



**Weston Solutions, Inc.**  
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[www.westonsolutions.com](http://www.westonsolutions.com)

PROGRESS REPORT  
915148

JAN 11 2008

NYSDEC REC 9  
FOR  
REL UNREL

Mr. Glenn May  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203

January 10, 2008

W.O. No. 02181.086.017

Re: Progress Report – July 2007 to December 2007  
3M Tonawanda, New York Facility  
Order on Consent # B9-0369-91-04, Site Code #915148

Dear Mr. May:

In accordance with the referenced Order on Consent (Order) and at 3M's direction, we are submitting the progress report for the 3M Tonawanda, NY facility for the period extending from July 2007 to December 2007.

Should you have any comments or questions, please contact me at 610-701-7302.

Very truly yours,

WESTON SOLUTIONS, INC.

A handwritten signature in black ink, appearing to read "Thomas A. Drew, P.G." The signature is fluid and cursive.

Thomas A. Drew, P.G.  
Principal Project Manager

- c: Division of Environmental Remediation, Albany (w/o enclosure)  
Director, Bureau of Environmental Exposure Investigation, Troy (w/o enclosure)  
Division of Environmental Enforcement, Buffalo (w/o enclosure)  
C. O'Connor - New York State Department of Health, Buffalo (w/ enclosure)  
J. Pettinelli, 3M (w/ enclosure)  
K. Held, 3M (w/ enclosure)

an employee-owned company



JAN 7 1 2008

NYSDEN REG 6  
FOL  
REF UNRELPROGRESS REPORT**Site Name and Location:** 3M Facility, Tonawanda, New York**Registry Number:** 915148**Order on Consent:** B9-0369-91-04**3M Project Contacts:** Justin Pettinelli (3M Corporate)  
Keith Held (3M Tonawanda)**NYSDEC Project Lead:** Glenn May**Reporting Period:** July 2007 to December 2007

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Background

The New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) (Registry No. 915148) for the 3M facility in Tonawanda, New York. This ROD presents the selected remedial action for the Tonawanda facility based on the site's Administrative Record and public input. Following ROD issuance, the NYSDEC reclassified the 3M Tonawanda site from "Class 3 – Does not present a significant threat to the public health or environment – action may be deferred", to "Class 4 – Site properly closed – requires continued management."

3M is implementing the selected ROD remedy, No Further Action with Monitoring, under an Order on Consent (Index # B9-0369-91-04) (Order) according to the NYSDEC-approved Operation and Maintenance Work Plan (O&M Work Plan), which was made part of the Order. The original O&M Work Plan called for:

- Filing a Declaration of Covenants and Restrictions with the property deed at the Erie County Clerk's Office. This was completed and was reported in the initial progress report for the period ending March 31, 2001.
- Performing long-term groundwater monitoring. Involved semiannual sampling of site monitor wells MW-1, MW-2, MW-3, and MW-4 and annual sampling of the two site lysimeters, LY-1 and LY-2, with groundwater samples analyzed for carbon disulfide (CS<sub>2</sub>).
- Inspecting the completed interim remedial measures (IRMs) (includes the CS<sub>2</sub> tank system, and the catch basin and associated swale) and maintaining the integrity of the IRMs.

Semiannual progress reports have been submitted by 3M to NYSDEC and these reports summarize project activities that occurred in the previous reporting periods. In August

JAN 11 2008

2005, the Five-Year Evaluation Report was submitted by 3M to NYSDEC and this report concluded that the selected remedy has been effective in meeting remediation goals outlined in the 1999 ROD and remains protective of human health and the environment. The aforementioned evaluation report also contained a recommended future course of action for the facility, including reductions in groundwater monitoring and reporting under the Order/O&M Plan.

By letter of May 18, 2006, NYSDEC provided comment on the Five-Year Evaluation Report. Based on the presence of CS<sub>2</sub> in the subsurface environment, NYSDEC required continued monitoring at this facility, but required only one site monitoring well (MW-4) and one site lysimeter (LY-2) be monitored for CS<sub>2</sub> on a semiannual basis and annual basis, respectively. According to the May 2006 NYSDEC correspondence, reporting on the maintenance of the drainage swale and associated catch basins would continue under the Order/O&M Plan; however, reporting on the continued operations, maintenance and inspection of the existing CS<sub>2</sub> tank system could be completed by 3M under NYSDEC's Chemical Bulk Storage Program.

