



Weston Solutions, Inc.
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West Chester, Pennsylvania 19380
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www.westonsolutions.com

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July 9, 2007

JUL 10 2007

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

W.O. No. 02181.086.017

Re: Progress Report – January 2007 to June 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 January 2007 to June 2007.

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

Very truly yours,

WESTON SOLUTIONS, INC.

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)



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PROGRESS REPORT

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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: January 2007 to June 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 (CS₂).
- Inspecting the completed interim remedial measures (IRMs) (includes the CS₂ 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



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 CS₂ 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 CS₂ 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 CS₂ 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. As noted in the previous progress report, in December 2006, the semiannual groundwater sample was collected from site monitoring well MW-4 for CS₂ analysis. The December 2006 event represents the second 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 maintenance activities conducted in the swale. Annual sampling of monitoring well MW-4 and lysimeter LY-02 was completed in June 2007 and the results from this sampling event are pending.

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 December 2006 were received and these results are presented herein. The December 2006 event involved the collection of groundwater samples (primary sample and duplicate sample) from monitoring well MW-4 for CS₂ analysis.
- Water samples for CS₂ 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 pending, and therefore, the results will be provided to NYSDEC in the next progress report.
- A portion of the drainage swale area was graded and seeded the first week in May 2007 to address some ruts caused by vehicular traffic.

Groundwater Monitoring Results

Summary of Carbon Disulfide Groundwater Analytical Results ($\mu\text{g/L}$)

Sampling Date	Sample ID and Result	
	MW-4	MW-4 Duplicate
12/1/06	ND	ND

Notes: ND - Not detected. The reporting limit for CS_2 is $5 \mu\text{g/L}$.

As noted above, CS_2 was not detected in the groundwater samples collected from monitoring well MW-4 in December 2006. A copy of the analytical data package for the December 2006 sampling event is provided in Attachment A.



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**ATTACHMENT A
LABORATORY ANALYTICAL PACKAGE
DECEMBER 2006 SAMPLING EVENT**

STL Buffalo10 Hazelwood Drive, Suite 106
Amherst, NY 14228Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A06-E423

STL Project#: NY1A8679

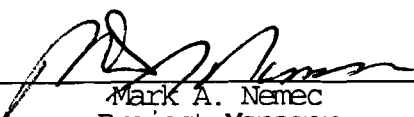
Site Name: 3M Tonawanda, NY - Semi-Annual MonitoringTask: 3M Tonawanda, NY - Semi-Annual Monitoring

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

STL Buffalo



Mark A. Nemec
Project Manager

12/20/2006

STL Buffalo Current Certifications

As of 9/28/2006

STATE	Program	Cert # / Lab ID
AFCEE	AFCEE	
Arkansas	SDWA, CWA, RCRA, SOIL	88-0686
California	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP CWA, RCRA	E87672
Georgia	SDWA, NELAP CWA, RCRA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire	NELAP SDWA, CWA	233701
New Jersey	SDWA, CWA, RCRA, CLP	NY455
New York	NELAP, AIR, SDWA, CWA, RCRA, ASP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania	NELAP CWA, RCRA	68-00281
South Carolina	RCRA	91013
Tennessee	SDWA	02970
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington	CWA, RCRA	C1677
West Virginia	CWA, RCRA	252
Wisconsin	CWA, RCRA	998310390

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>
A6E42304	FIELD BLANK	WATER	12/01/2006	11:00	12/01/2006	12:40
A6E42301	MW-04	GW	12/01/2006	12:10	12/01/2006	12:40
A6E42302	MW-04 DUP	GW	12/01/2006	12:10	12/01/2006	12:40
A6E42303	TRIP BLANK	WATER	12/01/2006	10:00	12/01/2006	12:40

METHODS SUMMARY

Job#: A06-E423STL Project#: NY1A8679Site Name: 3M Tonawanda, NY - Semi-Annual Monitoring

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
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.

NON-CONFORMANCE SUMMARY

Job#: A06-E423STL Project#: 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

A06-E423

Sample Cooler(s) were received at the following temperature(s); 10.7 °C

Samples were received at a temperature of 10.7°C. However, ice was present in the cooler and as the samples were collected the same day, it was not possible for the samples to cool to 4°C prior to receipt. There is no impact on the data.

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.



