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Bis(2-chloroethoxy)methane	ND		330	11	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Bis(2-chloroethyl)ether	ND		33	4.0	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Bis(2-ethylhexyl) phthalate	ND		330	17	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Butyl benzyl phthalate	ND		330	16	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Caprolactam	ND		330	20	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Carbazole	ND		330	3.9	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Chrysene	ND		330	5.6	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Dibenz(a,h)anthracene	ND		33	14	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Dibenzofuran	ND		330	4.6	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Diethyl phthalate	ND		330	4.8	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Dimethyl phthalate	ND		330	4.0	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Di-n-butyl phthalate	ND		330	58	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Di-n-octyl phthalate	ND		330	18	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Fluoranthene	ND		330	4.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Fluorene	ND		330	4.5	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Hexachlorobenzene	ND		33	4.8	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Hexachlorobutadiene	ND		67	7.0	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Hexachlorocyclopentadiene	ND		330	29	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Hexachloroethane	ND		33	5.1	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Indeno[1,2,3-cd]pyrene	ND		33	13	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Isophorone	ND		130	8.7	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Naphthalene	ND		330	5.7	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Nitrobenzene	ND		33	7.9	ug/Kg		08/28/19 21:26	08/29/19 06:40	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: MB 460-635675/1-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 635675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		33	5.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
N-Nitrosodiphenylamine	ND		330	6.3	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Pentachlorophenol	ND		270	68	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Phenanthrene	ND		330	5.8	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Phenol	ND		330	4.9	ug/Kg		08/28/19 21:26	08/29/19 06:40	1
Pyrene	ND		330	8.2	ug/Kg		08/28/19 21:26	08/29/19 06:40	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	775	T A J	ug/Kg		2.67		08/28/19 21:26	08/29/19 06:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		10 - 137	08/28/19 21:26	08/29/19 06:40	1
2-Fluorobiphenyl (Surr)	79		29 - 107	08/28/19 21:26	08/29/19 06:40	1
2-Fluorophenol (Surr)	76		20 - 115	08/28/19 21:26	08/29/19 06:40	1
Nitrobenzene-d5 (Surr)	83		25 - 113	08/28/19 21:26	08/29/19 06:40	1
Phenol-d5 (Surr)	79		28 - 109	08/28/19 21:26	08/29/19 06:40	1
Terphenyl-d14 (Surr)	92		27 - 123	08/28/19 21:26	08/29/19 06:40	1

Lab Sample ID: LCS 460-635675/2-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 635675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4,5-Trichlorophenol	3330	2650		ug/Kg		79	60 - 106
2,4,6-Trichlorophenol	3330	2730		ug/Kg		82	62 - 110
2,4-Dichlorophenol	3330	2820		ug/Kg		85	61 - 103
2,4-Dimethylphenol	3330	2580		ug/Kg		77	63 - 101
2,4-Dinitrophenol	6670	7410		ug/Kg		111	56 - 122
2,4-Dinitrotoluene	3330	3220		ug/Kg		97	66 - 122
2,6-Dinitrotoluene	3330	3520		ug/Kg		106	70 - 114
2-Chloronaphthalene	3330	2600		ug/Kg		78	63 - 107
2-Chlorophenol	3330	2540		ug/Kg		76	62 - 97
2-Methylnaphthalene	3330	2660		ug/Kg		80	65 - 104
2-Methylphenol	3330	2560		ug/Kg		77	61 - 103
2-Nitroaniline	3330	2830		ug/Kg		85	57 - 114
2-Nitrophenol	3330	3170		ug/Kg		95	65 - 104
3,3'-Dichlorobenzidine	3330	1940		ug/Kg		58	18 - 88
3-Nitroaniline	3330	2600		ug/Kg		78	30 - 94
4,6-Dinitro-2-methylphenol	6670	7520		ug/Kg		113	67 - 120
4-Bromophenyl phenyl ether	3330	2810		ug/Kg		84	59 - 122
4-Chloro-3-methylphenol	3330	2760		ug/Kg		83	62 - 111
4-Chloroaniline	3330	2260		ug/Kg		68	18 - 94
4-Chlorophenyl phenyl ether	3330	2890		ug/Kg		87	66 - 110
4-Methylphenol	3330	2470		ug/Kg		74	61 - 105
4-Nitroaniline	3330	2710		ug/Kg		81	49 - 118
4-Nitrophenol	6670	4910		ug/Kg		74	43 - 141
Acenaphthene	3330	2380		ug/Kg		71	62 - 108
Acenaphthylene	3330	2640		ug/Kg		79	67 - 107

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCS 460-635675/2-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 635675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetophenone	3330	2400		ug/Kg		72	60 - 109
Anthracene	3330	2770		ug/Kg		83	69 - 111
Benzo[a]anthracene	3330	2810		ug/Kg		84	68 - 110
Benzo[a]pyrene	3330	2600		ug/Kg		78	72 - 115
Benzo[b]fluoranthene	3330	3010		ug/Kg		90	69 - 119
Benzo[g,h,i]perylene	3330	2340		ug/Kg		70	54 - 128
Benzo[k]fluoranthene	3330	2840		ug/Kg		85	70 - 115
Biphenyl	3330	2610		ug/Kg		78	64 - 108
bis (2-chloroisopropyl) ether	3330	2070		ug/Kg		62	39 - 122
Bis(2-chloroethoxy)methane	3330	2500		ug/Kg		75	65 - 106
Bis(2-chloroethyl)ether	3330	2440		ug/Kg		73	64 - 105
Bis(2-ethylhexyl) phthalate	3330	2760		ug/Kg		83	63 - 125
Butyl benzyl phthalate	3330	2820		ug/Kg		85	65 - 125
Carbazole	3330	2710		ug/Kg		81	66 - 115
Chrysene	3330	2980		ug/Kg		89	70 - 111
Dibenz(a,h)anthracene	3330	2550		ug/Kg		77	60 - 130
Dibenzofuran	3330	2720		ug/Kg		81	67 - 107
Diethyl phthalate	3330	2650		ug/Kg		80	66 - 117
Dimethyl phthalate	3330	2680		ug/Kg		81	68 - 112
Di-n-butyl phthalate	3330	2650		ug/Kg		80	67 - 119
Di-n-octyl phthalate	3330	2900		ug/Kg		87	57 - 138
Fluoranthene	3330	2740		ug/Kg		82	64 - 114
Fluorene	3330	2770		ug/Kg		83	66 - 110
Hexachlorobenzene	3330	2860		ug/Kg		86	57 - 128
Hexachlorobutadiene	3330	2570		ug/Kg		77	60 - 108
Hexachlorocyclopentadiene	3330	2150		ug/Kg		64	50 - 129
Hexachloroethane	3330	2340		ug/Kg		70	63 - 99
Indeno[1,2,3-cd]pyrene	3330	2570		ug/Kg		77	53 - 137
Isophorone	3330	2410		ug/Kg		72	68 - 111
Naphthalene	3330	2550		ug/Kg		76	65 - 102
Nitrobenzene	3330	2800		ug/Kg		84	66 - 108
N-Nitrosodi-n-propylamine	3330	2400		ug/Kg		72	63 - 117
N-Nitrosodiphenylamine	3330	2690		ug/Kg		81	65 - 114
Pentachlorophenol	6670	4740		ug/Kg		71	56 - 116
Phenanthrene	3330	2720		ug/Kg		82	68 - 111
Phenol	3330	2560		ug/Kg		77	58 - 103
Pyrene	3330	2840		ug/Kg		85	64 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	93		10 - 137
2-Fluorobiphenyl (Surr)	78		29 - 107
2-Fluorophenol (Surr)	73		20 - 115
Nitrobenzene-d5 (Surr)	78		25 - 113
Phenol-d5 (Surr)	78		28 - 109
Terphenyl-d14 (Surr)	90		27 - 123

QC Sample Results

Client: AECOM

Job ID: 460-189997-1

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

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

Lab Sample ID: LCS 460-635675/4-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 635675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	6670	5710		ug/Kg		86	62 - 137
Benzaldehyde	6670	4440		ug/Kg		67	52 - 113
Caprolactam	6670	6250		ug/Kg		94	53 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		10 - 137
2-Fluorobiphenyl (Surr)	78		29 - 107
2-Fluorophenol (Surr)	76		20 - 115
Nitrobenzene-d5 (Surr)	79		25 - 113
Phenol-d5 (Surr)	79		28 - 109
Terphenyl-d14 (Surr)	85		27 - 123

Lab Sample ID: LCSD 460-635675/3-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 635675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4,5-Trichlorophenol	3330	2590		ug/Kg		78	60 - 106	2	30
2,4,6-Trichlorophenol	3330	2770		ug/Kg		83	62 - 110	1	30
2,4-Dichlorophenol	3330	2880		ug/Kg		86	61 - 103	2	30
2,4-Dimethylphenol	3330	2700		ug/Kg		81	63 - 101	4	30
2,4-Dinitrophenol	6670	7640		ug/Kg		115	56 - 122	3	30
2,4-Dinitrotoluene	3330	3270		ug/Kg		98	66 - 122	2	30
2,6-Dinitrotoluene	3330	3520		ug/Kg		106	70 - 114	0	30
2-Chloronaphthalene	3330	2580		ug/Kg		77	63 - 107	1	30
2-Chlorophenol	3330	2600		ug/Kg		78	62 - 97	2	30
2-Methylnaphthalene	3330	2740		ug/Kg		82	65 - 104	3	30
2-Methylphenol	3330	2670		ug/Kg		80	61 - 103	4	30
2-Nitroaniline	3330	2840		ug/Kg		85	57 - 114	0	30
2-Nitrophenol	3330	3300		ug/Kg		99	65 - 104	4	30
3,3'-Dichlorobenzidine	3330	2020		ug/Kg		61	18 - 88	4	30
3-Nitroaniline	3330	2580		ug/Kg		77	30 - 94	1	30
4,6-Dinitro-2-methylphenol	6670	7880		ug/Kg		118	67 - 120	5	30
4-Bromophenyl phenyl ether	3330	2810		ug/Kg		84	59 - 122	0	30
4-Chloro-3-methylphenol	3330	2910		ug/Kg		87	62 - 111	5	30
4-Chloroaniline	3330	2320		ug/Kg		70	18 - 94	3	30
4-Chlorophenyl phenyl ether	3330	2880		ug/Kg		86	66 - 110	0	30
4-Methylphenol	3330	2520		ug/Kg		76	61 - 105	2	30
4-Nitroaniline	3330	2750		ug/Kg		82	49 - 118	1	30
4-Nitrophenol	6670	5060		ug/Kg		76	43 - 141	3	30
Acenaphthene	3330	2400		ug/Kg		72	62 - 108	1	30
Acenaphthylene	3330	2620		ug/Kg		79	67 - 107	1	30
Acetophenone	3330	2500		ug/Kg		75	60 - 109	4	30
Anthracene	3330	2800		ug/Kg		84	69 - 111	1	30
Benzo[a]anthracene	3330	2940		ug/Kg		88	68 - 110	4	30
Benzo[a]pyrene	3330	2710		ug/Kg		81	72 - 115	4	30
Benzo[b]fluoranthene	3330	3070		ug/Kg		92	69 - 119	2	30
Benzo[g,h,i]perylene	3330	2410		ug/Kg		72	54 - 128	3	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-189997-1

