



## Field & Technical Services

200 Third Avenue ♦ Carnegie, PA 15106 ♦ Phone: 412-429-2694 ♦ Fax: 412-279-4512

November 30, 2017

Mr. Chris Saari  
Wisconsin Department of Natural Resources  
2501 Golf Course Road  
Ashland, WI 54806

**RE: Second Semi-Annual 2017 RCRA Groundwater Monitoring Results  
Former Koppers Inc. Superior, Wisconsin Facility  
WID 006 179 493**

Dear Mr. Saari:

On behalf of Beazer East, Inc. (Beazer), Field & Technical Services, LLC (FTS) is submitting to the Wisconsin Department of Natural Resources (WDNR) the Second Semi-Annual 2017 Resource Conservation and Recovery Act (RCRA) Groundwater Monitoring Results for the referenced facility. Appendix A includes one copy of the groundwater monitoring data certification for the subject groundwater monitoring event.

### BACKGROUND

Monitoring wells in the vicinity of the closed surface impoundments were sampled and analyzed in accordance with the following documents:

- The Conditional Closure and Long-Term Care Plan Approval (WDNR, October 1, 1987);
- Long-Term Care Plan Approval Modification (October 29, 2002);
- Groundwater Monitoring Sampling and Analysis Plan (April 2002); and
- Wisconsin Administrative Code Chapter NR 664 subchapter (F) (formerly NR 635).

The wells that comprise the currently approved RCRA monitoring well network for the closed surface impoundment are as follows:

W-04AR2	W-06A	W-06C	W-10AR2	W-12A
W-12CR	W-28C	W-30A	W-30C	

Groundwater samples were collected and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) from monitoring wells W-04AR2, W-06A, W-06C, W-10AR2, W-12A, W-12CR, W-28C, W-30A, and W-30C during the second semi-annual 2017 event. Monitoring well W-04AR could not be sampled during the first semi-annual 2017 event due to significant damage of its inner casing. Damaged monitoring well W-04AR was abandoned and replaced with W-04AR2 prior to the second semi-annual 2017 event.

In addition to these wells, a groundwater sample was collected and analyzed for SVOCs from monitoring well W-18D in conjunction with this monitoring event. Well W-18D is not a required component of the approved monitoring program, but was sampled at Beazer's discretion above and beyond the requirements of the program.

The locations of the wells included in the groundwater monitoring program are shown on Figure B-1, provided in Appendix B. The subject sampling event was conducted from October 3, 2017 through October 5, 2017. The sampling effort was led by Mr. Brendan Rick, FTS Field Technician.

In accordance with the documents listed above, the following items are included in this report:

- One signed copy of the Groundwater Monitoring Data Certification Statement (Appendix A);
- Well location map (Appendix B);
- Summary of detected constituents and Preventive Action Limit (PAL), Enforcement Standard (ES), and Maximum Contaminant Level (MCL) exceedances (Table 1 of Appendix C);
- Summary of analytical data (Table 2 of Appendix C);
- Data Evaluation Summary (Appendix D);
- A hard copy of the laboratory analytical data, including trip blank, equipment blank, and field duplicate results (Appendix E);
- A hard copy of the printout of the ASCII formatted data (Appendix F); and
- An electronic version of the laboratory analytical data (enclosed CD).

## SUMMARY OF ANALYTICAL RESULTS

The detected constituents are summarized and compared to the PALs, ESs, and MCLs in Table 1 of Appendix C. Table 2 in Appendix C summarizes all laboratory analytical data. As indicated in Table 1 of Appendix C, exceedances of the PALs, ESs, and MCLs were noted for the following parameters and wells:

Parameter	Regulatory Standard (ug/L)	Wells
<b>MCL Exceedance</b>		
Benzene	5	W-10AR2, W-30A
Benzo(a)pyrene	0.2	W-30A
<b>ES Exceedance</b>		
Benzene	5	W-10AR2, W-30A
Benzo(a)pyrene	0.2	W-30A
Benzo(b)fluoranthene	0.2	W-30A
Chrysene	0.2	W-30A
<b>PAL Exceedance</b>		
Benzene	0.5	W-10AR2, W-30A
Benzo(a)pyrene	0.02	W-30A
Benzo(b)fluoranthene	0.02	W-30A
Chrysene	0.02	W-04AR2 DUP, W-30A
Naphthalene	10	W-30A

Based on these results, three wells (W-04AR2 duplicate sample, W-10AR2, and W-30A) had concentrations of one or more constituents above a regulatory standard. Note that the primary sample collected from background well W-04AR2 was non-detect for the constituent chrysene. The Groundwater Monitoring Data Certification form, provided as Appendix A, indicates that some of the data associated with the second semi-annual 2017 sampling event exceeded the Wisconsin PALs and ESs.

The data evaluation performed by FTS for the second semi-annual 2017 sampling event (Appendix D) indicated that the data quality was acceptable and no qualification was necessary.

In general, the groundwater standard exceedances should continue to be viewed in light of the ongoing Site-wide RCRA corrective action program and the approved natural attenuation remedy for groundwater. Therefore, in reviewing the second semi-annual 2017 data in reference to NR 140.24 and NR 140.26, no additional action beyond continued monitoring is necessary.

If you should have any questions regarding this correspondence, please do not hesitate to contact Ms. Jane Patarcity of Beazer at 412-208-8813 or Ms. Angela Gatchie of FTS at 412-428-9411.

Sincerely,

**Field & Technical Services LLC**



Angela Gatchie  
Project Scientist

Attachments (Original Report and electronic copy)

cc: J. Patarcity, Beazer (electronic copy only)  
L. Paul, Koppers (electronic copy only)  
D. Bessingpas, ARCADIS (.pdf transmittal)  
S. Ashenbrucker, WDNR  
GEMS Database, WDNR  
T. Peterson, TRP Properties, LLC

**APPENDIX A**  
**GROUNDWATER MONITORING DATA CERTIFICATION**



Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5  
Bureau of Waste Management  
Wisconsin Department of Natural Resources  
101 South Webster Street  
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Field & Technical Services, LLC

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Angela Gatchie

Phone: (412) 428-9411

E-mail: agatchie.2006@f-ts.com

Facility name:	License # / Monitoring ID	Facility ID [ FID ]	Actual sampling dates (e.g., July 2-6, 2003)
Former Koppers, Inc. Facility	03046		October 4 - October 5, 2017

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

October 2017

Type of Data Submitted (Check all that apply)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data   |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells  | <input type="checkbox"/> Air monitoring data   |
| <input type="checkbox"/> Leachate monitoring data                                     | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Jane Patarcity

Manager, Environmental Svcs. (412) 208-8813

Facility Representative Name (Print)

Title

(Area Code) Telephone No.

Signature

Date

11-30-17

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on \_\_\_\_\_ Initials \_\_\_\_\_

Notified contact of problems on \_\_\_\_\_ Uploaded data successfully on \_\_\_\_\_

EDD format(s):  Diskette  CD (initial submittal and follow-up)  E-mail (follow-up only)  Other \_\_\_\_\_

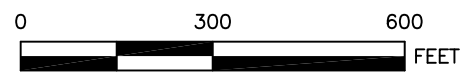
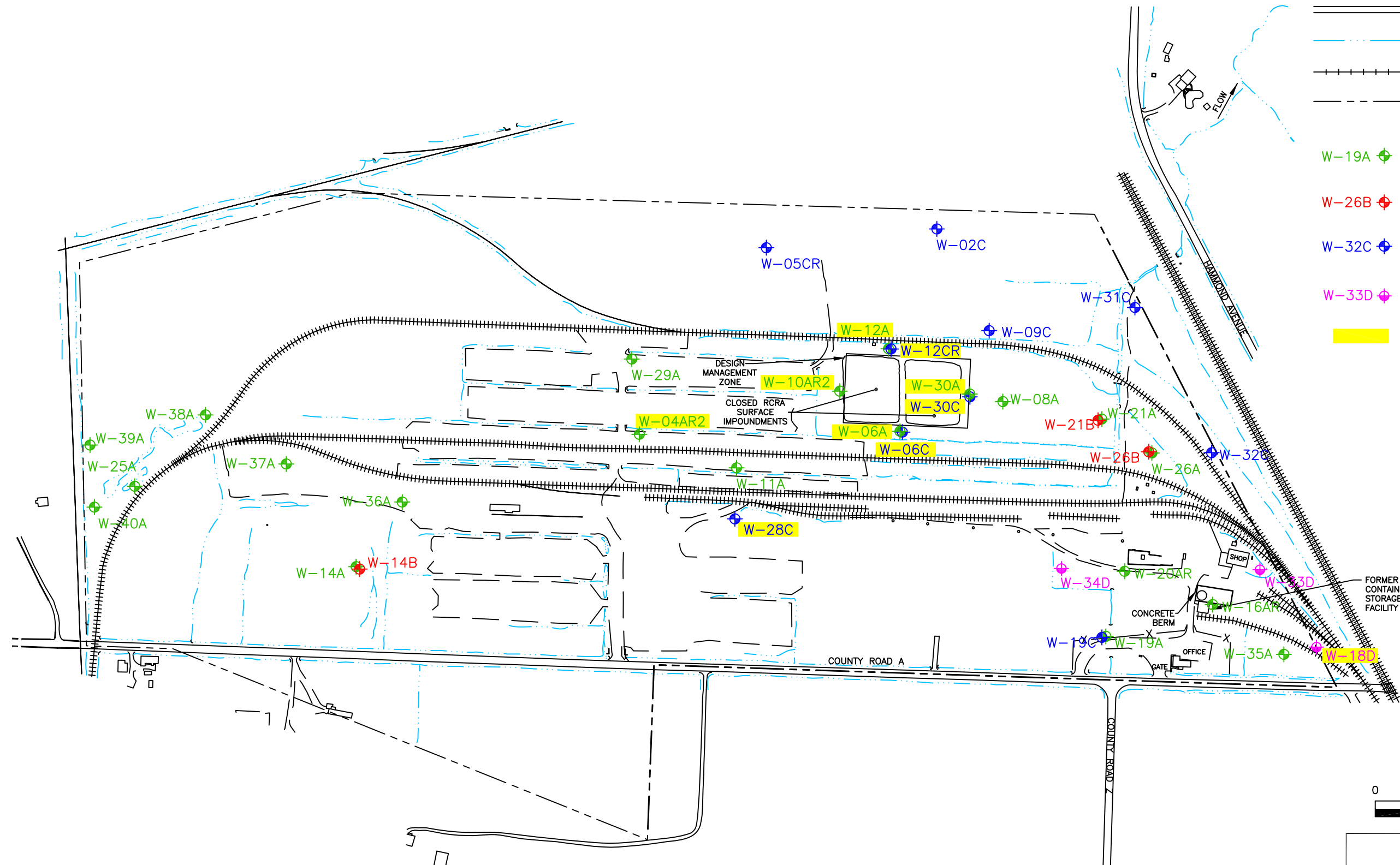
**APPENDIX B**  
**WELL LOCATION MAP**





### LEGEND

- ROAD
- STREAM OR DITCH
- RAILROAD TRACKS
- APPROXIMATE PROPERTY BOUNDARY
- W-19A A ZONE GROUNDWATER MONITORING WELL
- W-26B B ZONE GROUNDWATER MONITORING WELL
- W-32C C ZONE GROUNDWATER MONITORING WELL
- W-33D BEDROCK ZONE GROUNDWATER MONITORING WELL
- SAMPLED WELL LOCATION



BEAZER EAST, INC.  
PITTSBURGH, PENNSYLVANIA

DRWN: KC	DATE: 11/14/17
CHKD: AMG	DATE: 11/14/17
APPD: JSZ	DATE: 11/17/17
SCALE: AS SHOWN	
ISSUE DATE:	



FIELD & TECHNICAL SERVICES, LLC  
200 THIRD AVENUE  
CARNEGIE, PA 15106

FORMER KOPPERS INC. FACILITY  
SUPERIOR, WISCONSIN

WELL LOCATIONS

PROJECT NO: 0M055617  
DRAWING NUMBER  
FIGURE B-1

REFERENCE: WISCONSIN STATE PLANNER COORDINATE SYSTEM.  
NOTE: MONITORING WELL W-04AR WAS NOT SAMPLED DURING THIS EVENT DUE TO INNER CASING DAMAGE.

REV #	DATE	DESCRIPTION	APPD

c:\projects\beazer\_projects\superior\cadd\2nd\_semi-annual\_2017\figure\_b-1.dwg Last Saved By: kchinnella 11/14/2017 8:53 AM Plotted By: Kendra L. Chinnella 11/14/2017 8:53 AM Scale: 1:1



# APPENDIX C

## TABLES



**Table 1**  
**Summary of Detected Constituents**  
**Second Semi-Annual 2017 Sampling Event**  
**Superior Facility**  
**Superior, Wisconsin**

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
<b>8270D</b>					
W-10AR2	1-Methylnaphthalene	23	NA	NA	NA
W-30A	1-Methylnaphthalene	8.1	NA	NA	NA
W-10AR2	Acenaphthene	50	NA	NA	NA
W-30A	Acenaphthene	28	NA	NA	NA
W-10AR2	Acenaphthylene	0.56 J	NA	NA	NA
W-30A	Acenaphthylene	0.41 J	NA	NA	NA
W-04AR2	Anthracene	0.55 J	600	3000	NA
W-04AR2 DUP	Anthracene	0.53 J	600	3000	NA
W-10AR2	Anthracene	0.43 J	600	3000	NA
W-30A	Anthracene	0.86 J	600	3000	NA
W-04AR2 DUP	Benzo(a)anthracene	0.18 J	NA	NA	NA
W-30A	Benzo(a)anthracene	0.74	NA	NA	NA
W-30A	Benzo(a)pyrene	0.29	0.02	0.2	0.2
W-30A	Benzo(b)fluoranthene	0.36	0.02	0.2	NA
W-30A	Benzo(k)fluoranthene	0.23	NA	NA	NA
W-04AR2 DUP	Chrysene	0.16 J	0.02	0.2	NA
W-30A	Chrysene	0.62	0.02	0.2	NA
W-10AR2	Dibenzofuran	13	NA	NA	NA
W-30A	Dibenzofuran	9.7	NA	NA	NA
W-04AR2 DUP	Fluoranthene	0.38 J	80	400	NA
W-10AR2	Fluoranthene	1.2	80	400	NA
W-30A	Fluoranthene	3.5	80	400	NA
W-10AR2	Fluorene	12	80	400	NA
W-30A	Fluorene	5.9	80	400	NA
W-10AR2	Phenanthrene	1.4	NA	NA	NA
W-30A	Phenanthrene	1.3	NA	NA	NA
W-10AR2	Pyrene	0.77 J	50	250	NA
W-30A	Pyrene	2.8	50	250	NA

**Table 1**  
**Summary of Detected Constituents**  
**Second Semi-Annual 2017 Sampling Event**  
**Superior Facility**  
**Superior, Wisconsin**

Location	Parameter	Results ug/L	PAL ug/L	ES ug/L	MCL ug/L
<b>8260C</b>					
W-10AR2	1,2,4-Trimethylbenzene	6.5	96*	480*	NA
W-30A	1,2,4-Trimethylbenzene	5.4	96*	480*	NA
W-10AR2	Benzene	16	0.5	5	5
W-30A	Benzene	11	0.5	5	5
W-10AR2	Ethylbenzene	33	140	700	700
W-30A	Ethylbenzene	21	140	700	700
W-10AR2	Naphthalene	1.7	10	100	NA
W-30A	Naphthalene	26	10	100	NA
W-30A	n-Butylbenzene	13	NA	NA	NA
W-10AR2	Toluene	5	160	800	1000
W-30A	Toluene	1.6	160	800	1000
W-10AR2	Xylene, Meta & Para	3.9	400**	2000**	10000**
W-30A	Xylene, Meta & Para	3.3	400**	2000**	10000**
W-10AR2	Xylene, Ortho	15	400**	2000**	10000**
W-30A	Xylene, Ortho	5.2	400**	2000**	10000**

**Notes:**

- Indicates the detected value exceeds one or more specified standards.

PAL - Preventative Action Limit

MCL - Maximum Contaminant Levels for drinking water

ES - Enforcement Standard

NA - Not available

J - Estimated

\* - Total trimethylbenzene standard

\*\* - Total xylene standard

**Table 2**  
**Analytical Summary - Second Semi-Annual 2017 Groundwater Data**  
**Second Semi-Annual 2017 Sampling Event**  
**Superior Facility**  
**Superior, Wisconsin**

ANALYTE NAME	UNITS	W-04AR2 10/4/2017	W-04AR2-DUP 10/4/2017	W-06A 10/4/2017	W-06C 10/4/2017	W-10AR2 10/5/2017	W-12A 10/4/2017	W-12CR 10/4/2017	W-18D 10/4/2017	W-28C 10/4/2017	W-30A 10/4/2017	W-30C 10/4/2017	Equipment Blank 10/4/2017	Equipment Blank 10/5/2017	Trip Blank 10/5/2017
<b>8260C</b>															
1,1,1-TRICHLOROETHANE	UG/L	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	NA	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
1,2,4-TRIMETHYLBENZENE	UG/L	0.75 U	0.75 U	0.75 U	0.75 U	<b>6.5</b>	0.75 U	0.75 U	NA	0.75 U	<b>5.4</b>	0.75 U	0.75 U	0.75 U	0.75 U
1,3,5-TRIMETHYLBENZENE	UG/L	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	NA	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
BENZENE	UG/L	0.41 U	0.41 U	0.41 U	0.41 U	<b>16</b>	0.41 U	0.41 U	NA	0.41 U	<b>11</b>	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROMETHANE	UG/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	UG/L	0.74 U	0.74 U	0.74 U	0.74 U	<b>33</b>	0.74 U	0.74 U	NA	0.74 U	<b>21</b>	0.74 U	0.74 U	0.74 U	0.74 U
METHYL(TERT)BUTYL ETHER	UG/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
NAPHTHALENE	UG/L	0.43 U	0.43 U	0.43 U	0.43 U	<b>1.7</b>	0.43 U	0.43 U	NA	0.43 U	<b>26</b>	0.43 U	0.43 U	0.43 U	0.43 U
N-BUTYLBENZENE	UG/L	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	NA	0.64 U	<b>13</b>	0.64 U	0.64 U	0.64 U	0.64 U
N-PROPYLBENZENE	UG/L	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	NA	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
STYRENE	UG/L	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	NA	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
TOLUENE	UG/L	0.51 U	0.51 U	0.51 U	0.51 U	<b>5</b>	0.51 U	0.51 U	NA	0.51 U	<b>1.6</b>	0.51 U	0.51 U	0.51 U	0.51 U
XYLENE, META & PARA	UG/L	0.66 U	0.66 U	0.66 U	0.66 U	<b>3.9</b>	0.66 U	0.66 U	NA	0.66 U	<b>3.3</b>	0.66 U	0.66 U	0.66 U	0.66 U
O-XYLENE	UG/L	0.76 U	0.76 U	0.76 U	0.76 U	<b>15</b>	0.76 U	0.76 U	NA	0.76 U	<b>5.2</b>	0.76 U	0.76 U	0.76 U	0.76 U
<b>8270D</b>															
1,2,4-TRICHLOROENZENE	UG/L	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U
1,2-DICHLOROENZENE	UG/L	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.28 U	0.29 U	NA
1,3-DICHLOROENZENE	UG/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.25 U	0.24 U	0.24 U	0.24 U	0.25 U	NA
1,4-DICHLOROENZENE	UG/L	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U	0.27 U	NA
1-METHYLNAPHTHALENE	UG/L	0.48 U	0.48 U	0.48 U	0.48 U	<b>23</b>	0.48 U	0.48 U	0.49 U	0.49 U	<b>8.1</b>	0.48 U	0.49 U	0.5 U	NA
2,3,4,6-TETRACHLOROPHENOL	UG/L	1.4 U	1.5 U	1.4 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U	1.4 U	1.4 U	1.5 U	1.5 U	NA
2,3,5,6-TETRACHLOROPHENOL	UG/L	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U	2.4 U	2.4 U	2.4 U	2.5 U	NA
2,4,5-TRICHLOROPHENOL	UG/L	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.3 U	2.2 U	2.2 U	2.2 U	2.3 U	NA
2,4,6-TRICHLOROPHENOL	UG/L	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	NA
2,4-DICHLOROPHENOL	UG/L	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.3 U	NA
2,4-DIMETHYLPHENOL	UG/L	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.3 U	3.3 U	3.2 U	3.2 U	3.3 U	3.3 U	NA
2,4-DINITROPHENOL	UG/L	7.1 U	7.1 U	7.1 U	7.1 U	7.2 U	7.1 U	7.1 U	7.3 U	7.3 U	7.1 U	7.1 U	7.2 U	7.4 U	NA
2,4-DINITROTOLUENE	UG/L	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	NA
2,6-DINITROTOLUENE	UG/L	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	NA
2-CHLORONAPHTHALENE	UG/L	0.32 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.32 U	0.33 U	0.33 U	0.32 U	0.33 U	0.33 U	0.34 U	NA
2-CHLOROPHENOL	UG/L	0.76 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.76 U	0.78 U	0.79 U	0.76 U	0.77 U	0.78 U	0.8 U	NA
2-METHYLNAPHTHALENE	UG/L	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.13 U	NA
2-METHYLPHENOL	UG/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	NA
2-NITROANILINE	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	NA
2-NITROPHENOL	UG/L	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.1 U	2 U	2.1 U	2.1 U	2.1 U	NA
3,3'-DICHLOROBENZIDINE	UG/L	0.9 U	0.9 U	0.9 U	0.9 U	0.91 U	0.9 U	0.9 U	0.92 U	0.92 U	0.9 U	0.9 U	0.92 U	0.94 U	NA
3-NITROANILINE	UG/L	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.3 U	2.2 U	2.2 U	2.2 U	2.3 U	NA
4,6-DINITRO-2-METHYLPHENOL	UG/L	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U	4.7 U	4.7 U	4.8 U	4.9 U	NA
4-BROMOPHENYL PHENYLETHER	UG/L	0.87 U	0.88 U	0.87 U	0.87 U	0.88 U	0.87 U	0.87 U	0.89 U	0.89 U	0.87 U	0.87 U	0.89 U	0.91 U	NA

