TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-114716-1
Client Project/Site: Central Wire

For:
Autumnwood Consultants
6539 Autumnwood Court
Mount Pleasant, Wisconsin 53403

Attn: Mr. John Thorsen

Jodie Bracken

Authorized for release by:
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LINKS

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

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

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

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 5
Sample Summary 6
Client Sample Results 7
Definitions 11
QC Association 12
Surrogate Summary 13
QC Sample Results 14
Chronicle 18
Certification Summary 19
Chain of Custody 20
Receipt Checklists 21

Case Narrative

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Job ID: 500-114716-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-114716-1

Comments
No additional comments.

Receipt
The samples were received on 7/22/2016 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1º C.

Receipt Exceptions
The Chain of Custody was received without any analyses selected, VOCs logged in per vials received. Trip blank received and added to login.

GC/MS VOA
Method(s) 8260B: The laboratory control sample (LCS) for 345691 recovered outside control limits for the following analytes: Dichlorodifluoromeyhane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Detection Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: DGW2D — Lab Sample ID: 500-114716-1

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: 500-114716-2

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Protocol References:

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

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-114716-1	DGW2D	Water	07/21/16 11:36	07/22/16 10:05
500-114716-2	Trip Blank	Water	07/21/16 00:00	07/22/16 10:05

Client Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: DGW2D

Date Collected: 07/21/16 11:36
Date Received: 07/22/16 10:05

Lab Sample ID: 500-114716-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.0020	*	0.0020	0.00067	mg/L			07/29/16 04:06	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			07/29/16 04:06	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			07/29/16 04:06	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			07/29/16 04:06	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			07/29/16 04:06	1
Trichlorofluoromethane	<0.0010		0.0010	0.00043	mg/L			07/29/16 04:06	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			07/29/16 04:06	1
Acetone	<0.0050		0.0050	0.0017	mg/L			07/29/16 04:06	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			07/29/16 04:06	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			07/29/16 04:06	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			07/29/16 04:06	1
2,2-Dichloropropane	<0.0010		0.0010	0.00044	mg/L			07/29/16 04:06	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			07/29/16 04:06	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			07/29/16 04:06	1
Bromochloromethane	<0.0010		0.0010	0.00043	mg/L			07/29/16 04:06	1
Chloroform	<0.0010		0.0010	0.00037	mg/L			07/29/16 04:06	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			07/29/16 04:06	1
1,1-Dichloropropene	<0.0010		0.0010	0.00030	mg/L			07/29/16 04:06	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			07/29/16 04:06	1
Benzene	<0.00050		0.00050	0.00015	mg/L			07/29/16 04:06	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			07/29/16 04:06	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			07/29/16 04:06	1
Dibromomethane	<0.0010		0.0010	0.00027	mg/L			07/29/16 04:06	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			07/29/16 04:06	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			07/29/16 04:06	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			07/29/16 04:06	1
Toluene	<0.00050		0.00050	0.00015	mg/L			07/29/16 04:06	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			07/29/16 04:06	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			07/29/16 04:06	1
1,3-Dichloropropane	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			07/29/16 04:06	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			07/29/16 04:06	1
1,2-Dibromoethane	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
1,1,1,2-Tetrachloroethane	<0.0010		0.0010	0.00046	mg/L			07/29/16 04:06	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			07/29/16 04:06	1
m&p-Xylene	<0.0010		0.0010	0.00018	mg/L			07/29/16 04:06	1
o-Xylene	<0.00050		0.00050	0.00022	mg/L			07/29/16 04:06	1
Styrene	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			07/29/16 04:06	1
Isopropylbenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
Bromobenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			07/29/16 04:06	1
1,2,3-Trichloropropane	<0.0010		0.0010	0.00041	mg/L			07/29/16 04:06	1
N-Propylbenzene	<0.0010		0.0010	0.00041	mg/L			07/29/16 04:06	1