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

Lab Sample ID: LCSD 460-635675/3-A

Matrix: Solid

Analysis Batch: 635704

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 635675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[k]fluoranthene	3330	2920		ug/Kg		88	70 - 115	3	30
Biphenyl	3330	2600		ug/Kg		78	64 - 108	1	30
bis (2-chloroisopropyl) ether	3330	2170		ug/Kg		65	39 - 122	5	30
Bis(2-chloroethoxy)methane	3330	2560		ug/Kg		77	65 - 106	2	30
Bis(2-chloroethyl)ether	3330	2560		ug/Kg		77	64 - 105	5	30
Bis(2-ethylhexyl) phthalate	3330	2930		ug/Kg		88	63 - 125	6	30
Butyl benzyl phthalate	3330	2950		ug/Kg		89	65 - 125	5	30
Carbazole	3330	2790		ug/Kg		84	66 - 115	3	30
Chrysene	3330	3100		ug/Kg		93	70 - 111	4	30
Dibenz(a,h)anthracene	3330	2600		ug/Kg		78	60 - 130	2	30
Dibenzofuran	3330	2720		ug/Kg		82	67 - 107	0	30
Diethyl phthalate	3330	2670		ug/Kg		80	66 - 117	1	30
Dimethyl phthalate	3330	2680		ug/Kg		80	68 - 112	0	30
Di-n-butyl phthalate	3330	2780		ug/Kg		83	67 - 119	5	30
Di-n-octyl phthalate	3330	3000		ug/Kg		90	57 - 138	3	30
Fluoranthene	3330	2870		ug/Kg		86	64 - 114	5	30
Fluorene	3330	2760		ug/Kg		83	66 - 110	0	30
Hexachlorobenzene	3330	2930		ug/Kg		88	57 - 128	2	30
Hexachlorobutadiene	3330	2630		ug/Kg		79	60 - 108	2	30
Hexachlorocyclopentadiene	3330	2240		ug/Kg		67	50 - 129	4	30
Hexachloroethane	3330	2480		ug/Kg		75	63 - 99	6	30
Indeno[1,2,3-cd]pyrene	3330	2580		ug/Kg		77	53 - 137	0	30
Isophorone	3330	2530		ug/Kg		76	68 - 111	5	30
Naphthalene	3330	2620		ug/Kg		79	65 - 102	3	30
Nitrobenzene	3330	2910		ug/Kg		87	66 - 108	4	30
N-Nitrosodi-n-propylamine	3330	2500		ug/Kg		75	63 - 117	4	30
N-Nitrosodiphenylamine	3330	2730		ug/Kg		82	65 - 114	1	30
Pentachlorophenol	6670	4940		ug/Kg		74	56 - 116	4	30
Phenanthrene	3330	2790		ug/Kg		84	68 - 111	3	30
Phenol	3330	2630		ug/Kg		79	58 - 103	3	30
Pyrene	3330	2940		ug/Kg		88	64 - 121	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	95		10 - 137
2-Fluorobiphenyl (Surr)	79		29 - 107
2-Fluorophenol (Surr)	75		20 - 115
Nitrobenzene-d5 (Surr)	80		25 - 113
Phenol-d5 (Surr)	79		28 - 109
Terphenyl-d14 (Surr)	93		27 - 123

QC Association Summary

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

Job ID: 460-189997-1

GC/MS VOA

Prep Batch: 635700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-1	PWEXBM08169	Total/NA	Solid	5035	
460-189997-2	PWEXBM08170	Total/NA	Solid	5035	
LB3 460-635700/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 635719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-2	PWEXBM08170	Total/NA	Solid	8260C	635700
LB3 460-635700/1-A	Method Blank	Total/NA	Solid	8260C	635700
MB 460-635719/8	Method Blank	Total/NA	Solid	8260C	
LCS 460-635719/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-635719/14	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 635907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-1	PWEXBM08169	Total/NA	Solid	8260C	635700
MB 460-635907/8	Method Blank	Total/NA	Solid	8260C	
LCS 460-635907/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-635907/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 635675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-1	PWEXBM08169	Total/NA	Solid	3546	
460-189997-2	PWEXBM08170	Total/NA	Solid	3546	
MB 460-635675/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-635675/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 460-635675/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-635675/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 635704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-1	PWEXBM08169	Total/NA	Solid	8270D	635675
460-189997-2	PWEXBM08170	Total/NA	Solid	8270D	635675
MB 460-635675/1-A	Method Blank	Total/NA	Solid	8270D	635675
LCS 460-635675/2-A	Lab Control Sample	Total/NA	Solid	8270D	635675
LCS 460-635675/4-A	Lab Control Sample	Total/NA	Solid	8270D	635675
LCSD 460-635675/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	635675

General Chemistry

Analysis Batch: 635556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-189997-1	PWEXBM08169	Total/NA	Solid	Moisture	
460-189997-2	PWEXBM08170	Total/NA	Solid	Moisture	

Lab Chronicle

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

Job ID: 460-189997-1

Client Sample ID: PWEXBM08169

Date Collected: 08/27/19 10:50

Date Received: 08/28/19 09:45

Lab Sample ID: 460-189997-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	635556	08/28/19 13:08	MMC	TAL EDI

Client Sample ID: PWEXBM08169

Date Collected: 08/27/19 10:50

Date Received: 08/28/19 09:45

Lab Sample ID: 460-189997-1

Matrix: Solid

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			635700	08/29/19 03:27	AVM	TAL EDI
Total/NA	Analysis	8260C		1	635907	08/29/19 20:52	AAT	TAL EDI
Total/NA	Prep	3546			635675	08/28/19 21:26	GRB	TAL EDI
Total/NA	Analysis	8270D		1	635704	08/29/19 08:11	FAM	TAL EDI

Client Sample ID: PWEXBM08170

Date Collected: 08/27/19 13:25

Date Received: 08/28/19 09:45

Lab Sample ID: 460-189997-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	635556	08/28/19 13:08	MMC	TAL EDI

Client Sample ID: PWEXBM08170

Date Collected: 08/27/19 13:25

Date Received: 08/28/19 09:45

Lab Sample ID: 460-189997-2

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			635700	08/29/19 03:27	AVM	TAL EDI
Total/NA	Analysis	8260C		1	635719	08/29/19 12:33	AAT	TAL EDI
Total/NA	Prep	3546			635675	08/28/19 21:26	GRB	TAL EDI
Total/NA	Analysis	8270D		1	635704	08/29/19 08:33	FAM	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

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

Job ID: 460-189997-1

Laboratory: Eurofins TestAmerica, Edison

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-20

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method Summary

Client: AECOM

Job ID: 460-189997-1

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

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM

Job ID: 460-189997-1

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-189997-1	PWEXBM08169	Solid	08/27/19 10:50	08/28/19 09:45	
460-189997-2	PWEXBM08170	Solid	08/27/19 13:25	08/28/19 09:45	

TestAmerica Buffalo
Edison, NJ 08817
Phone (732) 549-3900

Chain of Custody Record

TestAmerica

THE TRADES ENVIRONMENTAL TESTING

Client Information		Sampler: George Hermance		Lab PM: Shove, John		Carrier Tracking No(s):		IOC No: 480-128476-28976.1			
Client Contact: George Hermance		Phone: 716-861-7882		E-Mail: Schove, John <John.Schove@testamericain.com>		Page: 1 of 2		Job #: 189997			
Company: AECOM		Due Date Requested: 8/30/2019		Analysis Requested:		Preservation Codes:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Z - other (specify)			
Address: 150 Water Street		TAT Requested (days): 48 Hour per j. shaove		Field Filtered Sample (Yes or No)		8270D - TCL SVOCs + 20 TICs		8260C - TCL VOCs + TICs			
City: Penn Yan		PO #: 107852		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=oil, A=air)	
State, Zip: NY, 14527		WO #: Matthew.Thorpe@aecom.com		8/27/19		1050		G		S	
Phone: 716-861-7882		Project #: 60584654, Penn Yan Former MGP Phase 2		8/27/19		1325		G		S	
Email: George.Hermance@aecom.com		SSOW#:									
Project Name: 60584654, Penn Yan Former MGP Phase 2											
Site:											
Sample Identification		PWEXBM08169		PWEXBM08170							
Special Instructions/Note:											
Total Number of containers		2		2							
Special Instructions/Note:											
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)		Non-Hazard		Hazardous		Skid		Tant			
Relinquished by: George Hermance		Date/Time: 8/27/19 1500		Company: AECOM		Received by: Kyara Knorr		Date/Time: 8/28/19 9:45am		Company: AECOM	
Relinquished by: V. A. Fedex		Date/Time: 8/28/19 9:45am		Company: AECOM		Received by: Kyara Knorr		Date/Time: 8/28/19 9:45am		Company: AECOM	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:	
Custody Seals Intact: Yes No		Custody Seals Intact: Yes No		Custody Seals Intact: Yes No		Custody Seals Intact: Yes No		Custody Seals Intact: Yes No		Custody Seals Intact: Yes No	
Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:	

