

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

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North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-88124-1

Client Project/Site: Ford LTP Livonia MI

Revision: 1

For:

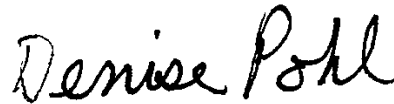
ARCADIS U.S., Inc.

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Attn: Kristoffer Hinskey



Authorized for release by:

12/18/2017 3:00:31 PM

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

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery 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.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

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: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Job ID: 240-88124-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP Livonia MI

Report Number: 240-88124-1

Revised

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Revision 12/18/2017: Client provided incorrect list of compounds initially and report revised to provide a different list of compounds for volatile organic compounds (GCMS) 8260B.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/15/2017 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MW-01_111017 (240-88124-1), MW-07_111017 (240-88124-2), MW-18_111017 (240-88124-3), TRIP BLANK (240-88124-4), MW37_111017 (240-88124-5), MW47_111017 (240-88124-6), MW68_111017 (240-88124-7), MW-36_111017 (240-88124-8), MW-24_111017 (240-88124-9) and DUP03_111017 (240-88124-10) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/21/2017 and 11/22/2017.

Diethyl ether failed the recovery criteria high for LCS 240-304511/4. Diethyl ether failed the recovery criteria high for LCS 240-304729/4. Refer to the QC report for details.

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Job ID: 240-88124-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Trichloroethene failed the recovery criteria low for the MS of sample 240-87851-28 in batch 240-304511. Trichloroethene failed the recovery criteria low for the MSD of sample 240-87851-28 in batch 240-304511. Vinyl chloride failed the recovery criteria high. 1,2-Dibromo-3-Chloropropane and 1,4-Dioxane failed the recovery criteria low for the MS of sample 240-87922-12 in batch 240-304729. Chloromethane and Diethyl ether failed the recovery criteria high. Chloromethane, Diethyl ether and Vinyl chloride failed the recovery criteria high for the MSD of sample 240-87922-12 in batch 240-304729. Several analytes exceeded the RPD limit. Refer to the QC report for details.

Sample MW47_111017 (240-88124-6)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 8260B: The laboratory control sample (LCS) for 148414 recovered outside control limits for the following analytes: Ethyl Ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. MW-01_111017 (240-88124-1), MW-07_111017 (240-88124-2), MW-18_111017 (240-88124-3), TRIP BLANK (240-88124-4), MW37_111017 (240-88124-5), MW47_111017 (240-88124-6), MW68_111017 (240-88124-7) and (LCS 240-304511/4)

Method(s) 8260B: The laboratory control sample (LCS) for 304729 recovered outside control limits for the following analytes: Ethyl Ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. MW-36_111017 (240-88124-8), MW-24_111017 (240-88124-9), DUP03_111017 (240-88124-10) and (LCS 240-304729/4)

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples MW-01_111017 (240-88124-1), MW-07_111017 (240-88124-2), MW-18_111017 (240-88124-3), MW37_111017 (240-88124-5), MW47_111017 (240-88124-6), MW68_111017 (240-88124-7), MW-36_111017 (240-88124-8), MW-24_111017 (240-88124-9) and DUP03_111017 (240-88124-10) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 11/21/2017.

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-88124-1	MW-01_111017	Water	11/10/17 13:52	11/15/17 09:45
240-88124-2	MW-07_111017	Water	11/10/17 14:52	11/15/17 09:45
240-88124-3	MW-18_111017	Water	11/10/17 16:07	11/15/17 09:45
240-88124-4	TRIP BLANK	Water	11/10/17 00:00	11/15/17 09:45
240-88124-5	MW37_111017	Water	11/10/17 13:30	11/15/17 09:45
240-88124-6	MW47_111017	Water	11/10/17 15:15	11/15/17 09:45
240-88124-7	MW68_111017	Water	11/10/17 16:15	11/15/17 09:45
240-88124-8	MW-36_111017	Water	11/10/17 15:30	11/15/17 09:45
240-88124-9	MW-24_111017	Water	11/10/17 16:40	11/15/17 09:45
240-88124-10	DUP03_111017	Water	11/10/17 00:00	11/15/17 09:45

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Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-01_111017

Lab Sample ID: 240-88124-1

No Detections.

Client Sample ID: MW-07_111017

Lab Sample ID: 240-88124-2

No Detections.

Client Sample ID: MW-18_111017

Lab Sample ID: 240-88124-3

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-88124-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.9	J	10	1.8	ug/L	1		8260B	Total/NA

Client Sample ID: MW37_111017

Lab Sample ID: 240-88124-5

No Detections.

Client Sample ID: MW47_111017

Lab Sample ID: 240-88124-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.52	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	79		10	3.0	ug/L	10		8260B	Total/NA
1,1-Dichloroethane	4.6	J	10	2.5	ug/L	10		8260B	Total/NA
trans-1,2-Dichloroethene	9.3	J	10	2.9	ug/L	10		8260B	Total/NA
Vinyl chloride	220		10	4.5	ug/L	10		8260B	Total/NA

Client Sample ID: MW68_111017

Lab Sample ID: 240-88124-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.73	J	2.0	0.24	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	13		1.0	0.30	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	3.7		1.0	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.39	J	1.0	0.27	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	1.5		1.0	0.29	ug/L	1		8260B	Total/NA
Vinyl chloride	18		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-36_111017

Lab Sample ID: 240-88124-8

No Detections.

Client Sample ID: MW-24_111017

Lab Sample ID: 240-88124-9

No Detections.

Client Sample ID: DUP03_111017

Lab Sample ID: 240-88124-10

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-01_111017

Lab Sample ID: 240-88124-1

Date Collected: 11/10/17 13:52

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 13:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 125					11/21/17 13:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 17:53	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 17:53	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 17:53	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 17:53	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 17:53	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 17:53	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 17:53	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 17:53	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 17:53	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 17:53	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 17:53	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 17:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 17:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 17:53	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 17:53	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 17:53	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 17:53	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 17:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 17:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 17:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 17:53	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 17:53	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 17:53	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 17:53	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 17:53	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 17:53	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 17:53	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 17:53	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 17:53	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 17:53	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 17:53	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 17:53	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 17:53	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 17:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 17:53	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 17:53	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 17:53	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 17:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 17:53	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 17:53	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 17:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 17:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 17:53	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-01_111017

Lab Sample ID: 240-88124-1

Date Collected: 11/10/17 13:52

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 17:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 17:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 17:53	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 17:53	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 17:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 17:53	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 17:53	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 17:53	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 17:53	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 17:53	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		69 - 120		11/21/17 17:53	1
Dibromofluoromethane (Surr)	92		69 - 124		11/21/17 17:53	1
1,2-Dichloroethane-d4 (Surr)	112		61 - 138		11/21/17 17:53	1
Toluene-d8 (Surr)	84		73 - 120		11/21/17 17:53	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-07_111017

Lab Sample ID: 240-88124-2

Date Collected: 11/10/17 14:52

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		63 - 125					11/21/17 14:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 18:16	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 18:16	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:16	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 18:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 18:16	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 18:16	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 18:16	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 18:16	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:16	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:16	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 18:16	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 18:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 18:16	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 18:16	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 18:16	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 18:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:16	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:16	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:16	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 18:16	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 18:16	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 18:16	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:16	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 18:16	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 18:16	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 18:16	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 18:16	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 18:16	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 18:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 18:16	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 18:16	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 18:16	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 18:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 18:16	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:16	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 18:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 18:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 18:16	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-07_111017

Lab Sample ID: 240-88124-2

Date Collected: 11/10/17 14:52

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 18:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 18:16	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 18:16	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:16	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 18:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:16	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 18:16	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		69 - 120					11/21/17 18:16	1
Dibromofluoromethane (Surr)	93		69 - 124					11/21/17 18:16	1
1,2-Dichloroethane-d4 (Surr)	108		61 - 138					11/21/17 18:16	1
Toluene-d8 (Surr)	86		73 - 120					11/21/17 18:16	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-18_111017