This progress report reflects the O&M monitoring and reporting modifications agreed upon with NYSDEC. The November 2007 event represents the third sampling of the reduced monitoring network under the modified O&M Plan. The results from this sampling event are presented herein, along with a description of any maintenance activity conducted in the swale. As noted in the previous progress report, annual sampling of monitoring well MW-4 and lysimeter LY-02 was completed in June 2007 and results were not available for inclusion in the last progress report. Therefore, the June 2007 sampling results are included in this report.

### **Summary of Activities Performed During the Reporting Period**

The following is a summary of activities performed by 3M during the reporting period:

- Laboratory analytical results from the site groundwater monitoring conducted in November 2007 were received and these results are presented herein. The November 2007 event involved the collection of groundwater samples (primary sample and duplicate sample) from monitoring well MW-4 for CS<sub>2</sub> analysis.
- Water samples for CS<sub>2</sub> analysis were collected from monitoring well MW-4 and lysimeter LY-02 in June 2007 in accordance with the O&M Plan modifications approved by NYSDEC. Laboratory analytical results from the June 2007 sampling event are provided in this report.
- Annual inspection of the drainage swale was performed on November 11, 2007. This inspection revealed no maintenance requirements for this site area.

## Groundwater Monitoring Results

### Summary of Carbon Disulfide Groundwater Analytical Results (mg/L)

Sampling Date	Sample ID and Result	
	MW-4	MW-4 Duplicate
11/6/07	ND	ND

Sampling Date	Sample ID and Result		
	LY-02	MW-4	MW-4 Duplicate
6/13/07	600	ND	ND

Notes: ND - Not detected. The reporting limit for CS<sub>2</sub> is 5 µg/L.

As noted above, CS<sub>2</sub> was not detected in the groundwater samples collected from monitoring well MW-4 in June 2007 and November 2007. Consistent with previous sampling data, CS<sub>2</sub> was found in the pore water sample collected from lysimeter LY-02. A copy of the analytical data packages for the June 2007 and November 2007 sampling events are provided in Attachment A.



JAN 11 2008

WATER RGC 9  
FOR  
...PM UNIT

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**ATTACHMENT A**  
**LABORATORY ANALYTICAL PACKAGES**  
**JUNE 2007 AND NOVEMBER 2007**

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S E V E R N  
T R E N T

STL

**STL Buffalo**  
10 Hazelwood Drive, Suite 106  
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991  
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ANALYTICAL REPORT

Job#: A07-6602

Project#: NY1A8679  
Site Name: 3M Tonawanda, NY - Semi-Annual Monitoring  
Task: 3M Tonawanda, NY - Semi-Annual Monitoring

Mr. Tom Drew  
Roy F. Weston, Inc.  
1400 Weston Way  
West Chester, PA 19380

STL Buffalo



Mark A. Nemec  
Project Manager

07/05/2007

**STL Buffalo**  
**Current Certifications**

As of 5/16/2007

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>Arkansas</b>	SDWA, CWA, RCRA, SOIL	88-0686
<b>California</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida</b>	NELAP CWA, RCRA	E87672
<b>Georgia</b>	SDWA, NELAP CWA, RCRA	956
<b>Illinois</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY0044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA, CWA, RCRA	036-999-337
<b>New Hampshire</b>	NELAP SDWA, CWA	233701
<b>New Jersey</b>	NELAP SDWA, CWA, RCRA	NY455
<b>New York</b>	NELAP AIR, SDWA, CWA, RCRA, CLP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania</b>	NELAP CWA, RCRA	68-00281
<b>Tennessee</b>	SDWA	02970
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington</b>	CWA, RCRA	C1677
<b>West Virginia</b>	CWA, RCRA	252
<b>Wisconsin</b>	CWA, RCRA	998310390

## SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED		RECEIVED	
			DATE	TIME	DATE	TIME
A7660204	FB-MW-04	WATER	06/13/2007	12:30	06/13/2007	13:30
A7660201	LY-02	WATER	06/13/2007	12:50	06/13/2007	13:30
A7660202	MW-04	GW	06/13/2007	12:40	06/13/2007	13:30
A7660203	MW-04 DUP	GW	06/13/2007	12:40	06/13/2007	13:30
A7660205	TRIP BLANK	WATER	06/13/2007	10:30	06/13/2007	13:30