**Table 2**  
**Analytical Summary - Second Semi-Annual 2017 Groundwater Data**  
**Second Semi-Annual 2017 Sampling Event**  
**Superior Facility**  
**Superior, Wisconsin**

ANALYTE NAME	UNITS	W-04AR2 10/4/2017	W-04AR2-DUP 10/4/2017	W-06A 10/4/2017	W-06C 10/4/2017	W-10AR2 10/5/2017	W-12A 10/4/2017	W-12CR 10/4/2017	W-18D 10/4/2017	W-28C 10/4/2017	W-30A 10/4/2017	W-30C 10/4/2017	Equipment Blank 10/4/2017	Equipment Blank 10/5/2017	Trip Blank 10/5/2017
4-CHLORO-3-METHYLPHENOL	UG/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U	2.1 U	2.1 U	2.1 U	2.2 U	NA
4-CHLOROANILINE	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U	2.1 U	2 U	2 U	2 U	2.1 U	NA
4-CHLOROPHENYLPHENYL-ETHER	UG/L	0.77 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.77 U	0.79 U	0.8 U	0.77 U	0.78 U	0.79 U	0.81 U	NA
4-METHYLPHENOL	UG/L	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.43 U	0.43 U	0.42 U	0.42 U	0.43 U	0.44 U	NA
4-NITROANILINE	UG/L	3.7 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.9 U	3.8 U	3.8 U	3.8 U	3.9 U	NA
4-NITROPHENOL	UG/L	2.2 U	2.3 U	2.2 U	2.2 U	2.3 U	2.2 U	2.2 U	2.3 U	2.3 U	2.2 U	2.2 U	2.3 U	2.3 U	NA
ACENAPHTHENE	UG/L	0.34 U	0.35 U	0.34 U	0.35 U	<b>50</b>	0.34 U	0.34 U	0.35 U	0.35 U	<b>28</b>	0.35 U	0.35 U	0.36 U	NA
ACENAPHTHYLENE	UG/L	0.31 U	0.31 U	0.31 U	0.31 U	<b>0.56 J</b>	0.31 U	0.31 U	0.31 U	0.31 U	<b>0.41 J</b>	0.31 U	0.31 U	0.32 U	NA
ANTHRACENE	UG/L	<b>0.55 J</b>	<b>0.53 J</b>	0.31 U	0.31 U	<b>0.43 J</b>	0.31 U	0.31 U	0.31 U	0.31 U	<b>0.86 J</b>	0.31 U	0.31 U	0.32 U	NA
BENZO (A) ANTHRACENE	UG/L	0.042 U	<b>0.18 J</b>	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.043 U	0.043 U	<b>0.74</b>	0.042 U	0.043 U	0.044 U	NA
BENZO (A) PYRENE	UG/L	0.053 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.053 U	0.055 U	0.055 U	<b>0.29</b>	0.054 U	0.055 U	0.056 U	NA
BENZO (B) FLUORANTHENE	UG/L	0.055 U	0.056 U	0.056 U	0.056 U	0.056 U	0.055 U	0.055 U	0.057 U	0.057 U	<b>0.36</b>	0.056 U	0.057 U	0.058 U	NA
BENZO (G,H,I) PERYLENE	UG/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	0.4 U	0.4 U	0.41 U	0.42 U	NA
BENZO (K) FLUORANTHENE	UG/L	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U	0.071 U	0.072 U	0.073 U	<b>0.23</b>	0.071 U	0.072 U	0.074 U	NA
BENZOIC ACID	UG/L	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.5 U	4.5 U	4.4 U	4.4 U	4.4 U	4.6 U	NA
BENZYL ALCOHOL	UG/L	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	3 U	3 U	2.9 U	2.9 U	3 U	3 U	NA
BIS (2-CHLOROETHOXY)- METHANE	UG/L	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	NA
BIS (2-CHLOROETHYL) ETHER	UG/L	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	0.34 U	0.34 U	0.35 U	NA
BIS (2-CHLOROISOPROPYL)-ETHER	UG/L	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	NA
BIS (2-ETHYLHEXYL)- PHTHALATE	UG/L	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.4 U	2.4 U	2.3 U	2.3 U	2.4 U	2.4 U	NA
BUTYL BENZYL PHTHALATE	UG/L	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U	0.27 U	NA
CHRYSENE	UG/L	0.13 U	<b>0.16 J</b>	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	<b>0.62</b>	0.13 U	0.14 U	0.14 U	NA
DIBENZO (A,H) ANTHRACENE	UG/L	0.061 U	0.062 U	0.061 U	0.061 U	0.062 U	0.061 U	0.061 U	0.063 U	0.063 U	0.061 U	0.061 U	0.062 U	0.064 U	NA
DIBENZOFURAN	UG/L	0.33 U	0.34 U	0.34 U	0.34 U	<b>13</b>	0.33 U	0.33 U	0.34 U	0.34 U	<b>9.7</b>	0.34 U	0.34 U	0.35 U	NA
DIETHYLPHTHALATE	UG/L	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.43 U	0.43 U	0.42 U	0.42 U	0.43 U	0.44 U	NA
DIMETHYLPHTHALATE	UG/L	0.36 U	0.37 U	0.36 U	0.37 U	0.37 U	0.36 U	0.36 U	0.37 U	0.37 U	0.36 U	0.36 U	0.37 U	0.38 U	NA
DI-N-BUTYLPHTHALATE	UG/L	0.76 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.76 U	0.78 U	0.79 U	0.76 U	0.77 U	0.78 U	0.8 U	NA
DI-N-OCTYLPHTHALATE	UG/L	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U	NA
FLUORANTHENE	UG/L	0.31 U	<b>0.38 J</b>	0.31 U	0.31 U	<b>1.2</b>	0.31 U	0.31 U	0.31 U	0.31 U	<b>3.5</b>	0.31 U	0.31 U	0.32 U	NA
FLUORENE	UG/L	0.36 U	0.37 U	0.36 U	0.37 U	<b>12</b>	0.36 U	0.36 U	0.37 U	0.37 U	<b>5.9</b>	0.36 U	0.37 U	0.38 U	NA
HEXACHLOROBENZENE	UG/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.14 U	NA
HEXACHLOROBUTADIENE	UG/L	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	NA
HEXACHLOROCYCLOPENTADIENE	UG/L	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.4 U	3.4 U	3.3 U	3.3 U	3.4 U	3.4 U	NA
HEXACHLOROETHANE	UG/L	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.95 U	0.95 U	0.93 U	0.93 U	0.95 U	0.97 U	NA
INDENO (1,2,3-CD) PYRENE	UG/L	0.08 U	0.081 U	0.08 U	0.081 U	0.081 U	0.08 U	0.08 U	0.082 U	0.083 U	0.08 U	0.081 U	0.082 U	0.084 U	NA
ISOPHORONE	UG/L	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.28 U	0.29 U	NA
NAPHTHALENE	UG/L	NA	NA	NA	NA	NA	NA	NA	0.29 U	NA	NA	NA	NA	NA	NA
NITROBENZENE	UG/L	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.44 U	0.44 U	0.43 U	0.43 U	0.44 U	0.45 U	NA
N-NITROSODI-N-PROPYLAMINE	UG/L	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U	0.14 U	NA
N-NITROSO-DI-PHENYLAMINE	UG/L	0.32 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.32 U	0.33 U	0.33 U	0.32 U	0.33 U	0.33 U	0.34 U	NA
PENTACHLOROPHENOL	UG/L	5.3 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.3 U	5.5 U	5.5 U	5.4 U	5.4 U	5.5 U	5.6 U	NA
PHENANTHRENE	UG/L	0.33 U	0.34 U	0.34 U	0.34 U	<b>1.4</b>	0.33 U	0.33 U	0.34 U	0.34 U	<b>1.3</b>	0.34 U	0.34 U	0.35 U	NA
PHENOL	UG/L	0.34 U	0.35 U	0.34 U	0.35 U	0.35 U	0.34 U	0.34 U	0.35 U	0.35 U	0.34 U	0.35 U	0.35 U	0.36 U	NA
PYRENE	UG/L	0.46 U	0.46 U	0.46 U	0.46 U	<b>0.77 J</b>	0.46 U	0.46 U	0.47 U	0.47 U	<b>2.8</b>	0.46 U	0.47 U	0.48 U	NA

**Notes:**

- Bold values represent detections.
- DUP indicates duplicate sample.
- U indicates compound was not detected.
- J indicates an estimated value.
- NA indicates not analyzed.

**APPENDIX D**  
**DATA EVALUATION SUMMARY**



## **FTS, LLC**

**DATE:** November 3, 2017

**FROM:** Kendra Chintella

**SUBJECT:** Superior GW

**SAMPLE DELIVERY GROUP (SDG):** 480-125450-1, 480-125450-2

**SAMPLES:** SUPE-W-30C-100417, SUPE-W-06A-100417, SUPE-W-06C-100417, SUPE-W-12A-100417, SUPE-W-30A-100417, SUPE-W-18D-100417, SUPE-W-28C-100417, SUPE-W-12CR-100417, SUPE-W-04AR2-100417, SUPE-EB-01-100417, SUPE-W-99A-100417(W-04AR2), SUPE-TB-01-100517, SUPE-W-10AR2-100517, SUPE-EB-02-100517

**ANALYSES:** Method 8260C (VOCs), 8270D (SVOCs)

**LABORATORY:** TestAmerica Laboratories, Inc., Buffalo, Chicago

The data contained in this SDG were evaluated with regard to the following parameters:

- Data Completeness  
Noncompliance: Greater reporting limits were observed for pentachlorophenol and samples were re-extracted and reanalyzed outside of holding time. The re-extracted and reanalyzed results confirmed the non-detect initial results which are presented with the exception of the field duplicate which indicated a low level estimated detection for PCP in the reanalysis.
- Holding Times  
Noncompliance: None
- Laboratory Blank Contamination  
Noncompliance: None
- Field Blank Contamination  
Noncompliance: None
- Field Duplicate Precision  
Noncompliance: See attached page for details.
- Surrogate Recoveries  
Noncompliance: The surrogate recovery of phenol-d5 fell below the recovery limits in samples W-30C and W-12A. No action was taken on this basis.
- Laboratory Control Sample  
Noncompliance: None

**Field Duplicate Precision:**

FIELD DUPLICATE PRECISION					
ANALYTE	W-04AR2	QUAL	W-99A	QUAL	RPD
Anthracene	0.55	J	0.53	J	3.70
Benzo(a)anthracene	0.042	U	0.18	J	NC
Chrysene	0.13	U	0.16	J	NC
Fluoranthene	0.31	U	0.38	J	NC

NC – not calculated due to nondetect result



**APPENDIX E**  
**LABORATORY ANALYTICAL DATA**  
**(C.D. AND PRINTOUT)**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-125450-1

Client Project/Site: Superior, WI Semiannual Groundwater

For:

Field & Technical Services LLC

200 Third Avenue

Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie



Authorized for release by:

10/26/2017 2:53:22 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

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

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

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

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# Definitions/Glossary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside 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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Job ID: 480-125450-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-125450-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/6/2017 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 2.7° C, 3.0° C and 3.0° C.

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-381807 recovered above the upper control limit for 1,1,1-Trichloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: SUPE-W-30C-100417, SUPE-W-06A-100417, SUPE-W-06C-100417, SUPE-W-12A-100417, SUPE-W-30A-100417, SUPE-W-28C-100417, SUPE-W-12CR-100417 and SUPE-W-04AR2-100417.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-381881 recovered above the upper control limit for N-Propylbenzene. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following samples are impacted: SUPE-W-10AR2-100517 and SUPE-EB-02-100517.

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

#### GC/MS Semi VOA

Method(s) 8270D: The following samples contained one base surrogate outside acceptance limits: SUPE-W-30C-100417 and SUPE-W-12A-100417. The laboratory's SOP allows one acid and one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

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

# Detection Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

No Detections.

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

No Detections.

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

No Detections.

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

No Detections.

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5.4		1.0	0.75	ug/L		1		8260C	Total/NA
Benzene	11		1.0	0.41	ug/L		1		8260C	Total/NA
Ethylbenzene	21		1.0	0.74	ug/L		1		8260C	Total/NA
m-Xylene & p-Xylene	3.3		2.0	0.66	ug/L		1		8260C	Total/NA
Naphthalene	26		1.0	0.43	ug/L		1		8260C	Total/NA
n-Butylbenzene	13		1.0	0.64	ug/L		1		8260C	Total/NA
o-Xylene	5.2		1.0	0.76	ug/L		1		8260C	Total/NA
Toluene	1.6		1.0	0.51	ug/L		1		8260C	Total/NA
Xylenes, Total	8.5		2.0	0.66	ug/L		1		8260C	Total/NA
1-Methylnaphthalene	8.1		1.9	0.48	ug/L		1		8270D	Total/NA
Acenaphthene	28		0.96	0.34	ug/L		1		8270D	Total/NA
Acenaphthylene	0.41	J	0.96	0.31	ug/L		1		8270D	Total/NA
Anthracene	0.86	J	0.96	0.31	ug/L		1		8270D	Total/NA
Benzo[a]pyrene	0.29		0.19	0.054	ug/L		1		8270D	Total/NA
Benzo[b]fluoranthene	0.36		0.19	0.055	ug/L		1		8270D	Total/NA
Benzo[k]fluoranthene	0.23		0.19	0.071	ug/L		1		8270D	Total/NA
Chrysene	0.62		0.48	0.13	ug/L		1		8270D	Total/NA
Dibenzofuran	9.7		1.9	0.33	ug/L		1		8270D	Total/NA
Fluoranthene	3.5		0.96	0.31	ug/L		1		8270D	Total/NA
Fluorene	5.9		0.96	0.36	ug/L		1		8270D	Total/NA
Pyrene	2.8		0.96	0.46	ug/L		1		8270D	Total/NA
Benzo[a]anthracene	0.74		0.19	0.042	ug/L		1		8270D	Total/NA
Phenanthrene	1.3		0.96	0.33	ug/L		1		8270D	Total/NA

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

No Detections.

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

No Detections.

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## Client Sample ID: SUPE-W-04AR2-100417

## Lab Sample ID: 480-125450-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.55	J	0.95	0.31	ug/L	1		8270D	Total/NA

## Client Sample ID: SUPE-EB-01-100417

## Lab Sample ID: 480-125450-10

No Detections.

## Client Sample ID: SUPE-W-99A-100417

## Lab Sample ID: 480-125450-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.53	J	0.96	0.31	ug/L	1		8270D	Total/NA
Chrysene	0.16	J	0.48	0.13	ug/L	1		8270D	Total/NA
Fluoranthene	0.38	J	0.96	0.31	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.18	J	0.19	0.042	ug/L	1		8270D	Total/NA

## Client Sample ID: SUPE-TB-01-100517

## Lab Sample ID: 480-125450-12

No Detections.

## Client Sample ID: SUPE-W-10AR2-100517

## Lab Sample ID: 480-125450-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	6.5		1.0	0.75	ug/L	1		8260C	Total/NA
Benzene	16		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	33		1.0	0.74	ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.9		2.0	0.66	ug/L	1		8260C	Total/NA
Naphthalene	1.7		1.0	0.43	ug/L	1		8260C	Total/NA
o-Xylene	15		1.0	0.76	ug/L	1		8260C	Total/NA
Toluene	5.0		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	19		2.0	0.66	ug/L	1		8260C	Total/NA
1-Methylnaphthalene	23		1.9	0.48	ug/L	1		8270D	Total/NA
Acenaphthene	50		0.96	0.35	ug/L	1		8270D	Total/NA
Acenaphthylene	0.56	J	0.96	0.31	ug/L	1		8270D	Total/NA
Anthracene	0.43	J	0.96	0.31	ug/L	1		8270D	Total/NA
Dibenzofuran	13		1.9	0.34	ug/L	1		8270D	Total/NA
Fluoranthene	1.2		0.96	0.31	ug/L	1		8270D	Total/NA
Fluorene	12		0.96	0.37	ug/L	1		8270D	Total/NA
Pyrene	0.77	J	0.96	0.46	ug/L	1		8270D	Total/NA
Phenanthrene	1.4		0.96	0.34	ug/L	1		8270D	Total/NA

## Client Sample ID: SUPE-EB-02-100517

## Lab Sample ID: 480-125450-14

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

**Date Collected: 10/04/17 10:52**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 15:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 15:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 15:40	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 15:40	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 15:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 15:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 15:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 15:40	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 15:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 15:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 15:40	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 15:40	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 15:40	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 15:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		10/14/17 15:40	1
4-Bromofluorobenzene (Surr)	101		73 - 120		10/14/17 15:40	1
Dibromofluoromethane (Surr)	100		75 - 123		10/14/17 15:40	1
Toluene-d8 (Surr)	98		80 - 120		10/14/17 15:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 12:35	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 12:35	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 12:35	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 12:35	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 12:35	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,6-Dinitrotoluene	ND		0.96	0.12	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 12:35	1
2-Nitrophenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 12:35	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 12:35	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 12:35	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 12:35	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 12:35	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 12:35	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/19/17 12:35	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 12:35	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

**Date Collected: 10/04/17 10:52**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 12:35	1
Acenaphthene	ND		0.96	0.35	ug/L		10/11/17 09:07	10/19/17 12:35	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 12:35	1
Anthracene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 12:35	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 12:35	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 12:35	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 12:35	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 12:35	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 12:35	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 12:35	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 12:35	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 12:35	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 12:35	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 12:35	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 12:35	1
Fluoranthene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 12:35	1
Fluorene	ND		0.96	0.36	ug/L		10/11/17 09:07	10/19/17 12:35	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 12:35	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 12:35	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 12:35	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 12:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.081	ug/L		10/11/17 09:07	10/19/17 12:35	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 12:35	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 12:35	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 12:35	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 12:35	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/19/17 12:35	1
Phenol	ND		4.8	0.35	ug/L		10/11/17 09:07	10/19/17 12:35	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 12:35	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 12:35	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 12:35	1
Phenanthrene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 12:35	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 12:35	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 12:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		40 - 145	10/11/17 09:07	10/19/17 12:35	1
2-Fluorobiphenyl	79		34 - 110	10/11/17 09:07	10/19/17 12:35	1
2-Fluorophenol (Surr)	42		27 - 110	10/11/17 09:07	10/19/17 12:35	1
Nitrobenzene-d5 (Surr)	88		36 - 120	10/11/17 09:07	10/19/17 12:35	1
Phenol-d5 (Surr)	18	X	20 - 100	10/11/17 09:07	10/19/17 12:35	1
Terphenyl-d14 (Surr)	98		40 - 145	10/11/17 09:07	10/19/17 12:35	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

Date Collected: 10/04/17 11:59

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 16:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 16:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 16:05	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 16:05	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 16:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 16:05	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 16:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 16:05	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 16:05	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 16:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 16:05	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 16:05	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 16:05	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 16:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120					10/14/17 16:05	1
4-Bromofluorobenzene (Surr)	98		73 - 120					10/14/17 16:05	1
Dibromofluoromethane (Surr)	97		75 - 123					10/14/17 16:05	1
Toluene-d8 (Surr)	96		80 - 120					10/14/17 16:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:08	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 16:08	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 16:08	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 16:08	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 16:08	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,6-Dinitrotoluene	ND		0.96	0.11	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 16:08	1
2-Nitrophenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 16:08	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:08	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 16:08	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 16:08	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 16:08	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 16:08	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/19/17 16:08	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 16:08	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