Lab Sample ID: 240-88124-3

Date Collected: 11/10/17 16:07

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 15:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		63 - 125					11/21/17 15:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 18:38	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 18:38	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:38	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 18:38	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 18:38	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 18:38	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 18:38	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 18:38	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:38	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:38	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 18:38	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 18:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 18:38	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 18:38	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:38	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 18:38	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 18:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 18:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:38	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 18:38	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 18:38	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 18:38	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 18:38	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 18:38	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 18:38	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 18:38	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 18:38	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 18:38	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 18:38	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 18:38	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 18:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 18:38	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 18:38	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 18:38	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 18:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 18:38	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 18:38	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 18:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 18:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 18:38	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-18_111017

Lab Sample ID: 240-88124-3

Date Collected: 11/10/17 16:07

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 18:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 18:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 18:38	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 18:38	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 18:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 18:38	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 18:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 18:38	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 18:38	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 18:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		69 - 120					11/21/17 18:38	1
Dibromofluoromethane (Surr)	92		69 - 124					11/21/17 18:38	1
1,2-Dichloroethane-d4 (Surr)	106		61 - 138					11/21/17 18:38	1
Toluene-d8 (Surr)	86		73 - 120					11/21/17 18:38	1

Client Sample Results

Client: ARCADIS U.S., Inc.
 Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-88124-4

Date Collected: 11/10/17 00:00

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	1.9	J	10	1.8	ug/L			11/21/17 19:00	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 19:00	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 19:00	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 19:00	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 19:00	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 19:00	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 19:00	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 19:00	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 19:00	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 19:00	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 19:00	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 19:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 19:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 19:00	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 19:00	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 19:00	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 19:00	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 19:00	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 19:00	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 19:00	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 19:00	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 19:00	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 19:00	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 19:00	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 19:00	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 19:00	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 19:00	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 19:00	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 19:00	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 19:00	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 19:00	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 19:00	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 19:00	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 19:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 19:00	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 19:00	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 19:00	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 19:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 19:00	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 19:00	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 19:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 19:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 19:00	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 19:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 19:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 19:00	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 19:00	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 19:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 19:00	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-88124-4

Date Collected: 11/10/17 00:00

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 19:00	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 19:00	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 19:00	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 19:00	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		69 - 120		11/21/17 19:00	1
Dibromofluoromethane (Surr)	95		69 - 124		11/21/17 19:00	1
1,2-Dichloroethane-d4 (Surr)	105		61 - 138		11/21/17 19:00	1
Toluene-d8 (Surr)	87		73 - 120		11/21/17 19:00	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW37_111017

Lab Sample ID: 240-88124-5

Date Collected: 11/10/17 13:30

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 16:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		63 - 125					11/21/17 16:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 19:22	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 19:22	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 19:22	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 19:22	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 19:22	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 19:22	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 19:22	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 19:22	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 19:22	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 19:22	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 19:22	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 19:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 19:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 19:22	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 19:22	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 19:22	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 19:22	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 19:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 19:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 19:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 19:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 19:22	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 19:22	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 19:22	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 19:22	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 19:22	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 19:22	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 19:22	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 19:22	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 19:22	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 19:22	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 19:22	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 19:22	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 19:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 19:22	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 19:22	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 19:22	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 19:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 19:22	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 19:22	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 19:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 19:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 19:22	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW37_111017

Lab Sample ID: 240-88124-5

Date Collected: 11/10/17 13:30

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 19:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 19:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 19:22	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 19:22	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 19:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 19:22	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 19:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 19:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 19:22	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 19:22	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		69 - 120		11/21/17 19:22	1
Dibromofluoromethane (Surr)	94		69 - 124		11/21/17 19:22	1
1,2-Dichloroethane-d4 (Surr)	103		61 - 138		11/21/17 19:22	1
Toluene-d8 (Surr)	87		73 - 120		11/21/17 19:22	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW47_111017

Lab Sample ID: 240-88124-6

Date Collected: 11/10/17 15:15

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.52	J	2.0	0.24	ug/L			11/21/17 16:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		63 - 125					11/21/17 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	18	ug/L			11/21/17 19:45	10
Benzene	10	U	10	2.8	ug/L			11/21/17 19:45	10
Bromodichloromethane	10	U	10	3.0	ug/L			11/21/17 19:45	10
Bromoform	10	U	10	4.3	ug/L			11/21/17 19:45	10
Bromomethane	10	U	10	4.2	ug/L			11/21/17 19:45	10
2-Butanone (MEK)	100	U	100	10	ug/L			11/21/17 19:45	10
Carbon disulfide	50	U	50	3.4	ug/L			11/21/17 19:45	10
Carbon tetrachloride	10	U	10	3.5	ug/L			11/21/17 19:45	10
Chlorobenzene	10	U	10	3.2	ug/L			11/21/17 19:45	10
Chloroethane	10	U	10	4.1	ug/L			11/21/17 19:45	10
Chloroform	10	U	10	3.1	ug/L			11/21/17 19:45	10
Chloromethane	10	U	10	4.3	ug/L			11/21/17 19:45	10
cis-1,2-Dichloroethene	79		10	3.0	ug/L			11/21/17 19:45	10
cis-1,3-Dichloropropene	10	U	10	2.6	ug/L			11/21/17 19:45	10
Cyclohexane	10	U	10	4.4	ug/L			11/21/17 19:45	10
Dibromochloromethane	10	U	10	2.5	ug/L			11/21/17 19:45	10
1,2-Dibromo-3-Chloropropane	10	U	10	4.7	ug/L			11/21/17 19:45	10
1,2-Dibromoethane	10	U	10	2.3	ug/L			11/21/17 19:45	10
1,2-Dichlorobenzene	10	U	10	2.6	ug/L			11/21/17 19:45	10
1,3-Dichlorobenzene	10	U	10	3.2	ug/L			11/21/17 19:45	10
1,4-Dichlorobenzene	10	U	10	2.3	ug/L			11/21/17 19:45	10
Dichlorodifluoromethane	10	U	10	5.0	ug/L			11/21/17 19:45	10
1,1-Dichloroethane	4.6	J	10	2.5	ug/L			11/21/17 19:45	10
1,2-Dichloroethane	10	U	10	3.0	ug/L			11/21/17 19:45	10
1,1-Dichloroethene	10	U	10	2.7	ug/L			11/21/17 19:45	10
1,2-Dichloropropane	10	U	10	3.0	ug/L			11/21/17 19:45	10
Diethyl ether	20	U *	20	3.5	ug/L			11/21/17 19:45	10
Ethylbenzene	10	U	10	2.6	ug/L			11/21/17 19:45	10
2-Hexanone	100	U	100	12	ug/L			11/21/17 19:45	10
Isopropylbenzene	10	U	10	2.1	ug/L			11/21/17 19:45	10
Methyl acetate	100	U	100	14	ug/L			11/21/17 19:45	10
Methylcyclohexane	10	U	10	4.5	ug/L			11/21/17 19:45	10
Methylene Chloride	50	U	50	5.3	ug/L			11/21/17 19:45	10
4-Methyl-2-pentanone (MIBK)	100	U	100	7.1	ug/L			11/21/17 19:45	10
Methyl tert-butyl ether	10	U	10	2.7	ug/L			11/21/17 19:45	10
m-Xylene & p-Xylene	20	U	20	2.4	ug/L			11/21/17 19:45	10
o-Xylene	10	U	10	2.8	ug/L			11/21/17 19:45	10
Styrene	10	U	10	2.3	ug/L			11/21/17 19:45	10
1,1,2,2-Tetrachloroethane	10	U	10	3.2	ug/L			11/21/17 19:45	10
Tetrachloroethene	10	U	10	3.0	ug/L			11/21/17 19:45	10
Toluene	10	U	10	2.3	ug/L			11/21/17 19:45	10
trans-1,2-Dichloroethene	9.3	J	10	2.9	ug/L			11/21/17 19:45	10
trans-1,3-Dichloropropene	10	U	10	3.1	ug/L			11/21/17 19:45	10

