

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Tel: (314)298-8566

TestAmerica Job ID: 160-4124-1

Client Project/Site: RFP-CBA-022 (7 DAY TAT)

For:

Westinghouse Electric Company LLC  
3300 State Road P  
Festus, Missouri 63028

Attn: Martin Swanson



Authorized for release by:

10/21/2013 9:39:34 AM

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

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

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## Case Narrative

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

**Job ID: 160-4124-1**

**Laboratory: TestAmerica St. Louis**

**Narrative**

### CASE NARRATIVE

**Client: Westinghouse Electric Company LLC**

**Project: RFP-CBA-022 (7 DAY TAT)**

**Report Number: 160-4124-1**

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.

TestAmerica St. Louis 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 for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

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

#### **RECEIPT**

The samples were received on 10/15/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.0 C.

#### **VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Samples 6703-03-L10-09-0013-SO (160-4124-1), 6703-03-L10-09-0014-SO (160-4124-2), 6703-03-L10-09-0015-SO (160-4124-3), 6703-03-L10-09-0016-SO (160-4124-4), 6703-03-L10-09-0017-SO (160-4124-5) and 6703-03-L10-09-0018-SO (160-4124-6) were analyzed for Volatile Organic Compounds by GC/MS in accordance with EPA SW-846 Method 8260C. The samples were prepared and analyzed on 10/16/2013.

Batch 79538:

The continuing calibration verification (CCV) for n-Butanol associated with batch 79538 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. (CCVIS 160-79538/3)

## Case Narrative

Client: Westinghouse Electric Company LLC  
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TestAmerica Job ID: 160-4124-1

### Job ID: 160-4124-1 (Continued)

#### Laboratory: TestAmerica St. Louis (Continued)

The laboratory control sample (LCS) for batch 79538 recovered outside control limits for the following analytes: 1,4-Dioxane. This was not a requested analyte, and thus does not adversely affect the data.

Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 79538. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 160-79123/2-A), (LCSD 160-79123/3-A)

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 79538 recovered outside control limits for the following analytes: 1,4-Dioxane. This was not requested analyte, and thus does not adversely affect the data. (LCS 160-79123/2-A), (LCSD 160-79123/3-A)

No difficulties were encountered during the Volatiles analysis. All quality control parameters were within the acceptance limits.

#### VOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 6703-03-L10-09-0022-TB (160-4124-10) was analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 10/16/2013.

Batch 79367:

The continuing calibration verification (CCV) for Freon-114 and Bromomethane associated with batch 79367 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. (CCVIS 160-79367/3)

The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 79367 recovered outside control limits for Freon-114, and Iodomethane. These analytes were not target compounds of interest. Therefore, this excursion does not affect the reported data. (LCS 160-79367/4), (LCSD 160-79367/5)

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 79367 recovered outside control limits for Acetone. The LCS/LCSD spike recoveries for this analyte were within QC limits. (LCS 160-79367/4), (LCSD 160-79367/5)

Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 79367. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 160-79367/4), (LCSD 160-79367/5)

No other difficulties were encountered during the VOA analysis. All other quality control parameters were within the acceptance limits.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples 6703-03-L10-09-0019-SO (160-4124-7), 6703-03-L10-09-0020-SO (160-4124-8) and 6703-03-L10-09-0021-SO (160-4124-9) were analyzed for Semivolatile Organic Compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared and analyzed on 10/16/2013.

No difficulties were encountered during the Semi-VOA analysis. All quality control parameters were within the acceptance limits.

#### TOTAL METALS (ICP)

Samples 6703-03-L10-09-0019-SO (160-4124-7), 6703-03-L10-09-0020-SO (160-4124-8) and 6703-03-L10-09-0021-SO (160-4124-9) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared and analyzed on 10/18/2013.

Preparation Batch 79708, Analytical Batch 76757:

Due to a sequencing error, there are 11 samples between CCV/CCB's instead of 10. All QC is within acceptable limits, results will be reported with this NCM. (160-4124-7 MS), (160-4124-7 MSD), (160-4124-7 SD), (LCS 160-79708/2-A), (MB 160-79708/1-A), 6703-03-L10-09-0019-SO (160-4124-7), 6703-03-L10-09-0020-SO (160-4124-8), 6703-03-L10-09-0021-SO (160-4124-9)

Preparation Batch 79708, Analytical Batch 76757:

The following sample(s) was diluted due to high concentrations of iron which interferes with arsenic: (160-4124-7 MS), (160-4124-7

## Case Narrative

Client: Westinghouse Electric Company LLC  
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TestAmerica Job ID: 160-4124-1

### Job ID: 160-4124-1 (Continued)

#### Laboratory: TestAmerica St. Louis (Continued)

MSD), (160-4124-7 SD), 6703-03-L10-09-0019-SO (160-4124-7), 6703-03-L10-09-0020-SO (160-4124-8), 6703-03-L10-09-0021-SO (160-4124-9). Elevated reporting limits (RLs) are provided.

No difficulties were encountered during the metals analysis. All quality control parameters were within the acceptance limits.

#### PERCENT SOLIDS

Samples 6703-03-L10-09-0013-SO (160-4124-1), 6703-03-L10-09-0014-SO (160-4124-2), 6703-03-L10-09-0015-SO (160-4124-3), 6703-03-L10-09-0016-SO (160-4124-4), 6703-03-L10-09-0017-SO (160-4124-5), 6703-03-L10-09-0018-SO (160-4124-6), 6703-03-L10-09-0019-SO (160-4124-7), 6703-03-L10-09-0020-SO (160-4124-8) and 6703-03-L10-09-0021-SO (160-4124-9) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 10/16/2013.

No difficulties were encountered during the % solids analysis. All quality control parameters were within the acceptance limits.

<b>Hematite Decommissioning Project</b>				Procedure HDP-PR-QA-006, Chain of Custody															
				Revision: 3												Page 1 of 1			
				Westinghouse Non-Proprietary Class 3															
<b>FORM HDP-PR-QA-006-1 CHAIN OF CUSTODY</b>																			
Instructions: Each time the container is transferred to another organization, a person from each organization should sign the CoC. The Laboratory/End User must verify that the sample is correctly identified before the sample is released for use or analysis and send the completed CoC to HDP.																			
<b>Chain of Custody ID No.</b> 093013-04 <b>Page</b> 1/1				<b>Requested Analysis</b>												<b>Laboratory Name:</b> TA-MO  <b>Laboratory Address:</b> 13715 Rider Trail North Earth City, MO 63045 <b>Phone No.</b> 314-298-8566 <b>Laboratory Contact Person:</b> Joe Walker <b>Phone No.</b> 708-870-8453 <b>Turn Around Time</b> Rush (7 days) <b>Remarks</b>			
<b>Project Name:</b> Westinghouse Electric Company  <b>Contact Person:</b> Joseph Guido  <b>Phone Number:</b> 314-810-3361 <b>Sampler Name:</b> Aaron Weaver				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Containers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Gamma Spec</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Tc-99</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PAH</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Arsenic</div> </div>															
Sample ID	Date	Time	Matrix	Comp (C) or Grab (G)															
6703-03-L10-09-0013-SO	10/14/2013	14:15	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0014-SO	10/14/2013	14:20	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0015-SO	10/14/2013	14:25	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0016-SO	10/14/2013	14:30	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0017-SO	10/14/2013	14:35	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0018-SO	10/14/2013	14:40	S	G													4	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0019-SO	10/14/2013	14:45	S	C				X		X							2	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0020-SO	10/14/2013	14:50	S	C				X		X							2	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0021-SO	10/14/2013	14:55	S	C				X		X							2	LSA-10-09 Confirmation Sampling	
6703-03-L10-09-0022-TB	10/14/2013	14:00	W	G					X								2	Trip Blanks	
Relinquished by: <i>[Signature]</i>				Date/Time	Received by: <i>[Signature]</i>				Date/Time	Total Number of Containers:				Cooler Temperature:					
Company Name: <i>WEL</i>				10-15-13 16:20	Company Name: <i>Crossroads</i>				10-15 16:20	32				4 Degrees C					
Received by:				Date/Time	Relinquished by: <i>[Signature]</i>				Date/Time	Container ID:				Shipper and Number:					
Company Name:					Company Name: <i>Crossroads</i>				10-15 17:55	1014-01									
Relinquished by:				Date/Time	Received by: <i>[Signature]</i>				Date/Time	Comments: PO #4500404709				Verified By: <i>[Signature]</i>					
Company Name:					Company Name: <i>T. E. Hansen CA</i>				10-15-13 17:55										