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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.
- † 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.
- * 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: 12/20/2006
 Time: 12:06:11

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

Rept: AN1246

Client ID	Lab ID	FIELD BLANK A06-E423 12/01/2006 A6E42304		MW-04 A06-E423 12/01/2006 A6E42301		MW-04 DUP A06-E423 12/01/2006 A6E42302			
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	ND	5.0	ND	5.0	NA	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	86	50-200	86	50-200	86	50-200	NA	
1,4-Difluorobenzene	%	91	50-200	89	50-200	90	50-200	NA	
1,4-Dichlorobenzene-D4	%	78	50-200	76	50-200	76	50-200	NA	
Toluene-D8	%	96	76-122	94	76-122	94	76-122	NA	
Bromofluorobenzene	%	96	73-120	93	73-120	92	73-120	NA	
1,2-Dichloroethane-D4	%	108	72-143	109	72-143	109	72-143	NA	

NA = Not Applicable ND = Not Detected

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Chronology and QC
Summary Package

Date: 12/20/2006
 Time: 12:06:23

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

Rept: AN1246

Client ID		VBLK18							
Job No		A06-E423		A6B3185702					
Sample Date		Lab ID							
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	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	89	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	95	50-200	NA		NA		NA	
1,4-Dichlorobenzene-D4	%	78	50-200	NA		NA		NA	
Toluene-D8	%	96	76-122	NA		NA		NA	
p-Bromofluorobenzene	%	92	73-120	NA		NA		NA	
1,2-Dichloroethane-D4	%	106	72-143	NA		NA		NA	

Date: 12/20/2006
 Time: 12:06:23

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

Rept: AN1246

Client ID		TRIP BLANK							
Job No		A06-E423		A6E42303					
Sample Date		12/01/2006							
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	
IS/SURROGATE(S)									
Chlorobenzene-D5	%	87	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	90	50-200	NA		NA		NA	
1,4-Dichlorobenzene-D4	%	76	50-200	NA		NA		NA	
Toluene-D8	%	95	76-122	NA		NA		NA	
p-Bromofluorobenzene	%	92	73-120	NA		NA		NA	
1,2-Dichloroethane-D4	%	108	72-143	NA		NA		NA	

10/14

NA = Not Applicable ND = Not Detected

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METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	FIELD BLANK A06-E423 A6E42304	MW-04 A06-E423 A6E42301	MW-04 DUP A06-E423 A6E42302
Sample Date	12/01/2006 11:00	12/01/2006 12:10	12/01/2006 12:10
Received Date	12/01/2006 12:40	12/01/2006 12:40	12/01/2006 12:40
Extraction Date	12/12/2006 05:27	12/12/2006 06:52	12/12/2006 06:24
Analysis Date	-	-	-
Extraction HT Met?	YES	YES	YES
Analytical HT Met?	WATER	GW	GW
Sample Matrix	1.0	1.0	1.0
Dilution Factor	0.005	0.005	0.005
Sample wt/vol	LITERS	LITERS	LITERS
% Dry			

METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	TRIP BLANK A06-E423 A6E42303				
Sample Date	12/01/2006 10:00				
Received Date	12/01/2006 12:40				
Extraction Date					
Analysis Date	12/12/2006 05:55				
Extraction HT Met?	-				
Analytical HT Met?	YES				
Sample Matrix	WATER				
Dilution Factor	1.0				
Sample wt/vol	0.005 LITERS				
% Dry					

12/14

METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	VBLK18 A06-E423 A683185702			
Sample Date	12/11/2006 21:50			
Received Date	-			
Extraction Date	-			
Analysis Date	-			
Extraction HI Met?	-			
Analytical HI Met?	-			
Sample Matrix	WATER			
Dilution Factor	1.0			
Sample wt/vol	0.005 LITERS			
% Dry				

**Chain of
Custody Record**

STL-4124 (0901)

Client Westar/3M Tonawanda Project Manager Tom Drew Date 12/1/06 Chain of Custody Number 138910
 Address 1400 Westar Way Telephone Number (Area Code)/Fax Number 610. 701. 7302 Lab Number _____
 Page _____ of _____

City W Chester State PA Zip Code 19380 Site Contact _____ Lab Contact _____
 Project Name and Location (State) 3M Tonawanda, NY Carrier/Waybill Number _____
 Contract/Purchase Order/Quote No. _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt			
			Air	Aqueous	Sed.	Sol.	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH					
MW-4	12/1/06	1210		✓													
MW-4 Dup		1210		✓													
Field Blank		1100		✓													
Trip Blank		1000		✓													

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)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other _____

QC Requirements (Specify)

1. Relinquished By <u>[Signature]</u>	Date <u>12/1/06</u>	Time <u>1240</u>	1. Received By <u>[Signature]</u>	Date <u>12/1/06</u>	Time <u>1240</u>
2. Relinquished By _____	Date _____	Time _____	2. Received By _____	Date _____	Time _____
3. Relinquished By _____	Date _____	Time _____	3. Received By _____	Date _____	Time _____

Comments _____

10.7^{cc}