Date Collected: 10/04/17 11:59

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 16:08	1
Acenaphthene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 16:08	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:08	1
Anthracene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 16:08	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:08	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 16:08	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 16:08	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 16:08	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:08	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 16:08	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 16:08	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 16:08	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 16:08	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 16:08	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 16:08	1
Fluoranthene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:08	1
Fluorene	ND		0.96	0.36	ug/L		10/11/17 09:07	10/19/17 16:08	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:08	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 16:08	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 16:08	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 16:08	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		10/11/17 09:07	10/19/17 16:08	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 16:08	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 16:08	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:08	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 16:08	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/19/17 16:08	1
Phenol	ND		4.8	0.34	ug/L		10/11/17 09:07	10/19/17 16:08	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 16:08	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 16:08	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 16:08	1
Phenanthrene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 16:08	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 16:08	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		40 - 145	10/11/17 09:07	10/19/17 16:08	1
2-Fluorobiphenyl	75		34 - 110	10/11/17 09:07	10/19/17 16:08	1
2-Fluorophenol (Surr)	48		27 - 110	10/11/17 09:07	10/19/17 16:08	1
Nitrobenzene-d5 (Surr)	88		36 - 120	10/11/17 09:07	10/19/17 16:08	1
Phenol-d5 (Surr)	22		20 - 100	10/11/17 09:07	10/19/17 16:08	1
Terphenyl-d14 (Surr)	82		40 - 145	10/11/17 09:07	10/19/17 16:08	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

Date Collected: 10/04/17 12:55

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 16:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 16:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 16:30	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 16:30	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 16:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 16:30	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 16:30	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 16:30	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 16:30	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 16:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 16:30	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 16:30	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 16:30	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 16:30	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 16:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120					10/14/17 16:30	1
4-Bromofluorobenzene (Surr)	100		73 - 120					10/14/17 16:30	1
Dibromofluoromethane (Surr)	99		75 - 123					10/14/17 16:30	1
Toluene-d8 (Surr)	97		80 - 120					10/14/17 16:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:34	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 16:34	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 16:34	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 16:34	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 16:34	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.5	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,6-Dinitrotoluene	ND		0.96	0.12	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 16:34	1
2-Nitrophenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 16:34	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 16:34	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 16:34	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 16:34	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 16:34	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 16:34	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/19/17 16:34	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 16:34	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

**Date Collected: 10/04/17 12:55**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 16:34	1
Acenaphthene	ND		0.96	0.35	ug/L		10/11/17 09:07	10/19/17 16:34	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:34	1
Anthracene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 16:34	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 16:34	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 16:34	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 16:34	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 16:34	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:34	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 16:34	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 16:34	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 16:34	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		10/11/17 09:07	10/19/17 16:34	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 16:34	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 16:34	1
Fluoranthene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 16:34	1
Fluorene	ND		0.96	0.37	ug/L		10/11/17 09:07	10/19/17 16:34	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:34	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 16:34	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 16:34	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 16:34	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.081	ug/L		10/11/17 09:07	10/19/17 16:34	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 16:34	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 16:34	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 16:34	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 16:34	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/19/17 16:34	1
Phenol	ND		4.8	0.35	ug/L		10/11/17 09:07	10/19/17 16:34	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 16:34	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 16:34	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 16:34	1
Phenanthrene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 16:34	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 16:34	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		40 - 145	10/11/17 09:07	10/19/17 16:34	1
2-Fluorobiphenyl	77		34 - 110	10/11/17 09:07	10/19/17 16:34	1
2-Fluorophenol (Surr)	43		27 - 110	10/11/17 09:07	10/19/17 16:34	1
Nitrobenzene-d5 (Surr)	91		36 - 120	10/11/17 09:07	10/19/17 16:34	1
Phenol-d5 (Surr)	21		20 - 100	10/11/17 09:07	10/19/17 16:34	1
Terphenyl-d14 (Surr)	86		40 - 145	10/11/17 09:07	10/19/17 16:34	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

Date Collected: 10/04/17 13:57

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 16:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 16:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 16:55	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 16:55	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 16:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 16:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 16:55	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 16:55	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 16:55	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 16:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 16:55	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 16:55	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 16:55	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 16:55	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		77 - 120					10/14/17 16:55	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/14/17 16:55	1
Dibromofluoromethane (Surr)	96		75 - 123					10/14/17 16:55	1
Toluene-d8 (Surr)	98		80 - 120					10/14/17 16:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:01	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 17:01	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 17:01	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 17:01	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 17:01	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,6-Dinitrotoluene	ND		0.96	0.11	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 17:01	1
2-Nitrophenol	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 17:01	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:01	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 17:01	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 17:01	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 17:01	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 17:01	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/19/17 17:01	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 17:01	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

**Date Collected: 10/04/17 13:57**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 17:01	1
Acenaphthene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 17:01	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:01	1
Anthracene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 17:01	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:01	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:01	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 17:01	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 17:01	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:01	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 17:01	1
Dibenzofuran	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:01	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 17:01	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 17:01	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 17:01	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 17:01	1
Fluoranthene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:01	1
Fluorene	ND		0.96	0.36	ug/L		10/11/17 09:07	10/19/17 17:01	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:01	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 17:01	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 17:01	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 17:01	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		10/11/17 09:07	10/19/17 17:01	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 17:01	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 17:01	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:01	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:01	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/19/17 17:01	1
Phenol	ND		4.8	0.34	ug/L		10/11/17 09:07	10/19/17 17:01	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 17:01	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 17:01	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 17:01	1
Phenanthrene	ND		0.96	0.33	ug/L		10/11/17 09:07	10/19/17 17:01	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 17:01	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		40 - 145	10/11/17 09:07	10/19/17 17:01	1
2-Fluorobiphenyl	76		34 - 110	10/11/17 09:07	10/19/17 17:01	1
2-Fluorophenol (Surr)	39		27 - 110	10/11/17 09:07	10/19/17 17:01	1
Nitrobenzene-d5 (Surr)	88		36 - 120	10/11/17 09:07	10/19/17 17:01	1
Phenol-d5 (Surr)	19	X	20 - 100	10/11/17 09:07	10/19/17 17:01	1
Terphenyl-d14 (Surr)	86		40 - 145	10/11/17 09:07	10/19/17 17:01	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

Date Collected: 10/04/17 15:06

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 17:20	1
<b>1,2,4-Trimethylbenzene</b>	<b>5.4</b>		1.0	0.75	ug/L			10/14/17 17:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 17:20	1
<b>Benzene</b>	<b>11</b>		1.0	0.41	ug/L			10/14/17 17:20	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 17:20	1
<b>Ethylbenzene</b>	<b>21</b>		1.0	0.74	ug/L			10/14/17 17:20	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 17:20	1
<b>m-Xylene &amp; p-Xylene</b>	<b>3.3</b>		2.0	0.66	ug/L			10/14/17 17:20	1
<b>Naphthalene</b>	<b>26</b>		1.0	0.43	ug/L			10/14/17 17:20	1
<b>n-Butylbenzene</b>	<b>13</b>		1.0	0.64	ug/L			10/14/17 17:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 17:20	1
<b>o-Xylene</b>	<b>5.2</b>		1.0	0.76	ug/L			10/14/17 17:20	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 17:20	1
<b>Toluene</b>	<b>1.6</b>		1.0	0.51	ug/L			10/14/17 17:20	1
<b>Xylenes, Total</b>	<b>8.5</b>		2.0	0.66	ug/L			10/14/17 17:20	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99		77 - 120					10/14/17 17:20	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/14/17 17:20	1
Dibromofluoromethane (Surr)	96		75 - 123					10/14/17 17:20	1
Toluene-d8 (Surr)	96		80 - 120					10/14/17 17:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:28	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 17:28	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 17:28	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>1-Methylnaphthalene</b>	<b>8.1</b>		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 17:28	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,6-Dinitrotoluene	ND		0.96	0.11	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Chlorophenol	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 17:28	1
2-Nitrophenol	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 17:28	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 17:28	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 17:28	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 17:28	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 17:28	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 17:28	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 17:28	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 17:28	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

Date Collected: 10/04/17 15:06

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Acenaphthene</b>	<b>28</b>		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Acenaphthylene</b>	<b>0.41</b>	<b>J</b>	0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Anthracene</b>	<b>0.86</b>	<b>J</b>	0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Benzo[a]pyrene</b>	<b>0.29</b>		0.19	0.054	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Benzo[b]fluoranthene</b>	<b>0.36</b>		0.19	0.055	ug/L		10/11/17 09:07	10/19/17 17:28	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Benzo[k]fluoranthene</b>	<b>0.23</b>		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 17:28	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 17:28	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 17:28	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 17:28	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:28	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 17:28	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Chrysene</b>	<b>0.62</b>		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:28	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Dibenzofuran</b>	<b>9.7</b>		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 17:28	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 17:28	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 17:28	1
Di-n-butyl phthalate	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 17:28	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Fluoranthene</b>	<b>3.5</b>		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Fluorene</b>	<b>5.9</b>		0.96	0.36	ug/L		10/11/17 09:07	10/19/17 17:28	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:28	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 17:28	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 17:28	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 17:28	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		10/11/17 09:07	10/19/17 17:28	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 17:28	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 17:28	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 17:28	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 17:28	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/19/17 17:28	1
Phenol	ND		4.8	0.34	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Pyrene</b>	<b>2.8</b>		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 17:28	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Benzo[a]anthracene</b>	<b>0.74</b>		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 17:28	1
<b>Phenanthrene</b>	<b>1.3</b>		0.96	0.33	ug/L		10/11/17 09:07	10/19/17 17:28	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 17:28	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	95		40 - 145	10/11/17 09:07	10/19/17 17:28	1
2-Fluorobiphenyl	79		34 - 110	10/11/17 09:07	10/19/17 17:28	1
2-Fluorophenol (Surr)	48		27 - 110	10/11/17 09:07	10/19/17 17:28	1
Nitrobenzene-d5 (Surr)	88		36 - 120	10/11/17 09:07	10/19/17 17:28	1
Phenol-d5 (Surr)	25		20 - 100	10/11/17 09:07	10/19/17 17:28	1
Terphenyl-d14 (Surr)	76		40 - 145	10/11/17 09:07	10/19/17 17:28	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

**Date Collected: 10/04/17 11:20**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 17:54	1
1,2-Dichlorobenzene	ND		2.0	0.28	ug/L		10/11/17 09:07	10/19/17 17:54	1
1,3-Dichlorobenzene	ND		2.0	0.24	ug/L		10/11/17 09:07	10/19/17 17:54	1
1,4-Dichlorobenzene	ND		2.0	0.26	ug/L		10/11/17 09:07	10/19/17 17:54	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/11/17 09:07	10/19/17 17:54	1
bis(chloroisopropyl) ether	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4,5-Trichlorophenol	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4-Dinitrotoluene	ND		0.98	0.29	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Chloronaphthalene	ND		2.0	0.33	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Chlorophenol	ND		4.9	0.78	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Methylphenol	ND		2.0	0.30	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 17:54	1
2-Nitrophenol	ND		9.8	2.1	ug/L		10/11/17 09:07	10/19/17 17:54	1
3-Nitroaniline	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 17:54	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Chloroaniline	ND		9.8	2.1	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Nitroaniline	ND		9.8	3.8	ug/L		10/11/17 09:07	10/19/17 17:54	1
4-Nitrophenol	ND		20	2.3	ug/L		10/11/17 09:07	10/19/17 17:54	1
Acenaphthene	ND		0.98	0.35	ug/L		10/11/17 09:07	10/19/17 17:54	1
Acenaphthylene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 17:54	1
Anthracene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzo[k]fluoranthene	ND		0.20	0.072	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzoic acid	ND		20	4.5	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzyl alcohol	ND		20	3.0	ug/L		10/11/17 09:07	10/19/17 17:54	1
Bis(2-chloroethoxy)methane	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 17:54	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		10/11/17 09:07	10/19/17 17:54	1
Bis(2-ethylhexyl) phthalate	ND		9.8	2.4	ug/L		10/11/17 09:07	10/19/17 17:54	1
Butyl benzyl phthalate	ND		2.0	0.26	ug/L		10/11/17 09:07	10/19/17 17:54	1
Chrysene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 17:54	1
Dibenz(a,h)anthracene	ND		0.29	0.063	ug/L		10/11/17 09:07	10/19/17 17:54	1
Dibenzofuran	ND		2.0	0.34	ug/L		10/11/17 09:07	10/19/17 17:54	1
Diethyl phthalate	ND		2.0	0.43	ug/L		10/11/17 09:07	10/19/17 17:54	1
Dimethyl phthalate	ND		2.0	0.37	ug/L		10/11/17 09:07	10/19/17 17:54	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		10/11/17 09:07	10/19/17 17:54	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		10/11/17 09:07	10/19/17 17:54	1
Fluoranthene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 17:54	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

**Date Collected: 10/04/17 11:20**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.98	0.37	ug/L		10/11/17 09:07	10/19/17 17:54	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 17:54	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 17:54	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/11/17 09:07	10/19/17 17:54	1
Hexachloroethane	ND		4.9	0.95	ug/L		10/11/17 09:07	10/19/17 17:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.082	ug/L		10/11/17 09:07	10/19/17 17:54	1
Isophorone	ND		2.0	0.28	ug/L		10/11/17 09:07	10/19/17 17:54	1
Naphthalene	ND		0.98	0.29	ug/L		10/11/17 09:07	10/19/17 17:54	1
Nitrobenzene	ND		0.98	0.44	ug/L		10/11/17 09:07	10/19/17 17:54	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 17:54	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		10/11/17 09:07	10/19/17 17:54	1
Pentachlorophenol	ND		20	5.5	ug/L		10/11/17 09:07	10/19/17 17:54	1
Phenol	ND		4.9	0.35	ug/L		10/11/17 09:07	10/19/17 17:54	1
Pyrene	ND		0.98	0.47	ug/L		10/11/17 09:07	10/19/17 17:54	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		10/11/17 09:07	10/19/17 17:54	1
Benzo[a]anthracene	ND		0.20	0.043	ug/L		10/11/17 09:07	10/19/17 17:54	1
Phenanthrene	ND		0.98	0.34	ug/L		10/11/17 09:07	10/19/17 17:54	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		10/11/17 09:07	10/19/17 17:54	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/11/17 09:07	10/19/17 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		40 - 145	10/11/17 09:07	10/19/17 17:54	1
2-Fluorobiphenyl	75		34 - 110	10/11/17 09:07	10/19/17 17:54	1
2-Fluorophenol (Surr)	43		27 - 110	10/11/17 09:07	10/19/17 17:54	1
Nitrobenzene-d5 (Surr)	85		36 - 120	10/11/17 09:07	10/19/17 17:54	1
Phenol-d5 (Surr)	20		20 - 100	10/11/17 09:07	10/19/17 17:54	1
Terphenyl-d14 (Surr)	95		40 - 145	10/11/17 09:07	10/19/17 17:54	1

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

**Date Collected: 10/04/17 12:57**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 17:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 17:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 17:45	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 17:45	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 17:45	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 17:45	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 17:45	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 17:45	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 17:45	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 17:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 17:45	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 17:45	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 17:45	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 17:45	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 17:45	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

**Date Collected: 10/04/17 12:57**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		10/14/17 17:45	1
4-Bromofluorobenzene (Surr)	101		73 - 120		10/14/17 17:45	1
Dibromofluoromethane (Surr)	96		75 - 123		10/14/17 17:45	1
Toluene-d8 (Surr)	98		80 - 120		10/14/17 17:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/11/17 09:07	10/19/17 18:20	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/11/17 09:07	10/19/17 18:20	1
1-Methylnaphthalene	ND		2.0	0.49	ug/L		10/11/17 09:07	10/19/17 18:20	1
bis(chloroisopropyl) ether	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4,5-Trichlorophenol	ND		9.8	2.3	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4-Dichlorophenol	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4-Dinitrophenol	ND		20	7.3	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4-Dinitrotoluene	ND		0.98	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,6-Dinitrotoluene	ND		0.98	0.12	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Chloronaphthalene	ND		2.0	0.33	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Chlorophenol	ND		4.9	0.79	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Methylphenol	ND		2.0	0.30	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 18:20	1
2-Nitrophenol	ND		9.8	2.1	ug/L		10/11/17 09:07	10/19/17 18:20	1
3-Nitroaniline	ND		9.8	2.3	ug/L		10/11/17 09:07	10/19/17 18:20	1
4,6-Dinitro-2-methylphenol	ND		20	4.8	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Chloro-3-methylphenol	ND		9.8	2.2	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Chloroaniline	ND		9.8	2.1	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Chlorophenyl phenyl ether	ND		4.9	0.80	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Nitroaniline	ND		9.8	3.9	ug/L		10/11/17 09:07	10/19/17 18:20	1
4-Nitrophenol	ND		20	2.3	ug/L		10/11/17 09:07	10/19/17 18:20	1
Acenaphthene	ND		0.98	0.35	ug/L		10/11/17 09:07	10/19/17 18:20	1
Acenaphthylene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 18:20	1
Anthracene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzo[a]pyrene	ND		0.20	0.055	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzo[b]fluoranthene	ND		0.20	0.057	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzo[g,h,i]perylene	ND		0.98	0.41	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzo[k]fluoranthene	ND		0.20	0.073	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzoic acid	ND		20	4.5	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzyl alcohol	ND		20	3.0	ug/L		10/11/17 09:07	10/19/17 18:20	1
Bis(2-chloroethoxy)methane	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
Bis(2-chloroethyl)ether	ND		2.0	0.34	ug/L		10/11/17 09:07	10/19/17 18:20	1
Bis(2-ethylhexyl) phthalate	ND		9.8	2.4	ug/L		10/11/17 09:07	10/19/17 18:20	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/11/17 09:07	10/19/17 18:20	1
Chrysene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 18:20	1
Dibenz(a,h)anthracene	ND		0.29	0.063	ug/L		10/11/17 09:07	10/19/17 18:20	1
Dibenzofuran	ND		2.0	0.34	ug/L		10/11/17 09:07	10/19/17 18:20	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

**Date Collected: 10/04/17 12:57**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	ND		2.0	0.43	ug/L		10/11/17 09:07	10/19/17 18:20	1
Dimethyl phthalate	ND		2.0	0.37	ug/L		10/11/17 09:07	10/19/17 18:20	1
Di-n-butyl phthalate	ND		4.9	0.79	ug/L		10/11/17 09:07	10/19/17 18:20	1
Di-n-octyl phthalate	ND		9.8	2.4	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.5	ug/L		10/11/17 09:07	10/19/17 18:20	1
Fluoranthene	ND		0.98	0.31	ug/L		10/11/17 09:07	10/19/17 18:20	1
Fluorene	ND		0.98	0.37	ug/L		10/11/17 09:07	10/19/17 18:20	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 18:20	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 18:20	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/11/17 09:07	10/19/17 18:20	1
Hexachloroethane	ND		4.9	0.95	ug/L		10/11/17 09:07	10/19/17 18:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.083	ug/L		10/11/17 09:07	10/19/17 18:20	1
Isophorone	ND		2.0	0.29	ug/L		10/11/17 09:07	10/19/17 18:20	1
Nitrobenzene	ND		0.98	0.44	ug/L		10/11/17 09:07	10/19/17 18:20	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 18:20	1
N-Nitrosodiphenylamine	ND		2.0	0.33	ug/L		10/11/17 09:07	10/19/17 18:20	1
Pentachlorophenol	ND		20	5.5	ug/L		10/11/17 09:07	10/19/17 18:20	1
Phenol	ND		4.9	0.35	ug/L		10/11/17 09:07	10/19/17 18:20	1
Pyrene	ND		0.98	0.47	ug/L		10/11/17 09:07	10/19/17 18:20	1
2,4-Dimethylphenol	ND		9.8	3.3	ug/L		10/11/17 09:07	10/19/17 18:20	1
Benzo[a]anthracene	ND		0.20	0.043	ug/L		10/11/17 09:07	10/19/17 18:20	1
Phenanthrene	ND		0.98	0.34	ug/L		10/11/17 09:07	10/19/17 18:20	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		10/11/17 09:07	10/19/17 18:20	1
3 & 4 Methylphenol	ND		2.0	0.43	ug/L		10/11/17 09:07	10/19/17 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	93		40 - 145	10/11/17 09:07	10/19/17 18:20	1
2-Fluorobiphenyl	79		34 - 110	10/11/17 09:07	10/19/17 18:20	1
2-Fluorophenol (Surr)	50		27 - 110	10/11/17 09:07	10/19/17 18:20	1
Nitrobenzene-d5 (Surr)	89		36 - 120	10/11/17 09:07	10/19/17 18:20	1
Phenol-d5 (Surr)	22		20 - 100	10/11/17 09:07	10/19/17 18:20	1
Terphenyl-d14 (Surr)	93		40 - 145	10/11/17 09:07	10/19/17 18:20	1

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

**Date Collected: 10/04/17 14:02**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 18:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 18:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 18:10	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 18:10	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 18:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 18:10	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 18:10	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 18:10	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 18:10	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 18:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 18:10	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