4124

## Login Sample Receipt Checklist

Client: Westinghouse Electric Company LLC

Job Number: 160-4124-1

Login Number: 4124

List Source: TestAmerica St. Louis

List Number: 1

Creator: Clarke, Jill C

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Definitions/Glossary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

### Qualifiers

#### GC/MS VOA

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

### Glossary

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



## Method Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL SL
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL

### Protocol References:

EPA = US Environmental Protection Agency

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

### Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## Sample Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-4124-1	6703-03-L10-09-0013-SO	Solid	10/14/13 14:15	10/15/13 17:55
160-4124-2	6703-03-L10-09-0014-SO	Solid	10/14/13 14:20	10/15/13 17:55
160-4124-3	6703-03-L10-09-0015-SO	Solid	10/14/13 14:25	10/15/13 17:55
160-4124-4	6703-03-L10-09-0016-SO	Solid	10/14/13 14:30	10/15/13 17:55
160-4124-5	6703-03-L10-09-0017-SO	Solid	10/14/13 14:35	10/15/13 17:55
160-4124-6	6703-03-L10-09-0018-SO	Solid	10/14/13 14:40	10/15/13 17:55
160-4124-7	6703-03-L10-09-0019-SO	Solid	10/14/13 14:45	10/15/13 17:55
160-4124-8	6703-03-L10-09-0020-SO	Solid	10/14/13 14:50	10/15/13 17:55
160-4124-9	6703-03-L10-09-0021-SO	Solid	10/14/13 14:55	10/15/13 17:55
160-4124-10	6703-03-L10-09-0022-TB	Water	10/14/13 14:00	10/15/13 17:55

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

**Client Sample ID: 6703-03-L10-09-0013-SO**

**Lab Sample ID: 160-4124-1**

**Date Collected: 10/14/13 14:15**

**Matrix: Solid**

**Date Received: 10/15/13 17:55**

**Percent Solids: 82.3**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	6.0	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Benzene	ND		4.7	0.23	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Bromodichloromethane	ND		4.7	0.23	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Bromoform	ND		4.7	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Methyl bromide	ND		9.3	1.0	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
n-Butanol	ND		120	15	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
2-Butanone	ND		19	1.8	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Carbon disulfide	ND		4.7	0.64	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Carbon tetrachloride	ND		4.7	0.47	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Chlorobenzene	ND		4.7	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Chlorodibromomethane	ND		4.7	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Chloroethane	ND		9.3	0.48	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Chloroform	ND		4.7	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Chloromethane	ND		9.3	0.61	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2-Dibromo-3-Chloropropane	ND		9.3	1.4	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2-Dibromoethane	ND		4.7	0.65	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,1-Dichloroethane	ND		4.7	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2-Dichloroethane	ND		4.7	0.81	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
cis-1,2-Dichloroethene	ND		4.7	0.56	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
trans-1,2-Dichloroethene	ND		4.7	0.88	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,1-Dichloroethene	ND		4.7	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2-Dichloroethene, Total	ND		9.3	0.89	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2-Dichloropropane	ND		4.7	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
cis-1,3-Dichloropropene	ND		4.7	0.56	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
trans-1,3-Dichloropropene	ND		4.7	0.33	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Ethylbenzene	ND		4.7	0.28	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
2-Hexanone	ND		19	1.6	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Methylene Chloride	ND		4.7	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
4-Methyl-2-pentanone	ND		19	0.68	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Styrene	ND		4.7	0.33	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,1,2,2-Tetrachloroethane	ND		4.7	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Tetrachloroethene	ND		4.7	0.30	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Toluene	ND		4.7	0.65	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,2,4-Trichlorobenzene	ND		4.7	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,1,1-Trichloroethane	ND		4.7	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
1,1,2-Trichloroethane	ND		4.7	0.53	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Trichloroethene	ND		4.7	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Vinyl acetate	ND		4.7	0.73	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Vinyl chloride	ND		4.7	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1
Xylenes, Total	ND		9.3	0.79	ug/Kg	☼	10/16/13 10:40	10/16/13 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		63 - 150	10/16/13 10:40	10/16/13 18:07	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 127	10/16/13 10:40	10/16/13 18:07	1
Toluene-d8 (Surr)	97		80 - 120	10/16/13 10:40	10/16/13 18:07	1
Dibromofluoromethane (Surr)	107		70 - 126	10/16/13 10:40	10/16/13 18:07	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0014-SO

Lab Sample ID: 160-4124-2

Date Collected: 10/14/13 14:20

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 80.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	6.6	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Benzene	ND		5.1	0.25	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Bromodichloromethane	ND		5.1	0.25	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Bromoform	ND		5.1	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Methyl bromide	ND		10	1.1	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
n-Butanol	ND		130	17	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
2-Butanone	ND		20	1.9	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Carbon disulfide	ND		5.1	0.70	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Carbon tetrachloride	ND		5.1	0.52	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Chlorobenzene	ND		5.1	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Chlorodibromomethane	ND		5.1	0.42	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Chloroethane	ND		10	0.53	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Chloroform	ND		5.1	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Chloromethane	ND		10	0.66	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2-Dibromo-3-Chloropropane	ND		10	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2-Dibromoethane	ND		5.1	0.71	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,1-Dichloroethane	ND		5.1	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2-Dichloroethane	ND		5.1	0.88	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
cis-1,2-Dichloroethene	2.2	J	5.1	0.61	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
trans-1,2-Dichloroethene	ND		5.1	0.95	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,1-Dichloroethene	ND		5.1	1.6	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2-Dichloroethene, Total	2.2	J	10	0.97	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2-Dichloropropane	ND		5.1	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
cis-1,3-Dichloropropene	ND		5.1	0.61	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
trans-1,3-Dichloropropene	ND		5.1	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Ethylbenzene	ND		5.1	0.30	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
2-Hexanone	ND		20	1.8	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Methylene Chloride	ND		5.1	1.6	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
4-Methyl-2-pentanone	ND		20	0.74	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Styrene	ND		5.1	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,1,2,2-Tetrachloroethane	ND		5.1	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Tetrachloroethene	1.8	J	5.1	0.32	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Toluene	ND		5.1	0.71	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,2,4-Trichlorobenzene	ND		5.1	0.44	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,1,1-Trichloroethane	ND		5.1	0.44	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
1,1,2-Trichloroethane	ND		5.1	0.58	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Trichloroethene	3.1	J	5.1	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Vinyl acetate	ND		5.1	0.79	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Vinyl chloride	ND		5.1	0.44	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Xylenes, Total	ND		10	0.86	ug/Kg	☼	10/16/13 10:40	10/16/13 18:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		63 - 150				10/16/13 10:40	10/16/13 18:32	1
1,2-Dichloroethane-d4 (Surr)	106		72 - 127				10/16/13 10:40	10/16/13 18:32	1
Toluene-d8 (Surr)	94		80 - 120				10/16/13 10:40	10/16/13 18:32	1
Dibromofluoromethane (Surr)	105		70 - 126				10/16/13 10:40	10/16/13 18:32	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0015-SO

Lab Sample ID: 160-4124-3

Date Collected: 10/14/13 14:25

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		18	5.7	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Benzene	ND		4.4	0.22	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Bromodichloromethane	ND		4.4	0.22	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Bromoform	ND		4.4	0.32	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Methyl bromide	ND		8.8	0.96	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
n-Butanol	ND		110	14	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
2-Butanone	ND		18	1.7	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Carbon disulfide	ND		4.4	0.60	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Carbon tetrachloride	ND		4.4	0.45	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Chlorobenzene	ND		4.4	0.33	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Chlorodibromomethane	ND		4.4	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Chloroethane	ND		8.8	0.46	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Chloroform	ND		4.4	0.33	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Chloromethane	ND		8.8	0.57	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2-Dibromo-3-Chloropropane	ND		8.8	1.3	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2-Dibromoethane	ND		4.4	0.61	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,1-Dichloroethane	ND		4.4	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2-Dichloroethane	ND		4.4	0.76	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
cis-1,2-Dichloroethene	ND		4.4	0.53	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
trans-1,2-Dichloroethene	ND		4.4	0.82	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,1-Dichloroethene	ND		4.4	1.4	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2-Dichloroethene, Total	ND		8.8	0.84	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2-Dichloropropane	ND		4.4	0.33	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
cis-1,3-Dichloropropene	ND		4.4	0.53	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
trans-1,3-Dichloropropene	ND		4.4	0.31	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Ethylbenzene	ND		4.4	0.26	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
2-Hexanone	ND		18	1.6	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Methylene Chloride	ND		4.4	1.4	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
4-Methyl-2-pentanone	ND		18	0.64	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Styrene	ND		4.4	0.31	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,1,2,2-Tetrachloroethane	ND		4.4	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Tetrachloroethene	ND		4.4	0.28	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Toluene	ND		4.4	0.61	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,2,4-Trichlorobenzene	ND		4.4	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,1,1-Trichloroethane	ND		4.4	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
1,1,2-Trichloroethane	ND		4.4	0.50	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Trichloroethene	ND		4.4	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Vinyl acetate	ND		4.4	0.68	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Vinyl chloride	ND		4.4	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Xylenes, Total	ND		8.8	0.74	ug/Kg	☼	10/16/13 10:40	10/16/13 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		63 - 150				10/16/13 10:40	10/16/13 18:57	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 127				10/16/13 10:40	10/16/13 18:57	1
Toluene-d8 (Surr)	102		80 - 120				10/16/13 10:40	10/16/13 18:57	1
Dibromofluoromethane (Surr)	106		70 - 126				10/16/13 10:40	10/16/13 18:57	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0016-SO