Ver: 01/16/2019

Number of Coolers: 1 IR Gun # 87

Cooler Temperatures

RAW		CORRECTED		RAW		CORRECTED		RAW		CORRECTED	
Cooler #1:	<u>0.9</u> °C	<u>0.9</u> °C		Cooler #4:		°C		Cooler #7:		°C	
Cooler #2:		°C		Cooler #5:		°C		Cooler #8:		°C	
Cooler #3:		°C		Cooler #6:		°C		Cooler #9:		°C	

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

2

Date: 6/28/9

EDS-WI-038, Rev 4, 06/09/2014

Login Sample Receipt Checklist

Client: AECOM

Job Number: 460-189997-1

Login Number: 189997

List Number: 1

Creator: Meyers, Gary

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	No: Not present
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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

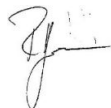
Laboratory Job ID: 460-190126-1

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

For:

AECOM
40 British American Blvd
Latham, New York 12110

Attn: Mr. Matt Thorpe



Authorized for release by:

9/3/2019 2:24:42 PM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Definitions/Glossary

Client: AECOM

Job ID: 460-190126-1

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
A	The tentatively identified compound is a suspected aldol-condensation product.
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Job ID: 460-190126-1

Job ID: 460-190126-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative 460-190126-1

Receipt

The samples were received on 8/29/2019 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

Receipt Exceptions

The following samples were collected in an improper container: PWEXBM07171 (460-190126-1) and PWEXBM07172 (460-190126-2). VOC was collected as dirt in jar. Samples were not collected according to 5035L/5035A-L specifications.

GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-636235 was outside the method criteria for the following analytes: Chloromethane and Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

Method(s) 8260C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 460-636235 recovered outside control limits for the following analyte: Carbon disulfide.

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

GC/MS Semi VOA

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 460-636137 and analytical batch 460-636259 recovered outside control limits for the following analytes: Benzo[a]pyrene. The LCSD recovery was within limits; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Detection Summary

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07171

Lab Sample ID: 460-190126-1

No Detections.

Client Sample ID: PWEXBM07172

Lab Sample ID: 460-190126-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	360	J	390	4.9	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	180	J	390	28	ug/Kg	1	☼	8270D	Total/NA
Anthracene	65	J	390	4.4	ug/Kg	1	☼	8270D	Total/NA
Biphenyl	52	J	390	5.2	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	180	J	390	5.5	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	55	J	390	5.1	ug/Kg	1	☼	8270D	Total/NA
Fluorene	150	J	390	5.3	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	1100		390	6.8	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	280	J	390	6.9	ug/Kg	1	☼	8270D	Total/NA
Pyrene	40	J	390	9.7	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07171

Lab Sample ID: 460-190126-1

Date Collected: 08/28/19 13:10

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.1	0.48	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Bromomethane	ND		1.1	0.52	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Vinyl chloride	ND		1.1	0.60	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Chloroethane	ND		1.1	0.57	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Methylene Chloride	ND		1.1	0.51	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Acetone	ND		6.6	6.3	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Carbon disulfide	ND	*	1.1	0.29	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Trichlorofluoromethane	ND		1.1	0.44	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1-Dichloroethene	ND		1.1	0.25	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1-Dichloroethane	ND		1.1	0.23	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
trans-1,2-Dichloroethene	ND		1.1	0.27	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
cis-1,2-Dichloroethene	ND		1.1	0.17	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Chloroform	ND		1.1	0.35	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2-Dichloroethane	ND		1.1	0.32	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
2-Butanone (MEK)	ND		5.5	3.0	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1,1-Trichloroethane	ND		1.1	0.26	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Carbon tetrachloride	ND		1.1	0.42	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Bromodichloromethane	ND		1.1	0.28	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2-Dichloropropane	ND		1.1	0.46	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
cis-1,3-Dichloropropene	ND		1.1	0.30	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Trichloroethene	ND		1.1	0.16	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Dibromochloromethane	ND		1.1	0.21	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1,2-Trichloroethane	ND		1.1	0.20	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Benzene	ND		1.1	0.28	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
trans-1,3-Dichloropropene	ND		1.1	0.29	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Bromoform	ND		1.1	0.47	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.5	1.7	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
2-Hexanone	ND		5.5	1.9	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Tetrachloroethene	ND		1.1	0.16	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1,2,2-Tetrachloroethane	ND		1.1	0.23	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Toluene	ND		1.1	0.26	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Chlorobenzene	ND		1.1	0.19	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Ethylbenzene	ND		1.1	0.22	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Styrene	ND		1.1	0.30	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Xylenes, Total	ND		2.2	0.19	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	0.33	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Methyl tert-butyl ether	ND		1.1	0.14	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Cyclohexane	ND		1.1	0.24	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2-Dibromoethane	ND		1.1	0.20	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,3-Dichlorobenzene	ND		1.1	0.17	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,4-Dichlorobenzene	ND		1.1	0.25	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2-Dichlorobenzene	ND		1.1	0.16	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Dichlorodifluoromethane	ND		1.1	0.37	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2,4-Trichlorobenzene	ND		1.1	0.39	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
1,2-Dibromo-3-Chloropropane	ND		1.1	0.50	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Isopropylbenzene	ND		1.1	0.14	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Methyl acetate	ND		5.5	4.7	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1
Methylcyclohexane	ND		1.1	0.55	ug/Kg	☼	08/30/19 01:39	08/31/19 00:19	1

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Client Sample Results

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07171

Lab Sample ID: 460-190126-1

Date Collected: 08/28/19 13:10

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼			08/30/19 01:39	08/31/19 00:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		78 - 135				08/30/19 01:39	08/31/19 00:19	1
Toluene-d8 (Surr)	90		73 - 121				08/30/19 01:39	08/31/19 00:19	1
4-Bromofluorobenzene	92		67 - 126				08/30/19 01:39	08/31/19 00:19	1
Dibromofluoromethane (Surr)	98		61 - 149				08/30/19 01:39	08/31/19 00:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,4,6-Trichlorophenol	ND		160	20	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,4-Dichlorophenol	ND		160	8.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,4-Dimethylphenol	ND		390	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,4-Dinitrophenol	ND		320	190	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,4-Dinitrotoluene	ND		79	20	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2,6-Dinitrotoluene	ND		79	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Chloronaphthalene	ND		390	18	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Chlorophenol	ND		390	5.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Methylnaphthalene	ND		390	4.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Methylphenol	ND		390	6.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Nitroaniline	ND		390	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
2-Nitrophenol	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
3,3'-Dichlorobenzidine	ND		160	59	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
3-Nitroaniline	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4,6-Dinitro-2-methylphenol	ND		320	64	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Bromophenyl phenyl ether	ND		390	5.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Chloro-3-methylphenol	ND		390	6.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Chloroaniline	ND		390	27	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Chlorophenyl phenyl ether	ND		390	6.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Methylphenol	ND		390	6.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Nitroaniline	ND		390	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
4-Nitrophenol	ND		790	64	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Acenaphthene	ND		390	29	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Acenaphthylene	ND		390	4.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Acetophenone	ND		390	6.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Anthracene	ND		390	4.4	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Atrazine	ND		160	9.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzaldehyde	ND		390	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzo[a]anthracene	ND		39	14	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzo[a]pyrene	ND	*	39	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzo[b]fluoranthene	ND		39	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzo[g,h,i]perylene	ND		390	12	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Benzo[k]fluoranthene	ND		39	7.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Biphenyl	ND		390	5.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
bis (2-chloroisopropyl) ether	ND		390	7.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Bis(2-chloroethoxy)methane	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Bis(2-chloroethyl)ether	ND		39	4.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Bis(2-ethylhexyl) phthalate	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Butyl benzyl phthalate	ND		390	18	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07171

Lab Sample ID: 460-190126-1

Date Collected: 08/28/19 13:10

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	ND		390	23	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Carbazole	ND		390	4.6	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Chrysene	ND		390	6.6	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Dibenz(a,h)anthracene	ND		39	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Dibenzofuran	ND		390	5.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Diethyl phthalate	ND		390	5.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Dimethyl phthalate	ND		390	4.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Di-n-butyl phthalate	ND		390	69	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Di-n-octyl phthalate	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Fluoranthene	ND		390	5.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Fluorene	ND		390	5.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Hexachlorobenzene	ND		39	5.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Hexachlorobutadiene	ND		79	8.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Hexachlorocyclopentadiene	ND		390	34	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Hexachloroethane	ND		39	6.0	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Indeno[1,2,3-cd]pyrene	ND		39	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Isophorone	ND		160	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Naphthalene	ND		390	6.8	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Nitrobenzene	ND		39	9.4	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
N-Nitrosodi-n-propylamine	ND		39	6.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
N-Nitrosodiphenylamine	ND		390	7.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Pentachlorophenol	ND		320	80	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Phenanthrene	ND		390	6.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Phenol	ND		390	5.8	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1
Pyrene	ND		390	9.8	ug/Kg	☼	08/30/19 09:21	08/30/19 23:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	6800	T A J	ug/Kg	☼	2.20		08/30/19 09:21	08/30/19 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	67		10 - 137	08/30/19 09:21	08/30/19 23:07	1
2-Fluorobiphenyl (Surr)	64		29 - 107	08/30/19 09:21	08/30/19 23:07	1
2-Fluorophenol (Surr)	65		20 - 115	08/30/19 09:21	08/30/19 23:07	1
Nitrobenzene-d5 (Surr)	65		25 - 113	08/30/19 09:21	08/30/19 23:07	1
Phenol-d5 (Surr)	62		28 - 109	08/30/19 09:21	08/30/19 23:07	1
Terphenyl-d14 (Surr)	63		27 - 123	08/30/19 09:21	08/30/19 23:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.6		1.0	1.0	%			08/30/19 08:01	1
Percent Solids	84.4		1.0	1.0	%			08/30/19 08:01	1