Date Collected: 10/04/17 14:02

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 18:10	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 18:10	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 18:10	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 18:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120					10/14/17 18:10	1
4-Bromofluorobenzene (Surr)	97		73 - 120					10/14/17 18:10	1
Dibromofluoromethane (Surr)	99		75 - 123					10/14/17 18:10	1
Toluene-d8 (Surr)	94		80 - 120					10/14/17 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 18:47	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 18:47	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 18:47	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 18:47	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 18:47	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,6-Dinitrotoluene	ND		0.96	0.11	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Chlorophenol	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 18:47	1
2-Nitrophenol	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 18:47	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/19/17 18:47	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/19/17 18:47	1
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 18:47	1
Acenaphthene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/19/17 18:47	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 18:47	1
Anthracene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 18:47	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 18:47	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

Date Collected: 10/04/17 14:02

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 18:47	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/19/17 18:47	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 18:47	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 18:47	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 18:47	1
Dibenzofuran	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 18:47	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 18:47	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 18:47	1
Di-n-butyl phthalate	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 18:47	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 18:47	1
Fluoranthene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/19/17 18:47	1
Fluorene	ND		0.96	0.36	ug/L		10/11/17 09:07	10/19/17 18:47	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 18:47	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 18:47	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 18:47	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 18:47	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		10/11/17 09:07	10/19/17 18:47	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 18:47	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/19/17 18:47	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 18:47	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 18:47	1
Pentachlorophenol	ND		19	5.3	ug/L		10/11/17 09:07	10/19/17 18:47	1
Phenol	ND		4.8	0.34	ug/L		10/11/17 09:07	10/19/17 18:47	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/19/17 18:47	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/19/17 18:47	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 18:47	1
Phenanthrene	ND		0.96	0.33	ug/L		10/11/17 09:07	10/19/17 18:47	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 18:47	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		40 - 145	10/11/17 09:07	10/19/17 18:47	1
2-Fluorobiphenyl	79		34 - 110	10/11/17 09:07	10/19/17 18:47	1
2-Fluorophenol (Surr)	50		27 - 110	10/11/17 09:07	10/19/17 18:47	1
Nitrobenzene-d5 (Surr)	94		36 - 120	10/11/17 09:07	10/19/17 18:47	1
Phenol-d5 (Surr)	21		20 - 100	10/11/17 09:07	10/19/17 18:47	1
Terphenyl-d14 (Surr)	93		40 - 145	10/11/17 09:07	10/19/17 18:47	1

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

Date Collected: 10/04/17 15:08

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 18:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 18:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 18:35	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 18:35	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 18:35	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

**Date Collected: 10/04/17 15:08**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 18:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 18:35	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 18:35	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 18:35	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 18:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 18:35	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 18:35	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 18:35	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 18:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 18:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120					10/14/17 18:35	1
4-Bromofluorobenzene (Surr)	100		73 - 120					10/14/17 18:35	1
Dibromofluoromethane (Surr)	97		75 - 123					10/14/17 18:35	1
Toluene-d8 (Surr)	97		80 - 120					10/14/17 18:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 19:13	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 19:13	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 19:13	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 19:13	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/19/17 19:13	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.4	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4,5-Trichlorophenol	ND		9.5	2.2	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4,6-Trichlorophenol	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4-Dichlorophenol	ND		9.5	2.2	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4-Dinitrotoluene	ND		0.95	0.29	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,6-Dinitrotoluene	ND		0.95	0.11	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Chloronaphthalene	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Chlorophenol	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Methylnaphthalene	ND		1.9	0.12	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/19/17 19:13	1
2-Nitrophenol	ND		9.5	2.0	ug/L		10/11/17 09:07	10/19/17 19:13	1
3-Nitroaniline	ND		9.5	2.2	ug/L		10/11/17 09:07	10/19/17 19:13	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Bromophenyl phenyl ether	ND		4.8	0.87	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Chloro-3-methylphenol	ND		9.5	2.1	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Chloroaniline	ND		9.5	2.0	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Chlorophenyl phenyl ether	ND		4.8	0.77	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Nitroaniline	ND		9.5	3.7	ug/L		10/11/17 09:07	10/19/17 19:13	1
4-Nitrophenol	ND		19	2.2	ug/L		10/11/17 09:07	10/19/17 19:13	1
Acenaphthene	ND		0.95	0.34	ug/L		10/11/17 09:07	10/19/17 19:13	1
Acenaphthylene	ND		0.95	0.31	ug/L		10/11/17 09:07	10/19/17 19:13	1
<b>Anthracene</b>	<b>0.55</b>	<b>J</b>	0.95	0.31	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzo[a]pyrene	ND		0.19	0.053	ug/L		10/11/17 09:07	10/19/17 19:13	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

**Date Collected: 10/04/17 15:08**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		0.19	0.055	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzo[g,h,i]perylene	ND		0.95	0.40	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/19/17 19:13	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 19:13	1
Bis(2-chloroethyl)ether	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 19:13	1
Bis(2-ethylhexyl) phthalate	ND		9.5	2.3	ug/L		10/11/17 09:07	10/19/17 19:13	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 19:13	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 19:13	1
Dibenz(a,h)anthracene	ND		0.29	0.061	ug/L		10/11/17 09:07	10/19/17 19:13	1
Dibenzofuran	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 19:13	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 19:13	1
Dimethyl phthalate	ND		1.9	0.36	ug/L		10/11/17 09:07	10/19/17 19:13	1
Di-n-butyl phthalate	ND		4.8	0.76	ug/L		10/11/17 09:07	10/19/17 19:13	1
Di-n-octyl phthalate	ND		9.5	2.4	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/19/17 19:13	1
Fluoranthene	ND		0.95	0.31	ug/L		10/11/17 09:07	10/19/17 19:13	1
Fluorene	ND		0.95	0.36	ug/L		10/11/17 09:07	10/19/17 19:13	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 19:13	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/19/17 19:13	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/19/17 19:13	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/19/17 19:13	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.080	ug/L		10/11/17 09:07	10/19/17 19:13	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 19:13	1
Nitrobenzene	ND		0.95	0.43	ug/L		10/11/17 09:07	10/19/17 19:13	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/19/17 19:13	1
N-Nitrosodiphenylamine	ND		1.9	0.32	ug/L		10/11/17 09:07	10/19/17 19:13	1
Pentachlorophenol	ND		19	5.3	ug/L		10/11/17 09:07	10/19/17 19:13	1
Phenol	ND		4.8	0.34	ug/L		10/11/17 09:07	10/19/17 19:13	1
Pyrene	ND		0.95	0.46	ug/L		10/11/17 09:07	10/19/17 19:13	1
2,4-Dimethylphenol	ND		9.5	3.2	ug/L		10/11/17 09:07	10/19/17 19:13	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/19/17 19:13	1
Phenanthrene	ND		0.95	0.33	ug/L		10/11/17 09:07	10/19/17 19:13	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/19/17 19:13	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/19/17 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		40 - 145	10/11/17 09:07	10/19/17 19:13	1
2-Fluorobiphenyl	82		34 - 110	10/11/17 09:07	10/19/17 19:13	1
2-Fluorophenol (Surr)	42		27 - 110	10/11/17 09:07	10/19/17 19:13	1
Nitrobenzene-d5 (Surr)	89		36 - 120	10/11/17 09:07	10/19/17 19:13	1
Phenol-d5 (Surr)	21		20 - 100	10/11/17 09:07	10/19/17 19:13	1
Terphenyl-d14 (Surr)	94		40 - 145	10/11/17 09:07	10/19/17 19:13	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

**Date Collected: 10/04/17 16:10**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 17:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 17:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 17:23	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 17:23	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 17:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 17:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 17:23	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 17:23	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 17:23	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 17:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 17:23	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 17:23	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 17:23	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 17:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 17:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					10/14/17 17:23	1
4-Bromofluorobenzene (Surr)	91		73 - 120					10/14/17 17:23	1
Dibromofluoromethane (Surr)	103		75 - 123					10/14/17 17:23	1
Toluene-d8 (Surr)	98		80 - 120					10/14/17 17:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 20:07	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 20:07	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/19/17 20:07	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 20:07	1
1-Methylnaphthalene	ND		1.9	0.49	ug/L		10/11/17 09:07	10/19/17 20:07	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,3,4,6-Tetrachlorophenol	ND		4.9	1.5	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4,5-Trichlorophenol	ND		9.7	2.2	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4,6-Trichlorophenol	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4-Dichlorophenol	ND		9.7	2.2	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4-Dinitrophenol	ND		19	7.2	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4-Dinitrotoluene	ND		0.97	0.29	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,6-Dinitrotoluene	ND		0.97	0.12	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Chlorophenol	ND		4.9	0.78	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Nitroaniline	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 20:07	1
2-Nitrophenol	ND		9.7	2.1	ug/L		10/11/17 09:07	10/19/17 20:07	1
3-Nitroaniline	ND		9.7	2.2	ug/L		10/11/17 09:07	10/19/17 20:07	1
4,6-Dinitro-2-methylphenol	ND		19	4.8	ug/L		10/11/17 09:07	10/19/17 20:07	1
4-Bromophenyl phenyl ether	ND		4.9	0.89	ug/L		10/11/17 09:07	10/19/17 20:07	1
4-Chloro-3-methylphenol	ND		9.7	2.1	ug/L		10/11/17 09:07	10/19/17 20:07	1
4-Chloroaniline	ND		9.7	2.0	ug/L		10/11/17 09:07	10/19/17 20:07	1
4-Chlorophenyl phenyl ether	ND		4.9	0.79	ug/L		10/11/17 09:07	10/19/17 20:07	1
4-Nitroaniline	ND		9.7	3.8	ug/L		10/11/17 09:07	10/19/17 20:07	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

**Date Collected: 10/04/17 16:10**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.3	ug/L		10/11/17 09:07	10/19/17 20:07	1
Acenaphthene	ND		0.97	0.35	ug/L		10/11/17 09:07	10/19/17 20:07	1
Acenaphthylene	ND		0.97	0.31	ug/L		10/11/17 09:07	10/19/17 20:07	1
Anthracene	ND		0.97	0.31	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzo[a]pyrene	ND		0.19	0.055	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzo[b]fluoranthene	ND		0.19	0.057	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzo[g,h,i]perylene	ND		0.97	0.41	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzo[k]fluoranthene	ND		0.19	0.072	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzyl alcohol	ND		19	3.0	ug/L		10/11/17 09:07	10/19/17 20:07	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/19/17 20:07	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 20:07	1
Bis(2-ethylhexyl) phthalate	ND		9.7	2.4	ug/L		10/11/17 09:07	10/19/17 20:07	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/19/17 20:07	1
Chrysene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 20:07	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		10/11/17 09:07	10/19/17 20:07	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/11/17 09:07	10/19/17 20:07	1
Diethyl phthalate	ND		1.9	0.43	ug/L		10/11/17 09:07	10/19/17 20:07	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		10/11/17 09:07	10/19/17 20:07	1
Di-n-butyl phthalate	ND		4.9	0.78	ug/L		10/11/17 09:07	10/19/17 20:07	1
Di-n-octyl phthalate	ND		9.7	2.4	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,3,5,6-Tetrachlorophenol	ND		4.9	2.4	ug/L		10/11/17 09:07	10/19/17 20:07	1
Fluoranthene	ND		0.97	0.31	ug/L		10/11/17 09:07	10/19/17 20:07	1
Fluorene	ND		0.97	0.37	ug/L		10/11/17 09:07	10/19/17 20:07	1
Hexachlorobenzene	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 20:07	1
Hexachlorobutadiene	ND		4.9	1.1	ug/L		10/11/17 09:07	10/19/17 20:07	1
Hexachlorocyclopentadiene	ND		19	3.4	ug/L		10/11/17 09:07	10/19/17 20:07	1
Hexachloroethane	ND		4.9	0.95	ug/L		10/11/17 09:07	10/19/17 20:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.082	ug/L		10/11/17 09:07	10/19/17 20:07	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/19/17 20:07	1
Nitrobenzene	ND		0.97	0.44	ug/L		10/11/17 09:07	10/19/17 20:07	1
N-Nitrosodi-n-propylamine	ND		0.49	0.14	ug/L		10/11/17 09:07	10/19/17 20:07	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/19/17 20:07	1
Pentachlorophenol	ND		19	5.5	ug/L		10/11/17 09:07	10/19/17 20:07	1
Phenol	ND		4.9	0.35	ug/L		10/11/17 09:07	10/19/17 20:07	1
Pyrene	ND		0.97	0.47	ug/L		10/11/17 09:07	10/19/17 20:07	1
2,4-Dimethylphenol	ND		9.7	3.3	ug/L		10/11/17 09:07	10/19/17 20:07	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/11/17 09:07	10/19/17 20:07	1
Phenanthrene	ND		0.97	0.34	ug/L		10/11/17 09:07	10/19/17 20:07	1
3,3'-Dichlorobenzidine	ND		4.9	0.92	ug/L		10/11/17 09:07	10/19/17 20:07	1
3 & 4 Methylphenol	ND		1.9	0.43	ug/L		10/11/17 09:07	10/19/17 20:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		40 - 145	10/11/17 09:07	10/19/17 20:07	1
2-Fluorobiphenyl	80		34 - 110	10/11/17 09:07	10/19/17 20:07	1
2-Fluorophenol (Surr)	45		27 - 110	10/11/17 09:07	10/19/17 20:07	1
Nitrobenzene-d5 (Surr)	97		36 - 120	10/11/17 09:07	10/19/17 20:07	1
Phenol-d5 (Surr)	21		20 - 100	10/11/17 09:07	10/19/17 20:07	1
Terphenyl-d14 (Surr)	96		40 - 145	10/11/17 09:07	10/19/17 20:07	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-99A-100417**

**Lab Sample ID: 480-125450-11**

Date Collected: 10/04/17 22:22

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 17:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 17:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 17:46	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 17:46	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 17:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 17:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 17:46	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 17:46	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 17:46	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 17:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 17:46	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 17:46	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 17:46	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 17:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120					10/14/17 17:46	1
4-Bromofluorobenzene (Surr)	91		73 - 120					10/14/17 17:46	1
Dibromofluoromethane (Surr)	104		75 - 123					10/14/17 17:46	1
Toluene-d8 (Surr)	98		80 - 120					10/14/17 17:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:32	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/20/17 12:32	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/20/17 12:32	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/20/17 12:32	1
1-Methylnaphthalene	ND		1.9	0.48	ug/L		10/11/17 09:07	10/20/17 12:32	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.5	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4-Dinitrophenol	ND		19	7.1	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,6-Dinitrotoluene	ND		0.96	0.12	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/20/17 12:32	1
2-Nitrophenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/20/17 12:32	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:32	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/20/17 12:32	1
4-Bromophenyl phenyl ether	ND		4.8	0.88	ug/L		10/11/17 09:07	10/20/17 12:32	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/20/17 12:32	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/20/17 12:32	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/20/17 12:32	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/20/17 12:32	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-99A-100417**

**Lab Sample ID: 480-125450-11**

Date Collected: 10/04/17 22:22

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		19	2.3	ug/L		10/11/17 09:07	10/20/17 12:32	1
Acenaphthene	ND		0.96	0.35	ug/L		10/11/17 09:07	10/20/17 12:32	1
Acenaphthylene	ND		0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:32	1
<b>Anthracene</b>	<b>0.53</b>	<b>J</b>	0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/20/17 12:32	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/20/17 12:32	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:32	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/20/17 12:32	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/20/17 12:32	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/20/17 12:32	1
<b>Chrysene</b>	<b>0.16</b>	<b>J</b>	0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:32	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		10/11/17 09:07	10/20/17 12:32	1
Dibenzofuran	ND		1.9	0.34	ug/L		10/11/17 09:07	10/20/17 12:32	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/20/17 12:32	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		10/11/17 09:07	10/20/17 12:32	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/20/17 12:32	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/20/17 12:32	1
<b>Fluoranthene</b>	<b>0.38</b>	<b>J</b>	0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:32	1
Fluorene	ND		0.96	0.37	ug/L		10/11/17 09:07	10/20/17 12:32	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:32	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/20/17 12:32	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/20/17 12:32	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/20/17 12:32	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.081	ug/L		10/11/17 09:07	10/20/17 12:32	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/20/17 12:32	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/20/17 12:32	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:32	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/20/17 12:32	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/20/17 12:32	1
Phenol	ND		4.8	0.35	ug/L		10/11/17 09:07	10/20/17 12:32	1
Pyrene	ND		0.96	0.46	ug/L		10/11/17 09:07	10/20/17 12:32	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/20/17 12:32	1
<b>Benzo[a]anthracene</b>	<b>0.18</b>	<b>J</b>	0.19	0.042	ug/L		10/11/17 09:07	10/20/17 12:32	1
Phenanthrene	ND		0.96	0.34	ug/L		10/11/17 09:07	10/20/17 12:32	1
3,3'-Dichlorobenzidine	ND		4.8	0.90	ug/L		10/11/17 09:07	10/20/17 12:32	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/20/17 12:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		40 - 145				10/11/17 09:07	10/20/17 12:32	1
2-Fluorobiphenyl	71		34 - 110				10/11/17 09:07	10/20/17 12:32	1
2-Fluorophenol (Surr)	43		27 - 110				10/11/17 09:07	10/20/17 12:32	1
Nitrobenzene-d5 (Surr)	78		36 - 120				10/11/17 09:07	10/20/17 12:32	1
Phenol-d5 (Surr)	25		20 - 100				10/11/17 09:07	10/20/17 12:32	1
Terphenyl-d14 (Surr)	84		40 - 145				10/11/17 09:07	10/20/17 12:32	1

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# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-TB-01-100517**

**Lab Sample ID: 480-125450-12**

Date Collected: 10/05/17 00:00

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/17/17 03:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/17/17 03:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/17/17 03:21	1
Benzene	ND		1.0	0.41	ug/L			10/17/17 03:21	1
Chloromethane	ND		1.0	0.35	ug/L			10/17/17 03:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/17/17 03:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/17/17 03:21	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/17/17 03:21	1
Naphthalene	ND		1.0	0.43	ug/L			10/17/17 03:21	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/17/17 03:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/17 03:21	1
o-Xylene	ND		1.0	0.76	ug/L			10/17/17 03:21	1
Styrene	ND		1.0	0.73	ug/L			10/17/17 03:21	1
Toluene	ND		1.0	0.51	ug/L			10/17/17 03:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/17/17 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120					10/17/17 03:21	1
4-Bromofluorobenzene (Surr)	94		73 - 120					10/17/17 03:21	1
Dibromofluoromethane (Surr)	103		75 - 123					10/17/17 03:21	1
Toluene-d8 (Surr)	99		80 - 120					10/17/17 03:21	1

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

Date Collected: 10/05/17 07:59

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/15/17 21:29	1
<b>1,2,4-Trimethylbenzene</b>	<b>6.5</b>		1.0	0.75	ug/L			10/15/17 21:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/15/17 21:29	1
<b>Benzene</b>	<b>16</b>		1.0	0.41	ug/L			10/15/17 21:29	1
Chloromethane	ND		1.0	0.35	ug/L			10/15/17 21:29	1
<b>Ethylbenzene</b>	<b>33</b>		1.0	0.74	ug/L			10/15/17 21:29	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/15/17 21:29	1
<b>m-Xylene &amp; p-Xylene</b>	<b>3.9</b>		2.0	0.66	ug/L			10/15/17 21:29	1
<b>Naphthalene</b>	<b>1.7</b>		1.0	0.43	ug/L			10/15/17 21:29	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/15/17 21:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/15/17 21:29	1
<b>o-Xylene</b>	<b>15</b>		1.0	0.76	ug/L			10/15/17 21:29	1
Styrene	ND		1.0	0.73	ug/L			10/15/17 21:29	1
<b>Toluene</b>	<b>5.0</b>		1.0	0.51	ug/L			10/15/17 21:29	1
<b>Xylenes, Total</b>	<b>19</b>		2.0	0.66	ug/L			10/15/17 21:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120					10/15/17 21:29	1
4-Bromofluorobenzene (Surr)	103		73 - 120					10/15/17 21:29	1
Dibromofluoromethane (Surr)	104		75 - 123					10/15/17 21:29	1
Toluene-d8 (Surr)	101		80 - 120					10/15/17 21:29	1