## METHODS SUMMARY

Job#: A07-6602Project#: NY1A8679  
Site Name: 3M Tonawanda, NY - Semi-Annual Monitoring

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - Carbon Disulfide	SW8463 8260

References:

- SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

## SDG NARRATIVE

Job#: A07-6602Project#: NY1A8679Site Name: 3M Tonawanda, NY - Semi-Annual MonitoringGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-6602

Sample Cooler(s) were received at the following temperature(s); 5.5 °C  
All samples were received in good condition.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Date: 07/05/2007  
Time: 07:31:14

Dilution Log w/Code Information  
For Job A07-6602

6/15 Page: 1  
Rept: AN1266R

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
LY-02	A7660201	8260	4000.00	008
LY-02	A7660201DL	8260	8000.00	008
LY-02	A7660201MS	8260	4000.00	008
LY-02	A7660201SD	8260	4000.00	008

---

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

# STL

## DATA QUALIFIER PAGE

***These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.***

### **ORGANIC DATA QUALIFIERS**

- ND or U Indicates compound was analyzed for, but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- \* Indicates analysis is not within the quality control limits.

### **INORGANIC DATA QUALIFIERS**

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- G Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
- \* Indicates the spike or duplicate analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Date: 07/05/2007  
Time: 07:31:20

3M Tonawanda, NY - Semi-Annual Monitoring  
3M Tonawanda, NY - Semi-Annual Monitoring  
METHOD 8260 - CARBON DISULFIDE

Rept: AN1246

Client ID Job No Sample Date	Lab ID	FB-MW-04 A07-6602 06/13/2007	A7660204	LY-02 A07-6602 06/13/2007	A7660201	LY-02 A07-6602 06/13/2007	A7660201DL	MW-04 A07-6602 06/13/2007	A7660202
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Carbon Disulfide	ug/L	ND	5.0	560000 E	930	600000 D	1800	ND	5.0
IS/SURROGATE(S)	%								
Chlorobenzene-D5	%	74	50-200	71	50-200	83	50-200	72	50-200
1,4-Difluorobenzene	%	76	50-200	72	50-200	86	50-200	74	50-200
1,4-Dichlorobenzene-D4	%	56	50-200	53	50-200	65	50-200	57	50-200
Toluene-D8	%	101	71-126	102	71-126	99	71-126	102	71-126
p-Bromofluorobenzene	%	91	73-120	90	73-120	91	73-120	92	73-120
1,2-Dichloroethane-D4	%	117	66-137	123	66-137	124	66-137	120	66-137

Client ID Job No Sample Date	Lab ID	MW-04 DUP A07-6602 06/13/2007	A7660203	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Carbon Disulfide	ug/L	ND	5.0	NA	NA	NA	NA	NA	NA
IS/SURROGATE(S)	%								
Chlorobenzene-D5	%	73	50-200	NA	NA	NA	NA	NA	NA
1,4-Difluorobenzene	%	74	50-200	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	57	50-200	NA	NA	NA	NA	NA	NA
Toluene-D8	%	101	71-126	NA	NA	NA	NA	NA	NA
p-Bromofluorobenzene	%	91	73-120	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane-D4	%	120	66-137	NA	NA	NA	NA	NA	NA

## Chronology and QC Summary Package

Date: 07/05/2007  
Time: 07:31:32

3M Tonawanda, NY - Semi-Annual Monitoring  
3M Tonawanda, NY - Semi-Annual Monitoring  
METHOD 8260 - CARBON DISULFIDE

Rept: AN1246

Client ID Job No Sample Date	Lab ID	VBLK04 A07-6602	A7B0994202	vblk05 A07-6602	A7B0995103		
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
carbon Disulfide	µg/L	ND	5.0	ND	5.0	ND	NA
Chlorobenzene-D5	%	91	50-200	93	50-200	NA	NA
1,4-Difluorobenzene	%	94	50-200	97	50-200	NA	NA
1,4-Dichlorobenzene-D4	%	72	50-200	72	50-200	NA	NA
Toluene-D8	%	101	71-126	98	71-126	NA	NA
p-Bromofluorobenzene	%	93	73-120	92	73-120	NA	NA
1,2-Dichloroethane-D4	%	103	66-137	116	66-137	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Rept: AN1246