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW47_111017

Lab Sample ID: 240-88124-6

Date Collected: 11/10/17 15:15

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	10	U	10	2.7	ug/L			11/21/17 19:45	10
1,1,1-Trichloroethane	10	U	10	2.3	ug/L			11/21/17 19:45	10
1,1,2-Trichloroethane	10	U	10	3.4	ug/L			11/21/17 19:45	10
Trichloroethene	10	U	10	3.3	ug/L			11/21/17 19:45	10
Trichlorofluoromethane	10	U	10	5.0	ug/L			11/21/17 19:45	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	10	4.1	ug/L			11/21/17 19:45	10
1,2,3-Trimethylbenzene	50	U	50	2.2	ug/L			11/21/17 19:45	10
1,2,4-Trimethylbenzene	10	U	10	2.4	ug/L			11/21/17 19:45	10
1,3,5-Trimethylbenzene	10	U	10	2.4	ug/L			11/21/17 19:45	10
Vinyl chloride	220		10	4.5	ug/L			11/21/17 19:45	10
Xylenes, Total	20	U	20	2.4	ug/L			11/21/17 19:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		69 - 120		11/21/17 19:45	10
Dibromofluoromethane (Surr)	95		69 - 124		11/21/17 19:45	10
1,2-Dichloroethane-d4 (Surr)	106		61 - 138		11/21/17 19:45	10
Toluene-d8 (Surr)	88		73 - 120		11/21/17 19:45	10

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW68_111017

Lab Sample ID: 240-88124-7

Date Collected: 11/10/17 16:15

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.73	J	2.0	0.24	ug/L			11/21/17 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		63 - 125					11/21/17 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 20:08	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 20:08	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 20:08	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 20:08	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 20:08	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 20:08	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 20:08	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 20:08	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 20:08	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 20:08	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 20:08	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 20:08	1
cis-1,2-Dichloroethene	13		1.0	0.30	ug/L			11/21/17 20:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 20:08	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 20:08	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 20:08	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 20:08	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 20:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 20:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 20:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 20:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 20:08	1
1,1-Dichloroethane	3.7		1.0	0.25	ug/L			11/21/17 20:08	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 20:08	1
1,1-Dichloroethene	0.39	J	1.0	0.27	ug/L			11/21/17 20:08	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 20:08	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/21/17 20:08	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 20:08	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 20:08	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 20:08	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 20:08	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 20:08	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 20:08	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 20:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 20:08	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 20:08	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 20:08	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 20:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 20:08	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 20:08	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 20:08	1
trans-1,2-Dichloroethene	1.5		1.0	0.29	ug/L			11/21/17 20:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 20:08	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW68_111017

Lab Sample ID: 240-88124-7

Date Collected: 11/10/17 16:15

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 20:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 20:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 20:08	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 20:08	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 20:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/21/17 20:08	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 20:08	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 20:08	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 20:08	1
Vinyl chloride	18		1.0	0.45	ug/L			11/21/17 20:08	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 20:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		69 - 120		11/21/17 20:08	1
Dibromofluoromethane (Surr)	94		69 - 124		11/21/17 20:08	1
1,2-Dichloroethane-d4 (Surr)	110		61 - 138		11/21/17 20:08	1
Toluene-d8 (Surr)	88		73 - 120		11/21/17 20:08	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-36_111017

Lab Sample ID: 240-88124-8

Date Collected: 11/10/17 15:30

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		63 - 125					11/21/17 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 14:51	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 14:51	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:51	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 14:51	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 14:51	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 14:51	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 14:51	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 14:51	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:51	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:51	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 14:51	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 14:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 14:51	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 14:51	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:51	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 14:51	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 14:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 14:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:51	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 14:51	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 14:51	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 14:51	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 14:51	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/22/17 14:51	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 14:51	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 14:51	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 14:51	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 14:51	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 14:51	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 14:51	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 14:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 14:51	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 14:51	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 14:51	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 14:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 14:51	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 14:51	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 14:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 14:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 14:51	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-36_111017

Lab Sample ID: 240-88124-8

Date Collected: 11/10/17 15:30

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 14:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 14:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 14:51	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 14:51	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 14:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 14:51	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 14:51	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:51	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 14:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/22/17 14:51	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		69 - 120		11/22/17 14:51	1
Dibromofluoromethane (Surr)	92		69 - 124		11/22/17 14:51	1
1,2-Dichloroethane-d4 (Surr)	105		61 - 138		11/22/17 14:51	1
Toluene-d8 (Surr)	87		73 - 120		11/22/17 14:51	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-24_111017

Lab Sample ID: 240-88124-9

Date Collected: 11/10/17 16:40

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		63 - 125					11/21/17 17:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 15:14	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 15:14	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 15:14	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 15:14	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 15:14	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 15:14	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 15:14	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 15:14	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 15:14	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 15:14	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 15:14	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 15:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 15:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 15:14	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 15:14	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 15:14	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 15:14	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 15:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 15:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 15:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 15:14	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 15:14	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 15:14	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 15:14	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 15:14	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 15:14	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/22/17 15:14	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 15:14	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 15:14	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 15:14	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 15:14	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 15:14	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 15:14	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 15:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 15:14	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 15:14	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 15:14	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 15:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 15:14	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 15:14	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 15:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 15:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 15:14	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-24_111017

Lab Sample ID: 240-88124-9

Date Collected: 11/10/17 16:40

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 15:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 15:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 15:14	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 15:14	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 15:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 15:14	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 15:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 15:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 15:14	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/22/17 15:14	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 15:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		69 - 120					11/22/17 15:14	1
Dibromofluoromethane (Surr)	91		69 - 124					11/22/17 15:14	1
1,2-Dichloroethane-d4 (Surr)	109		61 - 138					11/22/17 15:14	1
Toluene-d8 (Surr)	87		73 - 120					11/22/17 15:14	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: DUP03_111017

Lab Sample ID: 240-88124-10

Date Collected: 11/10/17 00:00

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		63 - 125					11/21/17 18:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 15:36	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 15:36	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 15:36	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 15:36	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 15:36	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 15:36	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 15:36	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 15:36	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 15:36	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 15:36	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 15:36	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 15:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 15:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 15:36	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 15:36	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 15:36	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 15:36	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 15:36	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 15:36	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 15:36	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 15:36	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 15:36	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 15:36	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 15:36	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 15:36	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 15:36	1
Diethyl ether	2.0	U *	2.0	0.35	ug/L			11/22/17 15:36	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 15:36	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 15:36	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 15:36	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 15:36	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 15:36	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 15:36	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 15:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 15:36	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 15:36	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 15:36	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 15:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 15:36	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 15:36	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 15:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 15:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 15:36	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: DUP03_111017

Lab Sample ID: 240-88124-10

Date Collected: 11/10/17 00:00

Matrix: Water

Date Received: 11/15/17 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 15:36	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 15:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 15:36	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 15:36	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 15:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 15:36	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 15:36	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 15:36	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 15:36	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/22/17 15:36	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 15:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		69 - 120					11/22/17 15:36	1
Dibromofluoromethane (Surr)	93		69 - 124					11/22/17 15:36	1
1,2-Dichloroethane-d4 (Surr)	107		61 - 138					11/22/17 15:36	1
Toluene-d8 (Surr)	88		73 - 120					11/22/17 15:36	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (69-120)	DBFM (69-124)	DCA (61-138)	TOL (73-120)
240-87851-A-28 MS	Matrix Spike	88	90	102	94
240-87851-A-28 MSD	Matrix Spike Duplicate	89	89	98	95
240-87922-A-12 MS	Matrix Spike	85	89	94	95
240-87922-D-12 MSD	Matrix Spike Duplicate	84	88	96	94
240-88124-1	MW-01_111017	81	92	112	84
240-88124-2	MW-07_111017	85	93	108	86
240-88124-3	MW-18_111017	84	92	106	86
240-88124-4	TRIP BLANK	79	95	105	87
240-88124-5	MW37_111017	78	94	103	87
240-88124-6	MW47_111017	76	95	106	88
240-88124-7	MW68_111017	79	94	110	88
240-88124-8	MW-36_111017	81	92	105	87
240-88124-9	MW-24_111017	83	91	109	87
240-88124-10	DUP03_111017	83	93	107	88
LCS 240-304511/4	Lab Control Sample	87	85	97	95
LCS 240-304729/4	Lab Control Sample	87	89	96	94
MB 240-304511/6	Method Blank	74	97	106	88
MB 240-304729/6	Method Blank	78	91	106	87