Client Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: DGW2D

Date Collected: 07/21/16 11:36
Date Received: 07/22/16 10:05

Lab Sample ID: 500-114716-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	<0.0010		0.0010	0.00031	mg/L			07/29/16 04:06	1
1,3,5-Trimethylbenzene	<0.0010		0.0010	0.00025	mg/L			07/29/16 04:06	1
4-Chlorotoluene	<0.0010		0.0010	0.00035	mg/L			07/29/16 04:06	1
tert-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 04:06	1
1,2,4-Trimethylbenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
sec-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 04:06	1
1,3-Dichlorobenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 04:06	1
p-Isopropyltoluene	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
1,4-Dichlorobenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 04:06	1
n-Butylbenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 04:06	1
1,2-Dichlorobenzene	<0.0010		0.0010	0.00033	mg/L			07/29/16 04:06	1
1,2-Dibromo-3-Chloropropane	<0.0050		0.0050	0.0020	mg/L			07/29/16 04:06	1
1,2,4-Trichlorobenzene	<0.0010		0.0010	0.00034	mg/L			07/29/16 04:06	1
Hexachlorobutadiene	<0.0010		0.0010	0.00045	mg/L			07/29/16 04:06	1
Naphthalene	<0.0010		0.0010	0.00034	mg/L			07/29/16 04:06	1
1,2,3-Trichlorobenzene	<0.0010		0.0010	0.00046	mg/L			07/29/16 04:06	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			07/29/16 04:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*71 - 127*		*07/29/16 04:06*	*1*
Toluene-d8 (Surr)	*85*		*75 - 120*		*07/29/16 04:06*	*1*
4-Bromofluorobenzene (Surr)	*113*		*71 - 120*		*07/29/16 04:06*	*1*
Dibromofluoromethane	*100*		*70 - 120*		*07/29/16 04:06*	*1*

Client Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-114716-2

Date Collected: 07/21/16 00:00
Date Received: 07/22/16 10:05

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.0020	*	0.0020	0.00067	mg/L			07/29/16 02:02	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			07/29/16 02:02	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			07/29/16 02:02	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			07/29/16 02:02	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			07/29/16 02:02	1
Trichlorofluoromethane	<0.0010		0.0010	0.00043	mg/L			07/29/16 02:02	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			07/29/16 02:02	1
Acetone	<0.0050		0.0050	0.0017	mg/L			07/29/16 02:02	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			07/29/16 02:02	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			07/29/16 02:02	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			07/29/16 02:02	1
2,2-Dichloropropane	<0.0010		0.0010	0.00044	mg/L			07/29/16 02:02	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			07/29/16 02:02	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			07/29/16 02:02	1
Bromochloromethane	<0.0010		0.0010	0.00043	mg/L			07/29/16 02:02	1
Chloroform	<0.0010		0.0010	0.00037	mg/L			07/29/16 02:02	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			07/29/16 02:02	1
1,1-Dichloropropene	<0.0010		0.0010	0.00030	mg/L			07/29/16 02:02	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			07/29/16 02:02	1
Benzene	<0.00050		0.00050	0.00015	mg/L			07/29/16 02:02	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			07/29/16 02:02	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			07/29/16 02:02	1
Dibromomethane	<0.0010		0.0010	0.00027	mg/L			07/29/16 02:02	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			07/29/16 02:02	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			07/29/16 02:02	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			07/29/16 02:02	1
Toluene	<0.00050		0.00050	0.00015	mg/L			07/29/16 02:02	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			07/29/16 02:02	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			07/29/16 02:02	1
1,3-Dichloropropane	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			07/29/16 02:02	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			07/29/16 02:02	1
1,2-Dibromoethane	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
1,1,1,2-Tetrachloroethane	<0.0010		0.0010	0.00046	mg/L			07/29/16 02:02	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			07/29/16 02:02	1
m&p-Xylene	<0.0010		0.0010	0.00018	mg/L			07/29/16 02:02	1
o-Xylene	<0.00050		0.00050	0.00022	mg/L			07/29/16 02:02	1
Styrene	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			07/29/16 02:02	1
Isopropylbenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
Bromobenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			07/29/16 02:02	1
1,2,3-Trichloropropane	<0.0010		0.0010	0.00041	mg/L			07/29/16 02:02	1
N-Propylbenzene	<0.0010		0.0010	0.00041	mg/L			07/29/16 02:02	1