3M Tonawanda, NY - Semi-Annual Monitoring  
 3M Tonawanda, NY - Semi-Annual Monitoring  
 METHOD 8260 - CARBON DISULFIDE

Date: 07/05/2007  
 Time: 07:31:32

Client ID Job No Sample Date	Lab ID	TRIP BLANK A07-6602 06/13/2007	A7660205					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Carbon Disulfide	ug/L	ND	5.0	NA	NA	NA	NA	NA
IS/SURROGATE (S)	%	74	50-200	NA	NA	NA	NA	NA
Chlorobenzene-D5	%	74	50-200	NA	NA	NA	NA	NA
1,4-Difluorobenzene	%	56	50-200	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	101	71-126	NA	NA	NA	NA	NA
Toluene-D8	%	90	73-120	NA	NA	NA	NA	NA
p-Bromofluorobenzene	%	119	66-137	NA	NA	NA	NA	NA
1,2-Dichloroethane-D4	%							

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/05/2007  
Time: 07:32:01

ROY F WESTON  
SAMPLE CHRONOLOGY

Rept: AN1248  
Page: 1

## METHOD 8260 - CARBON DISULFIDE

		ROY F WESTON SAMPLE CHRONOLOGY					
		MATERIALS					
		METHOD 8260 - CARBON DISULFIDE					
Client Sample ID	FB-MW-04 A07-6602	LY-02 A07-6602 A7660201			LY-02 A07-6602 A7660201DL	MW-04 A07-6602 A7660202	MW-04 DUP A07-6602 A7660203
Job No & Lab Sample ID	06/13/2007 12:30 06/13/2007 13:30	06/13/2007 12:50 06/13/2007 13:30	06/13/2007 12:50 06/13/2007 13:30	06/13/2007 12:50 06/13/2007 13:30	06/13/2007 12:40 06/13/2007 13:30	06/13/2007 12:40 06/13/2007 13:30	06/13/2007 12:40 06/13/2007 13:30
Sample Date	06/23/2007 18:28	06/23/2007 20:22	06/25/2007 16:44	06/23/2007 19:53	-	-	06/23/2007 19:25
Received Date	-	-	-	-	YES	YES	-
Extraction Date	YES	YES	YES	YES	WATER	GW	YES
Analysis Date	WATER	WATER	WATER	WATER	8000.0	1.0	GW
Extraction HT Met?	1.0	4000.0	0.005	0.005	LITERS	0.005	1.0
Analytical HT Met?	0.005	LITERS	0.005	LITERS		LITERS	0.005 LITERS
Sample Matrix							
Dilution Factor							
Sample Wt/vol							
% Dry							

Date: 07/05/2007  
Time: 07:32:01

ROY F WESTON  
QC SAMPLE CHRONOLOGY

Rept: AN1248  
Page: 2

## METHOD 8260 - CARBON DISULFIDE

Client Sample ID	TRIP BLANK		
Job No & Lab Sample ID	A07-6602	A7660205	
Sample Date	06/13/2007	10:30	
Received Date	06/13/2007	13:30	
Extraction Date			
Analysis Date	06/23/2007	18:57	
Extraction HT Met?	-		
Analytical HT Met?	YES		
Sample Matrix	WATER		
Dilution Factor	1.0		
Sample wt/vol	0.005	LITERS	
% Dry			

Date: 07/05/2007  
Time: 07:32:01

Rept: AN1248  
Page: 3

ROY F WESTON  
QC SAMPLE CHRONOLOGY

**METHOD 8260 - CARBON DISULFIDE**

Client Sample ID	VBLK04	vb lk05	ROY F WESTON
Job No & Lab Sample ID	A07-6602	A07-6602	QC SAMPLE CHRONOLOGY
Sample Date			
Received Date			
Extraction Date	06/23/2007	13:09	06/25/2007
Analysis Date	-	-	11:23
Extraction HT Met?	-	-	
Analytical HT Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol % dry			
	WATER		
	1.0		
	0.005 LITERS	0.005 LITERS	