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

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

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA
		(63-125)
240-88124-1	MW-01_111017	95
240-88124-2	MW-07_111017	88
240-88124-2 MS	MW-07_111017	93
240-88124-2 MSD	MW-07_111017	90
240-88124-3	MW-18_111017	91
240-88124-5	MW37_111017	92
240-88124-6	MW47_111017	91
240-88124-7	MW68_111017	90
240-88124-8	MW-36_111017	91
240-88124-9	MW-24_111017	92
240-88124-10	DUP03_111017	91
LCS 240-304512/4	Lab Control Sample	88
MB 240-304512/5	Method Blank	89

Surrogate Legend

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

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: MB 240-304511/6

Matrix: Water

Analysis Batch: 304511

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/21/17 12:25	1
Benzene	1.0	U	1.0	0.28	ug/L			11/21/17 12:25	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/21/17 12:25	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/21/17 12:25	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/21/17 12:25	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/21/17 12:25	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/21/17 12:25	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/21/17 12:25	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 12:25	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/21/17 12:25	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/21/17 12:25	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/21/17 12:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 12:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/21/17 12:25	1
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/21/17 12:25	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/21/17 12:25	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/21/17 12:25	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/21/17 12:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/21/17 12:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/21/17 12:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/21/17 12:25	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 12:25	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/21/17 12:25	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/21/17 12:25	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/21/17 12:25	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/21/17 12:25	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/21/17 12:25	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/21/17 12:25	1
2-Hexanone	10	U	10	1.2	ug/L			11/21/17 12:25	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/21/17 12:25	1
Methyl acetate	10	U	10	1.4	ug/L			11/21/17 12:25	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/21/17 12:25	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/21/17 12:25	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/21/17 12:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/21/17 12:25	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/21/17 12:25	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/21/17 12:25	1
Styrene	1.0	U	1.0	0.23	ug/L			11/21/17 12:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/21/17 12:25	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/21/17 12:25	1
Toluene	1.0	U	1.0	0.23	ug/L			11/21/17 12:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/21/17 12:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/21/17 12:25	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/21/17 12:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/21/17 12:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/21/17 12:25	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/21/17 12:25	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/21/17 12:25	1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: MB 240-304511/6
Matrix: Water
Analysis Batch: 304511

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	1.0	U	1.0	0.41	ug/L			11/21/17 12:25	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/21/17 12:25	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 12:25	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/21/17 12:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/21/17 12:25	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/21/17 12:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		69 - 120		11/21/17 12:25	1
Dibromofluoromethane (Surr)	97		69 - 124		11/21/17 12:25	1
1,2-Dichloroethane-d4 (Surr)	106		61 - 138		11/21/17 12:25	1
Toluene-d8 (Surr)	88		73 - 120		11/21/17 12:25	1

Lab Sample ID: LCS 240-304511/4
Matrix: Water
Analysis Batch: 304511

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	21.1		ug/L		105	35 - 131
Benzene	10.0	10.1		ug/L		101	79 - 120
Bromodichloromethane	10.0	10.1		ug/L		101	79 - 125
Bromoform	10.0	8.17		ug/L		82	55 - 145
Bromomethane	10.0	9.40		ug/L		94	17 - 158
2-Butanone (MEK)	20.0	22.2		ug/L		111	43 - 149
Carbon disulfide	10.0	9.71		ug/L		97	49 - 141
Carbon tetrachloride	10.0	9.50		ug/L		95	55 - 171
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	10.5		ug/L		105	10 - 149
Chloroform	10.0	10.1		ug/L		101	80 - 120
Chloromethane	10.0	11.7		ug/L		117	59 - 124
cis-1,2-Dichloroethene	10.0	9.40		ug/L		94	77 - 120
cis-1,3-Dichloropropene	10.0	9.37		ug/L		94	75 - 120
Cyclohexane	10.0	9.98		ug/L		100	66 - 135
Dibromochloromethane	10.0	10.2		ug/L		102	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	6.80		ug/L		68	50 - 130
1,2-Dibromoethane	10.0	10.2		ug/L		102	80 - 120
1,2-Dichlorobenzene	10.0	9.47		ug/L		95	80 - 120
1,3-Dichlorobenzene	10.0	9.50		ug/L		95	80 - 120
1,4-Dichlorobenzene	10.0	9.54		ug/L		95	80 - 120
Dichlorodifluoromethane	10.0	8.39		ug/L		84	42 - 141
1,1-Dichloroethane	10.0	10.5		ug/L		105	74 - 120
1,2-Dichloroethane	10.0	10.9		ug/L		109	68 - 133
1,1-Dichloroethene	10.0	10.8		ug/L		108	65 - 127
1,2-Dichloropropane	10.0	11.3		ug/L		113	78 - 127
Diethyl ether	10.0	13.4 *		ug/L		134	72 - 125
Ethylbenzene	10.0	9.75		ug/L		98	80 - 120
2-Hexanone	20.0	20.1		ug/L		100	28 - 169
Isopropylbenzene	10.0	9.03		ug/L		90	80 - 128

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: LCS 240-304511/4

Matrix: Water

Analysis Batch: 304511

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	22.0		ug/L		110	63 - 137
Methylcyclohexane	10.0	8.42		ug/L		84	63 - 141
Methylene Chloride	10.0	9.21		ug/L		92	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ug/L		94	53 - 144
Methyl tert-butyl ether	10.0	8.09		ug/L		81	73 - 120
Styrene	10.0	9.52		ug/L		95	80 - 121
1,1,2,2-Tetrachloroethane	10.0	11.6		ug/L		116	58 - 122
Tetrachloroethene	10.0	9.50		ug/L		95	80 - 122
Toluene	10.0	10.9		ug/L		109	78 - 120
trans-1,2-Dichloroethene	10.0	9.95		ug/L		100	74 - 124
trans-1,3-Dichloropropene	10.0	9.61		ug/L		96	67 - 120
1,2,4-Trichlorobenzene	10.0	5.60		ug/L		56	34 - 141
1,1,1-Trichloroethane	10.0	8.81		ug/L		88	64 - 147
1,1,2-Trichloroethane	10.0	11.6		ug/L		116	76 - 121
Trichloroethene	10.0	9.05		ug/L		90	76 - 124
Trichlorofluoromethane	10.0	9.83		ug/L		98	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	65 - 144
1,2,4-Trimethylbenzene	10.0	9.39		ug/L		94	80 - 120
1,3,5-Trimethylbenzene	10.0	9.54		ug/L		95	79 - 120
Vinyl chloride	10.0	10.8		ug/L		108	65 - 124
Xylenes, Total	20.0	19.2		ug/L		96	80 - 120
1,4-Dioxane	200	115		ug/L		58	35 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		69 - 120
Dibromofluoromethane (Surr)	85		69 - 124
1,2-Dichloroethane-d4 (Surr)	97		61 - 138
Toluene-d8 (Surr)	95		73 - 120