TestAmerica Buffalo



# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

**Date Collected: 10/05/17 07:59**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:59	1
1,2-Dichlorobenzene	ND		1.9	0.28	ug/L		10/11/17 09:07	10/20/17 12:59	1
1,3-Dichlorobenzene	ND		1.9	0.24	ug/L		10/11/17 09:07	10/20/17 12:59	1
1,4-Dichlorobenzene	ND		1.9	0.26	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>1-Methylnaphthalene</b>	<b>23</b>		1.9	0.48	ug/L		10/11/17 09:07	10/20/17 12:59	1
bis(chloroisopropyl) ether	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,3,4,6-Tetrachlorophenol	ND		4.8	1.5	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4,5-Trichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4,6-Trichlorophenol	ND		4.8	1.1	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4-Dichlorophenol	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4-Dinitrophenol	ND		19	7.2	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4-Dinitrotoluene	ND		0.96	0.29	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,6-Dinitrotoluene	ND		0.96	0.12	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Chloronaphthalene	ND		1.9	0.33	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Chlorophenol	ND		4.8	0.77	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Methylnaphthalene	ND		1.9	0.13	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Methylphenol	ND		1.9	0.30	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Nitroaniline	ND		4.8	1.0	ug/L		10/11/17 09:07	10/20/17 12:59	1
2-Nitrophenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/20/17 12:59	1
3-Nitroaniline	ND		9.6	2.2	ug/L		10/11/17 09:07	10/20/17 12:59	1
4,6-Dinitro-2-methylphenol	ND		19	4.7	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Bromophenyl phenyl ether	ND		4.8	0.88	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Chloro-3-methylphenol	ND		9.6	2.1	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Chloroaniline	ND		9.6	2.0	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Chlorophenyl phenyl ether	ND		4.8	0.78	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Nitroaniline	ND		9.6	3.8	ug/L		10/11/17 09:07	10/20/17 12:59	1
4-Nitrophenol	ND		19	2.3	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Acenaphthene</b>	<b>50</b>		0.96	0.35	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Acenaphthylene</b>	<b>0.56 J</b>		0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Anthracene</b>	<b>0.43 J</b>		0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzo[a]pyrene	ND		0.19	0.054	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzo[b]fluoranthene	ND		0.19	0.056	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzo[g,h,i]perylene	ND		0.96	0.40	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzo[k]fluoranthene	ND		0.19	0.071	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzoic acid	ND		19	4.4	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzyl alcohol	ND		19	2.9	ug/L		10/11/17 09:07	10/20/17 12:59	1
Bis(2-chloroethoxy)methane	ND		1.9	0.29	ug/L		10/11/17 09:07	10/20/17 12:59	1
Bis(2-chloroethyl)ether	ND		1.9	0.34	ug/L		10/11/17 09:07	10/20/17 12:59	1
Bis(2-ethylhexyl) phthalate	ND		9.6	2.3	ug/L		10/11/17 09:07	10/20/17 12:59	1
Butyl benzyl phthalate	ND		1.9	0.26	ug/L		10/11/17 09:07	10/20/17 12:59	1
Chrysene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:59	1
Dibenz(a,h)anthracene	ND		0.29	0.062	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Dibenzofuran</b>	<b>13</b>		1.9	0.34	ug/L		10/11/17 09:07	10/20/17 12:59	1
Diethyl phthalate	ND		1.9	0.42	ug/L		10/11/17 09:07	10/20/17 12:59	1
Dimethyl phthalate	ND		1.9	0.37	ug/L		10/11/17 09:07	10/20/17 12:59	1
Di-n-butyl phthalate	ND		4.8	0.77	ug/L		10/11/17 09:07	10/20/17 12:59	1
Di-n-octyl phthalate	ND		9.6	2.4	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,3,5,6-Tetrachlorophenol	ND		4.8	2.4	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Fluoranthene</b>	<b>1.2</b>		0.96	0.31	ug/L		10/11/17 09:07	10/20/17 12:59	1

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

Date Collected: 10/05/17 07:59

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>12</b>		0.96	0.37	ug/L		10/11/17 09:07	10/20/17 12:59	1
Hexachlorobenzene	ND		0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:59	1
Hexachlorobutadiene	ND		4.8	1.1	ug/L		10/11/17 09:07	10/20/17 12:59	1
Hexachlorocyclopentadiene	ND		19	3.3	ug/L		10/11/17 09:07	10/20/17 12:59	1
Hexachloroethane	ND		4.8	0.93	ug/L		10/11/17 09:07	10/20/17 12:59	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.081	ug/L		10/11/17 09:07	10/20/17 12:59	1
Isophorone	ND		1.9	0.28	ug/L		10/11/17 09:07	10/20/17 12:59	1
Nitrobenzene	ND		0.96	0.43	ug/L		10/11/17 09:07	10/20/17 12:59	1
N-Nitrosodi-n-propylamine	ND		0.48	0.13	ug/L		10/11/17 09:07	10/20/17 12:59	1
N-Nitrosodiphenylamine	ND		1.9	0.33	ug/L		10/11/17 09:07	10/20/17 12:59	1
Pentachlorophenol	ND		19	5.4	ug/L		10/11/17 09:07	10/20/17 12:59	1
Phenol	ND		4.8	0.35	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Pyrene</b>	<b>0.77 J</b>		0.96	0.46	ug/L		10/11/17 09:07	10/20/17 12:59	1
2,4-Dimethylphenol	ND		9.6	3.2	ug/L		10/11/17 09:07	10/20/17 12:59	1
Benzo[a]anthracene	ND		0.19	0.042	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Phenanthrene</b>	<b>1.4</b>		0.96	0.34	ug/L		10/11/17 09:07	10/20/17 12:59	1
3,3'-Dichlorobenzidine	ND		4.8	0.91	ug/L		10/11/17 09:07	10/20/17 12:59	1
3 & 4 Methylphenol	ND		1.9	0.42	ug/L		10/11/17 09:07	10/20/17 12:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4,6-Tribromophenol (Surr)	86		40 - 145				10/11/17 09:07	10/20/17 12:59	1
2-Fluorobiphenyl	70		34 - 110				10/11/17 09:07	10/20/17 12:59	1
2-Fluorophenol (Surr)	44		27 - 110				10/11/17 09:07	10/20/17 12:59	1
Nitrobenzene-d5 (Surr)	78		36 - 120				10/11/17 09:07	10/20/17 12:59	1
Phenol-d5 (Surr)	21		20 - 100				10/11/17 09:07	10/20/17 12:59	1
Terphenyl-d14 (Surr)	82		40 - 145				10/11/17 09:07	10/20/17 12:59	1

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

Date Collected: 10/05/17 08:45

Matrix: Water

Date Received: 10/06/17 09:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/15/17 21:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/15/17 21:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/15/17 21:55	1
Benzene	ND		1.0	0.41	ug/L			10/15/17 21:55	1
Chloromethane	ND		1.0	0.35	ug/L			10/15/17 21:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/15/17 21:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/15/17 21:55	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/15/17 21:55	1
Naphthalene	ND		1.0	0.43	ug/L			10/15/17 21:55	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/15/17 21:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/15/17 21:55	1
o-Xylene	ND		1.0	0.76	ug/L			10/15/17 21:55	1
Styrene	ND		1.0	0.73	ug/L			10/15/17 21:55	1
Toluene	ND		1.0	0.51	ug/L			10/15/17 21:55	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/15/17 21:55	1

TestAmerica Buffalo



# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

**Date Collected: 10/05/17 08:45**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		10/15/17 21:55	1
4-Bromofluorobenzene (Surr)	102		73 - 120		10/15/17 21:55	1
Dibromofluoromethane (Surr)	102		75 - 123		10/15/17 21:55	1
Toluene-d8 (Surr)	100		80 - 120		10/15/17 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/11/17 09:07	10/20/17 13:26	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/11/17 09:07	10/20/17 13:26	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/11/17 09:07	10/20/17 13:26	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/11/17 09:07	10/20/17 13:26	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/11/17 09:07	10/20/17 13:26	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/11/17 09:07	10/20/17 13:26	1
2-Nitrophenol	ND		10	2.1	ug/L		10/11/17 09:07	10/20/17 13:26	1
3-Nitroaniline	ND		10	2.3	ug/L		10/11/17 09:07	10/20/17 13:26	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Chloroaniline	ND		10	2.1	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Nitroaniline	ND		10	3.9	ug/L		10/11/17 09:07	10/20/17 13:26	1
4-Nitrophenol	ND		20	2.3	ug/L		10/11/17 09:07	10/20/17 13:26	1
Acenaphthene	ND		1.0	0.36	ug/L		10/11/17 09:07	10/20/17 13:26	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/20/17 13:26	1
Anthracene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzoic acid	ND		20	4.6	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzyl alcohol	ND		20	3.0	ug/L		10/11/17 09:07	10/20/17 13:26	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/11/17 09:07	10/20/17 13:26	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/11/17 09:07	10/20/17 13:26	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/11/17 09:07	10/20/17 13:26	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/11/17 09:07	10/20/17 13:26	1
Chrysene	ND		0.50	0.14	ug/L		10/11/17 09:07	10/20/17 13:26	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/11/17 09:07	10/20/17 13:26	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/11/17 09:07	10/20/17 13:26	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

**Date Collected: 10/05/17 08:45**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	ND		2.0	0.44	ug/L		10/11/17 09:07	10/20/17 13:26	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/11/17 09:07	10/20/17 13:26	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/11/17 09:07	10/20/17 13:26	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/11/17 09:07	10/20/17 13:26	1
Fluoranthene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/20/17 13:26	1
Fluorene	ND		1.0	0.38	ug/L		10/11/17 09:07	10/20/17 13:26	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/11/17 09:07	10/20/17 13:26	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/11/17 09:07	10/20/17 13:26	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/11/17 09:07	10/20/17 13:26	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/11/17 09:07	10/20/17 13:26	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/11/17 09:07	10/20/17 13:26	1
Isophorone	ND		2.0	0.29	ug/L		10/11/17 09:07	10/20/17 13:26	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/11/17 09:07	10/20/17 13:26	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/11/17 09:07	10/20/17 13:26	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/11/17 09:07	10/20/17 13:26	1
Pentachlorophenol	ND		20	5.6	ug/L		10/11/17 09:07	10/20/17 13:26	1
Phenol	ND		5.0	0.36	ug/L		10/11/17 09:07	10/20/17 13:26	1
Pyrene	ND		1.0	0.48	ug/L		10/11/17 09:07	10/20/17 13:26	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/11/17 09:07	10/20/17 13:26	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/11/17 09:07	10/20/17 13:26	1
Phenanthrene	ND		1.0	0.35	ug/L		10/11/17 09:07	10/20/17 13:26	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/11/17 09:07	10/20/17 13:26	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/11/17 09:07	10/20/17 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		40 - 145	10/11/17 09:07	10/20/17 13:26	1
2-Fluorobiphenyl	82		34 - 110	10/11/17 09:07	10/20/17 13:26	1
2-Fluorophenol (Surr)	49		27 - 110	10/11/17 09:07	10/20/17 13:26	1
Nitrobenzene-d5 (Surr)	84		36 - 120	10/11/17 09:07	10/20/17 13:26	1
Phenol-d5 (Surr)	27		20 - 100	10/11/17 09:07	10/20/17 13:26	1
Terphenyl-d14 (Surr)	94		40 - 145	10/11/17 09:07	10/20/17 13:26	1

# Surrogate Summary

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-125450-1	SUPE-W-30C-100417	100	101	100	98
480-125450-2	SUPE-W-06A-100417	96	98	97	96
480-125450-3	SUPE-W-06C-100417	96	100	99	97
480-125450-4	SUPE-W-12A-100417	94	101	96	98
480-125450-5	SUPE-W-30A-100417	99	101	96	96
480-125450-7	SUPE-W-28C-100417	96	101	96	98
480-125450-8	SUPE-W-12CR-100417	97	97	99	94
480-125450-9	SUPE-W-04AR2-100417	96	100	97	97
480-125450-10	SUPE-EB-01-100417	100	91	103	98
480-125450-11	SUPE-W-99A-100417	101	91	104	98
480-125450-12	SUPE-TB-01-100517	101	94	103	99
480-125450-13	SUPE-W-10AR2-100517	106	103	104	101
480-125450-14	SUPE-EB-02-100517	100	102	102	100
LCS 480-381807/4	Lab Control Sample	97	101	97	98
LCS 480-381814/5	Lab Control Sample	94	99	100	102
LCS 480-381881/5	Lab Control Sample	105	102	104	102
LCS 480-382072/4	Lab Control Sample	92	102	97	102
MB 480-381807/6	Method Blank	95	99	97	97
MB 480-381814/7	Method Blank	99	95	103	99
MB 480-381881/7	Method Blank	104	101	102	101
MB 480-382072/6	Method Blank	98	93	99	99

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-145)	FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-100)	TPH (40-145)
480-125450-1	SUPE-W-30C-100417	83	79	42	88	18 X	98
480-125450-2	SUPE-W-06A-100417	89	75	48	88	22	82
480-125450-3	SUPE-W-06C-100417	88	77	43	91	21	86
480-125450-4	SUPE-W-12A-100417	85	76	39	88	19 X	86
480-125450-5	SUPE-W-30A-100417	95	79	48	88	25	76
480-125450-6	SUPE-W-18D-100417	90	75	43	85	20	95
480-125450-7	SUPE-W-28C-100417	93	79	50	89	22	93
480-125450-8	SUPE-W-12CR-100417	94	79	50	94	21	93
480-125450-9	SUPE-W-04AR2-100417	90	82	42	89	21	94
480-125450-10	SUPE-EB-01-100417	80	80	45	97	21	96
480-125450-11	SUPE-W-99A-100417	85	71	43	78	25	84
480-125450-13	SUPE-W-10AR2-100517	86	70	44	78	21	82
480-125450-14	SUPE-EB-02-100517	80	82	49	84	27	94
LCS 500-404842/2-A	Lab Control Sample	96	84	59	83	35	92
LCSD 500-404842/3-A	Lab Control Sample Dup	96	83	55	87	35	92

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# Surrogate Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-145)	FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-100)	TPH (40-145)
MB 500-404842/1-A	Method Blank	82	85	59	86	33	96

### Surrogate Legend

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

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: MB 480-381807/6**

**Matrix: Water**

**Analysis Batch: 381807**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 10:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 10:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 10:51	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 10:51	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 10:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 10:51	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 10:51	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 10:51	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 10:51	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 10:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 10:51	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 10:51	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 10:51	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 10:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 10:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120		10/14/17 10:51	1
4-Bromofluorobenzene (Surr)	99		73 - 120		10/14/17 10:51	1
Dibromofluoromethane (Surr)	97		75 - 123		10/14/17 10:51	1
Toluene-d8 (Surr)	97		80 - 120		10/14/17 10:51	1

**Lab Sample ID: LCS 480-381807/4**

**Matrix: Water**

**Analysis Batch: 381807**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	27.6		ug/L		110	73 - 126
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	76 - 121
1,3,5-Trimethylbenzene	25.0	27.5		ug/L		110	77 - 121
Benzene	25.0	27.0		ug/L		108	71 - 124
Chloromethane	25.0	20.9		ug/L		84	68 - 124
Ethylbenzene	25.0	27.2		ug/L		109	77 - 123
Methyl tert-butyl ether	25.0	26.6		ug/L		107	77 - 120
m-Xylene & p-Xylene	25.0	27.3		ug/L		109	76 - 122
Naphthalene	25.0	26.1		ug/L		105	66 - 125
n-Butylbenzene	25.0	27.3		ug/L		109	71 - 128
N-Propylbenzene	25.0	28.2		ug/L		113	75 - 127
o-Xylene	25.0	27.2		ug/L		109	76 - 122
Styrene	25.0	26.8		ug/L		107	80 - 120
Toluene	25.0	27.3		ug/L		109	80 - 122
Xylenes, Total	50.0	54.5		ug/L		109	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 120
4-Bromofluorobenzene (Surr)	101		73 - 120
Dibromofluoromethane (Surr)	97		75 - 123

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCS 480-381807/4**  
**Matrix: Water**  
**Analysis Batch: 381807**

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	98		80 - 120

**Lab Sample ID: MB 480-381814/7**  
**Matrix: Water**  
**Analysis Batch: 381814**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/14/17 10:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/14/17 10:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/14/17 10:54	1
Benzene	ND		1.0	0.41	ug/L			10/14/17 10:54	1
Chloromethane	ND		1.0	0.35	ug/L			10/14/17 10:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/14/17 10:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/14/17 10:54	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/14/17 10:54	1
Naphthalene	ND		1.0	0.43	ug/L			10/14/17 10:54	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/14/17 10:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/14/17 10:54	1
o-Xylene	ND		1.0	0.76	ug/L			10/14/17 10:54	1
Styrene	ND		1.0	0.73	ug/L			10/14/17 10:54	1
Toluene	ND		1.0	0.51	ug/L			10/14/17 10:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/14/17 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		10/14/17 10:54	1
4-Bromofluorobenzene (Surr)	95		73 - 120		10/14/17 10:54	1
Dibromofluoromethane (Surr)	103		75 - 123		10/14/17 10:54	1
Toluene-d8 (Surr)	99		80 - 120		10/14/17 10:54	1

**Lab Sample ID: LCS 480-381814/5**  
**Matrix: Water**  
**Analysis Batch: 381814**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.8		ug/L		103	73 - 126
1,2,4-Trimethylbenzene	25.0	27.2		ug/L		109	76 - 121
1,3,5-Trimethylbenzene	25.0	27.3		ug/L		109	77 - 121
Benzene	25.0	29.9		ug/L		120	71 - 124
Chloromethane	25.0	20.2		ug/L		81	68 - 124
Ethylbenzene	25.0	27.4		ug/L		109	77 - 123
Methyl tert-butyl ether	25.0	26.7		ug/L		107	77 - 120
m-Xylene & p-Xylene	25.0	27.1		ug/L		109	76 - 122
Naphthalene	25.0	23.9		ug/L		96	66 - 125
n-Butylbenzene	25.0	27.6		ug/L		110	71 - 128
N-Propylbenzene	25.0	26.8		ug/L		107	75 - 127
o-Xylene	25.0	26.8		ug/L		107	76 - 122
Styrene	25.0	27.6		ug/L		110	80 - 120
Toluene	25.0	28.3		ug/L		113	80 - 122

TestAmerica Buffalo

# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCS 480-381814/5**  
**Matrix: Water**  
**Analysis Batch: 381814**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	50.0	53.9		ug/L		108	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	100		75 - 123
Toluene-d8 (Surr)	102		80 - 120

**Lab Sample ID: MB 480-381881/7**  
**Matrix: Water**  
**Analysis Batch: 381881**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/15/17 15:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/15/17 15:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/15/17 15:18	1
Benzene	ND		1.0	0.41	ug/L			10/15/17 15:18	1
Chloromethane	ND		1.0	0.35	ug/L			10/15/17 15:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/15/17 15:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/15/17 15:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/15/17 15:18	1
Naphthalene	ND		1.0	0.43	ug/L			10/15/17 15:18	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/15/17 15:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/15/17 15:18	1
o-Xylene	ND		1.0	0.76	ug/L			10/15/17 15:18	1
Styrene	ND		1.0	0.73	ug/L			10/15/17 15:18	1
Toluene	ND		1.0	0.51	ug/L			10/15/17 15:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/15/17 15:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		10/15/17 15:18	1
4-Bromofluorobenzene (Surr)	101		73 - 120		10/15/17 15:18	1
Dibromofluoromethane (Surr)	102		75 - 123		10/15/17 15:18	1
Toluene-d8 (Surr)	101		80 - 120		10/15/17 15:18	1

**Lab Sample ID: LCS 480-381881/5**  
**Matrix: Water**  
**Analysis Batch: 381881**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	27.8		ug/L		111	73 - 126
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		112	76 - 121
1,3,5-Trimethylbenzene	25.0	27.8		ug/L		111	77 - 121
Benzene	25.0	27.6		ug/L		110	71 - 124
Chloromethane	25.0	24.3		ug/L		97	68 - 124
Ethylbenzene	25.0	26.9		ug/L		108	77 - 123
Methyl tert-butyl ether	25.0	28.2		ug/L		113	77 - 120
m-Xylene & p-Xylene	25.0	27.4		ug/L		109	76 - 122

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCS 480-381881/5**  
**Matrix: Water**  
**Analysis Batch: 381881**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	25.0	27.9		ug/L		112	66 - 125
n-Butylbenzene	25.0	27.7		ug/L		111	71 - 128
N-Propylbenzene	25.0	28.4		ug/L		114	75 - 127
o-Xylene	25.0	27.4		ug/L		110	76 - 122
Styrene	25.0	27.6		ug/L		111	80 - 120
Toluene	25.0	27.6		ug/L		110	80 - 122
Xylenes, Total	50.0	54.8		ug/L		110	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		77 - 120
4-Bromofluorobenzene (Surr)	102		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123
Toluene-d8 (Surr)	102		80 - 120

**Lab Sample ID: MB 480-382072/6**  
**Matrix: Water**  
**Analysis Batch: 382072**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/16/17 22:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			10/16/17 22:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			10/16/17 22:38	1
Benzene	ND		1.0	0.41	ug/L			10/16/17 22:38	1
Chloromethane	ND		1.0	0.35	ug/L			10/16/17 22:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/16/17 22:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/16/17 22:38	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			10/16/17 22:38	1
Naphthalene	ND		1.0	0.43	ug/L			10/16/17 22:38	1
n-Butylbenzene	ND		1.0	0.64	ug/L			10/16/17 22:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/16/17 22:38	1
o-Xylene	ND		1.0	0.76	ug/L			10/16/17 22:38	1
Styrene	ND		1.0	0.73	ug/L			10/16/17 22:38	1
Toluene	ND		1.0	0.51	ug/L			10/16/17 22:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/16/17 22:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		10/16/17 22:38	1
4-Bromofluorobenzene (Surr)	93		73 - 120		10/16/17 22:38	1
Dibromofluoromethane (Surr)	99		75 - 123		10/16/17 22:38	1
Toluene-d8 (Surr)	99		80 - 120		10/16/17 22:38	1