Client Sample ID: PWEXBM07172

Lab Sample ID: 460-190126-2

Date Collected: 08/27/19 13:20

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.2	0.54	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Bromomethane	ND		1.2	0.59	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Vinyl chloride	ND		1.2	0.68	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1

Eurofins TestAmerica, Edison

Client Sample Results

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07172

Lab Sample ID: 460-190126-2

Date Collected: 08/27/19 13:20

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		1.2	0.65	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Methylene Chloride	ND		1.2	0.57	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Acetone	ND		7.4	7.1	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Carbon disulfide	ND	*	1.2	0.33	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Trichlorofluoromethane	ND		1.2	0.50	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1-Dichloroethene	ND		1.2	0.28	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1-Dichloroethane	ND		1.2	0.25	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
trans-1,2-Dichloroethene	ND		1.2	0.30	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
cis-1,2-Dichloroethene	ND		1.2	0.19	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Chloroform	ND		1.2	0.39	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2-Dichloroethane	ND		1.2	0.37	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
2-Butanone (MEK)	ND		6.2	3.4	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1,1-Trichloroethane	ND		1.2	0.29	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Carbon tetrachloride	ND		1.2	0.48	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Bromodichloromethane	ND		1.2	0.32	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2-Dichloropropane	ND		1.2	0.52	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
cis-1,3-Dichloropropene	ND		1.2	0.34	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Trichloroethene	ND		1.2	0.18	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Dibromochloromethane	ND		1.2	0.24	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1,2-Trichloroethane	ND		1.2	0.22	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Benzene	ND		1.2	0.32	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
trans-1,3-Dichloropropene	ND		1.2	0.33	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Bromoform	ND		1.2	0.53	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
4-Methyl-2-pentanone (MIBK)	ND		6.2	1.9	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
2-Hexanone	ND		6.2	2.1	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Tetrachloroethene	ND		1.2	0.18	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1,2,2-Tetrachloroethane	ND		1.2	0.26	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Toluene	ND		1.2	0.29	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Chlorobenzene	ND		1.2	0.22	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Ethylbenzene	ND		1.2	0.25	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Styrene	ND		1.2	0.34	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Xylenes, Total	ND		2.5	0.22	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	0.37	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Methyl tert-butyl ether	ND		1.2	0.15	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Cyclohexane	ND		1.2	0.27	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2-Dibromoethane	ND		1.2	0.22	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,3-Dichlorobenzene	ND		1.2	0.20	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,4-Dichlorobenzene	ND		1.2	0.28	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2-Dichlorobenzene	ND		1.2	0.18	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Dichlorodifluoromethane	ND		1.2	0.42	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2,4-Trichlorobenzene	ND		1.2	0.44	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
1,2-Dibromo-3-Chloropropane	ND		1.2	0.57	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Isopropylbenzene	ND		1.2	0.16	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Methyl acetate	ND		6.2	5.3	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1
Methylcyclohexane	ND		1.2	0.62	ug/Kg	☼	08/30/19 01:40	08/31/19 00:44	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg	☼			08/30/19 01:40	08/31/19 00:44	1

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Client Sample Results

Client: AECOM

Job ID: 460-190126-1

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

Client Sample ID: PWEXBM07172

Lab Sample ID: 460-190126-2

Date Collected: 08/27/19 13:20

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		78 - 135	08/30/19 01:40	08/31/19 00:44	1
Toluene-d8 (Surr)	95		73 - 121	08/30/19 01:40	08/31/19 00:44	1
4-Bromofluorobenzene	94		67 - 126	08/30/19 01:40	08/31/19 00:44	1
Dibromofluoromethane (Surr)	104		61 - 149	08/30/19 01:40	08/31/19 00:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,4,6-Trichlorophenol	ND		160	20	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,4-Dichlorophenol	ND		160	8.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,4-Dimethylphenol	ND		390	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,4-Dinitrophenol	ND		310	190	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,4-Dinitrotoluene	ND		79	20	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2,6-Dinitrotoluene	ND		79	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Chloronaphthalene	ND		390	18	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Chlorophenol	ND		390	5.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Methylnaphthalene	360	J	390	4.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Methylphenol	ND		390	6.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Nitroaniline	ND		390	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
2-Nitrophenol	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
3,3'-Dichlorobenzidine	ND		160	59	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
3-Nitroaniline	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4,6-Dinitro-2-methylphenol	ND		310	63	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Bromophenyl phenyl ether	ND		390	5.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Chloro-3-methylphenol	ND		390	6.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Chloroaniline	ND		390	27	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Chlorophenyl phenyl ether	ND		390	6.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Methylphenol	ND		390	6.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Nitroaniline	ND		390	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
4-Nitrophenol	ND		790	64	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Acenaphthene	180	J	390	28	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Acenaphthylene	ND		390	4.0	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Acetophenone	ND		390	6.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Anthracene	65	J	390	4.4	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Atrazine	ND		160	9.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzaldehyde	ND		390	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzo[a]anthracene	ND		39	14	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzo[a]pyrene	ND	*	39	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzo[b]fluoranthene	ND		39	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzo[g,h,i]perylene	ND		390	12	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Benzo[k]fluoranthene	ND		39	7.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Biphenyl	52	J	390	5.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
bis (2-chloroisopropyl) ether	ND		390	7.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Bis(2-chloroethoxy)methane	ND		390	13	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Bis(2-chloroethyl)ether	ND		39	4.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Bis(2-ethylhexyl) phthalate	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Butyl benzyl phthalate	ND		390	18	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Caprolactam	ND		390	23	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Carbazole	ND		390	4.6	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Chrysene	ND		390	6.6	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1

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Client Sample Results

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07172

Lab Sample ID: 460-190126-2

Date Collected: 08/27/19 13:20

Matrix: Solid

Date Received: 08/29/19 09:20

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		39	17	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Dibenzofuran	180	J	390	5.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Diethyl phthalate	ND		390	5.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Dimethyl phthalate	ND		390	4.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Di-n-butyl phthalate	ND		390	69	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Di-n-octyl phthalate	ND		390	21	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Fluoranthene	55	J	390	5.1	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Fluorene	150	J	390	5.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Hexachlorobenzene	ND		39	5.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Hexachlorobutadiene	ND		79	8.3	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Hexachlorocyclopentadiene	ND		390	34	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Hexachloroethane	ND		39	6.0	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Indeno[1,2,3-cd]pyrene	ND		39	15	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Isophorone	ND		160	10	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Naphthalene	1100		390	6.8	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Nitrobenzene	ND		39	9.4	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
N-Nitrosodi-n-propylamine	ND		39	6.2	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
N-Nitrosodiphenylamine	ND		390	7.5	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Pentachlorophenol	ND		310	80	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Phenanthrene	280	J	390	6.9	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Phenol	ND		390	5.8	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1
Pyrene	40	J	390	9.7	ug/Kg	☼	08/30/19 09:21	08/30/19 23:24	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Aldol condensation product	8700	T A J	ug/Kg	☼	2.20		08/30/19 09:21	08/30/19 23:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	69		10 - 137	08/30/19 09:21	08/30/19 23:24	1
2-Fluorobiphenyl (Surr)	71		29 - 107	08/30/19 09:21	08/30/19 23:24	1
2-Fluorophenol (Surr)	70		20 - 115	08/30/19 09:21	08/30/19 23:24	1
Nitrobenzene-d5 (Surr)	72		25 - 113	08/30/19 09:21	08/30/19 23:24	1
Phenol-d5 (Surr)	68		28 - 109	08/30/19 09:21	08/30/19 23:24	1
Terphenyl-d14 (Surr)	74		27 - 123	08/30/19 09:21	08/30/19 23:24	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.3		1.0	1.0	%			08/30/19 08:01	1
Percent Solids	84.7		1.0	1.0	%			08/30/19 08:01	1

Surrogate Summary

Client: AECOM

Job ID: 460-190126-1

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (78-135)	TOL (73-121)	BFB (67-126)	DBFM (61-149)
460-190126-1	PWEXBM07171	89	90	92	98
460-190126-2	PWEXBM07172	96	95	94	104
LB3 460-636022/2-A	Method Blank	87	95	92	99
LCS 460-636235/3	Lab Control Sample	88	95	92	101
LCSD 460-636235/4	Lab Control Sample Dup	89	94	91	101
MB 460-636235/8	Method Blank	90	93	95	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (10-137)	FBP (29-107)	2FP (20-115)	NBZ (25-113)	PHL (28-109)	TPHL (27-123)
460-190126-1	PWEXBM07171	67	64	65	65	62	63
460-190126-2	PWEXBM07172	69	71	70	72	68	74
LCS 460-636137/2-A	Lab Control Sample	87	75	73	78	76	74
LCS 460-636137/4-A	Lab Control Sample	104	93	92	95	91	95
LCSD 460-636137/3-A	Lab Control Sample Dup	101	87	86	92	90	89
MB 460-636137/1-A	Method Blank	88	77	79	81	77	80

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LB3 460-636022/2-A

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 636022

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Bromomethane	ND		1.0	0.47	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Vinyl chloride	ND		1.0	0.55	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Chloroethane	ND		1.0	0.52	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Methylene Chloride	ND		1.0	0.46	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Acetone	ND		6.0	5.7	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Carbon disulfide	ND		1.0	0.27	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Chloroform	ND		1.0	0.32	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Trichloroethene	ND		1.0	0.14	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Benzene	ND		1.0	0.26	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Bromoform	ND		1.0	0.43	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
2-Hexanone	ND		5.0	1.7	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Toluene	ND		1.0	0.23	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Chlorobenzene	ND		1.0	0.18	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Ethylbenzene	ND		1.0	0.20	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Styrene	ND		1.0	0.28	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Xylenes, Total	ND		2.0	0.17	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Cyclohexane	ND		1.0	0.22	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Methyl acetate	ND		5.0	4.3	ug/Kg		08/30/19 01:34	08/30/19 20:12	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg		08/30/19 01:34	08/30/19 20:12	1