Lab Sample ID: 240-87851-A-28 MS

Matrix: Water

Analysis Batch: 304511

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	10	U	100	100		ug/L		100	75 - 128
Carbon disulfide	50	U	100	94.7		ug/L		95	46 - 143
Chloroform	10	U	100	104		ug/L		104	74 - 125
cis-1,2-Dichloroethene	5.0	J	100	101		ug/L		96	69 - 127
1,1-Dichloroethane	10	U	100	107		ug/L		107	69 - 122
1,1-Dichloroethene	10	U	100	106		ug/L		106	62 - 127
Tetrachloroethene	10	U	100	81.6		ug/L		82	69 - 126
trans-1,2-Dichloroethene	10	U	100	98.9		ug/L		99	66 - 131
1,1,1-Trichloroethane	10	U	100	90.5		ug/L		90	57 - 156
1,1,2-Trichloroethane	10	U	100	117		ug/L		117	68 - 127
Trichloroethene	220	F1	100	278	F1	ug/L		56	68 - 129
Vinyl chloride	10	U F1	100	123		ug/L		123	55 - 123

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: 240-87851-A-28 MS
Matrix: Water
Analysis Batch: 304511

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

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		69 - 120
Dibromofluoromethane (Surr)	90		69 - 124
1,2-Dichloroethane-d4 (Surr)	102		61 - 138
Toluene-d8 (Surr)	94		73 - 120

Lab Sample ID: 240-87851-A-28 MSD
Matrix: Water
Analysis Batch: 304511

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	10	U	100	96.5		ug/L		96	75 - 128	4	13
Carbon disulfide	50	U	100	97.6		ug/L		98	46 - 143	3	18
Chloroform	10	U	100	103		ug/L		103	74 - 125	1	11
cis-1,2-Dichloroethene	5.0	J	100	98.7		ug/L		94	69 - 127	3	11
1,1-Dichloroethane	10	U	100	108		ug/L		108	69 - 122	0	11
1,1-Dichloroethene	10	U	100	111		ug/L		111	62 - 127	4	14
Tetrachloroethene	10	U	100	85.9		ug/L		86	69 - 126	5	18
trans-1,2-Dichloroethene	10	U	100	99.5		ug/L		100	66 - 131	1	11
1,1,1-Trichloroethane	10	U	100	94.3		ug/L		94	57 - 156	4	13
1,1,2-Trichloroethane	10	U	100	108		ug/L		108	68 - 127	8	11
Trichloroethene	220	F1	100	282	F1	ug/L		60	68 - 129	1	12
Vinyl chloride	10	U F1	100	135	F1	ug/L		135	55 - 123	10	12

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		69 - 120
Dibromofluoromethane (Surr)	89		69 - 124
1,2-Dichloroethane-d4 (Surr)	98		61 - 138
Toluene-d8 (Surr)	95		73 - 120

Lab Sample ID: MB 240-304729/6
Matrix: Water
Analysis Batch: 304729

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	1.8	ug/L			11/22/17 12:59	1
Benzene	1.0	U	1.0	0.28	ug/L			11/22/17 12:59	1
Bromodichloromethane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Bromoform	1.0	U	1.0	0.43	ug/L			11/22/17 12:59	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/22/17 12:59	1
2-Butanone (MEK)	10	U	10	1.0	ug/L			11/22/17 12:59	1
Carbon disulfide	5.0	U	5.0	0.34	ug/L			11/22/17 12:59	1
Carbon tetrachloride	1.0	U	1.0	0.35	ug/L			11/22/17 12:59	1
Chlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
Chloroethane	1.0	U	1.0	0.41	ug/L			11/22/17 12:59	1
Chloroform	1.0	U	1.0	0.31	ug/L			11/22/17 12:59	1
Chloromethane	1.0	U	1.0	0.43	ug/L			11/22/17 12:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: MB 240-304729/6

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyclohexane	1.0	U	1.0	0.44	ug/L			11/22/17 12:59	1
Dibromochloromethane	1.0	U	1.0	0.25	ug/L			11/22/17 12:59	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.47	ug/L			11/22/17 12:59	1
1,2-Dibromoethane	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 12:59	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			11/22/17 12:59	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
1,1-Dichloroethene	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
1,2-Dichloropropane	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Diethyl ether	2.0	U	2.0	0.35	ug/L			11/22/17 12:59	1
Ethylbenzene	1.0	U	1.0	0.26	ug/L			11/22/17 12:59	1
2-Hexanone	10	U	10	1.2	ug/L			11/22/17 12:59	1
Isopropylbenzene	1.0	U	1.0	0.21	ug/L			11/22/17 12:59	1
Methyl acetate	10	U	10	1.4	ug/L			11/22/17 12:59	1
Methylcyclohexane	1.0	U	1.0	0.45	ug/L			11/22/17 12:59	1
Methylene Chloride	5.0	U	5.0	0.53	ug/L			11/22/17 12:59	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.71	ug/L			11/22/17 12:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
m-Xylene & p-Xylene	2.0	U	2.0	0.24	ug/L			11/22/17 12:59	1
o-Xylene	1.0	U	1.0	0.28	ug/L			11/22/17 12:59	1
Styrene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.32	ug/L			11/22/17 12:59	1
Tetrachloroethene	1.0	U	1.0	0.30	ug/L			11/22/17 12:59	1
Toluene	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			11/22/17 12:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.31	ug/L			11/22/17 12:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.27	ug/L			11/22/17 12:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/L			11/22/17 12:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.34	ug/L			11/22/17 12:59	1
Trichloroethene	1.0	U	1.0	0.33	ug/L			11/22/17 12:59	1
Trichlorofluoromethane	1.0	U	1.0	0.50	ug/L			11/22/17 12:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/22/17 12:59	1
1,2,3-Trimethylbenzene	5.0	U	5.0	0.22	ug/L			11/22/17 12:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 12:59	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.24	ug/L			11/22/17 12:59	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/22/17 12:59	1
Xylenes, Total	2.0	U	2.0	0.24	ug/L			11/22/17 12:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	78		69 - 120		11/22/17 12:59	1
Dibromofluoromethane (Surr)	91		69 - 124		11/22/17 12:59	1
1,2-Dichloroethane-d4 (Surr)	106		61 - 138		11/22/17 12:59	1
Toluene-d8 (Surr)	87		73 - 120		11/22/17 12:59	1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: LCS 240-304729/4

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	20.4		ug/L		102	35 - 131
Benzene	10.0	9.96		ug/L		100	79 - 120
Bromodichloromethane	10.0	9.68		ug/L		97	79 - 125
Bromoform	10.0	7.73		ug/L		77	55 - 145
Bromomethane	10.0	13.1		ug/L		131	17 - 158
2-Butanone (MEK)	20.0	20.4		ug/L		102	43 - 149
Carbon disulfide	10.0	10.4		ug/L		104	49 - 141
Carbon tetrachloride	10.0	10.1		ug/L		101	55 - 171
Chlorobenzene	10.0	9.72		ug/L		97	80 - 120
Chloroethane	10.0	12.9		ug/L		129	10 - 149
Chloroform	10.0	10.2		ug/L		102	80 - 120
Chloromethane	10.0	12.2		ug/L		122	59 - 124
cis-1,2-Dichloroethene	10.0	9.58		ug/L		96	77 - 120
cis-1,3-Dichloropropene	10.0	8.84		ug/L		88	75 - 120
Cyclohexane	10.0	10.7		ug/L		107	66 - 135
Dibromochloromethane	10.0	9.56		ug/L		96	64 - 129
1,2-Dibromo-3-Chloropropane	10.0	6.30		ug/L		63	50 - 130
1,2-Dibromoethane	10.0	9.39		ug/L		94	80 - 120
1,2-Dichlorobenzene	10.0	9.05		ug/L		91	80 - 120
1,3-Dichlorobenzene	10.0	9.20		ug/L		92	80 - 120
1,4-Dichlorobenzene	10.0	9.15		ug/L		92	80 - 120
Dichlorodifluoromethane	10.0	8.68		ug/L		87	42 - 141
1,1-Dichloroethane	10.0	10.8		ug/L		108	74 - 120
1,2-Dichloroethane	10.0	10.7		ug/L		107	68 - 133
1,1-Dichloroethene	10.0	11.4		ug/L		114	65 - 127
1,2-Dichloropropane	10.0	10.8		ug/L		108	78 - 127
Diethyl ether	10.0	13.1	*	ug/L		131	72 - 125
Ethylbenzene	10.0	9.62		ug/L		96	80 - 120
2-Hexanone	20.0	18.3		ug/L		91	28 - 169
Isopropylbenzene	10.0	9.22		ug/L		92	80 - 128
Methyl acetate	20.0	20.9		ug/L		104	63 - 137
Methylcyclohexane	10.0	8.98		ug/L		90	63 - 141
Methylene Chloride	10.0	9.74		ug/L		97	64 - 140
4-Methyl-2-pentanone (MIBK)	20.0	18.0		ug/L		90	53 - 144
Methyl tert-butyl ether	10.0	8.71		ug/L		87	73 - 120
Styrene	10.0	9.07		ug/L		91	80 - 121
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	58 - 122
Tetrachloroethene	10.0	9.31		ug/L		93	80 - 122
Toluene	10.0	10.5		ug/L		105	78 - 120
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	74 - 124
trans-1,3-Dichloropropene	10.0	8.77		ug/L		88	67 - 120
1,2,4-Trichlorobenzene	10.0	5.72		ug/L		57	34 - 141
1,1,1-Trichloroethane	10.0	9.79		ug/L		98	64 - 147
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	76 - 121
Trichloroethene	10.0	8.78		ug/L		88	76 - 124
Trichlorofluoromethane	10.0	13.4		ug/L		134	27 - 176
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.4		ug/L		114	65 - 144