**Lab Sample ID: LCS 480-382072/4**  
**Matrix: Water**  
**Analysis Batch: 382072**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	73 - 126
1,2,4-Trimethylbenzene	25.0	27.2		ug/L		109	76 - 121

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCS 480-382072/4**  
**Matrix: Water**  
**Analysis Batch: 382072**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	77 - 121
Benzene	25.0	28.0		ug/L		112	71 - 124
Chloromethane	25.0	26.8		ug/L		107	68 - 124
Ethylbenzene	25.0	27.2		ug/L		109	77 - 123
Methyl tert-butyl ether	25.0	25.2		ug/L		101	77 - 120
m-Xylene & p-Xylene	25.0	26.7		ug/L		107	76 - 122
Naphthalene	25.0	25.6		ug/L		102	66 - 125
n-Butylbenzene	25.0	27.0		ug/L		108	71 - 128
N-Propylbenzene	25.0	26.2		ug/L		105	75 - 127
o-Xylene	25.0	26.7		ug/L		107	76 - 122
Styrene	25.0	27.3		ug/L		109	80 - 120
Toluene	25.0	27.2		ug/L		109	80 - 122
Xylenes, Total	50.0	53.4		ug/L		107	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		77 - 120
4-Bromofluorobenzene (Surr)	102		73 - 120
Dibromofluoromethane (Surr)	97		75 - 123
Toluene-d8 (Surr)	102		80 - 120

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

**Lab Sample ID: MB 500-404842/1-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	0.30	ug/L		10/11/17 09:07	10/12/17 20:33	1
1,2-Dichlorobenzene	ND		2.0	0.29	ug/L		10/11/17 09:07	10/12/17 20:33	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L		10/11/17 09:07	10/12/17 20:33	1
1,4-Dichlorobenzene	ND		2.0	0.27	ug/L		10/11/17 09:07	10/12/17 20:33	1
1-Methylnaphthalene	ND		2.0	0.50	ug/L		10/11/17 09:07	10/12/17 20:33	1
bis(chloroisopropyl) ether	ND		2.0	0.30	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,3,4,6-Tetrachlorophenol	ND		5.0	1.5	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4,5-Trichlorophenol	ND		10	2.3	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4,6-Trichlorophenol	ND		5.0	1.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4-Dichlorophenol	ND		10	2.3	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4-Dinitrophenol	ND		20	7.4	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4-Dinitrotoluene	ND		1.0	0.30	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,6-Dinitrotoluene	ND		1.0	0.12	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Chloronaphthalene	ND		2.0	0.34	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Chlorophenol	ND		5.0	0.80	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Methylnaphthalene	ND		2.0	0.13	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Methylphenol	ND		2.0	0.31	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Nitroaniline	ND		5.0	1.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
2-Nitrophenol	ND		10	2.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
3-Nitroaniline	ND		10	2.3	ug/L		10/11/17 09:07	10/12/17 20:33	1
4,6-Dinitro-2-methylphenol	ND		20	4.9	ug/L		10/11/17 09:07	10/12/17 20:33	1

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: MB 500-404842/1-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		5.0	0.91	ug/L		10/11/17 09:07	10/12/17 20:33	1
4-Chloro-3-methylphenol	ND		10	2.2	ug/L		10/11/17 09:07	10/12/17 20:33	1
4-Chloroaniline	ND		10	2.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
4-Chlorophenyl phenyl ether	ND		5.0	0.81	ug/L		10/11/17 09:07	10/12/17 20:33	1
4-Nitroaniline	ND		10	3.9	ug/L		10/11/17 09:07	10/12/17 20:33	1
4-Nitrophenol	ND		20	2.3	ug/L		10/11/17 09:07	10/12/17 20:33	1
Acenaphthene	ND		1.0	0.36	ug/L		10/11/17 09:07	10/12/17 20:33	1
Acenaphthylene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/12/17 20:33	1
Anthracene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzo[a]pyrene	ND		0.20	0.056	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzo[b]fluoranthene	ND		0.20	0.058	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzo[g,h,i]perylene	ND		1.0	0.42	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzo[k]fluoranthene	ND		0.20	0.074	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzoic acid	ND		20	4.6	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzyl alcohol	ND		20	3.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
Bis(2-chloroethoxy)methane	ND		2.0	0.30	ug/L		10/11/17 09:07	10/12/17 20:33	1
Bis(2-chloroethyl)ether	ND		2.0	0.35	ug/L		10/11/17 09:07	10/12/17 20:33	1
Bis(2-ethylhexyl) phthalate	ND		10	2.4	ug/L		10/11/17 09:07	10/12/17 20:33	1
Butyl benzyl phthalate	ND		2.0	0.27	ug/L		10/11/17 09:07	10/12/17 20:33	1
Chrysene	ND		0.50	0.14	ug/L		10/11/17 09:07	10/12/17 20:33	1
Dibenz(a,h)anthracene	ND		0.30	0.064	ug/L		10/11/17 09:07	10/12/17 20:33	1
Dibenzofuran	ND		2.0	0.35	ug/L		10/11/17 09:07	10/12/17 20:33	1
Diethyl phthalate	ND		2.0	0.44	ug/L		10/11/17 09:07	10/12/17 20:33	1
Dimethyl phthalate	ND		2.0	0.38	ug/L		10/11/17 09:07	10/12/17 20:33	1
Di-n-butyl phthalate	ND		5.0	0.80	ug/L		10/11/17 09:07	10/12/17 20:33	1
Di-n-octyl phthalate	ND		10	2.5	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	ug/L		10/11/17 09:07	10/12/17 20:33	1
Fluoranthene	ND		1.0	0.32	ug/L		10/11/17 09:07	10/12/17 20:33	1
Fluorene	ND		1.0	0.38	ug/L		10/11/17 09:07	10/12/17 20:33	1
Hexachlorobenzene	ND		0.50	0.14	ug/L		10/11/17 09:07	10/12/17 20:33	1
Hexachlorobutadiene	ND		5.0	1.1	ug/L		10/11/17 09:07	10/12/17 20:33	1
Hexachlorocyclopentadiene	ND		20	3.4	ug/L		10/11/17 09:07	10/12/17 20:33	1
Hexachloroethane	ND		5.0	0.97	ug/L		10/11/17 09:07	10/12/17 20:33	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.084	ug/L		10/11/17 09:07	10/12/17 20:33	1
Isophorone	ND		2.0	0.29	ug/L		10/11/17 09:07	10/12/17 20:33	1
Naphthalene	ND		1.0	0.30	ug/L		10/11/17 09:07	10/12/17 20:33	1
Nitrobenzene	ND		1.0	0.45	ug/L		10/11/17 09:07	10/12/17 20:33	1
N-Nitrosodi-n-propylamine	ND		0.50	0.14	ug/L		10/11/17 09:07	10/12/17 20:33	1
N-Nitrosodiphenylamine	ND		2.0	0.34	ug/L		10/11/17 09:07	10/12/17 20:33	1
Pentachlorophenol	ND		20	5.6	ug/L		10/11/17 09:07	10/12/17 20:33	1
Phenol	ND		5.0	0.36	ug/L		10/11/17 09:07	10/12/17 20:33	1
Pyrene	ND		1.0	0.48	ug/L		10/11/17 09:07	10/12/17 20:33	1
2,4-Dimethylphenol	ND		10	3.3	ug/L		10/11/17 09:07	10/12/17 20:33	1
Benzo[a]anthracene	ND		0.20	0.044	ug/L		10/11/17 09:07	10/12/17 20:33	1
Phenanthrene	ND		1.0	0.35	ug/L		10/11/17 09:07	10/12/17 20:33	1
3,3'-Dichlorobenzidine	ND		5.0	0.94	ug/L		10/11/17 09:07	10/12/17 20:33	1
3 & 4 Methylphenol	ND		2.0	0.44	ug/L		10/11/17 09:07	10/12/17 20:33	1

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: MB 500-404842/1-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	82		40 - 145	10/11/17 09:07	10/12/17 20:33	1
2-Fluorobiphenyl	85		34 - 110	10/11/17 09:07	10/12/17 20:33	1
2-Fluorophenol (Surr)	59		27 - 110	10/11/17 09:07	10/12/17 20:33	1
Nitrobenzene-d5 (Surr)	86		36 - 120	10/11/17 09:07	10/12/17 20:33	1
Phenol-d5 (Surr)	33		20 - 100	10/11/17 09:07	10/12/17 20:33	1
Terphenyl-d14 (Surr)	96		40 - 145	10/11/17 09:07	10/12/17 20:33	1

**Lab Sample ID: LCS 500-404842/2-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	40.0	25.4		ug/L		64	26 - 110
1,3-Dichlorobenzene	40.0	25.6		ug/L		64	22 - 110
1,4-Dichlorobenzene	40.0	25.9		ug/L		65	23 - 110
1-Methylnaphthalene	40.0	29.3		ug/L		73	38 - 110
bis(chloroisopropyl) ether	40.0	18.7		ug/L		47	38 - 110
2,3,4,6-Tetrachlorophenol	40.0	34.8		ug/L		87	44 - 118
2,4,5-Trichlorophenol	40.0	36.3		ug/L		91	63 - 120
2,4,6-Trichlorophenol	40.0	34.7		ug/L		87	62 - 110
2,4-Dichlorophenol	40.0	33.4		ug/L		83	62 - 110
2,4-Dinitrophenol	80.0	68.1		ug/L		85	37 - 130
2,4-Dinitrotoluene	40.0	37.0		ug/L		93	63 - 122
2,6-Dinitrotoluene	40.0	36.4		ug/L		91	63 - 119
2-Chloronaphthalene	40.0	30.8		ug/L		77	39 - 110
2-Chlorophenol	40.0	30.1		ug/L		75	59 - 110
2-Methylnaphthalene	40.0	28.9		ug/L		72	34 - 110
2-Methylphenol	40.0	27.0		ug/L		68	53 - 110
2-Nitroaniline	40.0	36.3		ug/L		91	59 - 122
2-Nitrophenol	40.0	31.8		ug/L		80	58 - 110
3-Nitroaniline	40.0	33.5		ug/L		84	47 - 123
4,6-Dinitro-2-methylphenol	80.0	61.5		ug/L		77	50 - 117
4-Bromophenyl phenyl ether	40.0	35.5		ug/L		89	58 - 120
4-Chloro-3-methylphenol	40.0	36.0		ug/L		90	64 - 120
4-Chloroaniline	40.0	28.3		ug/L		71	35 - 128
4-Chlorophenyl phenyl ether	40.0	32.4		ug/L		81	47 - 112
4-Nitroaniline	40.0	39.7		ug/L		99	52 - 147
4-Nitrophenol	80.0	33.8		ug/L		42	20 - 110
Acenaphthene	40.0	33.1		ug/L		83	46 - 110
Acenaphthylene	40.0	30.6		ug/L		77	47 - 110
Anthracene	40.0	34.0		ug/L		85	67 - 110
Benzo[a]pyrene	40.0	37.4		ug/L		94	70 - 120
Benzo[b]fluoranthene	40.0	36.2		ug/L		91	69 - 123
Benzo[g,h,i]perylene	40.0	37.5		ug/L		94	70 - 120
Benzo[k]fluoranthene	40.0	35.3		ug/L		88	70 - 120
Benzoic acid	80.0	25.7		ug/L		32	10 - 100
Benzyl alcohol	40.0	22.4		ug/L		56	33 - 127

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCS 500-404842/2-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Lower	Upper
Bis(2-chloroethoxy)methane	40.0	31.2		ug/L		78	60	110
Bis(2-chloroethyl)ether	40.0	28.5		ug/L		71	49	110
Bis(2-ethylhexyl) phthalate	40.0	33.9		ug/L		85	69	120
Butyl benzyl phthalate	40.0	34.0		ug/L		85	68	120
Chrysene	40.0	33.6		ug/L		84	68	120
Dibenz(a,h)anthracene	40.0	39.1		ug/L		98	70	127
Dibenzofuran	40.0	32.5		ug/L		81	51	110
Diethyl phthalate	40.0	34.4		ug/L		86	62	120
Dimethyl phthalate	40.0	33.1		ug/L		83	63	120
Di-n-butyl phthalate	40.0	33.3		ug/L		83	70	120
Di-n-octyl phthalate	40.0	36.8		ug/L		92	70	122
Fluoranthene	40.0	34.9		ug/L		87	68	120
Fluorene	40.0	32.7		ug/L		82	53	120
Hexachlorobenzene	40.0	36.2		ug/L		90	61	120
Hexachlorobutadiene	40.0	25.0		ug/L		62	20	100
Hexachlorocyclopentadiene	40.0	21.8		ug/L		55	10	100
Hexachloroethane	40.0	24.7		ug/L		62	20	100
Indeno[1,2,3-cd]pyrene	40.0	38.3		ug/L		96	65	133
Isophorone	40.0	30.4		ug/L		76	57	110
Naphthalene	40.0	28.7		ug/L		72	36	110
Nitrobenzene	40.0	34.4		ug/L		86	53	110
N-Nitrosodi-n-propylamine	40.0	29.5		ug/L		74	58	110
N-Nitrosodiphenylamine	40.0	35.2		ug/L		88	66	110
Pentachlorophenol	80.0	63.1		ug/L		79	23	129
Phenol	40.0	13.7		ug/L		34	33	100
Pyrene	40.0	33.7		ug/L		84	70	110
2,4-Dimethylphenol	40.0	31.7		ug/L		79	51	110
Benzo[a]anthracene	40.0	33.9		ug/L		85	70	120
Phenanthrene	40.0	35.3		ug/L		88	65	120
3,3'-Dichlorobenzidine	40.0	36.5		ug/L		91	60	132
3 & 4 Methylphenol	40.0	23.7		ug/L		59	53	110

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	96		40 - 145
2-Fluorobiphenyl	84		34 - 110
2-Fluorophenol (Surr)	59		27 - 110
Nitrobenzene-d5 (Surr)	83		36 - 120
Phenol-d5 (Surr)	35		20 - 100
Terphenyl-d14 (Surr)	92		40 - 145

**Lab Sample ID: LCSD 500-404842/3-A**  
**Matrix: Water**  
**Analysis Batch: 405067**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 404842**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD Limit	
							Lower	Upper	RPD	Limit
1,2,4-Trichlorobenzene	40.0	26.6		ug/L		67	26	110	4	20
1,2-Dichlorobenzene	40.0	24.4		ug/L		61	26	110	4	20
1,3-Dichlorobenzene	40.0	24.5		ug/L		61	22	110	5	20

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# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

**Lab Sample ID: LCSD 500-404842/3-A**

**Matrix: Water**

**Analysis Batch: 405067**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 404842**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD	Limit
1,4-Dichlorobenzene	40.0	24.7		ug/L		62	23 - 110	5		20
1-Methylnaphthalene	40.0	28.6		ug/L		72	38 - 110	2		20
bis(chloroisopropyl) ether	40.0	18.1		ug/L		45	38 - 110	3		20
2,3,4,6-Tetrachlorophenol	40.0	34.0		ug/L		85	44 - 118	2		20
2,4,5-Trichlorophenol	40.0	34.4		ug/L		86	63 - 120	5		20
2,4,6-Trichlorophenol	40.0	33.5		ug/L		84	62 - 110	4		20
2,4-Dichlorophenol	40.0	33.0		ug/L		83	62 - 110	1		20
2,4-Dinitrophenol	80.0	66.0		ug/L		82	37 - 130	3		20
2,4-Dinitrotoluene	40.0	36.9		ug/L		92	63 - 122	0		20
2,6-Dinitrotoluene	40.0	35.6		ug/L		89	63 - 119	2		20
2-Chloronaphthalene	40.0	29.9		ug/L		75	39 - 110	3		20
2-Chlorophenol	40.0	28.6		ug/L		72	59 - 110	5		20
2-Methylnaphthalene	40.0	27.6		ug/L		69	34 - 110	4		20
2-Methylphenol	40.0	26.4		ug/L		66	53 - 110	3		20
2-Nitroaniline	40.0	35.1		ug/L		88	59 - 122	3		20
2-Nitrophenol	40.0	30.4		ug/L		76	58 - 110	4		20
3-Nitroaniline	40.0	32.9		ug/L		82	47 - 123	2		20
4,6-Dinitro-2-methylphenol	80.0	61.5		ug/L		77	50 - 117	0		20
4-Bromophenyl phenyl ether	40.0	35.1		ug/L		88	58 - 120	1		20
4-Chloro-3-methylphenol	40.0	35.5		ug/L		89	64 - 120	2		20
4-Chloroaniline	40.0	28.1		ug/L		70	35 - 128	1		20
4-Chlorophenyl phenyl ether	40.0	31.9		ug/L		80	47 - 112	1		20
4-Nitroaniline	40.0	39.6		ug/L		99	52 - 147	0		20
4-Nitrophenol	80.0	34.1		ug/L		43	20 - 110	1		20
Acenaphthene	40.0	32.4		ug/L		81	46 - 110	2		20
Acenaphthylene	40.0	29.9		ug/L		75	47 - 110	2		20
Anthracene	40.0	34.1		ug/L		85	67 - 110	0		20
Benzo[a]pyrene	40.0	37.1		ug/L		93	70 - 120	1		20
Benzo[b]fluoranthene	40.0	35.9		ug/L		90	69 - 123	1		20
Benzo[g,h,i]perylene	40.0	37.4		ug/L		93	70 - 120	0		20
Benzo[k]fluoranthene	40.0	35.0		ug/L		87	70 - 120	1		20
Benzoic acid	80.0	23.6		ug/L		29	10 - 100	9		20
Benzyl alcohol	40.0	22.2		ug/L		56	33 - 127	1		20
Bis(2-chloroethoxy)methane	40.0	30.5		ug/L		76	60 - 110	2		20
Bis(2-chloroethyl)ether	40.0	28.0		ug/L		70	49 - 110	2		20
Bis(2-ethylhexyl) phthalate	40.0	33.4		ug/L		83	69 - 120	2		20
Butyl benzyl phthalate	40.0	33.3		ug/L		83	68 - 120	2		20
Chrysene	40.0	33.2		ug/L		83	68 - 120	1		20
Dibenz(a,h)anthracene	40.0	39.0		ug/L		98	70 - 127	0		20
Dibenzofuran	40.0	31.6		ug/L		79	51 - 110	3		20
Diethyl phthalate	40.0	33.4		ug/L		84	62 - 120	3		20
Dimethyl phthalate	40.0	32.7		ug/L		82	63 - 120	1		20
Di-n-butyl phthalate	40.0	33.0		ug/L		83	70 - 120	1		20
Di-n-octyl phthalate	40.0	37.0		ug/L		93	70 - 122	0		20
Fluoranthene	40.0	35.2		ug/L		88	68 - 120	1		20
Fluorene	40.0	31.8		ug/L		80	53 - 120	3		20
Hexachlorobenzene	40.0	35.8		ug/L		89	61 - 120	1		20
Hexachlorobutadiene	40.0	24.2		ug/L		61	20 - 100	3		20

TestAmerica Buffalo

# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

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

Lab Sample ID: LCSD 500-404842/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 405067

Prep Batch: 404842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
Hexachlorocyclopentadiene	40.0	20.3		ug/L		51	10 - 100	7	20
Hexachloroethane	40.0	23.4		ug/L		59	20 - 100	5	20
Indeno[1,2,3-cd]pyrene	40.0	38.0		ug/L		95	65 - 133	1	20
Isophorone	40.0	29.7		ug/L		74	57 - 110	2	20
Naphthalene	40.0	27.7		ug/L		69	36 - 110	4	20
Nitrobenzene	40.0	33.5		ug/L		84	53 - 110	3	20
N-Nitrosodi-n-propylamine	40.0	28.5		ug/L		71	58 - 110	3	20
N-Nitrosodiphenylamine	40.0	34.8		ug/L		87	66 - 110	1	20
Pentachlorophenol	80.0	63.3		ug/L		79	23 - 129	0	20
Phenol	40.0	13.5		ug/L		34	33 - 100	1	20
Pyrene	40.0	33.5		ug/L		84	70 - 110	1	20
2,4-Dimethylphenol	40.0	30.8		ug/L		77	51 - 110	3	20
Benzo[a]anthracene	40.0	33.4		ug/L		84	70 - 120	1	20
Phenanthrene	40.0	35.1		ug/L		88	65 - 120	0	20
3,3'-Dichlorobenzidine	40.0	38.4		ug/L		96	60 - 132	5	20
3 & 4 Methylphenol	40.0	23.7		ug/L		59	53 - 110	0	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	96		40 - 145
2-Fluorobiphenyl	83		34 - 110
2-Fluorophenol (Surr)	55		27 - 110
Nitrobenzene-d5 (Surr)	87		36 - 120
Phenol-d5 (Surr)	35		20 - 100
Terphenyl-d14 (Surr)	92		40 - 145