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QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LB3 460-636022/2-A

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 636022

	LB3	LB3							
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg				08/30/19 01:34	08/30/19 20:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		78 - 135				08/30/19 01:34	08/30/19 20:12	1
Toluene-d8 (Surr)	95		73 - 121				08/30/19 01:34	08/30/19 20:12	1
4-Bromofluorobenzene	92		67 - 126				08/30/19 01:34	08/30/19 20:12	1
Dibromofluoromethane (Surr)	99		61 - 149				08/30/19 01:34	08/30/19 20:12	1

Lab Sample ID: MB 460-636235/8

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.44	ug/Kg			08/30/19 19:47	1
Bromomethane	ND		1.0	0.47	ug/Kg			08/30/19 19:47	1
Vinyl chloride	ND		1.0	0.55	ug/Kg			08/30/19 19:47	1
Chloroethane	ND		1.0	0.52	ug/Kg			08/30/19 19:47	1
Methylene Chloride	ND		1.0	0.46	ug/Kg			08/30/19 19:47	1
Acetone	ND		6.0	5.7	ug/Kg			08/30/19 19:47	1
Carbon disulfide	ND		1.0	0.27	ug/Kg			08/30/19 19:47	1
Trichlorofluoromethane	ND		1.0	0.41	ug/Kg			08/30/19 19:47	1
1,1-Dichloroethene	ND		1.0	0.23	ug/Kg			08/30/19 19:47	1
1,1-Dichloroethane	ND		1.0	0.21	ug/Kg			08/30/19 19:47	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/Kg			08/30/19 19:47	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/Kg			08/30/19 19:47	1
Chloroform	ND		1.0	0.32	ug/Kg			08/30/19 19:47	1
1,2-Dichloroethane	ND		1.0	0.30	ug/Kg			08/30/19 19:47	1
2-Butanone (MEK)	ND		5.0	2.7	ug/Kg			08/30/19 19:47	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			08/30/19 19:47	1
Carbon tetrachloride	ND		1.0	0.39	ug/Kg			08/30/19 19:47	1
Bromodichloromethane	ND		1.0	0.26	ug/Kg			08/30/19 19:47	1
1,2-Dichloropropane	ND		1.0	0.42	ug/Kg			08/30/19 19:47	1
cis-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/30/19 19:47	1
Trichloroethene	ND		1.0	0.14	ug/Kg			08/30/19 19:47	1
Dibromochloromethane	ND		1.0	0.19	ug/Kg			08/30/19 19:47	1
1,1,2-Trichloroethane	ND		1.0	0.18	ug/Kg			08/30/19 19:47	1
Benzene	ND		1.0	0.26	ug/Kg			08/30/19 19:47	1
trans-1,3-Dichloropropene	ND		1.0	0.27	ug/Kg			08/30/19 19:47	1
Bromoform	ND		1.0	0.43	ug/Kg			08/30/19 19:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.6	ug/Kg			08/30/19 19:47	1
2-Hexanone	ND		5.0	1.7	ug/Kg			08/30/19 19:47	1
Tetrachloroethene	ND		1.0	0.14	ug/Kg			08/30/19 19:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/Kg			08/30/19 19:47	1
Toluene	ND		1.0	0.23	ug/Kg			08/30/19 19:47	1
Chlorobenzene	ND		1.0	0.18	ug/Kg			08/30/19 19:47	1
Ethylbenzene	ND		1.0	0.20	ug/Kg			08/30/19 19:47	1
Styrene	ND		1.0	0.28	ug/Kg			08/30/19 19:47	1
Xylenes, Total	ND		2.0	0.17	ug/Kg			08/30/19 19:47	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: MB 460-636235/8

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.30	ug/Kg			08/30/19 19:47	1
Methyl tert-butyl ether	ND		1.0	0.13	ug/Kg			08/30/19 19:47	1
Cyclohexane	ND		1.0	0.22	ug/Kg			08/30/19 19:47	1
1,2-Dibromoethane	ND		1.0	0.18	ug/Kg			08/30/19 19:47	1
1,3-Dichlorobenzene	ND		1.0	0.16	ug/Kg			08/30/19 19:47	1
1,4-Dichlorobenzene	ND		1.0	0.23	ug/Kg			08/30/19 19:47	1
1,2-Dichlorobenzene	ND		1.0	0.14	ug/Kg			08/30/19 19:47	1
Dichlorodifluoromethane	ND		1.0	0.34	ug/Kg			08/30/19 19:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.36	ug/Kg			08/30/19 19:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.46	ug/Kg			08/30/19 19:47	1
Isopropylbenzene	ND		1.0	0.13	ug/Kg			08/30/19 19:47	1
Methyl acetate	ND		5.0	4.3	ug/Kg			08/30/19 19:47	1
Methylcyclohexane	ND		1.0	0.50	ug/Kg			08/30/19 19:47	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg					08/30/19 19:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		78 - 135		08/30/19 19:47	1
Toluene-d8 (Surr)	93		73 - 121		08/30/19 19:47	1
4-Bromofluorobenzene	95		67 - 126		08/30/19 19:47	1
Dibromofluoromethane (Surr)	101		61 - 149		08/30/19 19:47	1

Lab Sample ID: LCS 460-636235/3

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	14.5		ug/Kg		73	66 - 128
Bromomethane	20.0	17.5		ug/Kg		88	59 - 136
Vinyl chloride	20.0	16.2		ug/Kg		81	70 - 134
Chloroethane	20.0	15.3		ug/Kg		77	50 - 139
Methylene Chloride	20.0	19.7		ug/Kg		99	79 - 128
Acetone	100	95.7		ug/Kg		96	75 - 120
Carbon disulfide	20.0	14.1	*	ug/Kg		70	74 - 130
Trichlorofluoromethane	20.0	16.4		ug/Kg		82	68 - 136
1,1-Dichloroethene	20.0	19.6		ug/Kg		98	79 - 132
1,1-Dichloroethane	20.0	18.8		ug/Kg		94	80 - 124
trans-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 129
cis-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 123
Chloroform	20.0	19.8		ug/Kg		99	80 - 122
1,2-Dichloroethane	20.0	18.3		ug/Kg		92	68 - 120
2-Butanone (MEK)	100	99.5		ug/Kg		100	61 - 140
1,1,1-Trichloroethane	20.0	17.1		ug/Kg		86	80 - 125
Carbon tetrachloride	20.0	16.9		ug/Kg		84	77 - 138
Bromodichloromethane	20.0	17.1		ug/Kg		85	76 - 129
1,2-Dichloropropane	20.0	17.1		ug/Kg		85	77 - 124
cis-1,3-Dichloropropene	20.0	18.1		ug/Kg		90	75 - 124

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LCS 460-636235/3

Matrix: Solid

Analysis Batch: 636235

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	20.0	18.6		ug/Kg		93	79 - 122
Dibromochloromethane	20.0	17.6		ug/Kg		88	67 - 143
1,1,2-Trichloroethane	20.0	20.2		ug/Kg		101	76 - 124
Benzene	20.0	20.5		ug/Kg		102	75 - 127
trans-1,3-Dichloropropene	20.0	17.1		ug/Kg		85	72 - 121
Bromoform	20.0	16.7		ug/Kg		84	19 - 150
4-Methyl-2-pentanone (MIBK)	100	85.5		ug/Kg		86	80 - 120
2-Hexanone	100	81.9		ug/Kg		82	78 - 120
Tetrachloroethene	20.0	19.5		ug/Kg		97	73 - 130
1,1,2,2-Tetrachloroethane	20.0	20.8		ug/Kg		104	72 - 131
Toluene	20.0	18.9		ug/Kg		95	75 - 122
Chlorobenzene	20.0	19.2		ug/Kg		96	80 - 120
Ethylbenzene	20.0	19.2		ug/Kg		96	79 - 124
Styrene	20.0	19.7		ug/Kg		99	78 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.2		ug/Kg		96	78 - 132
Methyl tert-butyl ether	20.0	17.7		ug/Kg		88	80 - 120
Cyclohexane	20.0	18.0		ug/Kg		90	67 - 135
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	80 - 122
1,3-Dichlorobenzene	20.0	19.9		ug/Kg		99	79 - 124
1,4-Dichlorobenzene	20.0	19.7		ug/Kg		99	79 - 121
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 121
Dichlorodifluoromethane	20.0	15.6		ug/Kg		78	72 - 127
1,2,4-Trichlorobenzene	20.0	20.7		ug/Kg		104	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	18.5		ug/Kg		92	65 - 129
Isopropylbenzene	20.0	19.5		ug/Kg		98	80 - 125
Methyl acetate	40.0	43.0		ug/Kg		107	73 - 123
Methylcyclohexane	20.0	18.3		ug/Kg		92	71 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		78 - 135
Toluene-d8 (Surr)	95		73 - 121
4-Bromofluorobenzene	92		67 - 126
Dibromofluoromethane (Surr)	101		61 - 149

Lab Sample ID: LCSD 460-636235/4

Matrix: Solid

Analysis Batch: 636235

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
Chloromethane	20.0	13.6		ug/Kg		68	66 - 128	7	30
Bromomethane	20.0	16.3		ug/Kg		81	59 - 136	7	30
Vinyl chloride	20.0	15.4		ug/Kg		77	70 - 134	5	30
Chloroethane	20.0	14.5		ug/Kg		73	50 - 139	5	30
Methylene Chloride	20.0	19.3		ug/Kg		97	79 - 128	2	30
Acetone	100	93.7		ug/Kg		94	75 - 120	2	30
Carbon disulfide	20.0	14.3	*	ug/Kg		71	74 - 130	1	30
Trichlorofluoromethane	20.0	15.6		ug/Kg		78	68 - 136	5	30
1,1-Dichloroethene	20.0	19.7		ug/Kg		98	79 - 132	0	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LCSD 460-636235/4