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: LCS 240-304729/4

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	10.0	9.08		ug/L		91	80 - 120
1,3,5-Trimethylbenzene	10.0	9.39		ug/L		94	79 - 120
Vinyl chloride	10.0	11.3		ug/L		113	65 - 124
Xylenes, Total	20.0	19.1		ug/L		95	80 - 120
1,4-Dioxane	200	94.6		ug/L		47	35 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		69 - 120
Dibromofluoromethane (Surr)	89		69 - 124
1,2-Dichloroethane-d4 (Surr)	96		61 - 138
Toluene-d8 (Surr)	94		73 - 120

Lab Sample ID: 240-87922-A-12 MS

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	7.84	J	ug/L		39	19 - 133
Benzene	1.0	U	10.0	9.52		ug/L		95	69 - 127
Bromodichloromethane	1.0	U	10.0	9.39		ug/L		94	75 - 128
Bromoform	1.0	U	10.0	6.92		ug/L		69	61 - 135
Bromomethane	1.0	U	10.0	14.1		ug/L		141	10 - 148
2-Butanone (MEK)	10	U	20.0	14.2		ug/L		71	34 - 153
Carbon disulfide	5.0	U	10.0	9.37		ug/L		94	46 - 143
Carbon tetrachloride	1.0	U	10.0	8.91		ug/L		89	53 - 175
Chlorobenzene	1.0	U	10.0	9.20		ug/L		92	76 - 120
Chloroethane	1.0	U	10.0	13.6		ug/L		136	10 - 141
Chloroform	1.0	U	10.0	9.96		ug/L		100	74 - 125
Chloromethane	1.0	U F1	10.0	13.8	F1	ug/L		138	34 - 127
cis-1,2-Dichloroethene	1.0	U	10.0	9.32		ug/L		93	69 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	8.21		ug/L		82	68 - 120
Cyclohexane	1.0	U	10.0	7.62		ug/L		76	56 - 135
Dibromochloromethane	1.0	U	10.0	9.03		ug/L		90	62 - 131
1,2-Dibromo-3-Chloropropane	1.0	U F1 F2	10.0	4.21	F1	ug/L		42	48 - 130
1,2-Dibromoethane	1.0	U	10.0	8.96		ug/L		90	73 - 121
1,2-Dichlorobenzene	1.0	U	10.0	7.79		ug/L		78	70 - 120
1,3-Dichlorobenzene	1.0	U	10.0	8.10		ug/L		81	71 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.14		ug/L		81	72 - 120
Dichlorodifluoromethane	1.0	U	10.0	9.14		ug/L		91	45 - 130
1,1-Dichloroethane	1.0	U	10.0	10.4		ug/L		104	69 - 122
1,2-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	64 - 138
1,1-Dichloroethene	1.0	U	10.0	10.8		ug/L		108	62 - 127
1,2-Dichloropropane	1.0	U	10.0	10.3		ug/L		103	72 - 131
Diethyl ether	2.0	U * F1	10.0	13.1	F1	ug/L		131	65 - 124
Ethylbenzene	1.0	U	10.0	8.68		ug/L		87	72 - 121
2-Hexanone	10	U F2	20.0	16.7		ug/L		84	21 - 184
Isopropylbenzene	1.0	U	10.0	7.79		ug/L		78	70 - 132
Methyl acetate	10	U	20.0	15.8		ug/L		79	52 - 139

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: 240-87922-A-12 MS

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Methylcyclohexane	1.0	U	10.0	6.19		ug/L		62	46 - 139	
Methylene Chloride	5.0	U	10.0	8.71		ug/L		87	52 - 137	
4-Methyl-2-pentanone (MIBK)	10	U F2	20.0	15.0		ug/L		75	53 - 147	
Methyl tert-butyl ether	1.0	U	10.0	7.56		ug/L		76	67 - 125	
Styrene	1.0	U	10.0	8.47		ug/L		85	74 - 125	
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.16		ug/L		92	51 - 123	
Tetrachloroethene	1.0	U	10.0	8.56		ug/L		86	69 - 126	
Toluene	1.0	U	10.0	10.0		ug/L		100	69 - 125	
trans-1,2-Dichloroethene	1.0	U	10.0	9.65		ug/L		96	66 - 131	
trans-1,3-Dichloropropene	1.0	U	10.0	8.45		ug/L		85	59 - 120	
1,2,4-Trichlorobenzene	1.0	U F2	10.0	4.51		ug/L		45	26 - 138	
1,1,1-Trichloroethane	1.0	U	10.0	8.66		ug/L		87	57 - 156	
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	68 - 127	
Trichloroethene	1.0	U	10.0	8.69		ug/L		87	68 - 129	
Trichlorofluoromethane	1.0	U	10.0	12.9		ug/L		129	28 - 172	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	8.45		ug/L		84	58 - 137	
1,2,4-Trimethylbenzene	1.0	U	10.0	7.86		ug/L		79	64 - 120	
1,3,5-Trimethylbenzene	1.0	U	10.0	7.97		ug/L		80	67 - 120	
Vinyl chloride	7.1	F1	10.0	18.0		ug/L		109	55 - 123	
Xylenes, Total	2.0	U	20.0	17.2		ug/L		86	71 - 122	
1,4-Dioxane	50	U F1 F2	200	18.9	J F1	ug/L		9	13 - 155	
		MS MS								
Surrogate		%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)		85		69 - 120						
Dibromofluoromethane (Surr)		89		69 - 124						
1,2-Dichloroethane-d4 (Surr)		94		61 - 138						
Toluene-d8 (Surr)		95		73 - 120						

Lab Sample ID: 240-87922-D-12 MSD

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier							
Acetone	10	U	20.0	9.11	J	ug/L		46	19 - 133	15	35	
Benzene	1.0	U	10.0	9.76		ug/L		98	69 - 127	3	10	
Bromodichloromethane	1.0	U	10.0	9.52		ug/L		95	75 - 128	1	13	
Bromoform	1.0	U	10.0	7.62		ug/L		76	61 - 135	10	13	
Bromomethane	1.0	U	10.0	11.6		ug/L		116	10 - 148	19	35	
2-Butanone (MEK)	10	U	20.0	17.0		ug/L		85	34 - 153	18	23	
Carbon disulfide	5.0	U	10.0	9.49		ug/L		95	46 - 143	1	18	
Carbon tetrachloride	1.0	U	10.0	9.42		ug/L		94	53 - 175	5	17	
Chlorobenzene	1.0	U	10.0	9.58		ug/L		96	76 - 120	4	12	
Chloroethane	1.0	U	10.0	12.8		ug/L		128	10 - 141	6	35	
Chloroform	1.0	U	10.0	10.1		ug/L		101	74 - 125	2	11	
Chloromethane	1.0	U F1	10.0	14.5	F1	ug/L		145	34 - 127	5	25	
cis-1,2-Dichloroethene	1.0	U	10.0	9.43		ug/L		94	69 - 127	1	11	
cis-1,3-Dichloropropene	1.0	U	10.0	8.34		ug/L		83	68 - 120	2	13	