# QC Association Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## GC/MS VOA

### Analysis Batch: 381807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-1	SUPE-W-30C-100417	Total/NA	Water	8260C	
480-125450-2	SUPE-W-06A-100417	Total/NA	Water	8260C	
480-125450-3	SUPE-W-06C-100417	Total/NA	Water	8260C	
480-125450-4	SUPE-W-12A-100417	Total/NA	Water	8260C	
480-125450-5	SUPE-W-30A-100417	Total/NA	Water	8260C	
480-125450-7	SUPE-W-28C-100417	Total/NA	Water	8260C	
480-125450-8	SUPE-W-12CR-100417	Total/NA	Water	8260C	
480-125450-9	SUPE-W-04AR2-100417	Total/NA	Water	8260C	
MB 480-381807/6	Method Blank	Total/NA	Water	8260C	
LCS 480-381807/4	Lab Control Sample	Total/NA	Water	8260C	

### Analysis Batch: 381814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-10	SUPE-EB-01-100417	Total/NA	Water	8260C	
480-125450-11	SUPE-W-99A-100417	Total/NA	Water	8260C	
MB 480-381814/7	Method Blank	Total/NA	Water	8260C	
LCS 480-381814/5	Lab Control Sample	Total/NA	Water	8260C	

### Analysis Batch: 381881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-13	SUPE-W-10AR2-100517	Total/NA	Water	8260C	
480-125450-14	SUPE-EB-02-100517	Total/NA	Water	8260C	
MB 480-381881/7	Method Blank	Total/NA	Water	8260C	
LCS 480-381881/5	Lab Control Sample	Total/NA	Water	8260C	

### Analysis Batch: 382072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-12	SUPE-TB-01-100517	Total/NA	Water	8260C	
MB 480-382072/6	Method Blank	Total/NA	Water	8260C	
LCS 480-382072/4	Lab Control Sample	Total/NA	Water	8260C	

## GC/MS Semi VOA

### Prep Batch: 404842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-1	SUPE-W-30C-100417	Total/NA	Water	3510C	
480-125450-2	SUPE-W-06A-100417	Total/NA	Water	3510C	
480-125450-3	SUPE-W-06C-100417	Total/NA	Water	3510C	
480-125450-4	SUPE-W-12A-100417	Total/NA	Water	3510C	
480-125450-5	SUPE-W-30A-100417	Total/NA	Water	3510C	
480-125450-6	SUPE-W-18D-100417	Total/NA	Water	3510C	
480-125450-7	SUPE-W-28C-100417	Total/NA	Water	3510C	
480-125450-8	SUPE-W-12CR-100417	Total/NA	Water	3510C	
480-125450-9	SUPE-W-04AR2-100417	Total/NA	Water	3510C	
480-125450-10	SUPE-EB-01-100417	Total/NA	Water	3510C	
480-125450-11	SUPE-W-99A-100417	Total/NA	Water	3510C	
480-125450-13	SUPE-W-10AR2-100517	Total/NA	Water	3510C	
480-125450-14	SUPE-EB-02-100517	Total/NA	Water	3510C	
MB 500-404842/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-404842/2-A	Lab Control Sample	Total/NA	Water	3510C	

TestAmerica Buffalo



# QC Association Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 404842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 500-404842/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

### Analysis Batch: 405067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-404842/1-A	Method Blank	Total/NA	Water	8270D	404842
LCS 500-404842/2-A	Lab Control Sample	Total/NA	Water	8270D	404842
LCSD 500-404842/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	404842

### Analysis Batch: 405983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-1	SUPE-W-30C-100417	Total/NA	Water	8270D	404842
480-125450-2	SUPE-W-06A-100417	Total/NA	Water	8270D	404842
480-125450-3	SUPE-W-06C-100417	Total/NA	Water	8270D	404842
480-125450-4	SUPE-W-12A-100417	Total/NA	Water	8270D	404842
480-125450-5	SUPE-W-30A-100417	Total/NA	Water	8270D	404842
480-125450-6	SUPE-W-18D-100417	Total/NA	Water	8270D	404842
480-125450-7	SUPE-W-28C-100417	Total/NA	Water	8270D	404842
480-125450-8	SUPE-W-12CR-100417	Total/NA	Water	8270D	404842
480-125450-9	SUPE-W-04AR2-100417	Total/NA	Water	8270D	404842
480-125450-10	SUPE-EB-01-100417	Total/NA	Water	8270D	404842

### Analysis Batch: 406153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-11	SUPE-W-99A-100417	Total/NA	Water	8270D	404842
480-125450-13	SUPE-W-10AR2-100517	Total/NA	Water	8270D	404842
480-125450-14	SUPE-EB-02-100517	Total/NA	Water	8270D	404842



# Lab Chronicle

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

**Date Collected: 10/04/17 10:52**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 15:40	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 12:35	AJD	TAL CHI

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

**Date Collected: 10/04/17 11:59**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 16:05	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 16:08	AJD	TAL CHI

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

**Date Collected: 10/04/17 12:55**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 16:30	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 16:34	AJD	TAL CHI

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

**Date Collected: 10/04/17 13:57**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 16:55	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 17:01	AJD	TAL CHI

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

**Date Collected: 10/04/17 15:06**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 17:20	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 17:28	AJD	TAL CHI

# Lab Chronicle

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

Date Collected: 10/04/17 11:20

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 17:54	AJD	TAL CHI

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

Date Collected: 10/04/17 12:57

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 17:45	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 18:20	AJD	TAL CHI

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

Date Collected: 10/04/17 14:02

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 18:10	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 18:47	AJD	TAL CHI

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

Date Collected: 10/04/17 15:08

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381807	10/14/17 18:35	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 19:13	AJD	TAL CHI

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

Date Collected: 10/04/17 16:10

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381814	10/14/17 17:23	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	405983	10/19/17 20:07	AJD	TAL CHI

# Lab Chronicle

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## Client Sample ID: SUPE-W-99A-100417

Lab Sample ID: 480-125450-11

Date Collected: 10/04/17 22:22

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381814	10/14/17 17:46	AMM	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	406153	10/20/17 12:32	WDS	TAL CHI

## Client Sample ID: SUPE-TB-01-100517

Lab Sample ID: 480-125450-12

Date Collected: 10/05/17 00:00

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	382072	10/17/17 03:21	AMM	TAL BUF

## Client Sample ID: SUPE-W-10AR2-100517

Lab Sample ID: 480-125450-13

Date Collected: 10/05/17 07:59

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381881	10/15/17 21:29	RRS	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	406153	10/20/17 12:59	WDS	TAL CHI

## Client Sample ID: SUPE-EB-02-100517

Lab Sample ID: 480-125450-14

Date Collected: 10/05/17 08:45

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381881	10/15/17 21:55	RRS	TAL BUF
Total/NA	Prep	3510C			404842	10/11/17 09:07	BSO	TAL CHI
Total/NA	Analysis	8270D		1	406153	10/20/17 13:26	WDS	TAL CHI

### Laboratory References:

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

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

# Accreditation/Certification Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998310390	08-31-18

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

## Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-18

# Method Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile 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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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



# Sample Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125450-1	SUPE-W-30C-100417	Water	10/04/17 10:52	10/06/17 09:15
480-125450-2	SUPE-W-06A-100417	Water	10/04/17 11:59	10/06/17 09:15
480-125450-3	SUPE-W-06C-100417	Water	10/04/17 12:55	10/06/17 09:15
480-125450-4	SUPE-W-12A-100417	Water	10/04/17 13:57	10/06/17 09:15
480-125450-5	SUPE-W-30A-100417	Water	10/04/17 15:06	10/06/17 09:15
480-125450-6	SUPE-W-18D-100417	Water	10/04/17 11:20	10/06/17 09:15
480-125450-7	SUPE-W-28C-100417	Water	10/04/17 12:57	10/06/17 09:15
480-125450-8	SUPE-W-12CR-100417	Water	10/04/17 14:02	10/06/17 09:15
480-125450-9	SUPE-W-04AR2-100417	Water	10/04/17 15:08	10/06/17 09:15
480-125450-10	SUPE-EB-01-100417	Water	10/04/17 16:10	10/06/17 09:15
480-125450-11	SUPE-W-99A-100417	Water	10/04/17 22:22	10/06/17 09:15
480-125450-12	SUPE-TB-01-100517	Water	10/05/17 00:00	10/06/17 09:15
480-125450-13	SUPE-W-10AR2-100517	Water	10/05/17 07:59	10/06/17 09:15
480-125450-14	SUPE-EB-02-100517	Water	10/05/17 08:45	10/06/17 09:15



# CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

11



480-125450 COC

Project Name: Superior 2017 2SA Sampling  
 Project Number: OM-0556-17  
 Laboratory: TAPIT  
 Shipment Method FEDEX  
 Program: Superior 2017 2SA Sampling\_001  
 Company: Field & Technical Services  
 Address: 200 Third Avenue  
 Carnegie, PA 15106  
 (412) 279-3363  
 Client: Beazer East, Inc.  
 Contact: (33) 0 3-0102  
 ccoats.2006@f-ts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	Preservative		Total Bottle Count	Notes:									
					HCL	None											
10/04/2017	1052	GW	SUPE-W-30C-100417			3	2										
10/04/2017	1159	GW	SUPE-W-06A-100417			3	2										
10/04/2017	1255	GW	SUPE-W-06C-100417			3	2										
10/04/2017	1357	GW	SUPE-W-12A-100417			3	2										
10/04/2017	1506	GW	SUPE-W-30A-100417			3	2										

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: <i>Cody Coats</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	<input type="checkbox"/> Rush
Printed Name: Cody Coats	Printed Name: <i>Cody Coats</i>	Printed Name:	Printed Name:	<input checked="" type="checkbox"/> Standard
Firm: FTS	Firm: <i>[Firm]</i>	Firm:	Firm:	
Date/Time: 10/04/2017 1847	Date/Time: <i>10/17/2017</i>	Date/Time:	Date/Time:	

2.7 #1







# CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM

42



480-125450-02 Cr

Project Name: Superior 2017 2SA Sampling  
 Project Number: OM-0556-17  
 Laboratory: TAPIT  
 Shipment Method FEDEX  
 Program: Superior 2017 2SA Sampling\_001

Company: Field & Technical Services  
 Address: 200 Third Avenue  
 Carnegie, PA 15106  
 (412) 279-3363

Client: Beazer East, Inc.  
 Contact: (412) 680-4312  
 brick.2006@fts.com

Sample Date	Sample Time	Matrix	Sample Identification	Analysis	Preservative			Notes:
					8270C_SVOC+naphtha	8260B_VOA+naphtha	8270C_SVOC (less naphtha)	
				Total Bottle Count	2	0	0	
10/04/2017	1120	GW	SUPE-W-18D-100417	2	0	0	0	
10/04/2017	1257	GW	SUPE-W-28C-100417	5	0	3	2	
10/04/2017	1402	GW	SUPE-W-12CR-100417	5	0	3	2	
10/04/2017	1508	GW	SUPE-W-04AR2-100417	5	0	3	2	
10/04/2017	1610	GW	SUPE-EB-01-100417	5	0	3	2	
10/04/2017	2222	GW	SUPE-W-99A-100417	5	0	3	2	

Relinquished by: Signature: <i>Brendan Rick</i> Printed Name: Brendan Rick Firm: FTS	Received by: Signature: <i>Carl Jansz</i> Printed Name: Carl Jansz Firm: Firm	Relinquished by: Signature: Printed Name: Firm:	Received by: Signature: Printed Name: Firm:	Turnaround Requirements <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Standard
Date/Time: 10/04/2017 1840	Date/Time: 10/6/17 0915	Date/Time:	Date/Time:	

3.0, 2.6 #1







# CHAIN OF CUSTODY RECORD/LABORATORY ANALYSIS REQUEST FORM



1713



480-125450-03 Cr

Project Name: Superior 2017 2SA Sampling  
 Project Number: OM-0556-17  
 Laboratory: TAPIT  
 Shipment Method: FEDEX  
 Program: Superior 2017 2SA Sampling\_001

Company: Field & Technical Services  
 Address: 200 Third Avenue  
 Carnegie, PA 15106  
 (412) 279-3363

Client: Beazer East, Inc.  
 Contact: (33 ) 0 3-0102  
 ccoats.2006@f-ts.com

Sample Date	Sample Matrix	Sample Identification	Analysis	Preservative		Total Bottle Count	Notes:
				HCL	None		
10/05/2017	0000	SUPE-TB-01-100517		8260B_VOA+naphtha	None	3	
10/05/2017	0759	SUPE-W-10AR2-100517		8270C_SVOC (less naphtha)		5	
10/05/2017	0845	SUPE-EB-02-100517				5	

Relinquished by:	Received by:	Relinquished by:	Received by:	Turnaround Requirements
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	<input type="checkbox"/> Rush
Printed Name: Cody Coats	Printed Name: <i>[Signature]</i>	Printed Name:	Printed Name:	<input checked="" type="checkbox"/> Standard
Firm: FTS	Firm: <i>[Signature]</i>	Firm:	Firm:	
Date/Time: 10/05/2017 0846	Date/Time: 10/6/17 0915	Date/Time:	Date/Time:	

3.0 #1



**TestAmerica Buffalo**

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

**Chain of Custody Record**



**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b>				Sampler:	Lab PM: Bortot, Veronica	Carrier Tracking No(s):	COC No: 480-37830.1					
Client Contact: Shipping/Receiving				Phone:	E-Mail: veronica.bortot@testamericainc.com	State of Origin: Wisconsin	Page: Page 1 of 2					
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): State Program - Wisconsin			Job #: 480-125450-1					
Address: 2417 Bond Street, City: University Park				<b>Analysis Requested</b>				<b>Preservation Codes:</b>				
State, Zip: IL, 60484				Field Filtered Sample (Yes or No) P=Programmable MS/MSD (Yes or No) 8270D/3510C (MOD) Semivolatiles, project list with n				A - HCL	M - Hexane			
Phone: 708-534-5200(Tel) 708-534-5211(Fax)								B - NaOH				N - None
Email:								C - Zn Acetate				O - AsNaO2
Project Name: Superior, WI Semiannual Groundwater				Due Date Requested: 10/24/2017	TAT Requested (days):				D - Nitric Acid	P - Na2O4S		
Site:				PO #:	Total Number of Containers				E - NaHSO4	Q - Na2SO3		
SSOW#:				WO #:	Other:				F - MeOH	R - Na2S2O3		
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:				
SUPE-W-30C-100417 (480-125450-1)				10/4/17	10:52 Central	Water	Water	X				
SUPE-W-06A-100417 (480-125450-2)				10/4/17	11:59 Central	Water	Water	X				
SUPE-W-06C-100417 (480-125450-3)				10/4/17	12:55 Central	Water	Water	X				
SUPE-W-12A-100417 (480-125450-4)				10/4/17	13:57 Central	Water	Water	X				
SUPE-W-30A-100417 (480-125450-5)				10/4/17	15:06 Central	Water	Water	X				
SUPE-W-18D-100417 (480-125450-6)				10/4/17	11:20 Central	Water	Water	X				
SUPE-W-28C-100417 (480-125450-7)				10/4/17	12:57 Central	Water	Water	X				
SUPE-W-12CR-100417 (480-125450-8)				10/4/17	14:02 Central	Water	Water	X				
SUPE-W-04AR2-100417 (480-125450-9)				10/4/17	15:08 Central	Water	Water	X				
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.												
<b>Possible Hazard Identification</b>				<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>								
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:						
Empty Kit Relinquished by:				Date:	Time:	Method of Shipment:						
Relinquished by: <i>[Signature]</i>				Date/Time: 10/26/17 1200	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date/Time: 10/26/17 0930	Company: <i>[Signature]</i>				
Relinquished by:				Date/Time:	Company:	Received by:	Date/Time:	Company:				
Relinquished by:				Date/Time:	Company:	Received by:	Date/Time:	Company:				

1.3 → 0.7, 3.1, 0.9 → 0.3

**TestAmerica Buffalo**

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

**Chain of Custody Record**

<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM: Bortot, Veronica		Carrier Tracking No(s):		COC No: 480-37830.2			
Client Contact: Shipping/Receiving		Phone:		E-Mail: veronica.bortot@testamericainc.com		State of Origin: Wisconsin		Page: Page 2 of 2			
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): State Program - Wisconsin				Job #: 480-125450-1			
Address: 2417 Bond Street,		Due Date Requested: 10/24/2017		<b>Analysis Requested</b>						Preservation Codes: A - HCL                    M - Hexane B - NaOH                N - None C - Zn Acetate        O - AsNaO2 D - Nitric Acid        P - Na2O4S E - NaHSO4            Q - Na2SO3 F - MeOH                R - Na2SO3 G - Amchlor            S - H2SO4 H - Ascorbic Acid    T - TSP Dodecahydrate I - Ice                    U - Acetone J - DI Water            V - MCAA K - EDTA                W - pH 4-5 L - EDA                  Z - other (specify)	
City: University Park		TAT Requested (days):									
State, Zip: IL, 60484		PO #:		Field Filtered Sample (Yes or No)		Performs MS/MSD (Yes or No)		8270D/3510C (MOD) Semivolatiles, project list with n		Total Number of Containers	
Phone: 708-534-5200(Tel) 708-534-5211(Fax)		WO #:									
Email:		Project #: 18015916		Project Name: Superior, WI Semiannual Groundwater		SSOW#:		Site:		Other:	
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)</b>		<b>Special Instructions/Note:</b>	
SUPE-EB-01-100417 (480-125450-10)		10/4/17		16:10 Central		Water		X		2	
SUPE-W-99A-100417 (480-125450-11)		10/4/17		22:22 Central		Water		X		2	
SUPE-W-10AR2-100517 (480-125450-13)		10/5/17		07:59 Central		Water		X		2	
SUPE-EB-02-100517 (480-125450-14)		10/5/17		08:45 Central		Water		X		2	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte &amp; accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I</p>											
<b>Possible Hazard Identification</b>						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>					
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
		10/9/17 1700		YOB				10/10/17 0930		TIA-CRI	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:					

# Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-125450-1

**Login Number: 125450**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Janish, Carl M**

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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-125450-1

**Login Number: 125450**

**List Number: 2**

**Creator: Scott, Sherri L**

**List Source: TestAmerica Chicago**

**List Creation: 10/10/17 12:47 PM**

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	0.7,3.1,0.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-125450-2

Client Project/Site: Superior, WI Semiannual Groundwater

For:

Field & Technical Services LLC

200 Third Avenue

Carnegie, Pennsylvania 15106

Attn: Ms. Angie Gatchie



Authorized for release by:

11/15/2017 10:11:22 AM

Veronica Bortot, Senior Project Manager

(412)963-2435

[veronica.bortot@testamericainc.com](mailto:veronica.bortot@testamericainc.com)



### LINKS

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results through

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[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Definitions/Glossary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Case Narrative

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Job ID: 480-125450-2**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-125450-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/6/2017 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 2.7° C, 3.0° C and 3.0° C.

#### GC/MS Semi VOA

Method(s) 8270D LL: Due to an increase in the spiking concentration required for other analytes of interest, the following compounds have been elevated to a level at the upper range of the initial calibration: Pentachlorophenol. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) recovered within acceptable limits for these analytes and have been qualified with an "E" flag. LCS 480-386847/2-A and LCSD 480-386847/3-A

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

#### Organic Prep

Method(s) 3510C: The following samples was received outside of holding time: SUPE-W-30C-100417, SUPE-W-06A-100417, SUPE-W-06C-100417, SUPE-W-12A-100417, SUPE-W-30A-100417, SUPE-W-18D-100417, SUPE-W-28C-100417, SUPE-W-12CR-100417, SUPE-W-04AR2-100417, SUPE-EB-01-100417, SUPE-W-99A-100417, SUPE-W-10AR2-100517 and SUPE-EB-02-100517.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-386847.

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

# Detection Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

No Detections.

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

No Detections.

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

No Detections.

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

No Detections.

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

No Detections.

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

No Detections.

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

No Detections.

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

No Detections.

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

No Detections.

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

No Detections.

**Client Sample ID: SUPE-W-99A-100417**

**Lab Sample ID: 480-125450-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Pentachlorophenol	0.62	J H	0.95	0.32	ug/L	1			8270D LL	Total/NA

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

No Detections.