Matrix: Solid

Analysis Batch: 636235

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-Dichloroethane	20.0	18.8		ug/Kg		94	80 - 124	0	30
trans-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 129	0	30
cis-1,2-Dichloroethene	20.0	20.8		ug/Kg		104	80 - 123	0	30
Chloroform	20.0	19.8		ug/Kg		99	80 - 122	0	30
1,2-Dichloroethane	20.0	18.3		ug/Kg		92	68 - 120	0	30
2-Butanone (MEK)	100	99.4		ug/Kg		99	61 - 140	0	30
1,1,1-Trichloroethane	20.0	17.1		ug/Kg		86	80 - 125	0	30
Carbon tetrachloride	20.0	16.9		ug/Kg		84	77 - 138	0	30
Bromodichloromethane	20.0	17.0		ug/Kg		85	76 - 129	1	30
1,2-Dichloropropane	20.0	17.1		ug/Kg		86	77 - 124	0	30
cis-1,3-Dichloropropene	20.0	17.8		ug/Kg		89	75 - 124	1	30
Trichloroethene	20.0	18.7		ug/Kg		94	79 - 122	1	30
Dibromochloromethane	20.0	17.5		ug/Kg		88	67 - 143	0	30
1,1,2-Trichloroethane	20.0	20.0		ug/Kg		100	76 - 124	1	30
Benzene	20.0	19.9		ug/Kg		99	75 - 127	3	30
trans-1,3-Dichloropropene	20.0	16.9		ug/Kg		85	72 - 121	1	30
Bromoform	20.0	17.4		ug/Kg		87	19 - 150	4	30
4-Methyl-2-pentanone (MIBK)	100	87.3		ug/Kg		87	80 - 120	2	30
2-Hexanone	100	83.6		ug/Kg		84	78 - 120	2	30
Tetrachloroethene	20.0	19.6		ug/Kg		98	73 - 130	0	30
1,1,2,2-Tetrachloroethane	20.0	21.0		ug/Kg		105	72 - 131	1	30
Toluene	20.0	18.8		ug/Kg		94	75 - 122	1	30
Chlorobenzene	20.0	19.3		ug/Kg		97	80 - 120	1	30
Ethylbenzene	20.0	19.4		ug/Kg		97	79 - 124	1	30
Styrene	20.0	19.8		ug/Kg		99	78 - 123	0	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.1		ug/Kg		95	78 - 132	0	30
Methyl tert-butyl ether	20.0	17.9		ug/Kg		89	80 - 120	1	30
Cyclohexane	20.0	18.0		ug/Kg		90	67 - 135	0	30
1,2-Dibromoethane	20.0	19.8		ug/Kg		99	80 - 122	1	30
1,3-Dichlorobenzene	20.0	19.7		ug/Kg		98	79 - 124	1	30
1,4-Dichlorobenzene	20.0	19.7		ug/Kg		99	79 - 121	0	30
1,2-Dichlorobenzene	20.0	19.9		ug/Kg		100	80 - 121	1	30
Dichlorodifluoromethane	20.0	14.7		ug/Kg		74	72 - 127	6	30
1,2,4-Trichlorobenzene	20.0	20.3		ug/Kg		102	74 - 124	2	30
1,2-Dibromo-3-Chloropropane	20.0	18.5		ug/Kg		92	65 - 129	0	30
Isopropylbenzene	20.0	19.5		ug/Kg		97	80 - 125	0	30
Methyl acetate	40.0	42.9		ug/Kg		107	73 - 123	0	30
Methylcyclohexane	20.0	18.4		ug/Kg		92	71 - 137	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	89		78 - 135
Toluene-d8 (Surr)	94		73 - 121
4-Bromofluorobenzene	91		67 - 126
Dibromofluoromethane (Surr)	101		61 - 149

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: MB 460-636137/1-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 636137

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		330	11	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,4,6-Trichlorophenol	ND		130	17	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,4-Dichlorophenol	ND		130	7.0	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,4-Dimethylphenol	ND		330	15	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,4-Dinitrophenol	ND		270	160	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,4-Dinitrotoluene	ND		67	17	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2,6-Dinitrotoluene	ND		67	11	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Chloronaphthalene	ND		330	15	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Chlorophenol	ND		330	4.6	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Methylnaphthalene	ND		330	4.1	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Methylphenol	ND		330	5.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Nitroaniline	ND		330	12	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
2-Nitrophenol	ND		330	11	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
3,3'-Dichlorobenzidine	ND		130	50	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
3-Nitroaniline	ND		330	18	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4,6-Dinitro-2-methylphenol	ND		270	54	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Bromophenyl phenyl ether	ND		330	4.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Chloro-3-methylphenol	ND		330	5.5	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Chloroaniline	ND		330	23	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Chlorophenyl phenyl ether	ND		330	5.2	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Methylphenol	ND		330	5.6	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Nitroaniline	ND		330	12	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
4-Nitrophenol	ND		670	54	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Acenaphthene	ND		330	24	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Acenaphthylene	ND		330	3.4	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Acetophenone	ND		330	5.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Anthracene	ND		330	3.7	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Atrazine	ND		130	8.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzaldehyde	ND		330	14	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzo[a]anthracene	ND		33	12	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzo[a]pyrene	ND		33	8.8	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzo[b]fluoranthene	ND		33	8.6	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzo[g,h,i]perylene	ND		330	9.8	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Benzo[k]fluoranthene	ND		33	6.5	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Biphenyl	ND		330	4.4	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
bis (2-chloroisopropyl) ether	ND		330	6.0	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Bis(2-chloroethoxy)methane	ND		330	11	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Bis(2-chloroethyl)ether	ND		33	4.0	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Bis(2-ethylhexyl) phthalate	ND		330	17	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Butyl benzyl phthalate	ND		330	16	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Caprolactam	ND		330	20	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Carbazole	ND		330	3.9	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Chrysene	ND		330	5.6	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Dibenz(a,h)anthracene	ND		33	14	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Dibenzofuran	ND		330	4.6	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Diethyl phthalate	ND		330	4.8	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Dimethyl phthalate	ND		330	4.0	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Di-n-butyl phthalate	ND		330	58	ug/Kg		08/30/19 09:21	08/30/19 18:37	1

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: MB 460-636137/1-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 636137

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		330	18	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Fluoranthene	ND		330	4.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Fluorene	ND		330	4.5	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Hexachlorobenzene	ND		33	4.8	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Hexachlorobutadiene	ND		67	7.0	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Hexachlorocyclopentadiene	ND		330	29	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Hexachloroethane	ND		33	5.1	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Indeno[1,2,3-cd]pyrene	ND		33	13	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Isophorone	ND		130	8.7	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Naphthalene	ND		330	5.7	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Nitrobenzene	ND		33	7.9	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
N-Nitrosodi-n-propylamine	ND		33	5.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
N-Nitrosodiphenylamine	ND		330	6.3	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Pentachlorophenol	ND		270	68	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Phenanthrene	ND		330	5.8	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Phenol	ND		330	4.9	ug/Kg		08/30/19 09:21	08/30/19 18:37	1
Pyrene	ND		330	8.2	ug/Kg		08/30/19 09:21	08/30/19 18:37	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg				08/30/19 09:21	08/30/19 18:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		10 - 137	08/30/19 09:21	08/30/19 18:37	1
2-Fluorobiphenyl (Surr)	77		29 - 107	08/30/19 09:21	08/30/19 18:37	1
2-Fluorophenol (Surr)	79		20 - 115	08/30/19 09:21	08/30/19 18:37	1
Nitrobenzene-d5 (Surr)	81		25 - 113	08/30/19 09:21	08/30/19 18:37	1
Phenol-d5 (Surr)	77		28 - 109	08/30/19 09:21	08/30/19 18:37	1
Terphenyl-d14 (Surr)	80		27 - 123	08/30/19 09:21	08/30/19 18:37	1

Lab Sample ID: LCS 460-636137/2-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 636137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4,5-Trichlorophenol	3330	2680		ug/Kg		81	60 - 106
2,4,6-Trichlorophenol	3330	2640		ug/Kg		79	62 - 110
2,4-Dichlorophenol	3330	2810		ug/Kg		84	61 - 103
2,4-Dimethylphenol	3330	2620		ug/Kg		79	63 - 101
2,4-Dinitrophenol	6670	4700		ug/Kg		70	56 - 122
2,4-Dinitrotoluene	3330	2830		ug/Kg		85	66 - 122
2,6-Dinitrotoluene	3330	2710		ug/Kg		81	70 - 114
2-Chloronaphthalene	3330	2580		ug/Kg		77	63 - 107
2-Chlorophenol	3330	2560		ug/Kg		77	62 - 97
2-Methylnaphthalene	3330	2610		ug/Kg		78	65 - 104
2-Methylphenol	3330	2690		ug/Kg		81	61 - 103
2-Nitroaniline	3330	3000		ug/Kg		90	57 - 114
2-Nitrophenol	3330	2550		ug/Kg		76	65 - 104
3,3'-Dichlorobenzidine	3330	1790		ug/Kg		54	18 - 88