Client Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-114716-2

Date Collected: 07/21/16 00:00
Date Received: 07/22/16 10:05

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	<0.0010		0.0010	0.00031	mg/L			07/29/16 02:02	1
1,3,5-Trimethylbenzene	<0.0010		0.0010	0.00025	mg/L			07/29/16 02:02	1
4-Chlorotoluene	<0.0010		0.0010	0.00035	mg/L			07/29/16 02:02	1
tert-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 02:02	1
1,2,4-Trimethylbenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
sec-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 02:02	1
1,3-Dichlorobenzene	<0.0010		0.0010	0.00040	mg/L			07/29/16 02:02	1
p-Isopropyltoluene	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
1,4-Dichlorobenzene	<0.0010		0.0010	0.00036	mg/L			07/29/16 02:02	1
n-Butylbenzene	<0.0010		0.0010	0.00039	mg/L			07/29/16 02:02	1
1,2-Dichlorobenzene	<0.0010		0.0010	0.00033	mg/L			07/29/16 02:02	1
1,2-Dibromo-3-Chloropropane	<0.0050		0.0050	0.0020	mg/L			07/29/16 02:02	1
1,2,4-Trichlorobenzene	<0.0010		0.0010	0.00034	mg/L			07/29/16 02:02	1
Hexachlorobutadiene	<0.0010		0.0010	0.00045	mg/L			07/29/16 02:02	1
Naphthalene	<0.0010		0.0010	0.00034	mg/L			07/29/16 02:02	1
1,2,3-Trichlorobenzene	<0.0010		0.0010	0.00046	mg/L			07/29/16 02:02	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			07/29/16 02:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*71 - 127*		*07/29/16 02:02*	*1*
Toluene-d8 (Surr)	*86*		*75 - 120*		*07/29/16 02:02*	*1*
4-Bromofluorobenzene (Surr)	*112*		*71 - 120*		*07/29/16 02:02*	*1*
Dibromofluoromethane	*99*		*70 - 120*		*07/29/16 02:02*	*1*

Definitions/Glossary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Qualifiers

GC/MS VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

QC Association Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

GC/MS VOA

Analysis Batch: 345691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-114716-1	DGW2D	Total/NA	Water	8260B	
500-114716-2	Trip Blank	Total/NA	Water	8260B	
MB 500-345691/6	Method Blank	Total/NA	Water	8260B	
LCS 500-345691/4	Lab Control Sample	Total/NA	Water	8260B	

Surrogate Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-127)	(75-120)	(71-120)	(70-120)
500-114716-1	DGW2D	112	85	113	100
500-114716-2	Trip Blank	112	86	112	99
LCS 500-345691/4	Lab Control Sample	107	88	103	101
MB 500-345691/6	Method Blank	110	88	113	97

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane

QC Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Lab Sample ID: MB 500-345691/6
Matrix: Water
Analysis Batch: 345691