Lab Sample ID: 160-4124-4

Date Collected: 10/14/13 14:30

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 84.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		18	5.9	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Benzene	ND		4.6	0.23	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Bromodichloromethane	ND		4.6	0.23	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Bromoform	ND		4.6	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Methyl bromide	ND		9.1	1.0	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
n-Butanol	ND		110	15	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
2-Butanone	ND		18	1.8	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Carbon disulfide	ND		4.6	0.63	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Carbon tetrachloride	ND		4.6	0.47	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Chlorobenzene	ND		4.6	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Chlorodibromomethane	ND		4.6	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Chloroethane	ND		9.1	0.48	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Chloroform	ND		4.6	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Chloromethane	ND		9.1	0.59	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2-Dibromo-3-Chloropropane	ND		9.1	1.3	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2-Dibromoethane	ND		4.6	0.64	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,1-Dichloroethane	ND		4.6	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2-Dichloroethane	ND		4.6	0.80	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
cis-1,2-Dichloroethene	ND		4.6	0.55	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
trans-1,2-Dichloroethene	ND		4.6	0.86	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,1-Dichloroethene	ND		4.6	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2-Dichloroethene, Total	ND		9.1	0.88	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2-Dichloropropane	ND		4.6	0.35	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
cis-1,3-Dichloropropene	ND		4.6	0.55	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
trans-1,3-Dichloropropene	ND		4.6	0.32	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Ethylbenzene	ND		4.6	0.27	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
2-Hexanone	ND		18	1.6	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Methylene Chloride	ND		4.6	1.4	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
4-Methyl-2-pentanone	ND		18	0.67	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Styrene	ND		4.6	0.32	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
<b>Tetrachloroethene</b>	<b>0.92 J</b>		4.6	0.29	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Toluene	ND		4.6	0.64	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,2,4-Trichlorobenzene	ND		4.6	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,1,1-Trichloroethane	ND		4.6	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
1,1,2-Trichloroethane	ND		4.6	0.52	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Trichloroethene	ND		4.6	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Vinyl acetate	ND		4.6	0.71	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Vinyl chloride	ND		4.6	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Xylenes, Total	ND		9.1	0.78	ug/Kg	☼	10/16/13 10:40	10/16/13 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		63 - 150				10/16/13 10:40	10/16/13 19:22	1
1,2-Dichloroethane-d4 (Surr)	108		72 - 127				10/16/13 10:40	10/16/13 19:22	1
Toluene-d8 (Surr)	97		80 - 120				10/16/13 10:40	10/16/13 19:22	1
Dibromofluoromethane (Surr)	109		70 - 126				10/16/13 10:40	10/16/13 19:22	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0017-SO

Lab Sample ID: 160-4124-5

Date Collected: 10/14/13 14:35

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	13	J	21	6.8	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Benzene	ND		5.2	0.26	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Bromodichloromethane	ND		5.2	0.26	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Bromoform	ND		5.2	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Methyl bromide	ND		10	1.2	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
n-Butanol	ND		130	17	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
2-Butanone	ND		21	2.0	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Carbon disulfide	ND		5.2	0.72	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Carbon tetrachloride	ND		5.2	0.53	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Chlorobenzene	ND		5.2	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Chlorodibromomethane	ND		5.2	0.43	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Chloroethane	ND		10	0.55	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Chloroform	ND		5.2	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Chloromethane	ND		10	0.68	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2-Dibromo-3-Chloropropane	ND		10	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2-Dibromoethane	ND		5.2	0.73	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,1-Dichloroethane	ND		5.2	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2-Dichloroethane	ND		5.2	0.91	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
cis-1,2-Dichloroethene	ND		5.2	0.63	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
trans-1,2-Dichloroethene	ND		5.2	0.99	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,1-Dichloroethene	ND		5.2	1.7	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2-Dichloroethene, Total	ND		10	1.0	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2-Dichloropropane	ND		5.2	0.40	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
cis-1,3-Dichloropropene	ND		5.2	0.63	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
trans-1,3-Dichloropropene	ND		5.2	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Ethylbenzene	ND		5.2	0.31	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
2-Hexanone	ND		21	1.9	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Methylene Chloride	ND		5.2	1.7	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
4-Methyl-2-pentanone	ND		21	0.77	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Styrene	ND		5.2	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.42	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Tetrachloroethene	ND		5.2	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Toluene	ND		5.2	0.73	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,2,4-Trichlorobenzene	ND		5.2	0.45	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,1,1-Trichloroethane	ND		5.2	0.45	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
1,1,2-Trichloroethane	ND		5.2	0.60	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Trichloroethene	ND		5.2	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Vinyl acetate	ND		5.2	0.82	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Vinyl chloride	ND		5.2	0.45	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1
Xylenes, Total	ND		10	0.89	ug/Kg	☼	10/16/13 10:40	10/16/13 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		63 - 150	10/16/13 10:40	10/16/13 19:47	1
1,2-Dichloroethane-d4 (Surr)	107		72 - 127	10/16/13 10:40	10/16/13 19:47	1
Toluene-d8 (Surr)	95		80 - 120	10/16/13 10:40	10/16/13 19:47	1
Dibromofluoromethane (Surr)	105		70 - 126	10/16/13 10:40	10/16/13 19:47	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0018-SO

Lab Sample ID: 160-4124-6

Date Collected: 10/14/13 14:40

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		19	6.2	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Benzene	ND		4.8	0.24	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Bromodichloromethane	ND		4.8	0.24	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Bromoform	ND		4.8	0.36	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Methyl bromide	ND		9.6	1.1	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
n-Butanol	ND		120	16	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
2-Butanone	ND		19	1.8	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Carbon disulfide	ND		4.8	0.66	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Carbon tetrachloride	ND		4.8	0.49	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Chlorobenzene	ND		4.8	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Chlorodibromomethane	ND		4.8	0.39	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Chloroethane	ND		9.6	0.50	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Chloroform	ND		4.8	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Chloromethane	ND		9.6	0.63	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2-Dibromo-3-Chloropropane	ND		9.6	1.4	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2-Dibromoethane	ND		4.8	0.67	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,1-Dichloroethane	ND		4.8	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2-Dichloroethane	ND		4.8	0.84	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
cis-1,2-Dichloroethene	ND		4.8	0.58	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
trans-1,2-Dichloroethene	ND		4.8	0.90	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,1-Dichloroethene	ND		4.8	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2-Dichloroethene, Total	ND		9.6	0.92	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2-Dichloropropane	ND		4.8	0.37	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
cis-1,3-Dichloropropene	ND		4.8	0.58	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
trans-1,3-Dichloropropene	ND		4.8	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Ethylbenzene	ND		4.8	0.29	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
2-Hexanone	ND		19	1.7	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Methylene Chloride	ND		4.8	1.5	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
4-Methyl-2-pentanone	ND		19	0.70	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Styrene	ND		4.8	0.34	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
<b>Tetrachloroethene</b>	<b>0.48 J</b>		4.8	0.31	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Toluene	ND		4.8	0.67	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,2,4-Trichlorobenzene	ND		4.8	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,1,1-Trichloroethane	ND		4.8	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
1,1,2-Trichloroethane	ND		4.8	0.55	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Trichloroethene	ND		4.8	0.38	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Vinyl acetate	ND		4.8	0.75	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Vinyl chloride	ND		4.8	0.41	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1
Xylenes, Total	ND		9.6	0.82	ug/Kg	☼	10/16/13 10:40	10/16/13 20:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		63 - 150	10/16/13 10:40	10/16/13 20:12	1
1,2-Dichloroethane-d4 (Surr)	110		72 - 127	10/16/13 10:40	10/16/13 20:12	1
Toluene-d8 (Surr)	95		80 - 120	10/16/13 10:40	10/16/13 20:12	1
Dibromofluoromethane (Surr)	105		70 - 126	10/16/13 10:40	10/16/13 20:12	1