78141  
**Chain of Custody  
Record**

**SEVERN  
TRENT**

**Severn Trent Laboratories, Inc.**

82324

**STL®**

STL4149 (1202)

Client <b>Westco / 3M Turnaround</b>	Project Manager <b>Tom Drew</b>	Date <b>6/13/07</b>	Page <b>1</b> of <b>1</b>
Address <b>1400 Western Way</b>	Telephone Number (Area Code)/Fax Number <b>301-202-1000</b>	Lab Location <b>Analysis</b>	
City <b>Wichita</b>	State <b>PA</b>	Zip Code <b>PA</b>	Site Contact <b>PA</b>
Project Number/Name <b>02181-0012.001.0001</b>	Carrier/Waybill Number <b>11111111111111111111111111111111</b>		
Contract/Purchase Order/Quote Number <b>02181-0012.001.0001</b>			

Sample I.D. Number and Description	Date	Time	Sample Type	Volume	Containers	Type	No.	Preservative	Condition on Receipt/Comments
MWJ-4	6/13/07	1240	3	4ml	1	Vial	4	HCl	
MWJ-4 DUP		1240	1		1	Vial	4		
MWJ-4		1230	1		1	Vial	4		
FB-MWJ-4		1230	1		1	Vial	3		
LY-02		1250	1		1	Vial	2		
TRIP Blank		1030	1		1	Vial	1		

Special Instructions  
**5 PPB CARBON DISULFIDE ONLY**

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Sample Disposal  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months \_\_\_\_\_

Turn Around Time Required  
 Normal  Rush  Other \_\_\_\_\_ QC Level  
 I.  II.  III.  
1. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ 1. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
2. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ 2. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
3. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ 3. Received By \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Comments  
**5.5°C**

1. Relinquished By <b>T. R. Johnson</b>	Date <b>6/13/07</b>	Time <b>1330</b>	1. Relinquished By <b>J. H. Johnson</b>	Date <b>6/13/07</b>	Time <b>1330</b>
2. Relinquished By <b>J. H. Johnson</b>	Date <b>6/13/07</b>	Time <b>1330</b>	2. Relinquished By <b>J. H. Johnson</b>	Date <b>6/13/07</b>	Time <b>1330</b>

DISTRIBUTION: WHITE - Stays with the Sample: CANARY - Returned to Client with Report: PINK - Field Copy

15/15

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT  
3M TONAWANDA, NY - SEMI-ANNUAL MONITORING  
JAN 11 2008

## ANALYTICAL REPORT

3M TONAWANDA,  
NY - SEMI-ANNUAL MONITORING  
JAN 11 2008

Job#: A07-C831

Project#: NY1A8679  
Site Name: 3M Tonawanda, NY - Semi-Anual Monitoring  
Task: 3M Tonawanda, NY - Semi-Annual Monitoring

Mr. Tom Drew  
Roy F. Weston, Inc.  
1400 Weston Way  
West Chester, PA 19380

TestAmerica Laboratories Inc.

  
Mark A. Nemec  
Project Manager

11/26/2007



## TestAmerica Buffalo Current Certifications

As of 6/15/2007

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>Arkansas</b>	SDWA, CWA, RCRA, SOIL	88-0686
<b>California*</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida*</b>	NELAP CWA, RCRA	E87672
<b>Georgia*</b>	SDWA,NELAP CWA, RCRA	956
<b>Illinois*</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas*</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana*</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY0044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA,CWA, RCRA	036-999-337
<b>New Hampshire*</b>	NELAP SDWA, CWA	233701
<b>New Jersey*</b>	NELAP,SDWA, CWA, RCRA,	NY455
<b>New York*</b>	NELAP, AIR, SDWA, CWA, RCRA, CLP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania*</b>	Registration, NELAP CWA,RCRA	68-00281
<b>Tennessee</b>	SDWA	02970
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington</b>	CWA,RCRA	C1677
<b>West Virginia</b>	CWA,RCRA	252
<b>Wisconsin</b>	CWA, RCRA	998310390