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Client Sample ID: SUPE-W-30C-100417

Date Collected: 10/04/17 10:52

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-1

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 19:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		24 - 146				11/11/17 06:38	11/13/17 19:55	1
2-Fluorobiphenyl	68		37 - 120				11/11/17 06:38	11/13/17 19:55	1
2-Fluorophenol (Surr)	40		10 - 120				11/11/17 06:38	11/13/17 19:55	1
Nitrobenzene-d5 (Surr)	68		26 - 120				11/11/17 06:38	11/13/17 19:55	1
Phenol-d5 (Surr)	29		11 - 120				11/11/17 06:38	11/13/17 19:55	1
p-Terphenyl-d14	97		64 - 127				11/11/17 06:38	11/13/17 19:55	1

## Client Sample ID: SUPE-W-06A-100417

Date Collected: 10/04/17 11:59

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-2

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	106		24 - 146				11/11/17 06:38	11/13/17 20:23	1
2-Fluorobiphenyl	97		37 - 120				11/11/17 06:38	11/13/17 20:23	1
2-Fluorophenol (Surr)	51		10 - 120				11/11/17 06:38	11/13/17 20:23	1
Nitrobenzene-d5 (Surr)	92		26 - 120				11/11/17 06:38	11/13/17 20:23	1
Phenol-d5 (Surr)	38		11 - 120				11/11/17 06:38	11/13/17 20:23	1
p-Terphenyl-d14	107		64 - 127				11/11/17 06:38	11/13/17 20:23	1

## Client Sample ID: SUPE-W-06C-100417

Date Collected: 10/04/17 12:55

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-3

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	109		24 - 146				11/11/17 06:38	11/13/17 20:52	1
2-Fluorobiphenyl	84		37 - 120				11/11/17 06:38	11/13/17 20:52	1
2-Fluorophenol (Surr)	47		10 - 120				11/11/17 06:38	11/13/17 20:52	1
Nitrobenzene-d5 (Surr)	81		26 - 120				11/11/17 06:38	11/13/17 20:52	1
Phenol-d5 (Surr)	34		11 - 120				11/11/17 06:38	11/13/17 20:52	1
p-Terphenyl-d14	85		64 - 127				11/11/17 06:38	11/13/17 20:52	1

## Client Sample ID: SUPE-W-12A-100417

Date Collected: 10/04/17 13:57

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-4

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 21:20	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Client Sample ID: SUPE-W-12A-100417

Date Collected: 10/04/17 13:57

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	107		24 - 146	11/11/17 06:38	11/13/17 21:20	1
2-Fluorobiphenyl	88		37 - 120	11/11/17 06:38	11/13/17 21:20	1
2-Fluorophenol (Surr)	50		10 - 120	11/11/17 06:38	11/13/17 21:20	1
Nitrobenzene-d5 (Surr)	87		26 - 120	11/11/17 06:38	11/13/17 21:20	1
Phenol-d5 (Surr)	36		11 - 120	11/11/17 06:38	11/13/17 21:20	1
p-Terphenyl-d14	100		64 - 127	11/11/17 06:38	11/13/17 21:20	1

## Client Sample ID: SUPE-W-30A-100417

Date Collected: 10/04/17 15:06

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-5

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	123		24 - 146	11/11/17 06:38	11/13/17 21:48	1
2-Fluorobiphenyl	85		37 - 120	11/11/17 06:38	11/13/17 21:48	1
2-Fluorophenol (Surr)	50		10 - 120	11/11/17 06:38	11/13/17 21:48	1
Nitrobenzene-d5 (Surr)	84		26 - 120	11/11/17 06:38	11/13/17 21:48	1
Phenol-d5 (Surr)	36		11 - 120	11/11/17 06:38	11/13/17 21:48	1
p-Terphenyl-d14	94		64 - 127	11/11/17 06:38	11/13/17 21:48	1

## Client Sample ID: SUPE-W-18D-100417

Date Collected: 10/04/17 11:20

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-6

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	112		24 - 146	11/11/17 06:38	11/13/17 22:17	1
2-Fluorobiphenyl	86		37 - 120	11/11/17 06:38	11/13/17 22:17	1
2-Fluorophenol (Surr)	50		10 - 120	11/11/17 06:38	11/13/17 22:17	1
Nitrobenzene-d5 (Surr)	81		26 - 120	11/11/17 06:38	11/13/17 22:17	1
Phenol-d5 (Surr)	37		11 - 120	11/11/17 06:38	11/13/17 22:17	1
p-Terphenyl-d14	97		64 - 127	11/11/17 06:38	11/13/17 22:17	1

## Client Sample ID: SUPE-W-28C-100417

Date Collected: 10/04/17 12:57

Date Received: 10/06/17 09:15

## Lab Sample ID: 480-125450-7

Matrix: Water

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.99	0.34	ug/L		11/11/17 06:38	11/13/17 22:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	99		24 - 146	11/11/17 06:38	11/13/17 22:45	1
2-Fluorobiphenyl	95		37 - 120	11/11/17 06:38	11/13/17 22:45	1
2-Fluorophenol (Surr)	53		10 - 120	11/11/17 06:38	11/13/17 22:45	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

Date Collected: 10/04/17 12:57

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	94		26 - 120	11/11/17 06:38	11/13/17 22:45	1
Phenol-d5 (Surr)	39		11 - 120	11/11/17 06:38	11/13/17 22:45	1
p-Terphenyl-d14	110		64 - 127	11/11/17 06:38	11/13/17 22:45	1

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

Date Collected: 10/04/17 14:02

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	121		24 - 146	11/11/17 06:38	11/13/17 23:14	1
2-Fluorobiphenyl	94		37 - 120	11/11/17 06:38	11/13/17 23:14	1
2-Fluorophenol (Surr)	55		10 - 120	11/11/17 06:38	11/13/17 23:14	1
Nitrobenzene-d5 (Surr)	90		26 - 120	11/11/17 06:38	11/13/17 23:14	1
Phenol-d5 (Surr)	39		11 - 120	11/11/17 06:38	11/13/17 23:14	1
p-Terphenyl-d14	114		64 - 127	11/11/17 06:38	11/13/17 23:14	1

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

Date Collected: 10/04/17 15:08

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/13/17 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	118		24 - 146	11/11/17 06:38	11/13/17 23:42	1
2-Fluorobiphenyl	92		37 - 120	11/11/17 06:38	11/13/17 23:42	1
2-Fluorophenol (Surr)	54		10 - 120	11/11/17 06:38	11/13/17 23:42	1
Nitrobenzene-d5 (Surr)	87		26 - 120	11/11/17 06:38	11/13/17 23:42	1
Phenol-d5 (Surr)	39		11 - 120	11/11/17 06:38	11/13/17 23:42	1
p-Terphenyl-d14	104		64 - 127	11/11/17 06:38	11/13/17 23:42	1

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

Date Collected: 10/04/17 16:10

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	1.0	0.34	ug/L		11/11/17 06:38	11/14/17 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	80		24 - 146	11/11/17 06:38	11/14/17 00:11	1
2-Fluorobiphenyl	94		37 - 120	11/11/17 06:38	11/14/17 00:11	1
2-Fluorophenol (Surr)	51		10 - 120	11/11/17 06:38	11/14/17 00:11	1
Nitrobenzene-d5 (Surr)	93		26 - 120	11/11/17 06:38	11/14/17 00:11	1
Phenol-d5 (Surr)	39		11 - 120	11/11/17 06:38	11/14/17 00:11	1

TestAmerica Buffalo

# Client Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

Date Collected: 10/04/17 16:10

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	115		64 - 127	11/11/17 06:38	11/14/17 00:11	1

**Client Sample ID: SUPE-W-99A-100417**

**Lab Sample ID: 480-125450-11**

Date Collected: 10/04/17 22:22

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.62	J H	0.95	0.32	ug/L		11/11/17 06:38	11/14/17 00:40	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2,4,6-Tribromophenol (Surr)	116		24 - 146	11/11/17 06:38	11/14/17 00:40	1			
2-Fluorobiphenyl	88		37 - 120	11/11/17 06:38	11/14/17 00:40	1			
2-Fluorophenol (Surr)	51		10 - 120	11/11/17 06:38	11/14/17 00:40	1			
Nitrobenzene-d5 (Surr)	90		26 - 120	11/11/17 06:38	11/14/17 00:40	1			
Phenol-d5 (Surr)	37		11 - 120	11/11/17 06:38	11/14/17 00:40	1			
p-Terphenyl-d14	100		64 - 127	11/11/17 06:38	11/14/17 00:40	1			

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

Date Collected: 10/05/17 07:59

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	0.95	0.32	ug/L		11/11/17 06:38	11/14/17 01:09	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2,4,6-Tribromophenol (Surr)	113		24 - 146	11/11/17 06:38	11/14/17 01:09	1			
2-Fluorobiphenyl	83		37 - 120	11/11/17 06:38	11/14/17 01:09	1			
2-Fluorophenol (Surr)	48		10 - 120	11/11/17 06:38	11/14/17 01:09	1			
Nitrobenzene-d5 (Surr)	83		26 - 120	11/11/17 06:38	11/14/17 01:09	1			
Phenol-d5 (Surr)	36		11 - 120	11/11/17 06:38	11/14/17 01:09	1			
p-Terphenyl-d14	97		64 - 127	11/11/17 06:38	11/14/17 01:09	1			

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

Date Collected: 10/05/17 08:45

Matrix: Water

Date Received: 10/06/17 09:15

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND	H	1.0	0.35	ug/L		11/11/17 06:38	11/14/17 01:38	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2,4,6-Tribromophenol (Surr)	64		24 - 146	11/11/17 06:38	11/14/17 01:38	1			
2-Fluorobiphenyl	82		37 - 120	11/11/17 06:38	11/14/17 01:38	1			
2-Fluorophenol (Surr)	41		10 - 120	11/11/17 06:38	11/14/17 01:38	1			
Nitrobenzene-d5 (Surr)	81		26 - 120	11/11/17 06:38	11/14/17 01:38	1			
Phenol-d5 (Surr)	36		11 - 120	11/11/17 06:38	11/14/17 01:38	1			
p-Terphenyl-d14	100		64 - 127	11/11/17 06:38	11/14/17 01:38	1			

TestAmerica Buffalo

# Surrogate Summary

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (24-146)	FBP (37-120)	2FP (10-120)	NBZ (26-120)	PHL (11-120)	TPH (64-127)
480-125450-1	SUPE-W-30C-100417	96	68	40	68	29	97
480-125450-2	SUPE-W-06A-100417	106	97	51	92	38	107
480-125450-3	SUPE-W-06C-100417	109	84	47	81	34	85
480-125450-4	SUPE-W-12A-100417	107	88	50	87	36	100
480-125450-5	SUPE-W-30A-100417	123	85	50	84	36	94
480-125450-6	SUPE-W-18D-100417	112	86	50	81	37	97
480-125450-7	SUPE-W-28C-100417	99	95	53	94	39	110
480-125450-8	SUPE-W-12CR-100417	121	94	55	90	39	114
480-125450-9	SUPE-W-04AR2-100417	118	92	54	87	39	104
480-125450-10	SUPE-EB-01-100417	80	94	51	93	39	115
480-125450-11	SUPE-W-99A-100417	116	88	51	90	37	100
480-125450-13	SUPE-W-10AR2-100517	113	83	48	83	36	97
480-125450-14	SUPE-EB-02-100517	64	82	41	81	36	100
LCS 480-386847/2-A	Lab Control Sample	116	95	60	92	44	101
LCSD 480-386847/3-A	Lab Control Sample Dup	121	97	62	96	45	106
MB 480-386847/1-A	Method Blank	81	94	54	96	40	107

### Surrogate Legend

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

# QC Sample Results

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

**Lab Sample ID: MB 480-386847/1-A**  
**Matrix: Water**  
**Analysis Batch: 387064**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 386847**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		1.0	0.34	ug/L		11/11/17 06:38	11/13/17 18:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	81		24 - 146	11/11/17 06:38	11/13/17 18:30	1
2-Fluorobiphenyl	94		37 - 120	11/11/17 06:38	11/13/17 18:30	1
2-Fluorophenol (Surr)	54		10 - 120	11/11/17 06:38	11/13/17 18:30	1
Nitrobenzene-d5 (Surr)	96		26 - 120	11/11/17 06:38	11/13/17 18:30	1
Phenol-d5 (Surr)	40		11 - 120	11/11/17 06:38	11/13/17 18:30	1
p-Terphenyl-d14	107		64 - 127	11/11/17 06:38	11/13/17 18:30	1

**Lab Sample ID: LCS 480-386847/2-A**  
**Matrix: Water**  
**Analysis Batch: 387064**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 386847**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Pentachlorophenol	16.0	16.6	E	ug/L		104	10 - 131

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	116		24 - 146
2-Fluorobiphenyl	95		37 - 120
2-Fluorophenol (Surr)	60		10 - 120
Nitrobenzene-d5 (Surr)	92		26 - 120
Phenol-d5 (Surr)	44		11 - 120
p-Terphenyl-d14	101		64 - 127

**Lab Sample ID: LCSD 480-386847/3-A**  
**Matrix: Water**  
**Analysis Batch: 387064**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 386847**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pentachlorophenol	16.0	17.6	E	ug/L		110	10 - 131	6	171

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	121		24 - 146
2-Fluorobiphenyl	97		37 - 120
2-Fluorophenol (Surr)	62		10 - 120
Nitrobenzene-d5 (Surr)	96		26 - 120
Phenol-d5 (Surr)	45		11 - 120
p-Terphenyl-d14	106		64 - 127



# QC Association Summary

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## GC/MS Semi VOA

### Prep Batch: 386847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-1	SUPE-W-30C-100417	Total/NA	Water	3510C	
480-125450-2	SUPE-W-06A-100417	Total/NA	Water	3510C	
480-125450-3	SUPE-W-06C-100417	Total/NA	Water	3510C	
480-125450-4	SUPE-W-12A-100417	Total/NA	Water	3510C	
480-125450-5	SUPE-W-30A-100417	Total/NA	Water	3510C	
480-125450-6	SUPE-W-18D-100417	Total/NA	Water	3510C	
480-125450-7	SUPE-W-28C-100417	Total/NA	Water	3510C	
480-125450-8	SUPE-W-12CR-100417	Total/NA	Water	3510C	
480-125450-9	SUPE-W-04AR2-100417	Total/NA	Water	3510C	
480-125450-10	SUPE-EB-01-100417	Total/NA	Water	3510C	
480-125450-11	SUPE-W-99A-100417	Total/NA	Water	3510C	
480-125450-13	SUPE-W-10AR2-100517	Total/NA	Water	3510C	
480-125450-14	SUPE-EB-02-100517	Total/NA	Water	3510C	
MB 480-386847/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-386847/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-386847/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

### Analysis Batch: 387064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125450-1	SUPE-W-30C-100417	Total/NA	Water	8270D LL	386847
480-125450-2	SUPE-W-06A-100417	Total/NA	Water	8270D LL	386847
480-125450-3	SUPE-W-06C-100417	Total/NA	Water	8270D LL	386847
480-125450-4	SUPE-W-12A-100417	Total/NA	Water	8270D LL	386847
480-125450-5	SUPE-W-30A-100417	Total/NA	Water	8270D LL	386847
480-125450-6	SUPE-W-18D-100417	Total/NA	Water	8270D LL	386847
480-125450-7	SUPE-W-28C-100417	Total/NA	Water	8270D LL	386847
480-125450-8	SUPE-W-12CR-100417	Total/NA	Water	8270D LL	386847
480-125450-9	SUPE-W-04AR2-100417	Total/NA	Water	8270D LL	386847
480-125450-10	SUPE-EB-01-100417	Total/NA	Water	8270D LL	386847
480-125450-11	SUPE-W-99A-100417	Total/NA	Water	8270D LL	386847
480-125450-13	SUPE-W-10AR2-100517	Total/NA	Water	8270D LL	386847
480-125450-14	SUPE-EB-02-100517	Total/NA	Water	8270D LL	386847
MB 480-386847/1-A	Method Blank	Total/NA	Water	8270D LL	386847
LCS 480-386847/2-A	Lab Control Sample	Total/NA	Water	8270D LL	386847
LCSD 480-386847/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	386847

# Lab Chronicle

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-W-30C-100417**

**Lab Sample ID: 480-125450-1**

Date Collected: 10/04/17 10:52

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 19:55	PJQ	TAL BUF

**Client Sample ID: SUPE-W-06A-100417**

**Lab Sample ID: 480-125450-2**

Date Collected: 10/04/17 11:59

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 20:23	PJQ	TAL BUF

**Client Sample ID: SUPE-W-06C-100417**

**Lab Sample ID: 480-125450-3**

Date Collected: 10/04/17 12:55

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 20:52	PJQ	TAL BUF

**Client Sample ID: SUPE-W-12A-100417**

**Lab Sample ID: 480-125450-4**

Date Collected: 10/04/17 13:57

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 21:20	PJQ	TAL BUF

**Client Sample ID: SUPE-W-30A-100417**

**Lab Sample ID: 480-125450-5**

Date Collected: 10/04/17 15:06

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 21:48	PJQ	TAL BUF

**Client Sample ID: SUPE-W-18D-100417**

**Lab Sample ID: 480-125450-6**

Date Collected: 10/04/17 11:20

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 22:17	PJQ	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-W-28C-100417**

**Lab Sample ID: 480-125450-7**

Date Collected: 10/04/17 12:57

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 22:45	PJQ	TAL BUF

**Client Sample ID: SUPE-W-12CR-100417**

**Lab Sample ID: 480-125450-8**

Date Collected: 10/04/17 14:02

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 23:14	PJQ	TAL BUF

**Client Sample ID: SUPE-W-04AR2-100417**

**Lab Sample ID: 480-125450-9**

Date Collected: 10/04/17 15:08

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/13/17 23:42	PJQ	TAL BUF

**Client Sample ID: SUPE-EB-01-100417**

**Lab Sample ID: 480-125450-10**

Date Collected: 10/04/17 16:10

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/14/17 00:11	PJQ	TAL BUF

**Client Sample ID: SUPE-W-99A-100417**

**Lab Sample ID: 480-125450-11**

Date Collected: 10/04/17 22:22

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/14/17 00:40	PJQ	TAL BUF

**Client Sample ID: SUPE-W-10AR2-100517**

**Lab Sample ID: 480-125450-13**

Date Collected: 10/05/17 07:59

Matrix: Water

Date Received: 10/06/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/14/17 01:09	PJQ	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

**Client Sample ID: SUPE-EB-02-100517**

**Lab Sample ID: 480-125450-14**

**Date Collected: 10/05/17 08:45**

**Matrix: Water**

**Date Received: 10/06/17 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386847	11/11/17 06:38	SMP	TAL BUF
Total/NA	Analysis	8270D LL		1	387064	11/14/17 01:38	PJQ	TAL BUF

**Laboratory References:**

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

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# Accreditation/Certification Summary

Client: Field & Technical Services LLC  
 Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998310390	08-31-18

## Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		PA00164	07-31-18
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	03-31-18
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-18
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-18
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-18
North Carolina (WW/SW)	State Program	4	434	12-31-17
Pennsylvania	NELAP	3	02-00416	04-30-18
South Carolina	State Program	4	89014	04-30-18
Texas	NELAP	6	T104704528-15-2	03-31-18
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-18
Wisconsin	State Program	5	998027800	08-31-18

# Method Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

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Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL BUF

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**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

Client: Field & Technical Services LLC  
Project/Site: Superior, WI Semiannual Groundwater

TestAmerica Job ID: 480-125450-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125450-1	SUPE-W-30C-100417	Water	10/04/17 10:52	10/06/17 09:15
480-125450-2	SUPE-W-06A-100417	Water	10/04/17 11:59	10/06/17 09:15
480-125450-3	SUPE-W-06C-100417	Water	10/04/17 12:55	10/06/17 09:15
480-125450-4	SUPE-W-12A-100417	Water	10/04/17 13:57	10/06/17 09:15
480-125450-5	SUPE-W-30A-100417	Water	10/04/17 15:06	10/06/17 09:15
480-125450-6	SUPE-W-18D-100417	Water	10/04/17 11:20	10/06/17 09:15
480-125450-7	SUPE-W-28C-100417	Water	10/04/17 12:57	10/06/17 09:15
480-125450-8	SUPE-W-12CR-100417	Water	10/04/17 14:02	10/06/17 09:15
480-125450-9	SUPE-W-04AR2-100417	Water	10/04/17 15:08	10/06/17 09:15
480-125450-10	SUPE-EB-01-100417	Water	10/04/17 16:10	10/06/17 09:15
480-125450-11	SUPE-W-99A-100417	Water	10/04/17 22:22	10/06/17 09:15
480-125450-13	SUPE-W-10AR2-100517	Water	10/05/17 07:59	10/06/17 09:15
480-125450-14	SUPE-EB-02-100517	Water	10/05/17 08:45	10/06/17 09:15



# Login Sample Receipt Checklist

Client: Field & Technical Services LLC

Job Number: 480-125450-2

**Login Number: 125450**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Janish, Carl M**

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





**APPENDIX F**  
**ASCII DATA PRINTOUT**