TestAmerica St. Louis



# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0019-SO

Lab Sample ID: 160-4124-7

Date Collected: 10/14/13 14:45

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Acenaphthylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Benzo(a)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Benzo(b)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Benzo(k)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Benzo(g,h,i) perylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Benzo(a)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Chrysene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Dibenz(a,h)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Fluorene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Indeno(1,2,3-cd)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Naphthalene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Phenanthrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1
Pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	59		53 - 97	10/16/13 10:27	10/16/13 16:51	1
2,4,6-Tribromophenol (Surr)	49		46 - 111	10/16/13 10:27	10/16/13 16:51	1
Nitrobenzene-d5 (Surr)	66		55 - 98	10/16/13 10:27	10/16/13 16:51	1
Phenol-d5 (Surr)	59		54 - 101	10/16/13 10:27	10/16/13 16:51	1
Terphenyl-d14 (Surr)	77		58 - 123	10/16/13 10:27	10/16/13 16:51	1
2-Fluorobiphenyl (Surr)	64		56 - 97	10/16/13 10:27	10/16/13 16:51	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		1.1	0.71	mg/Kg	☼	10/18/13 09:31	10/18/13 13:39	2

Client Sample ID: 6703-03-L10-09-0020-SO

Lab Sample ID: 160-4124-8

Date Collected: 10/14/13 14:50

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Acenaphthylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Benzo(a)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Benzo(b)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Benzo(k)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Benzo(g,h,i) perylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Benzo(a)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Chrysene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Dibenz(a,h)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Fluorene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Indeno(1,2,3-cd)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Naphthalene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1
Phenanthrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0020-SO

Lab Sample ID: 160-4124-8

Date Collected: 10/14/13 14:50

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 86.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	64		53 - 97	10/16/13 10:27	10/16/13 17:22	1
2,4,6-Tribromophenol (Surr)	62		46 - 111	10/16/13 10:27	10/16/13 17:22	1
Nitrobenzene-d5 (Surr)	74		55 - 98	10/16/13 10:27	10/16/13 17:22	1
Phenol-d5 (Surr)	65		54 - 101	10/16/13 10:27	10/16/13 17:22	1
Terphenyl-d14 (Surr)	79		58 - 123	10/16/13 10:27	10/16/13 17:22	1
2-Fluorobiphenyl (Surr)	72		56 - 97	10/16/13 10:27	10/16/13 17:22	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		1.1	0.69	mg/Kg	☼	10/18/13 09:31	10/18/13 13:59	2

Client Sample ID: 6703-03-L10-09-0021-SO

Lab Sample ID: 160-4124-9

Date Collected: 10/14/13 14:55

Matrix: Solid

Date Received: 10/15/13 17:55

Percent Solids: 87.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Acenaphthylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Benzo(a)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Benzo(b)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Benzo(k)fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Benzo(g,h,i) perylene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Benzo(a)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Chrysene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Dibenz(a,h)anthracene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Fluoranthene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Fluorene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Indeno(1,2,3-cd)pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Naphthalene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Phenanthrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1
Pyrene	ND		380	38	ug/Kg	☼	10/16/13 10:27	10/16/13 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	62		53 - 97	10/16/13 10:27	10/16/13 17:54	1
2,4,6-Tribromophenol (Surr)	61		46 - 111	10/16/13 10:27	10/16/13 17:54	1
Nitrobenzene-d5 (Surr)	70		55 - 98	10/16/13 10:27	10/16/13 17:54	1
Phenol-d5 (Surr)	63		54 - 101	10/16/13 10:27	10/16/13 17:54	1
Terphenyl-d14 (Surr)	99		58 - 123	10/16/13 10:27	10/16/13 17:54	1
2-Fluorobiphenyl (Surr)	69		56 - 97	10/16/13 10:27	10/16/13 17:54	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.5		1.0	0.65	mg/Kg	☼	10/18/13 09:31	10/18/13 14:03	2

TestAmerica St. Louis

# Client Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

Client Sample ID: 6703-03-L10-09-0022-TB

Lab Sample ID: 160-4124-10

Date Collected: 10/14/13 14:00

Matrix: Water

Date Received: 10/15/13 17:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.070	ug/L			10/16/13 18:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			10/16/13 18:41	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			10/16/13 18:41	1
1,1-Dichloroethene	ND		1.0	0.080	ug/L			10/16/13 18:41	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			10/16/13 18:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.080	ug/L			10/16/13 18:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			10/16/13 18:41	1
1,2-Dichloroethane	ND		1.0	0.10	ug/L			10/16/13 18:41	1
1,2-Dichloroethene, Total	ND		2.0	0.15	ug/L			10/16/13 18:41	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			10/16/13 18:41	1
2-Butanone	ND		5.0	0.52	ug/L			10/16/13 18:41	1
2-Hexanone	ND		5.0	0.22	ug/L			10/16/13 18:41	1
4-Methyl-2-pentanone	ND		5.0	0.12	ug/L			10/16/13 18:41	1
Acetone	ND	*	2.0	0.34	ug/L			10/16/13 18:41	1
Benzene	ND		1.0	0.060	ug/L			10/16/13 18:41	1
Bromoform	ND		1.0	0.17	ug/L			10/16/13 18:41	1
Methyl bromide	ND		2.0	0.25	ug/L			10/16/13 18:41	1
Carbon disulfide	ND		1.0	0.050	ug/L			10/16/13 18:41	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			10/16/13 18:41	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/16/13 18:41	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			10/16/13 18:41	1
Chloroethane	ND		2.0	0.10	ug/L			10/16/13 18:41	1
Chloroform	ND		1.0	0.10	ug/L			10/16/13 18:41	1
Chloromethane	ND		2.0	0.080	ug/L			10/16/13 18:41	1
cis-1,2-Dichloroethene	ND		1.0	0.090	ug/L			10/16/13 18:41	1
cis-1,3-Dichloropropene	ND		1.0	0.070	ug/L			10/16/13 18:41	1
Bromodichloromethane	ND		1.0	0.090	ug/L			10/16/13 18:41	1
Ethylbenzene	ND		1.0	0.090	ug/L			10/16/13 18:41	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			10/16/13 18:41	1
Methylene Chloride	ND		1.0	0.27	ug/L			10/16/13 18:41	1
n-Butanol	ND		50	12	ug/L			10/16/13 18:41	1
Styrene	ND		1.0	0.070	ug/L			10/16/13 18:41	1
Tetrachloroethene	ND		1.0	0.18	ug/L			10/16/13 18:41	1
Toluene	ND		1.0	0.070	ug/L			10/16/13 18:41	1
trans-1,2-Dichloroethene	ND		1.0	0.080	ug/L			10/16/13 18:41	1
trans-1,3-Dichloropropene	ND		1.0	0.080	ug/L			10/16/13 18:41	1
Trichloroethene	ND		1.0	0.25	ug/L			10/16/13 18:41	1
Vinyl acetate	ND		2.0	0.18	ug/L			10/16/13 18:41	1
Vinyl chloride	ND		2.0	0.080	ug/L			10/16/13 18:41	1
Xylenes, Total	ND		3.0	0.20	ug/L			10/16/13 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 129		10/16/13 18:41	1
4-Bromofluorobenzene (Surr)	108		81 - 130		10/16/13 18:41	1
Dibromofluoromethane (Surr)	111		81 - 124		10/16/13 18:41	1
Toluene-d8 (Surr)	108		87 - 128		10/16/13 18:41	1