\*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

## SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A7C83103	FB-MW-04	WATER	11/06/2007	12:40	11/06/2007	13:35
A7C83101	MW-04	GW	11/06/2007	13:00	11/06/2007	13:35
A7C83102	MW-04 DUP	GW	11/06/2007	13:00	11/06/2007	13:35
A7C83104	TRIP BLANK	WATER	11/06/2007	11:00	11/06/2007	13:35

## METHODS SUMMARY

Job#: A07-C831Project#: NY1A8679  
Site Name: 3M Tonawanda, NY - Semi-Annual Monitoring

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - Carbon Disulfide	SW8463 8260

References:

- SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

## SDG NARRATIVE

Job#: A07-C831Project#: NY1A8679  
Site Name: 3M Tonawanda, NY - Semi-Annual MonitoringGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A07-C831

Sample Cooler(s) were received at the following temperature(s); 4.6 °C  
All samples were received in good condition.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## DATA QUALIFIER PAGE

*These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.*

### ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- \* Indicates analysis is not within the quality control limits.

### INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- G Indicates a value greater than or equal to the project reporting limit but less than the laboratory quantitation limit
- \* Indicates the spike or duplicate analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Date: 11/26/2007  
Time: 11:20:08

3M Tonawanda, NY - Semi-Annual Monitoring  
3M Tonawanda, NY - Semi-Annual Monitoring  
METHOD 8260 - CARBON DISULFIDE

Rept: AN1246

Client ID Job No Sample Date	Lab ID	FB-MW-04 A07-c831 11/06/2007	A7C83103	MW-04 A07-c831 11/06/2007	A7C83101	MW-04 DUP A07-c831 11/06/2007	A7C83102
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Carbon Disulfide	ug/L	ND	5.0	ND	5.0	ND	5.0
IS/SURROGATE (S)	%	81	50-200	81	50-200	82	50-200
Chlorobenzene-D5	%	77	50-200	79	50-200	80	50-200
1,4-Difluorobenzene	%	76	50-200	72	50-200	72	50-200
1,4-Dichlorobenzene-D4	%	108	71-126	107	71-126	107	71-126
Toluene-D8	%	96	73-120	95	73-120	94	73-120
p-Bromofluorobenzene	%	102	66-137	98	66-137	98	66-137
1,2-Dichloroethane-D4	%						

NA = Not Applicable      ND = Not Detected

TestAmerica Lab

## Chronology and QC Summary Package

Date: 11/26/2007  
Time: 11:20:21

3M Tonawanda, NY - Semi-Annual Monitoring  
3M Tonawanda, NY - Semi-Annual Monitoring  
METHOD 8260 - CARBON DISULFIDE

Rept: AN1246

Client ID Job No Sample Date	Lab ID	vb1k34 A07-C831	A7B18134Q2					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Reporting Limit
carbon Disulfide	UG/L	ND	5.0	NA	NA	NA	NA	NA
IS/SURROGATE(S)	%	84	50-200	NA	NA	NA	NA	NA
chlorobenzene-D5	%	82	50-200	NA	NA	NA	NA	NA
1,4-Difluorobenzene	%	77	50-200	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	105	71-126	NA	NA	NA	NA	NA
Toluene-D8	%	97	73-120	NA	NA	NA	NA	NA
p-Bromofluorobenzene	%	98	66-137	NA	NA	NA	NA	NA
1,2-Dichloroethane-D4	%							

Date: 11/26/2007  
Time: 11:20:21

3M Tonawanda, NY - Semi-Annual Monitoring  
3M Tonawanda, NY - Semi-Annual Monitoring  
METHOD 8260 - CARBON DISULFIDE

Rept: AN1246

Client ID Job No Sample Date	Lab ID	TRIP BLANK A07-C831 11/06/2007	A7C83104					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Reporting Limit
carbon Disulfide	UG/L	ND	5.0	NA	NA	NA	NA	NA
IS/SURROGATE(s)	%	80	50-200	NA	NA	NA	NA	NA
Chlorobenzene-D5	%	77	50-200	NA	NA	NA	NA	NA
1,4-Difluorobenzene	%	76	50-200	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	107	71-126	NA	NA	NA	NA	NA
Toluene-D8	%	96	73-120	NA	NA	NA	NA	NA
p-Bromofluorobenzene	%	98	66-137	NA	NA	NA	NA	NA
1,2-Dichloroethane-D4	%							