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: 240-87922-D-12 MSD

Matrix: Water

Analysis Batch: 304729

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyclohexane	1.0	U	10.0	9.22		ug/L		92	56 - 135	19	35
Dibromochloromethane	1.0	U	10.0	9.58		ug/L		96	62 - 131	6	15
1,2-Dibromo-3-Chloropropane	1.0	U F1 F2	10.0	6.35	F2	ug/L		63	48 - 130	40	31
1,2-Dibromoethane	1.0	U	10.0	9.87		ug/L		99	73 - 121	10	12
1,2-Dichlorobenzene	1.0	U	10.0	8.86		ug/L		89	70 - 120	13	19
1,3-Dichlorobenzene	1.0	U	10.0	8.80		ug/L		88	71 - 120	8	18
1,4-Dichlorobenzene	1.0	U	10.0	8.87		ug/L		89	72 - 120	9	17
Dichlorodifluoromethane	1.0	U	10.0	9.10		ug/L		91	45 - 130	0	34
1,1-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	69 - 122	1	11
1,2-Dichloroethane	1.0	U	10.0	10.6		ug/L		106	64 - 138	2	11
1,1-Dichloroethene	1.0	U	10.0	11.1		ug/L		111	62 - 127	3	14
1,2-Dichloropropane	1.0	U	10.0	10.5		ug/L		105	72 - 131	2	12
Diethyl ether	2.0	U * F1	10.0	14.3	F1	ug/L		143	65 - 124	8	11
Ethylbenzene	1.0	U	10.0	9.05		ug/L		90	72 - 121	4	15
2-Hexanone	10	U F2	20.0	22.2	F2	ug/L		111	21 - 184	28	12
Isopropylbenzene	1.0	U	10.0	8.35		ug/L		83	70 - 132	7	16
Methyl acetate	10	U	20.0	18.0		ug/L		90	52 - 139	13	14
Methylcyclohexane	1.0	U	10.0	7.66		ug/L		77	46 - 139	21	35
Methylene Chloride	5.0	U	10.0	8.87		ug/L		89	52 - 137	2	12
4-Methyl-2-pentanone (MIBK)	10	U F2	20.0	19.8	F2	ug/L		99	53 - 147	28	16
Methyl tert-butyl ether	1.0	U	10.0	8.49		ug/L		85	67 - 125	12	12
Styrene	1.0	U	10.0	8.75		ug/L		88	74 - 125	3	14
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.8		ug/L		108	51 - 123	16	17
Tetrachloroethene	1.0	U	10.0	9.10		ug/L		91	69 - 126	6	18
Toluene	1.0	U	10.0	10.2		ug/L		102	69 - 125	2	14
trans-1,2-Dichloroethene	1.0	U	10.0	9.90		ug/L		99	66 - 131	3	11
trans-1,3-Dichloropropene	1.0	U	10.0	9.08		ug/L		91	59 - 120	7	14
1,2,4-Trichlorobenzene	1.0	U F2	10.0	6.69	F2	ug/L		67	26 - 138	39	35
1,1,1-Trichloroethane	1.0	U	10.0	8.83		ug/L		88	57 - 156	2	13
1,1,2-Trichloroethane	1.0	U	10.0	11.2		ug/L		112	68 - 127	9	11
Trichloroethene	1.0	U	10.0	8.77		ug/L		88	68 - 129	1	12
Trichlorofluoromethane	1.0	U	10.0	11.3		ug/L		113	28 - 172	14	26
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.5		ug/L		105	58 - 137	22	35
1,2,4-Trimethylbenzene	1.0	U	10.0	8.48		ug/L		85	64 - 120	8	22
1,3,5-Trimethylbenzene	1.0	U	10.0	8.41		ug/L		84	67 - 120	5	25
Vinyl chloride	7.1	F1	10.0	19.9	F1	ug/L		128	55 - 123	10	12
Xylenes, Total	2.0	U	20.0	18.0		ug/L		90	71 - 122	5	14
1,4-Dioxane	50	U F1 F2	200	56.4	F2	ug/L		28	13 - 155	100	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		69 - 120
Dibromofluoromethane (Surr)	88		69 - 124
1,2-Dichloroethane-d4 (Surr)	96		61 - 138
Toluene-d8 (Surr)	94		73 - 120

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

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

Lab Sample ID: MB 240-304512/5

Matrix: Water

Analysis Batch: 304512

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.24	ug/L			11/21/17 11:55	1
Surrogate	%Recovery	MB Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		63 - 125					11/21/17 11:55	1

Lab Sample ID: LCS 240-304512/4

Matrix: Water

Analysis Batch: 304512

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	10.0	9.35		ug/L		93	59 - 131
Surrogate	LCS %Recovery	LCS Qualifier	Limits			D	%Rec. Limits
1,2-Dichloroethane-d4 (Surr)	88		63 - 125				

Lab Sample ID: 240-88124-2 MS

Matrix: Water

Analysis Batch: 304512

Client Sample ID: MW-07_111017

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.0	U	10.0	10.9		ug/L		109	52 - 129
Surrogate	MS %Recovery	MS Qualifier	Limits			D	%Rec	%Rec. Limits	
1,2-Dichloroethane-d4 (Surr)	93		63 - 125						

Lab Sample ID: 240-88124-2 MSD

Matrix: Water

Analysis Batch: 304512

Client Sample ID: MW-07_111017

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U	10.0	10.1		ug/L		101	52 - 129	8	13
Surrogate	MSD %Recovery	MSD Qualifier	Limits			D	%Rec	%Rec. Limits	RPD	RPD Limit	
1,2-Dichloroethane-d4 (Surr)	90		63 - 125								

TestAmerica Canton

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

GC/MS VOA

Analysis Batch: 304511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88124-1	MW-01_111017	Total/NA	Water	8260B	
240-88124-2	MW-07_111017	Total/NA	Water	8260B	
240-88124-3	MW-18_111017	Total/NA	Water	8260B	
240-88124-4	TRIP BLANK	Total/NA	Water	8260B	
240-88124-5	MW37_111017	Total/NA	Water	8260B	
240-88124-6	MW47_111017	Total/NA	Water	8260B	
240-88124-7	MW68_111017	Total/NA	Water	8260B	
MB 240-304511/6	Method Blank	Total/NA	Water	8260B	
LCS 240-304511/4	Lab Control Sample	Total/NA	Water	8260B	
240-87851-A-28 MS	Matrix Spike	Total/NA	Water	8260B	
240-87851-A-28 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 304512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88124-1	MW-01_111017	Total/NA	Water	8260B SIM	
240-88124-2	MW-07_111017	Total/NA	Water	8260B SIM	
240-88124-3	MW-18_111017	Total/NA	Water	8260B SIM	
240-88124-5	MW37_111017	Total/NA	Water	8260B SIM	
240-88124-6	MW47_111017	Total/NA	Water	8260B SIM	
240-88124-7	MW68_111017	Total/NA	Water	8260B SIM	
240-88124-8	MW-36_111017	Total/NA	Water	8260B SIM	
240-88124-9	MW-24_111017	Total/NA	Water	8260B SIM	
240-88124-10	DUP03_111017	Total/NA	Water	8260B SIM	
MB 240-304512/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-304512/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-88124-2 MS	MW-07_111017	Total/NA	Water	8260B SIM	
240-88124-2 MSD	MW-07_111017	Total/NA	Water	8260B SIM	