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: MB 160-79367/2

Matrix: Water

Analysis Batch: 79367

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.070	ug/L			10/16/13 11:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.10	ug/L			10/16/13 11:17	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			10/16/13 11:17	1
1,1-Dichloroethene	ND		1.0	0.080	ug/L			10/16/13 11:17	1
1,1-Dichloroethane	ND		1.0	0.070	ug/L			10/16/13 11:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.080	ug/L			10/16/13 11:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.41	ug/L			10/16/13 11:17	1
1,2-Dichloroethane	ND		1.0	0.10	ug/L			10/16/13 11:17	1
1,2-Dichloroethene, Total	ND		2.0	0.15	ug/L			10/16/13 11:17	1
1,2-Dichloropropane	ND		1.0	0.10	ug/L			10/16/13 11:17	1
2-Butanone	ND		5.0	0.52	ug/L			10/16/13 11:17	1
2-Hexanone	ND		5.0	0.22	ug/L			10/16/13 11:17	1
4-Methyl-2-pentanone	ND		5.0	0.12	ug/L			10/16/13 11:17	1
Acetone	ND		2.0	0.34	ug/L			10/16/13 11:17	1
Benzene	ND		1.0	0.060	ug/L			10/16/13 11:17	1
Bromoform	ND		1.0	0.17	ug/L			10/16/13 11:17	1
Methyl bromide	ND		2.0	0.25	ug/L			10/16/13 11:17	1
Carbon disulfide	ND		1.0	0.050	ug/L			10/16/13 11:17	1
Carbon tetrachloride	ND		1.0	0.13	ug/L			10/16/13 11:17	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/16/13 11:17	1
Chlorodibromomethane	ND		1.0	0.13	ug/L			10/16/13 11:17	1
Chloroethane	ND		2.0	0.10	ug/L			10/16/13 11:17	1
Chloroform	ND		1.0	0.10	ug/L			10/16/13 11:17	1
Chloromethane	ND		2.0	0.080	ug/L			10/16/13 11:17	1
cis-1,2-Dichloroethene	ND		1.0	0.090	ug/L			10/16/13 11:17	1
cis-1,3-Dichloropropene	ND		1.0	0.070	ug/L			10/16/13 11:17	1
Bromodichloromethane	ND		1.0	0.090	ug/L			10/16/13 11:17	1
Ethylbenzene	ND		1.0	0.090	ug/L			10/16/13 11:17	1
1,2-Dibromoethane	ND		1.0	0.13	ug/L			10/16/13 11:17	1
Methylene Chloride	ND		1.0	0.27	ug/L			10/16/13 11:17	1
n-Butanol	ND		50	12	ug/L			10/16/13 11:17	1
Styrene	ND		1.0	0.070	ug/L			10/16/13 11:17	1
Tetrachloroethene	ND		1.0	0.18	ug/L			10/16/13 11:17	1
Toluene	ND		1.0	0.070	ug/L			10/16/13 11:17	1
trans-1,2-Dichloroethene	ND		1.0	0.080	ug/L			10/16/13 11:17	1
trans-1,3-Dichloropropene	ND		1.0	0.080	ug/L			10/16/13 11:17	1
Trichloroethene	ND		1.0	0.25	ug/L			10/16/13 11:17	1
Vinyl acetate	ND		2.0	0.18	ug/L			10/16/13 11:17	1
Vinyl chloride	ND		2.0	0.080	ug/L			10/16/13 11:17	1
Xylenes, Total	ND		3.0	0.20	ug/L			10/16/13 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 129		10/16/13 11:17	1
4-Bromofluorobenzene (Surr)	112		81 - 130		10/16/13 11:17	1
Dibromofluoromethane (Surr)	111		81 - 124		10/16/13 11:17	1
Toluene-d8 (Surr)	109		87 - 128		10/16/13 11:17	1

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: LCS 160-79367/4

Matrix: Water

Analysis Batch: 79367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	85 - 116
1,1,1,2-Tetrachloroethane	10.0	9.46		ug/L		95	80 - 120
1,1,2-Trichloroethane	10.0	9.59		ug/L		96	80 - 120
1,1-Dichloroethene	10.0	9.58		ug/L		96	80 - 120
1,1-Dichloroethane	10.0	10.3		ug/L		103	80 - 120
1,2,4-Trichlorobenzene	10.0	9.84		ug/L		98	75 - 121
1,2-Dibromo-3-Chloropropane	10.0	8.71		ug/L		87	73 - 123
1,2-Dichloroethane	10.0	9.84		ug/L		98	80 - 115
1,2-Dichloroethene, Total	20.0	19.6		ug/L		98	80 - 120
1,2-Dichloropropane	10.0	9.97		ug/L		100	80 - 120
2-Butanone	10.0	9.48		ug/L		95	67 - 127
2-Hexanone	10.0	8.89		ug/L		89	70 - 123
4-Methyl-2-pentanone	10.0	7.88		ug/L		79	75 - 126
Acetone	10.0	8.77		ug/L		88	69 - 129
Benzene	10.0	9.96		ug/L		100	80 - 120
Bromoform	10.0	9.86		ug/L		99	80 - 120
Methyl bromide	10.0	11.6		ug/L		116	70 - 124
Carbon disulfide	10.0	10.1		ug/L		101	80 - 121
Carbon tetrachloride	10.0	10.2		ug/L		102	83 - 125
Chlorobenzene	10.0	9.84		ug/L		98	80 - 120
Chlorodibromomethane	10.0	9.53		ug/L		95	80 - 120
Chloroethane	10.0	9.64		ug/L		96	73 - 119
Chloroform	10.0	9.72		ug/L		97	80 - 120
Chloromethane	10.0	10.3		ug/L		103	72 - 124
cis-1,2-Dichloroethene	10.0	9.77		ug/L		98	80 - 120
cis-1,3-Dichloropropene	10.0	9.99		ug/L		100	80 - 120
Bromodichloromethane	10.0	10.0		ug/L		100	80 - 120
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
1,2-Dibromoethane	10.0	9.10		ug/L		91	80 - 120
Methylene Chloride	10.0	9.29		ug/L		93	80 - 120
n-Butanol	250	212		ug/L		85	62 - 128
Styrene	10.0	9.78		ug/L		98	81 - 133
Tetrachloroethene	10.0	9.79		ug/L		98	83 - 123
Toluene	10.0	9.99		ug/L		100	80 - 120
trans-1,2-Dichloroethene	10.0	9.85		ug/L		98	80 - 120
trans-1,3-Dichloropropene	10.0	10.0		ug/L		100	82 - 124
Trichloroethene	10.0	9.56		ug/L		96	80 - 120
Vinyl acetate	10.0	9.78		ug/L		98	63 - 140
Vinyl chloride	10.0	9.85		ug/L		99	77 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		75 - 129
4-Bromofluorobenzene (Surr)	97		81 - 130
Dibromofluoromethane (Surr)	107		81 - 124
Toluene-d8 (Surr)	98		87 - 128

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: LCSD 160-79367/5

Matrix: Water

Analysis Batch: 79367

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	85 - 116	0	20
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	80 - 120	8	20
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 120	5	20
1,1-Dichloroethene	10.0	9.56		ug/L		96	80 - 120	0	20
1,1-Dichloroethane	10.0	10.1		ug/L		101	80 - 120	2	20
1,2,4-Trichlorobenzene	10.0	10.1		ug/L		101	75 - 121	2	20
1,2-Dibromo-3-Chloropropane	10.0	10.0		ug/L		100	73 - 123	14	20
1,2-Dichloroethane	10.0	10.3		ug/L		103	80 - 115	5	20
1,2-Dichloroethene, Total	20.0	19.3		ug/L		97	80 - 120	2	20
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120	3	20
2-Butanone	10.0	10.5		ug/L		105	67 - 127	10	20
2-Hexanone	10.0	10.7		ug/L		107	70 - 123	18	20
4-Methyl-2-pentanone	10.0	9.00		ug/L		90	75 - 126	13	20
Acetone	10.0	11.1	*	ug/L		111	69 - 129	23	20
Benzene	10.0	9.96		ug/L		100	80 - 120	0	20
Bromoform	10.0	10.4		ug/L		104	80 - 120	5	20
Methyl bromide	10.0	11.5		ug/L		115	70 - 124	1	20
Carbon disulfide	10.0	9.95		ug/L		99	80 - 121	2	20
Carbon tetrachloride	10.0	10.1		ug/L		101	83 - 125	0	20
Chlorobenzene	10.0	9.83		ug/L		98	80 - 120	0	20
Chlorodibromomethane	10.0	10.2		ug/L		102	80 - 120	7	20
Chloroethane	10.0	9.38		ug/L		94	73 - 119	3	20
Chloroform	10.0	9.91		ug/L		99	80 - 120	2	20
Chloromethane	10.0	10.1		ug/L		101	72 - 124	2	20
cis-1,2-Dichloroethene	10.0	9.71		ug/L		97	80 - 120	1	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 120	4	20
Bromodichloromethane	10.0	10.3		ug/L		103	80 - 120	3	20
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120	2	20
1,2-Dibromoethane	10.0	9.69		ug/L		97	80 - 120	6	20
Methylene Chloride	10.0	9.54		ug/L		95	80 - 120	3	20
n-Butanol	250	243		ug/L		97	62 - 128	14	20
Styrene	10.0	10.0		ug/L		100	81 - 133	3	20
Tetrachloroethene	10.0	9.66		ug/L		97	83 - 123	1	20
Toluene	10.0	9.86		ug/L		99	80 - 120	1	20
trans-1,2-Dichloroethene	10.0	9.61		ug/L		96	80 - 120	2	20
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	82 - 124	4	20
Trichloroethene	10.0	9.28		ug/L		93	80 - 120	3	20
Vinyl acetate	10.0	10.6		ug/L		106	63 - 140	8	20
Vinyl chloride	10.0	9.51		ug/L		95	77 - 122	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		75 - 129
4-Bromofluorobenzene (Surr)	100		81 - 130
Dibromofluoromethane (Surr)	111		81 - 124
Toluene-d8 (Surr)	98		87 - 128