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<0.0020		0.0020	0.00067	mg/L			07/28/16 22:42	1
Chloromethane	<0.0010		0.0010	0.00032	mg/L			07/28/16 22:42	1
Vinyl chloride	<0.00050		0.00050	0.00020	mg/L			07/28/16 22:42	1
Bromomethane	<0.0020		0.0020	0.00080	mg/L			07/28/16 22:42	1
Chloroethane	<0.0010		0.0010	0.00051	mg/L			07/28/16 22:42	1
Trichlorofluoromethane	<0.0010		0.0010	0.00043	mg/L			07/28/16 22:42	1
1,1-Dichloroethene	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
Carbon disulfide	<0.0020		0.0020	0.00045	mg/L			07/28/16 22:42	1
Acetone	<0.0050		0.0050	0.0017	mg/L			07/28/16 22:42	1
Methylene Chloride	<0.0050		0.0050	0.0016	mg/L			07/28/16 22:42	1
trans-1,2-Dichloroethene	<0.0010		0.0010	0.00035	mg/L			07/28/16 22:42	1
Methyl tert-butyl ether	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
1,1-Dichloroethane	<0.0010		0.0010	0.00041	mg/L			07/28/16 22:42	1
2,2-Dichloropropane	<0.0010		0.0010	0.00044	mg/L			07/28/16 22:42	1
cis-1,2-Dichloroethene	<0.0010		0.0010	0.00041	mg/L			07/28/16 22:42	1
Methyl Ethyl Ketone	<0.0050		0.0050	0.0021	mg/L			07/28/16 22:42	1
Bromochloromethane	<0.0010		0.0010	0.00043	mg/L			07/28/16 22:42	1
Chloroform	<0.0010		0.0010	0.00037	mg/L			07/28/16 22:42	1
1,1,1-Trichloroethane	<0.0010		0.0010	0.00038	mg/L			07/28/16 22:42	1
1,1-Dichloropropene	<0.0010		0.0010	0.00030	mg/L			07/28/16 22:42	1
Carbon tetrachloride	<0.0010		0.0010	0.00038	mg/L			07/28/16 22:42	1
Benzene	<0.00050		0.00050	0.00015	mg/L			07/28/16 22:42	1
1,2-Dichloroethane	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
Trichloroethene	<0.00050		0.00050	0.00016	mg/L			07/28/16 22:42	1
1,2-Dichloropropane	<0.0010		0.0010	0.00043	mg/L			07/28/16 22:42	1
Dibromomethane	<0.0010		0.0010	0.00027	mg/L			07/28/16 22:42	1
Bromodichloromethane	<0.0010		0.0010	0.00037	mg/L			07/28/16 22:42	1
cis-1,3-Dichloropropene	<0.0010		0.0010	0.00042	mg/L			07/28/16 22:42	1
methyl isobutyl ketone	<0.0050		0.0050	0.0022	mg/L			07/28/16 22:42	1
Toluene	<0.00050		0.00050	0.00015	mg/L			07/28/16 22:42	1
trans-1,3-Dichloropropene	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
1,1,2-Trichloroethane	<0.0010		0.0010	0.00035	mg/L			07/28/16 22:42	1
Tetrachloroethene	<0.0010		0.0010	0.00037	mg/L			07/28/16 22:42	1
1,3-Dichloropropane	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
2-Hexanone	<0.0050		0.0050	0.0016	mg/L			07/28/16 22:42	1
Dibromochloromethane	<0.0010		0.0010	0.00049	mg/L			07/28/16 22:42	1
1,2-Dibromoethane	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
Chlorobenzene	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
1,1,1,2-Tetrachloroethane	<0.0010		0.0010	0.00046	mg/L			07/28/16 22:42	1
Ethylbenzene	<0.00050		0.00050	0.00018	mg/L			07/28/16 22:42	1
m&p-Xylene	<0.0010		0.0010	0.00018	mg/L			07/28/16 22:42	1
o-Xylene	<0.00050		0.00050	0.00022	mg/L			07/28/16 22:42	1
Styrene	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
Bromoform	<0.0010		0.0010	0.00048	mg/L			07/28/16 22:42	1
Isopropylbenzene	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
Bromobenzene	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
1,1,2,2-Tetrachloroethane	<0.0010		0.0010	0.00040	mg/L			07/28/16 22:42	1
1,2,3-Trichloropropane	<0.0010		0.0010	0.00041	mg/L			07/28/16 22:42	1

QC Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Lab Sample ID: MB 500-345691/6
Matrix: Water
Analysis Batch: 345691