Analysis Batch: 304729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-88124-8	MW-36_111017	Total/NA	Water	8260B	
240-88124-9	MW-24_111017	Total/NA	Water	8260B	
240-88124-10	DUP03_111017	Total/NA	Water	8260B	
MB 240-304729/6	Method Blank	Total/NA	Water	8260B	
LCS 240-304729/4	Lab Control Sample	Total/NA	Water	8260B	
240-87922-A-12 MS	Matrix Spike	Total/NA	Water	8260B	
240-87922-D-12 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW-01_111017

Date Collected: 11/10/17 13:52

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 17:53	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 13:59	SAM	TAL CAN

Client Sample ID: MW-07_111017

Date Collected: 11/10/17 14:52

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 18:16	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 14:24	SAM	TAL CAN

Client Sample ID: MW-18_111017

Date Collected: 11/10/17 16:07

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 18:38	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 15:38	SAM	TAL CAN

Client Sample ID: TRIP BLANK

Date Collected: 11/10/17 00:00

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 19:00	LEE	TAL CAN

Client Sample ID: MW37_111017

Date Collected: 11/10/17 13:30

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 19:22	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 16:04	SAM	TAL CAN

Client Sample ID: MW47_111017

Date Collected: 11/10/17 15:15

Date Received: 11/15/17 09:45

Lab Sample ID: 240-88124-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	304511	11/21/17 19:45	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 16:28	SAM	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Client Sample ID: MW68_111017

Lab Sample ID: 240-88124-7

Date Collected: 11/10/17 16:15

Matrix: Water

Date Received: 11/15/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304511	11/21/17 20:08	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 16:53	SAM	TAL CAN

Client Sample ID: MW-36_111017

Lab Sample ID: 240-88124-8

Date Collected: 11/10/17 15:30

Matrix: Water

Date Received: 11/15/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304729	11/22/17 14:51	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 17:18	SAM	TAL CAN

Client Sample ID: MW-24_111017

Lab Sample ID: 240-88124-9

Date Collected: 11/10/17 16:40

Matrix: Water

Date Received: 11/15/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304729	11/22/17 15:14	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 17:43	SAM	TAL CAN

Client Sample ID: DUP03_111017

Lab Sample ID: 240-88124-10

Date Collected: 11/10/17 00:00

Matrix: Water

Date Received: 11/15/17 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	304729	11/22/17 15:36	LEE	TAL CAN
Total/NA	Analysis	8260B SIM		1	304512	11/21/17 18:08	SAM	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Ford LTP Livonia MI

TestAmerica Job ID: 240-88124-1

Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-18
Connecticut	State Program	1	PH-0590	12-31-17 *
Florida	NELAP	4	E87225	06-30-18
Illinois	NELAP	5	200004	07-31-18
Kansas	NELAP	7	E-10336	01-31-18 *
Kentucky (UST)	State Program	4	58	02-23-18
Kentucky (WW)	State Program	4	98016	12-31-17 *
Minnesota	NELAP	5	039-999-348	12-31-17 *
Minnesota (Petrofund)	State Program	1	3506	07-31-18
Nevada	State Program	9	OH-000482008A	07-31-18
New Jersey	NELAP	2	OH001	06-30-18
New York	NELAP	2	10975	03-31-18
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-18
Pennsylvania	NELAP	3	68-00340	08-31-18
Texas	NELAP	6	T104704517-17-9	08-31-18
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-18
Washington	State Program	10	C971	01-12-18 *
West Virginia DEP	State Program	3	210	12-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Canton

1.4/CL.4

Regulatory Program: DW NPDES RCRA Other:

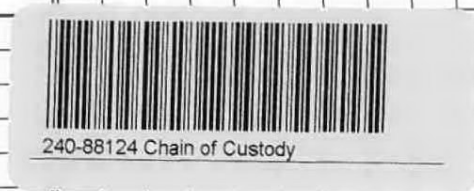
Client Contact: Company Name: **ARCADIS**
 Address: **28550 Cabot Drive Suite 100**
 City/State/Zip: **Novi MI 48311**
 Phone:
 Fax:
 Project Name: **FORD LTP E203728**
 Site: **LIVONIA, MI**
 P O #

Project Manager: **RNS HINSKEY**
 Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
 TAT If different from Below _____
 2 weeks
 1 week
 2 days
 1 day

Site Contact: Lab Contact:
 Date: _____
 Carrier: _____

COC No: _____ of _____ COCs
 Sampler: _____
 For Lab Use Only:
 Walk-in Client:
 Lab Sampling:
 Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Titrated Sample (Y/N)		Perform MS / MSD (Y/N)		Sample Specific Notes:
						Y	N	Y	N	
MW-01-111017	11/10/17	1352	G	W	6	X		X		
MW-07-111017	11/10/17	1452	G	W	6	X		X		
MW-18-111017	11/10/17	1607	G	W	6	X		X		
TRIPBLANK	11/10/17	---	---	---	1	X		X		
MW09-111017	11/10/17	0910	G	W	6	X		X		
MW031-111017	11/10/17	1015	G	W	6	X		X		
MW52-111017	11/10/17	1215	G	W	6	X		X		
MW037-111017	11/10/17	1330	G	W	6	X		X		
MW047-111017	11/10/17	1515	G	W	6	X		X		
MW068-111017	11/10/17	1615	G	W	6	X		X		
MW-36-111017	11-10-17	1530	G	W	6	X		X		
MW-24-111017	11-10-17	1640	G	W	6	X		X		



Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other
 Possible Hazard Identification: _____
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments:
 Non-Hazard Flammable Skin Irritant Poison B Unknown
 Return to Client Disposal by Lab Archive for _____ Months

Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Therm ID No.:	
Company: ARCADIS	Company: ARCADIS	Received by: ASHLEY REBEL	Received by: DIVA KAMATH	Date/Time: 11/10/17 16:40	Date/Time: 11/10/17 16:40	Company: ARCADIS	Company: ARCADIS
Company: ARCADIS	Company: ARCADIS	Received by: DIVA KAMATH	Received by: Severin Presswood	Date/Time: 11/10/17 16:50	Date/Time: 11/10/17 16:50	Company: ARCADIS	Company: ARCADIS
Company: ARCADIS	Company: ARCADIS	Received by: ASHLEY REBEL	Received in Laboratory by: Severin Presswood	Date/Time: 11/14/17 11:25	Date/Time: 11/14/17 11:26	Company: ARCADIS	Company: ARCADIS
Relinquished by: ASHLEY REBEL		Relinquished by: DIVA KAMATH		Relinquished by: ASHLEY REBEL		Relinquished by: DIVA KAMATH	
Relinquished by: ASHLEY REBEL		Relinquished by: DIVA KAMATH		Relinquished by: ASHLEY REBEL		Relinquished by: DIVA KAMATH	

Received by: **ASHLEY REBEL** TAL 11-14-17 1253
 Received by: **DIVA KAMATH** TAL 11-15-17 0915



TestAmerica Canton Sample Receipt Form/Narrative Login # : 88124

Canton Facility

Client ArcaB3 Site Name _____ Cooler unpacked by: MBS

Cooler Received on 11-15-17 Opened on 11-15-17

FedEx: 1st Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

See Multiple Cooler Form

- Cooler temperature upon receipt
 - IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp. 1.4 °C Corrected Cooler Temp. 1.4 °C
 - IR GUN #36 (CF +0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 - IR GUN # 627 (CF -1.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
- Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1
 - Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 - Were tamper/custody seals intact and uncompromised? Yes No NA
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Are these work share samples? Yes No
- If yes, Questions 11-15 have been checked at the originating laboratory.
- Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC697954
- Were VOAs on the COC? Yes No NA
- Were air bubbles >6 mm in any VOA vials? Larger than this.
- Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # B712841VB Yes No
- Was a LL Hg or Me Hg trip blank present? Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

16. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: _____

Did not receive MW69-111017, MW52-111017, + MW31-111017

Rec'd & DUPO3-111017 11/10/17 no time not on COC - will log

17. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

18. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____