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LCS 460-636137/2-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 636137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Nitroaniline	3330	1760		ug/Kg		53	30 - 94
4,6-Dinitro-2-methylphenol	6670	5770		ug/Kg		87	67 - 120
4-Bromophenyl phenyl ether	3330	2640		ug/Kg		79	59 - 122
4-Chloro-3-methylphenol	3330	2660		ug/Kg		80	62 - 111
4-Chloroaniline	3330	1470		ug/Kg		44	18 - 94
4-Chlorophenyl phenyl ether	3330	2620		ug/Kg		79	66 - 110
4-Methylphenol	3330	2640		ug/Kg		79	61 - 105
4-Nitroaniline	3330	2240		ug/Kg		67	49 - 118
4-Nitrophenol	6670	5770		ug/Kg		87	43 - 141
Acenaphthene	3330	2650		ug/Kg		80	62 - 108
Acenaphthylene	3330	2640		ug/Kg		79	67 - 107
Acetophenone	3330	2590		ug/Kg		78	60 - 109
Anthracene	3330	2710		ug/Kg		81	69 - 111
Benzo[a]anthracene	3330	2560		ug/Kg		77	68 - 110
Benzo[a]pyrene	3330	2350	*	ug/Kg		71	72 - 115
Benzo[b]fluoranthene	3330	2490		ug/Kg		75	69 - 119
Benzo[g,h,i]perylene	3330	2510		ug/Kg		75	54 - 128
Benzo[k]fluoranthene	3330	2470		ug/Kg		74	70 - 115
Biphenyl	3330	2640		ug/Kg		79	64 - 108
bis (2-chloroisopropyl) ether	3330	2730		ug/Kg		82	39 - 122
Bis(2-chloroethoxy)methane	3330	2540		ug/Kg		76	65 - 106
Bis(2-chloroethyl)ether	3330	2440		ug/Kg		73	64 - 105
Bis(2-ethylhexyl) phthalate	3330	2810		ug/Kg		84	63 - 125
Butyl benzyl phthalate	3330	2750		ug/Kg		83	65 - 125
Carbazole	3330	2680		ug/Kg		80	66 - 115
Chrysene	3330	2850		ug/Kg		85	70 - 111
Dibenz(a,h)anthracene	3330	2620		ug/Kg		78	60 - 130
Dibenzofuran	3330	2630		ug/Kg		79	67 - 107
Diethyl phthalate	3330	2590		ug/Kg		78	66 - 117
Dimethyl phthalate	3330	2650		ug/Kg		79	68 - 112
Di-n-butyl phthalate	3330	2710		ug/Kg		81	67 - 119
Di-n-octyl phthalate	3330	2540		ug/Kg		76	57 - 138
Fluoranthene	3330	2670		ug/Kg		80	64 - 114
Fluorene	3330	2670		ug/Kg		80	66 - 110
Hexachlorobenzene	3330	2770		ug/Kg		83	57 - 128
Hexachlorobutadiene	3330	2700		ug/Kg		81	60 - 108
Hexachlorocyclopentadiene	3330	2590		ug/Kg		78	50 - 129
Hexachloroethane	3330	2610		ug/Kg		78	63 - 99
Indeno[1,2,3-cd]pyrene	3330	2630		ug/Kg		79	53 - 137
Isophorone	3330	2680		ug/Kg		80	68 - 111
Naphthalene	3330	2650		ug/Kg		79	65 - 102
Nitrobenzene	3330	2720		ug/Kg		82	66 - 108
N-Nitrosodi-n-propylamine	3330	2750		ug/Kg		82	63 - 117
N-Nitrosodiphenylamine	3330	2620		ug/Kg		79	65 - 114
Pentachlorophenol	6670	6060		ug/Kg		91	56 - 116
Phenanthrene	3330	2680		ug/Kg		80	68 - 111
Phenol	3330	2700		ug/Kg		81	58 - 103
Pyrene	3330	2710		ug/Kg		81	64 - 121

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LCS 460-636137/2-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 636137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	87		10 - 137
2-Fluorobiphenyl (Surr)	75		29 - 107
2-Fluorophenol (Surr)	73		20 - 115
Nitrobenzene-d5 (Surr)	78		25 - 113
Phenol-d5 (Surr)	76		28 - 109
Terphenyl-d14 (Surr)	74		27 - 123

Lab Sample ID: LCS 460-636137/4-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 636137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	6670	7310		ug/Kg		110	62 - 137
Benzaldehyde	6670	5950		ug/Kg		89	52 - 113
Caprolactam	6670	7750		ug/Kg		116	53 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	104		10 - 137
2-Fluorobiphenyl (Surr)	93		29 - 107
2-Fluorophenol (Surr)	92		20 - 115
Nitrobenzene-d5 (Surr)	95		25 - 113
Phenol-d5 (Surr)	91		28 - 109
Terphenyl-d14 (Surr)	95		27 - 123

Lab Sample ID: LCSD 460-636137/3-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 636137

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	3330	3080		ug/Kg		92	60 - 106	14	30
2,4,6-Trichlorophenol	3330	3080		ug/Kg		93	62 - 110	15	30
2,4-Dichlorophenol	3330	3220		ug/Kg		97	61 - 103	14	30
2,4-Dimethylphenol	3330	3010		ug/Kg		90	63 - 101	14	30
2,4-Dinitrophenol	6670	5900		ug/Kg		89	56 - 122	23	30
2,4-Dinitrotoluene	3330	3360		ug/Kg		101	66 - 122	17	30
2,6-Dinitrotoluene	3330	3150		ug/Kg		95	70 - 114	15	30
2-Chloronaphthalene	3330	2930		ug/Kg		88	63 - 107	13	30
2-Chlorophenol	3330	2960		ug/Kg		89	62 - 97	14	30
2-Methylnaphthalene	3330	3000		ug/Kg		90	65 - 104	14	30
2-Methylphenol	3330	3140		ug/Kg		94	61 - 103	15	30
2-Nitroaniline	3330	3400		ug/Kg		102	57 - 114	12	30
2-Nitrophenol	3330	3040		ug/Kg		91	65 - 104	18	30
3,3'-Dichlorobenzidine	3330	2110		ug/Kg		63	18 - 88	16	30
3-Nitroaniline	3330	2070		ug/Kg		62	30 - 94	16	30
4,6-Dinitro-2-methylphenol	6670	6800		ug/Kg		102	67 - 120	16	30
4-Bromophenyl phenyl ether	3330	3100		ug/Kg		93	59 - 122	16	30
4-Chloro-3-methylphenol	3330	3070		ug/Kg		92	62 - 111	14	30
4-Chloroaniline	3330	1750		ug/Kg		52	18 - 94	17	30

Eurofins TestAmerica, Edison

QC Sample Results

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

Job ID: 460-190126-1

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

Lab Sample ID: LCSD 460-636137/3-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 636137

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorophenyl phenyl ether	3330	3010		ug/Kg		90	66 - 110	14	30
4-Methylphenol	3330	3120		ug/Kg		93	61 - 105	17	30
4-Nitroaniline	3330	2680		ug/Kg		80	49 - 118	18	30
4-Nitrophenol	6670	6770		ug/Kg		102	43 - 141	16	30
Acenaphthene	3330	3030		ug/Kg		91	62 - 108	13	30
Acenaphthylene	3330	3020		ug/Kg		91	67 - 107	13	30
Acetophenone	3330	3030		ug/Kg		91	60 - 109	15	30
Anthracene	3330	3090		ug/Kg		93	69 - 111	13	30
Benzo[a]anthracene	3330	3010		ug/Kg		90	68 - 110	16	30
Benzo[a]pyrene	3330	2790		ug/Kg		84	72 - 115	17	30
Benzo[b]fluoranthene	3330	2850		ug/Kg		86	69 - 119	14	30
Benzo[g,h,i]perylene	3330	2930		ug/Kg		88	54 - 128	15	30
Benzo[k]fluoranthene	3330	2970		ug/Kg		89	70 - 115	19	30
Biphenyl	3330	3010		ug/Kg		90	64 - 108	13	30
bis (2-chloroisopropyl) ether	3330	3150		ug/Kg		94	39 - 122	14	30
Bis(2-chloroethoxy)methane	3330	2890		ug/Kg		87	65 - 106	13	30
Bis(2-chloroethyl)ether	3330	2840		ug/Kg		85	64 - 105	15	30
Bis(2-ethylhexyl) phthalate	3330	3290		ug/Kg		99	63 - 125	16	30
Butyl benzyl phthalate	3330	3220		ug/Kg		97	65 - 125	16	30
Carbazole	3330	3120		ug/Kg		94	66 - 115	15	30
Chrysene	3330	3190		ug/Kg		96	70 - 111	11	30
Dibenz(a,h)anthracene	3330	3080		ug/Kg		92	60 - 130	16	30
Dibenzofuran	3330	3030		ug/Kg		91	67 - 107	14	30
Diethyl phthalate	3330	3020		ug/Kg		91	66 - 117	15	30
Dimethyl phthalate	3330	3010		ug/Kg		90	68 - 112	13	30
Di-n-butyl phthalate	3330	3190		ug/Kg		96	67 - 119	16	30
Di-n-octyl phthalate	3330	2970		ug/Kg		89	57 - 138	15	30
Fluoranthene	3330	3130		ug/Kg		94	64 - 114	16	30
Fluorene	3330	3070		ug/Kg		92	66 - 110	14	30
Hexachlorobenzene	3330	3260		ug/Kg		98	57 - 128	16	30
Hexachlorobutadiene	3330	3020		ug/Kg		91	60 - 108	11	30
Hexachlorocyclopentadiene	3330	3000		ug/Kg		90	50 - 129	14	30
Hexachloroethane	3330	2980		ug/Kg		90	63 - 99	13	30
Indeno[1,2,3-cd]pyrene	3330	3000		ug/Kg		90	53 - 137	13	30
Isophorone	3330	3090		ug/Kg		93	68 - 111	14	30
Naphthalene	3330	3040		ug/Kg		91	65 - 102	14	30
Nitrobenzene	3330	3180		ug/Kg		95	66 - 108	15	30
N-Nitrosodi-n-propylamine	3330	3180		ug/Kg		95	63 - 117	15	30
N-Nitrosodiphenylamine	3330	3060		ug/Kg		92	65 - 114	15	30
Pentachlorophenol	6670	7110		ug/Kg		107	56 - 116	16	30
Phenanthrene	3330	3130		ug/Kg		94	68 - 111	16	30
Phenol	3330	3140		ug/Kg		94	58 - 103	15	30
Pyrene	3330	3120		ug/Kg		94	64 - 121	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	101		10 - 137
2-Fluorobiphenyl (Surr)	87		29 - 107
2-Fluorophenol (Surr)	86		20 - 115