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	<0.0010		0.0010	0.00041	mg/L			07/28/16 22:42	1
2-Chlorotoluene	<0.0010		0.0010	0.00031	mg/L			07/28/16 22:42	1
1,3,5-Trimethylbenzene	<0.0010		0.0010	0.00025	mg/L			07/28/16 22:42	1
4-Chlorotoluene	<0.0010		0.0010	0.00035	mg/L			07/28/16 22:42	1
tert-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/28/16 22:42	1
1,2,4-Trimethylbenzene	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
sec-Butylbenzene	<0.0010		0.0010	0.00040	mg/L			07/28/16 22:42	1
1,3-Dichlorobenzene	<0.0010		0.0010	0.00040	mg/L			07/28/16 22:42	1
p-Isopropyltoluene	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
1,4-Dichlorobenzene	<0.0010		0.0010	0.00036	mg/L			07/28/16 22:42	1
n-Butylbenzene	<0.0010		0.0010	0.00039	mg/L			07/28/16 22:42	1
1,2-Dichlorobenzene	<0.0010		0.0010	0.00033	mg/L			07/28/16 22:42	1
1,2-Dibromo-3-Chloropropane	<0.0050		0.0050	0.0020	mg/L			07/28/16 22:42	1
1,2,4-Trichlorobenzene	<0.0010		0.0010	0.00034	mg/L			07/28/16 22:42	1
Hexachlorobutadiene	<0.0010		0.0010	0.00045	mg/L			07/28/16 22:42	1
Naphthalene	<0.0010		0.0010	0.00034	mg/L			07/28/16 22:42	1
1,2,3-Trichlorobenzene	<0.0010		0.0010	0.00046	mg/L			07/28/16 22:42	1
1,3-Dichloropropene, Total	<0.0010		0.0010	0.00042	mg/L			07/28/16 22:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*71 - 127*		*07/28/16 22:42*	*1*
Toluene-d8 (Surr)	*88*		*75 - 120*		*07/28/16 22:42*	*1*
4-Bromofluorobenzene (Surr)	*113*		*71 - 120*		*07/28/16 22:42*	*1*
Dibromofluoromethane	*97*		*70 - 120*		*07/28/16 22:42*	*1*

Lab Sample ID: LCS 500-345691/4
Matrix: Water
Analysis Batch: 345691

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	0.0500	0.0711	*	mg/L		142	51 - 140
Chloromethane	0.0500	0.0565		mg/L		113	60 - 140
Vinyl chloride	0.0500	0.0448		mg/L		90	70 - 126
Bromomethane	0.0500	0.0452		mg/L		90	40 - 150
Chloroethane	0.0500	0.0444		mg/L		89	60 - 139
Trichlorofluoromethane	0.0500	0.0580		mg/L		116	60 - 126
1,1-Dichloroethene	0.0500	0.0477		mg/L		95	70 - 125
Carbon disulfide	0.0500	0.0459		mg/L		92	68 - 125
Acetone	0.0500	0.0363		mg/L		73	37 - 141
Methylene Chloride	0.0500	0.0442		mg/L		88	68 - 125
trans-1,2-Dichloroethene	0.0500	0.0481		mg/L		96	70 - 125
Methyl tert-butyl ether	0.0500	0.0476		mg/L		95	67 - 125
1,1-Dichloroethane	0.0500	0.0499		mg/L		100	70 - 125
2,2-Dichloropropane	0.0500	0.0536		mg/L		107	62 - 125
cis-1,2-Dichloroethene	0.0500	0.0471		mg/L		94	70 - 125
Methyl Ethyl Ketone	0.0500	0.0433		mg/L		87	52 - 142
Bromochloromethane	0.0500	0.0495		mg/L		99	70 - 125
Chloroform	0.0500	0.0532		mg/L		106	70 - 125

QC Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Lab Sample ID: LCS 500-345691/4
Matrix: Water
Analysis Batch: 345691