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: MB 160-79123/1-A

Matrix: Solid

Analysis Batch: 79538

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		20	6.5	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Benzene	ND		5.0	0.25	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Bromodichloromethane	ND		5.0	0.25	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Bromoform	ND		5.0	0.37	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Methyl bromide	ND		10	1.1	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
n-Butanol	ND		130	16	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
2-Butanone	ND		20	1.9	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Carbon disulfide	ND		5.0	0.69	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Carbon tetrachloride	ND		5.0	0.51	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Chlorobenzene	ND		5.0	0.38	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Chlorodibromomethane	ND		5.0	0.41	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Chloroethane	ND		10	0.52	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Chloroform	ND		5.0	0.38	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Chloromethane	ND		10	0.65	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2-Dibromo-3-Chloropropane	ND		10	1.5	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2-Dibromoethane	ND		5.0	0.70	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,1-Dichloroethane	ND		5.0	0.39	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2-Dichloroethane	ND		5.0	0.87	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
cis-1,2-Dichloroethene	ND		5.0	0.60	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
trans-1,2-Dichloroethene	ND		5.0	0.94	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,1-Dichloroethene	ND		5.0	1.6	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2-Dichloroethene, Total	ND		10	0.96	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2-Dichloropropane	ND		5.0	0.38	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
cis-1,3-Dichloropropene	ND		5.0	0.60	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
trans-1,3-Dichloropropene	ND		5.0	0.35	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Ethylbenzene	ND		5.0	0.30	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
2-Hexanone	ND		20	1.8	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Methylene Chloride	ND		5.0	1.6	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
4-Methyl-2-pentanone	ND		20	0.73	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Styrene	ND		5.0	0.35	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.40	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Tetrachloroethene	ND		5.0	0.32	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Toluene	ND		5.0	0.70	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,2,4-Trichlorobenzene	ND		5.0	0.43	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,1,1-Trichloroethane	ND		5.0	0.43	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
1,1,2-Trichloroethane	ND		5.0	0.57	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Trichloroethene	ND		5.0	0.39	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Vinyl acetate	ND		5.0	0.78	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Vinyl chloride	ND		5.0	0.43	ug/Kg		10/16/13 10:40	10/16/13 13:07	1
Xylenes, Total	ND		10	0.85	ug/Kg		10/16/13 10:40	10/16/13 13:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		63 - 150	10/16/13 10:40	10/16/13 13:07	1
1,2-Dichloroethane-d4 (Surr)	93		72 - 127	10/16/13 10:40	10/16/13 13:07	1
Toluene-d8 (Surr)	95		80 - 120	10/16/13 10:40	10/16/13 13:07	1
Dibromofluoromethane (Surr)	96		70 - 126	10/16/13 10:40	10/16/13 13:07	1

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: LCS 160-79123/2-A

Matrix: Solid

Analysis Batch: 79538

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	46.6		ug/Kg		93	59 - 129
Benzene	50.0	47.8		ug/Kg		96	80 - 120
Bromodichloromethane	50.0	49.1		ug/Kg		98	80 - 120
Bromoform	50.0	49.1		ug/Kg		98	84 - 126
Methyl bromide	50.0	46.9		ug/Kg		94	74 - 128
n-Butanol	1250	1550		ug/Kg		124	60 - 140
2-Butanone	50.0	50.9		ug/Kg		102	61 - 134
Carbon disulfide	50.0	49.9		ug/Kg		100	79 - 121
Carbon tetrachloride	50.0	50.5		ug/Kg		101	80 - 125
Chlorobenzene	50.0	48.7		ug/Kg		97	80 - 120
Chlorodibromomethane	50.0	50.9		ug/Kg		102	80 - 120
Chloroethane	50.0	49.2		ug/Kg		98	73 - 129
Chloroform	50.0	48.8		ug/Kg		98	80 - 120
Chloromethane	50.0	49.4		ug/Kg		99	70 - 129
1,2-Dibromo-3-Chloropropane	50.0	52.5		ug/Kg		105	75 - 129
1,2-Dibromoethane	50.0	50.2		ug/Kg		100	80 - 120
1,1-Dichloroethane	50.0	48.9		ug/Kg		98	80 - 120
1,2-Dichloroethane	50.0	48.6		ug/Kg		97	76 - 125
cis-1,2-Dichloroethene	50.0	50.4		ug/Kg		101	80 - 120
trans-1,2-Dichloroethene	50.0	52.3		ug/Kg		105	80 - 120
1,1-Dichloroethene	50.0	50.6		ug/Kg		101	80 - 120
1,2-Dichloroethene, Total	100	103		ug/Kg		103	80 - 120
1,2-Dichloropropane	50.0	47.4		ug/Kg		95	80 - 120
cis-1,3-Dichloropropene	50.0	49.7		ug/Kg		99	80 - 125
trans-1,3-Dichloropropene	50.0	49.7		ug/Kg		99	82 - 124
Ethylbenzene	50.0	48.5		ug/Kg		97	80 - 120
2-Hexanone	50.0	54.2		ug/Kg		108	71 - 127
Methylene Chloride	50.0	51.2		ug/Kg		102	80 - 120
4-Methyl-2-pentanone	50.0	49.1		ug/Kg		98	75 - 127
Styrene	50.0	50.6		ug/Kg		101	80 - 120
1,1,2,2-Tetrachloroethane	50.0	45.9		ug/Kg		92	78 - 121
Tetrachloroethene	50.0	48.0		ug/Kg		96	80 - 120
Toluene	50.0	49.2		ug/Kg		98	80 - 120
1,2,4-Trichlorobenzene	50.0	57.1		ug/Kg		114	75 - 124
1,1,1-Trichloroethane	50.0	48.9		ug/Kg		98	81 - 124
1,1,2-Trichloroethane	50.0	48.7		ug/Kg		97	80 - 120
Trichloroethene	50.0	46.9		ug/Kg		94	80 - 120
Vinyl acetate	50.0	53.1		ug/Kg		106	67 - 134
Vinyl chloride	50.0	50.2		ug/Kg		100	65 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		63 - 150
1,2-Dichloroethane-d4 (Surr)	96		72 - 127
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	100		70 - 126

TestAmerica St. Louis



# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: LCSD 160-79123/3-A

Matrix: Solid

Analysis Batch: 79538

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 79123

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	50.0	48.7		ug/Kg		97	59 - 129	4	20
Benzene	50.0	47.9		ug/Kg		96	80 - 120	0	20
Bromodichloromethane	50.0	50.0		ug/Kg		100	80 - 120	2	20
Bromoform	50.0	49.0		ug/Kg		98	84 - 126	0	20
Methyl bromide	50.0	44.6		ug/Kg		89	74 - 128	5	20
n-Butanol	1250	1530		ug/Kg		122	60 - 140	1	20
2-Butanone	50.0	59.1		ug/Kg		118	61 - 134	15	20
Carbon disulfide	50.0	48.4		ug/Kg		97	79 - 121	3	20
Carbon tetrachloride	50.0	48.7		ug/Kg		97	80 - 125	4	20
Chlorobenzene	50.0	48.2		ug/Kg		96	80 - 120	1	20
Chlorodibromomethane	50.0	49.8		ug/Kg		100	80 - 120	2	20
Chloroethane	50.0	48.1		ug/Kg		96	73 - 129	2	20
Chloroform	50.0	48.6		ug/Kg		97	80 - 120	0	20
Chloromethane	50.0	48.9		ug/Kg		98	70 - 129	1	20
1,2-Dibromo-3-Chloropropane	50.0	52.8		ug/Kg		106	75 - 129	1	20
1,2-Dibromoethane	50.0	49.9		ug/Kg		100	80 - 120	1	20
1,1-Dichloroethane	50.0	48.9		ug/Kg		98	80 - 120	0	20
1,2-Dichloroethane	50.0	48.4		ug/Kg		97	76 - 125	0	20
cis-1,2-Dichloroethene	50.0	51.0		ug/Kg		102	80 - 120	1	20
trans-1,2-Dichloroethene	50.0	51.6		ug/Kg		103	80 - 120	1	20
1,1-Dichloroethene	50.0	49.8		ug/Kg		100	80 - 120	1	20
1,2-Dichloroethene, Total	100	103		ug/Kg		103	80 - 120	0	20
1,2-Dichloropropane	50.0	49.8		ug/Kg		100	80 - 120	5	20
cis-1,3-Dichloropropene	50.0	51.3		ug/Kg		103	80 - 125	3	20
trans-1,3-Dichloropropene	50.0	49.0		ug/Kg		98	82 - 124	2	20
Ethylbenzene	50.0	48.3		ug/Kg		97	80 - 120	0	20
2-Hexanone	50.0	55.4		ug/Kg		111	71 - 127	2	20
Methylene Chloride	50.0	50.7		ug/Kg		101	80 - 120	1	20
4-Methyl-2-pentanone	50.0	48.1		ug/Kg		96	75 - 127	2	20
Styrene	50.0	50.3		ug/Kg		101	80 - 120	1	20
1,1,2,2-Tetrachloroethane	50.0	46.5		ug/Kg		93	78 - 121	1	20
Tetrachloroethene	50.0	48.9		ug/Kg		98	80 - 120	2	20
Toluene	50.0	49.7		ug/Kg		99	80 - 120	1	20
1,2,4-Trichlorobenzene	50.0	54.6		ug/Kg		109	75 - 124	4	20
1,1,1-Trichloroethane	50.0	47.7		ug/Kg		95	81 - 124	2	20
1,1,2-Trichloroethane	50.0	50.0		ug/Kg		100	80 - 120	3	20
Trichloroethene	50.0	46.9		ug/Kg		94	80 - 120	0	20
Vinyl acetate	50.0	50.9		ug/Kg		102	67 - 134	4	20
Vinyl chloride	50.0	49.1		ug/Kg		98	65 - 123	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		63 - 150
1,2-Dichloroethane-d4 (Surr)	98		72 - 127
Toluene-d8 (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	101		70 - 126