Eurofins TestAmerica, Edison

QC Sample Results

Client: AECOM

Job ID: 460-190126-1

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

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

Lab Sample ID: LCSD 460-636137/3-A

Matrix: Solid

Analysis Batch: 636259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 636137

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Nitrobenzene-d5 (Surr)	92		25 - 113
Phenol-d5 (Surr)	90		28 - 109
Terphenyl-d14 (Surr)	89		27 - 123

QC Association Summary

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

Job ID: 460-190126-1

GC/MS VOA

Prep Batch: 636022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-190126-1	PWEXBM07171	Total/NA	Solid	5035	
460-190126-2	PWEXBM07172	Total/NA	Solid	5035	
LB3 460-636022/2-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 636235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-190126-1	PWEXBM07171	Total/NA	Solid	8260C	636022
460-190126-2	PWEXBM07172	Total/NA	Solid	8260C	636022
LB3 460-636022/2-A	Method Blank	Total/NA	Solid	8260C	636022
MB 460-636235/8	Method Blank	Total/NA	Solid	8260C	
LCS 460-636235/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-636235/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 636137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-190126-1	PWEXBM07171	Total/NA	Solid	3546	
460-190126-2	PWEXBM07172	Total/NA	Solid	3546	
MB 460-636137/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-636137/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 460-636137/4-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-636137/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 636259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-190126-1	PWEXBM07171	Total/NA	Solid	8270D	636137
460-190126-2	PWEXBM07172	Total/NA	Solid	8270D	636137
MB 460-636137/1-A	Method Blank	Total/NA	Solid	8270D	636137
LCS 460-636137/2-A	Lab Control Sample	Total/NA	Solid	8270D	636137
LCS 460-636137/4-A	Lab Control Sample	Total/NA	Solid	8270D	636137
LCSD 460-636137/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	636137

General Chemistry

Analysis Batch: 636109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-190126-1	PWEXBM07171	Total/NA	Solid	Moisture	
460-190126-2	PWEXBM07172	Total/NA	Solid	Moisture	

Lab Chronicle

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

Job ID: 460-190126-1

Client Sample ID: PWEXBM07171

Date Collected: 08/28/19 13:10

Date Received: 08/29/19 09:20

Lab Sample ID: 460-190126-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	636109	08/30/19 08:01	MMC	TAL EDI

Client Sample ID: PWEXBM07171

Date Collected: 08/28/19 13:10

Date Received: 08/29/19 09:20

Lab Sample ID: 460-190126-1

Matrix: Solid

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			636022	08/30/19 01:39	AVM	TAL EDI
Total/NA	Analysis	8260C		1	636235	08/31/19 00:19	AAT	TAL EDI
Total/NA	Prep	3546			636137	08/30/19 09:21	ZXB	TAL EDI
Total/NA	Analysis	8270D		1	636259	08/30/19 23:07	DAN	TAL EDI

Client Sample ID: PWEXBM07172

Date Collected: 08/27/19 13:20

Date Received: 08/29/19 09:20

Lab Sample ID: 460-190126-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	636109	08/30/19 08:01	MMC	TAL EDI

Client Sample ID: PWEXBM07172

Date Collected: 08/27/19 13:20

Date Received: 08/29/19 09:20

Lab Sample ID: 460-190126-2

Matrix: Solid

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			636022	08/30/19 01:40	AVM	TAL EDI
Total/NA	Analysis	8260C		1	636235	08/31/19 00:44	AAT	TAL EDI
Total/NA	Prep	3546			636137	08/30/19 09:21	ZXB	TAL EDI
Total/NA	Analysis	8270D		1	636259	08/30/19 23:24	DAN	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: AECOM

Job ID: 460-190126-1

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

Laboratory: Eurofins TestAmerica, Edison

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-20

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method Summary

Client: AECOM

Job ID: 460-190126-1

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

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM

Job ID: 460-190126-1

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

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-190126-1	PWEXBM07171	Solid	08/28/19 13:10	08/29/19 09:20	
460-190126-2	PWEXBM07172	Solid	08/27/19 13:20	08/29/19 09:20	

Ver: 01/16/2019

190726

[illegible]

If pH adjustments are required record the information below:

Preservative Name/Conc.:

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Initials:

EDS-WI-038, Rev 4, 06/09/2014

Login Sample Receipt Checklist

Client: AECOM

Job Number: 460-190126-1

Login Number: 190126

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	864791
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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Location ID Sample Date Sample ID	NYSDEC Part 375-6 Restricted- Res	PWEXBM05166 8/23/2019 460-189811-1	PWEXBM05167 8/23/2019 460-189811-2	PWEBM05168 8/23/2019 460-189811-3	PWEXBM08169 8/27/2019 460-189997-1	PWEXBM08170 8/27/2019 460-189997-2	PWEXBM07171 8/28/2019 460-190126-1	PWEXBM07172 8/27/2019 460-190126-2
Volatile Organic Compounds (ppm)								
1,1,1-Trichloroethane	100	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	26	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	100	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane		ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane		ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	100	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	3.1	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	49	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	13	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)		ND	0.0048	ND	ND	ND	ND	ND
2-Hexanone		ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	ND	ND	ND
Acetone	100	ND	0.022	ND	ND	0.0081	ND	ND
Benzene	4.8	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND	ND	ND	ND
Bromoform		ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND
Carbon disulfide		ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2.4	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	ND	ND
Chloroform	49	ND	ND	ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND
Cyclohexane		ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane		ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	41	0.00065	ND	ND	ND	ND	ND	ND
Isopropylbenzene		ND	ND	ND	ND	ND	ND	ND
Methyl acetate		ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	100	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane		ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	100	0.0014	0.0015	0.00088	0.00085	0.00075	ND	ND
Styrene		ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	19	ND	ND	ND	ND	ND	ND	ND
Toluene	100	0.00036	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	100000	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND
Trichloroethene	21	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane		ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.9	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	100	0.0019	ND	ND	ND	ND	ND	ND
Total Conc		0.00431	0.0283	0.00088	0.00085	0.00885		
Total Estimated Conc. (TICs)		0.078						

Notes:
Results are pending data validation and DUSR preparation.
Results do not include laboratory data qualifier codes.
ND = Not detected above given laboratory reporting limit.
Bold = Detected above reporting limit.
ppm = Parts per million

Location ID Sample Date Sample ID	NYSDEC Part 375-6 Restricted- Res	PWEBM05166 8/23/2019 460-189811-1	PWEXBM05167 8/23/2019 460-189811-2	PWEXBM05168 8/23/2019 460-189811-3	PWEXBM08169 8/27/2019 460-189997-1	PWEXBM08170 8/27/2019 460-189997-2	PWEXBM07171 8/28/2019 460-190126-1	PWEXBM07172 8/27/2019 460-190126-2
Semivolatile Organic Compounds (ppm)								
2,4,5-Trichlorophenol		ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol		ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol		ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol		ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol		ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene		ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene		ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene		ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol		ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene		0.11	ND	ND	ND	0.023	ND	0.36
2-Methylphenol		ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline		ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol		ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine		ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline		ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol		ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether		ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol		ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline		ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether		ND	ND	ND	ND	ND	ND	ND
4-Methylphenol		ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline		ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol		ND	ND	ND	ND	ND	ND	ND
Acenaphthene	100	0.15	ND	ND	ND	ND	ND	0.18
Acenaphthylene	100	0.035	ND	ND	ND	ND	ND	ND
Acetophenone		ND	ND	ND	ND	ND	ND	ND
Anthracene	100	0.17	ND	ND	ND	ND	ND	0.065
Atrazine		ND	ND	ND	ND	ND	ND	ND
Benzaldehyde		ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	1	0.23	ND	0.025	ND	ND	ND	ND
Benzo[a]pyrene	1	0.18	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	1	0.24	ND	0.013	ND	ND	ND	ND
Benzo[g,h,i]perylene	100	0.11	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	3.9	0.11	ND	ND	ND	ND	ND	ND
Biphenyl		0.025	ND	ND	ND	ND	ND	0.052
bis (2-chloroisopropyl) ether		ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane		ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether		ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate		ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate		ND	ND	ND	ND	ND	ND	ND
Caprolactam		ND	ND	ND	ND	ND	ND	ND
Carbazole		0.064	ND	ND	ND	ND	ND	ND
Chrysene	3.9	0.25	ND	0.016	ND	ND	ND	ND
Dibenz(a,h)anthracene	0.33	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	59	0.11	ND	ND	ND	0.024	ND	0.18
Diethyl phthalate		ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate		ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate		ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate		ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	0.66	ND	0.032	ND	0.025	ND	0.055
Fluorene	100	0.11	ND	ND	ND	0.024	ND	0.15
Hexachlorobenzene		ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene		ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene		ND	ND	ND	ND	ND	ND	ND
Hexachloroethane		ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.5	0.13	ND	ND	ND	ND	ND	ND
Isophorone		ND	ND	ND	ND	ND	ND	ND
Naphthalene	100	0.59	ND	ND	ND	0.029	ND	1.1
Nitrobenzene		ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine		ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine		ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	6.7	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	0.73	ND	0.017	ND	0.07	ND	0.28
Phenol	100	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	0.54	ND	0.037	ND	0.017	ND	0.04
Total Conc		4.544		0.14		0.212		2.462
Total Estimated Conc. (TICs)		3.3	7.86	2.4	764.74	764.53	6.8	8.7

Notes:
Results are pending data validation and DUSR preparation.
Results do not include laboratory data qualifier codes.
ND = Not detected above given laboratory reporting limit.
NR = Not reported
Bold = Detected above reporting limit.
ppm = Parts per million
D = Diluted results