NA = Not Applicable      ND = Not Detected

TestAmerica Lab

Date: 11/26/2007  
Time: 11:20:51

ROY F WESTON  
SAMPLE CHRONOLOGY

Rept: AN1248  
Page: 1

## METHOD 8260 - CARBON DISULFIDE

	Client Sample ID	FB-MW-04 A07-C831 A7c83103	MW-04 A07-C831 A7c83101	MW-04 A07-C831 A7c83102
Sample Date Received		11/06/2007 12:40 11/06/2007 13:35	11/06/2007 13:00 11/06/2007 13:35	11/06/2007 13:00 11/06/2007 13:35
Extraction Date				
Analysis Date	11/12/2007	01:11	11/12/2007 00:22	11/12/2007 00:46
Extraction HT Met?	-		-	
Analytical HT Met?	YES		YES	
Sample Matrix	WATER		GW	
Dilution Factor	1.0		1.0	
Sample wt/vol	0.005	LITERS	0.005	LITERS
% Dry				

Rept: AN1248  
Page: 2ROY F WESTON  
QC SAMPLE CHRONOLOGYDate: 11/26/2007  
Time: 11:20:51**METHOD 8260 - CARBON DISULFIDE**

Client Sample ID	TRIP BLANK		
Job No & Lab Sample ID	A07-C831	A7C83104	
Sample Date Received Date	11/06/2007 11/06/2007	11:00 13:35	
Extraction Date			
Analysis Date	11/12/2007	01:35	
Extraction HT Met?	-		
Analytical HT Met?	YES		
Sample Matrix	WATER		
Dilution Factor	1.0		
Sample wt/vol % Dry	0.005 LITERS		

NA = Not Applicable

Date: 11/26/2007  
Time: 11:20:51

ROY F WESTON  
QC SAMPLE CHRONOLOGY

Rept: AN1248  
Page: 3

## METHOD 8260 - CARBON DISULFIDE

Client Sample ID	vb lk34	
Job No & Lab Sample ID	A07-C831	A7B1813402
Sample Date Received Date		
Extraction Date	11/11/2007	16:02
Analysis Date	-	
Extraction HT Met?	-	
Analytical HT Met?		
Sample Matrix		
Dilution Factor		
Sample wt/vol % Dry	WATER 1.0 0.005 LITERS	

## Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

AL-4142 (0907)

Client <b>Western Tonawanda</b>	Project Manager <b>Tom Drew</b>	Date <b>11/6/07</b>	Chain of Custody Number <b>369911</b>
Address <b>1400 Western Way</b>	Telephone Number (Area Code)/Fax Number <b>610.701.2302</b>	Lab Number <b>1</b>	Page <b>1 of 1</b>
City <b>W Chester</b>	State <b>PA</b>	Zip Code <b>19360</b>	Analysis (Attach list if more space is needed)
Carter/Naybill Number <b>100AWB11NA, NY</b>			
Contract/Purchase Order/Quote No.			

Special Instructions/  
Conditions of Receipt

Containers & Preservatives

	Air	Soil	Seal	Aquacous	Water	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/H	NaOH
MW-4	1/6/07	1300							4	4		
MW-4 DUP		1300							4	4		
FB-MW-4		1210							4	4		
Trip Block		1100							1			

(Containers for each sample may be combined on one line)

Sample I.D. No. and Description <b>MW-4</b>	Date <b>11/6/07</b>	Time <b>1300</b>	Matrix <b>Air</b>	Containers & Preservatives <b>50</b>
<b>MW-4 DUP</b>				
<b>FB-MW-4</b>				
<b>Trip Block</b>				

Possible Hazard Identification

- Non-Hazard     Flammable     Skin Irritant     Poison B     Unknown

- Sample Disposal     Return To Client     Disposal By Lab     Archive For

Months

(A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)

Turn Around Time Required <b>1. Relinquished By 24 Hours</b>	7 Days	14 Days	21 Days	Other <b>11-6-07 11:35</b>	1. Received By <b>Mark Umec</b>	2. Received By	3. Received By	Date <b>11-6-07</b>	Time <b>13:35</b>	Date <b>11-6-07</b>	Time <b>Time</b>
<b>2. Relinquished By</b>											
<b>3. Relinquished By</b>											

Comments  
**4.6 °C**