TestAmerica St. Louis

# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: MB 160-79122/1-A

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Acenaphthylene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Anthracene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Benzo(a)anthracene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Benzo(b)fluoranthene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Benzo(k)fluoranthene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Benzo(g,h,i) perylene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Benzo(a)pyrene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Chrysene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Dibenz(a,h)anthracene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Fluoranthene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Fluorene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Indeno(1,2,3-cd)pyrene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Naphthalene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Phenanthrene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1
Pyrene	ND		330	33	ug/Kg		10/16/13 10:27	10/16/13 15:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	82		53 - 97	10/16/13 10:27	10/16/13 15:16	1
2,4,6-Tribromophenol (Surr)	71		46 - 111	10/16/13 10:27	10/16/13 15:16	1
Nitrobenzene-d5 (Surr)	89		55 - 98	10/16/13 10:27	10/16/13 15:16	1
Phenol-d5 (Surr)	83		54 - 101	10/16/13 10:27	10/16/13 15:16	1
Terphenyl-d14 (Surr)	96		58 - 123	10/16/13 10:27	10/16/13 15:16	1
2-Fluorobiphenyl (Surr)	88		56 - 97	10/16/13 10:27	10/16/13 15:16	1

Lab Sample ID: LCS 160-79122/2-A

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	3330	2660		ug/Kg		80	63 - 95
Acenaphthylene	3330	2700		ug/Kg		81	62 - 98
Anthracene	3330	2760		ug/Kg		83	63 - 100
Benzo(a)anthracene	3330	3000		ug/Kg		90	74 - 114
Benzo(b)fluoranthene	3330	2770		ug/Kg		83	68 - 109
Benzo(k)fluoranthene	3330	2880		ug/Kg		86	69 - 111
Benzo(g,h,i) perylene	3330	2670		ug/Kg		80	67 - 121
Benzo(a)pyrene	3330	2740		ug/Kg		82	63 - 103
Chrysene	3330	2630		ug/Kg		79	66 - 100
Dibenz(a,h)anthracene	3330	2710		ug/Kg		81	67 - 114
Fluoranthene	3330	2690		ug/Kg		81	63 - 101
Fluorene	3330	2540		ug/Kg		76	62 - 96
Indeno(1,2,3-cd)pyrene	3330	2760		ug/Kg		83	65 - 120
Naphthalene	3330	2520		ug/Kg		76	60 - 90
Phenanthrene	3330	2780		ug/Kg		84	63 - 99
Pyrene	3330	2850		ug/Kg		85	64 - 102

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# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: LCS 160-79122/2-A

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	73		53 - 97
2,4,6-Tribromophenol (Surr)	69		46 - 111
Nitrobenzene-d5 (Surr)	81		55 - 98
Phenol-d5 (Surr)	75		54 - 101
Terphenyl-d14 (Surr)	76		58 - 123
2-Fluorobiphenyl (Surr)	81		56 - 97

Lab Sample ID: 160-4123-B-4-B MS

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 79122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		4220	3250		ug/Kg	☼	77	57 - 94
Acenaphthylene	ND		4220	3320		ug/Kg	☼	79	57 - 97
Anthracene	ND		4220	3560		ug/Kg	☼	84	58 - 99
Benzo(a)anthracene	ND		4220	3940		ug/Kg	☼	94	68 - 114
Benzo(b)fluoranthene	ND		4220	3570		ug/Kg	☼	85	63 - 107
Benzo(k)fluoranthene	ND		4220	3790		ug/Kg	☼	90	65 - 108
Benzo(g,h,i) perylene	ND		4220	3630		ug/Kg	☼	86	54 - 127
Benzo(a)pyrene	ND		4220	3570		ug/Kg	☼	85	61 - 102
Chrysene	ND		4220	3460		ug/Kg	☼	82	61 - 100
Dibenz(a,h)anthracene	ND		4220	3690		ug/Kg	☼	87	59 - 118
Fluoranthene	ND		4220	3600		ug/Kg	☼	85	58 - 103
Fluorene	ND		4220	3240		ug/Kg	☼	77	58 - 97
Indeno(1,2,3-cd)pyrene	ND		4220	3780		ug/Kg	☼	90	56 - 123
Naphthalene	ND		4220	2740		ug/Kg	☼	65	52 - 86
Phenanthrene	ND		4220	3620		ug/Kg	☼	86	60 - 98
Pyrene	ND		4220	3620		ug/Kg	☼	86	53 - 106

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol (Surr)	65		53 - 97
2,4,6-Tribromophenol (Surr)	73		46 - 111
Nitrobenzene-d5 (Surr)	74		55 - 98
Phenol-d5 (Surr)	67		54 - 101
Terphenyl-d14 (Surr)	91		58 - 123
2-Fluorobiphenyl (Surr)	78		56 - 97

Lab Sample ID: 160-4123-B-4-C MSD

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 79122

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		4190	3290		ug/Kg	☼	78	57 - 94	1	30
Acenaphthylene	ND		4190	3340		ug/Kg	☼	80	57 - 97	1	30
Anthracene	ND		4190	3550		ug/Kg	☼	85	58 - 99	0	30
Benzo(a)anthracene	ND		4190	3910		ug/Kg	☼	93	68 - 114	1	30
Benzo(b)fluoranthene	ND		4190	3590		ug/Kg	☼	86	63 - 107	1	30
Benzo(k)fluoranthene	ND		4190	3670		ug/Kg	☼	88	65 - 108	3	30

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# QC Sample Results

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Lab Sample ID: 160-4123-B-4-C MSD

Matrix: Solid

Analysis Batch: 79507

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 79122

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo(g,h,i) perylene	ND		4190	3680		ug/Kg	✱	88	54 - 127	1	30
Benzo(a)pyrene	ND		4190	3550		ug/Kg	✱	85	61 - 102	1	30
Chrysene	ND		4190	3450		ug/Kg	✱	82	61 - 100	1	30
Dibenz(a,h)anthracene	ND		4190	3760		ug/Kg	✱	90	59 - 118	2	30
Fluoranthene	ND		4190	3510		ug/Kg	✱	84	58 - 103	3	30
Fluorene	ND		4190	3230		ug/Kg	✱	77	58 - 97	0	30
Indeno(1,2,3-cd)pyrene	ND		4190	3850		ug/Kg	✱	92	56 - 123	2	30
Naphthalene	ND		4190	2840		ug/Kg	✱	68	52 - 86	3	30
Phenanthrene	ND		4190	3590		ug/Kg	✱	86	60 - 98	1	30
Pyrene	ND		4190	3630		ug/Kg	✱	87	53 - 106	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorophenol (Surr)	68		53 - 97
2,4,6-Tribromophenol (Surr)	70		46 - 111
Nitrobenzene-d5 (Surr)	77		55 - 98
Phenol-d5 (Surr)	72		54 - 101
Terphenyl-d14 (Surr)	77		58 - 123
2-Fluorobiphenyl (Surr)	80		56 - 97