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.0500	0.0554		mg/L		111	70 - 125
1,1-Dichloropropene	0.0500	0.0518		mg/L		104	70 - 125
Carbon tetrachloride	0.0500	0.0564		mg/L		113	70 - 125
Benzene	0.0500	0.0444		mg/L		89	70 - 125
1,2-Dichloroethane	0.0500	0.0574		mg/L		115	70 - 125
Trichloroethene	0.0500	0.0506		mg/L		101	70 - 125
1,2-Dichloropropane	0.0500	0.0477		mg/L		95	70 - 125
Dibromomethane	0.0500	0.0469		mg/L		94	70 - 125
Bromodichloromethane	0.0500	0.0524		mg/L		105	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0466		mg/L		93	70 - 125
methyl isobutyl ketone	0.0500	0.0431		mg/L		86	47 - 140
Toluene	0.0500	0.0449		mg/L		90	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0497		mg/L		99	70 - 125
1,1,2-Trichloroethane	0.0500	0.0447		mg/L		89	70 - 125
Tetrachloroethene	0.0500	0.0519		mg/L		104	70 - 125
1,3-Dichloropropane	0.0500	0.0483		mg/L		97	70 - 125
2-Hexanone	0.0500	0.0452		mg/L		90	49 - 139
Dibromochloromethane	0.0500	0.0497		mg/L		99	66 - 125
1,2-Dibromoethane	0.0500	0.0480		mg/L		96	70 - 125
Chlorobenzene	0.0500	0.0495		mg/L		99	70 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.0491		mg/L		98	68 - 125
Ethylbenzene	0.0500	0.0463		mg/L		93	70 - 125
m&p-Xylene	0.0500	0.0472		mg/L		94	70 - 125
o-Xylene	0.0500	0.0478		mg/L		96	70 - 125
Styrene	0.0500	0.0474		mg/L		95	70 - 125
Bromoform	0.0500	0.0506		mg/L		101	54 - 128
Isopropylbenzene	0.0500	0.0450		mg/L		90	70 - 125
Bromobenzene	0.0500	0.0481		mg/L		96	70 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.0418		mg/L		84	68 - 125
1,2,3-Trichloropropane	0.0500	0.0452		mg/L		90	63 - 125
N-Propylbenzene	0.0500	0.0454		mg/L		91	70 - 125
2-Chlorotoluene	0.0500	0.0472		mg/L		94	69 - 125
1,3,5-Trimethylbenzene	0.0500	0.0454		mg/L		91	70 - 125
4-Chlorotoluene	0.0500	0.0478		mg/L		96	70 - 125
tert-Butylbenzene	0.0500	0.0486		mg/L		97	70 - 125
1,2,4-Trimethylbenzene	0.0500	0.0461		mg/L		92	70 - 125
sec-Butylbenzene	0.0500	0.0450		mg/L		90	70 - 125
1,3-Dichlorobenzene	0.0500	0.0479		mg/L		96	70 - 125
p-Isopropyltoluene	0.0500	0.0487		mg/L		97	70 - 125
1,4-Dichlorobenzene	0.0500	0.0470		mg/L		94	70 - 125
n-Butylbenzene	0.0500	0.0443		mg/L		89	70 - 125
1,2-Dichlorobenzene	0.0500	0.0463		mg/L		93	70 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.0453		mg/L		91	51 - 125
1,2,4-Trichlorobenzene	0.0500	0.0448		mg/L		90	64 - 126
Hexachlorobutadiene	0.0500	0.0544		mg/L		109	57 - 140
Naphthalene	0.0500	0.0395		mg/L		79	50 - 136
1,2,3-Trichlorobenzene	0.0500	0.0415		mg/L		83	58 - 135

QC Sample Results

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

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

Lab Sample ID: LCS 500-345691/4
Matrix: Water
Analysis Batch: 345691

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*71 - 127*
Toluene-d8 (Surr)	*88*		*75 - 120*
4-Bromofluorobenzene (Surr)	*103*		*71 - 120*
Dibromofluoromethane	*101*		*70 - 120*

Lab Chronicle

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Client Sample ID: DGW2D

Lab Sample ID: 500-114716-1
Matrix: Water

Date Collected: 07/21/16 11:36
Date Received: 07/22/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	345691	07/29/16 04:06	PMF	TAL CHI

Client Sample ID: Trip Blank

Lab Sample ID: 500-114716-2
Matrix: Water

Date Collected: 07/21/16 00:00
Date Received: 07/22/16 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	345691	07/29/16 02:02	PMF	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Autumnwood Consultants
Project/Site: Central Wire

TestAmerica Job ID: 500-114716-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	1,3-Dichloropropene, Total

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-114716 COC

Chain of Custody Record

Lab Job #: 500-114716

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.1

Client: Centralwire/tech Alloy
Client Project #:
Project Name:
Project Location/State: Union IL
Lab Project #: 500055584
Sampler: BM
Lab PM: Richard Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter									Comments
1		DGW20	7-21-16	1130													

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

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

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Cabeno	7-21-16	1215	[signature]	TAL	07/22/16	1005
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped: UPS Ground
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)
7/29/2016

Login Sample Receipt Checklist

Client: Autumnwood Consultants

Job Number: 500-114716-1

Login Number: 114716
List Number: 1
Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Requested analyses are not listed on COC
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	