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-79708/1-A

Matrix: Solid

Analysis Batch: 79757

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.49	0.31	mg/Kg		10/18/13 09:31	10/18/13 13:32	1

Lab Sample ID: LCS 160-79708/2-A

Matrix: Solid

Analysis Batch: 79757

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	90.8	95.2		mg/Kg		105	70 - 131

Lab Sample ID: 160-4124-7 MS

Matrix: Solid

Analysis Batch: 79757

Client Sample ID: 6703-03-L10-09-0019-SO

Prep Type: Total/NA

Prep Batch: 79708

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.2		114	98.9		mg/Kg	✱	80	75 - 125

Lab Sample ID: 160-4124-7 MSD

Matrix: Solid

Analysis Batch: 79757

Client Sample ID: 6703-03-L10-09-0019-SO

Prep Type: Total/NA

Prep Batch: 79708

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	7.2		102	89.4		mg/Kg	✱	80	75 - 125	10	30

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# QC Association Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

## GC/MS VOA

### Prep Batch: 79123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-1	6703-03-L10-09-0013-SO	Total/NA	Solid	5035	
160-4124-2	6703-03-L10-09-0014-SO	Total/NA	Solid	5035	
160-4124-3	6703-03-L10-09-0015-SO	Total/NA	Solid	5035	
160-4124-4	6703-03-L10-09-0016-SO	Total/NA	Solid	5035	
160-4124-5	6703-03-L10-09-0017-SO	Total/NA	Solid	5035	
160-4124-6	6703-03-L10-09-0018-SO	Total/NA	Solid	5035	
LCS 160-79123/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 160-79123/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 160-79123/1-A	Method Blank	Total/NA	Solid	5035	

### Analysis Batch: 79367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-10	6703-03-L10-09-0022-TB	Total/NA	Water	8260C	
LCS 160-79367/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-79367/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-79367/2	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 79538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-1	6703-03-L10-09-0013-SO	Total/NA	Solid	8260C	79123
160-4124-2	6703-03-L10-09-0014-SO	Total/NA	Solid	8260C	79123
160-4124-3	6703-03-L10-09-0015-SO	Total/NA	Solid	8260C	79123
160-4124-4	6703-03-L10-09-0016-SO	Total/NA	Solid	8260C	79123
160-4124-5	6703-03-L10-09-0017-SO	Total/NA	Solid	8260C	79123
160-4124-6	6703-03-L10-09-0018-SO	Total/NA	Solid	8260C	79123
LCS 160-79123/2-A	Lab Control Sample	Total/NA	Solid	8260C	79123
LCSD 160-79123/3-A	Lab Control Sample Dup	Total/NA	Solid	8260C	79123
MB 160-79123/1-A	Method Blank	Total/NA	Solid	8260C	79123

## GC/MS Semi VOA

### Prep Batch: 79122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4123-B-4-B MS	Matrix Spike	Total/NA	Solid	3550C	
160-4123-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
160-4124-7	6703-03-L10-09-0019-SO	Total/NA	Solid	3550C	
160-4124-8	6703-03-L10-09-0020-SO	Total/NA	Solid	3550C	
160-4124-9	6703-03-L10-09-0021-SO	Total/NA	Solid	3550C	
LCS 160-79122/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 160-79122/1-A	Method Blank	Total/NA	Solid	3550C	

### Analysis Batch: 79507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4123-B-4-B MS	Matrix Spike	Total/NA	Solid	8270D	79122
160-4123-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	79122
160-4124-7	6703-03-L10-09-0019-SO	Total/NA	Solid	8270D	79122
160-4124-8	6703-03-L10-09-0020-SO	Total/NA	Solid	8270D	79122
160-4124-9	6703-03-L10-09-0021-SO	Total/NA	Solid	8270D	79122
LCS 160-79122/2-A	Lab Control Sample	Total/NA	Solid	8270D	79122
MB 160-79122/1-A	Method Blank	Total/NA	Solid	8270D	79122

TestAmerica St. Louis

## QC Association Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

### Metals

#### Prep Batch: 79708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-7	6703-03-L10-09-0019-SO	Total/NA	Solid	3050B	
160-4124-7 MS	6703-03-L10-09-0019-SO	Total/NA	Solid	3050B	
160-4124-7 MSD	6703-03-L10-09-0019-SO	Total/NA	Solid	3050B	
160-4124-8	6703-03-L10-09-0020-SO	Total/NA	Solid	3050B	
160-4124-9	6703-03-L10-09-0021-SO	Total/NA	Solid	3050B	
LCS 160-79708/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 160-79708/1-A	Method Blank	Total/NA	Solid	3050B	

#### Analysis Batch: 79757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-7	6703-03-L10-09-0019-SO	Total/NA	Solid	6010C	79708
160-4124-7 MS	6703-03-L10-09-0019-SO	Total/NA	Solid	6010C	79708
160-4124-7 MSD	6703-03-L10-09-0019-SO	Total/NA	Solid	6010C	79708
160-4124-8	6703-03-L10-09-0020-SO	Total/NA	Solid	6010C	79708
160-4124-9	6703-03-L10-09-0021-SO	Total/NA	Solid	6010C	79708
LCS 160-79708/2-A	Lab Control Sample	Total/NA	Solid	6010C	79708
MB 160-79708/1-A	Method Blank	Total/NA	Solid	6010C	79708

### General Chemistry

#### Analysis Batch: 79097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-4124-1	6703-03-L10-09-0013-SO	Total/NA	Solid	Moisture	
160-4124-2	6703-03-L10-09-0014-SO	Total/NA	Solid	Moisture	
160-4124-3	6703-03-L10-09-0015-SO	Total/NA	Solid	Moisture	
160-4124-4	6703-03-L10-09-0016-SO	Total/NA	Solid	Moisture	
160-4124-5	6703-03-L10-09-0017-SO	Total/NA	Solid	Moisture	
160-4124-6	6703-03-L10-09-0018-SO	Total/NA	Solid	Moisture	
160-4124-7	6703-03-L10-09-0019-SO	Total/NA	Solid	Moisture	
160-4124-8	6703-03-L10-09-0020-SO	Total/NA	Solid	Moisture	
160-4124-9	6703-03-L10-09-0021-SO	Total/NA	Solid	Moisture	
160-4124-9 DU	6703-03-L10-09-0021-SO	Total/NA	Solid	Moisture	

## Surrogate Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-129)	BFB (81-130)	DBFM (81-124)	TOL (87-128)
160-4124-10	6703-03-L10-09-0022-TB	101	108	111	108
LCS 160-79367/4	Lab Control Sample	98	97	107	98
LCSD 160-79367/5	Lab Control Sample Dup	104	100	111	98
MB 160-79367/2	Method Blank	103	112	111	109

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (63-150)	12DCE (72-127)	TOL (80-120)	DBFM (70-126)
160-4124-1	6703-03-L10-09-0013-SO	101	107	97	107
160-4124-2	6703-03-L10-09-0014-SO	100	106	94	105
160-4124-3	6703-03-L10-09-0015-SO	100	107	102	106
160-4124-4	6703-03-L10-09-0016-SO	99	108	97	109
160-4124-5	6703-03-L10-09-0017-SO	99	107	95	105
160-4124-6	6703-03-L10-09-0018-SO	97	110	95	105
LCS 160-79123/2-A	Lab Control Sample	98	96	102	100
LCSD 160-79123/3-A	Lab Control Sample Dup	103	98	102	101
MB 160-79123/1-A	Method Blank	94	93	95	96

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (53-97)	TBP (46-111)	NBZ (55-98)	PHL (54-101)	TPH (58-123)	FBP (56-97)
160-4123-B-4-B MS	Matrix Spike	65	73	74	67	91	78
160-4123-B-4-C MSD	Matrix Spike Duplicate	68	70	77	72	77	80
160-4124-7	6703-03-L10-09-0019-SO	59	49	66	59	77	64
160-4124-8	6703-03-L10-09-0020-SO	64	62	74	65	79	72
160-4124-9	6703-03-L10-09-0021-SO	62	61	70	63	99	69
LCS 160-79122/2-A	Lab Control Sample	73	69	81	75	76	81
MB 160-79122/1-A	Method Blank	82	71	89	83	96	88

#### Surrogate Legend

2FP = 2-Fluorophenol (Surr)

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

TestAmerica St. Louis

Surrogate Summary

Client: Westinghouse Electric Company LLC  
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-4124-1

- NBZ = Nitrobenzene-d5 (Surr)
- PHL = Phenol-d5 (Surr)
- TPH = Terphenyl-d14 (Surr)
- FBP = 2-Fluorobiphenyl (Surr)

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