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December 12, 2003

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

W.O. No. 02181.086.009.0001

Re: Progress Report – May 1, 2003 to October 31, 2003
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, I am submitting the progress report for the 3M Tonawanda, NY facility for the period extending from May 1, 2003 to October 31, 2003. As required under the Order, the next progress report will be submitted to the New York State Department of Environmental Conservation in May 2004 and cover the six-month period ending April 30, 2004. If you have any comments or questions, please call us.

Very truly yours,

WESTON SOLUTIONS, INC.

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

cc: 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. Kotsmith, 3M (w/ enclosure)
R. Smith, 3M (w/ enclosure)



PROGRESS REPORT

Site Name and Location: 3M Facility, Tonawanda, New York

Registry Number: 915148

Order on Consent: B9-0369-91-04

3M Project Contacts: Jim Kotsmith (3M Corporate)
Ron Smith (3M Tonawanda)

NYSDEC Project Lead: Glenn May

Reporting Period: May 1, 2003 to October 31, 2003

Background

The New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) (Registry No. 915148) for the 3M Company (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 O&M Work Plan calls 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. Involves 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 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.

This progress report provides a summary of the project activities that have occurred from May 1, 2003 to October 31, 2003. In compliance with the Order and agreement reached with the NYSDEC, future progress reports will be submitted to the NYSDEC on a semiannual basis.

1.0 Summary of Activities Performed During the Reporting Period

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

- Daily inspections of the CS₂ tank/secondary containment system and associated truck/rail unloading stations were conducted for evidence of spills, leaks and unpermitted discharges of water containing CS₂. None of these were observed during the daily inspections.
- Periodic visual inspections were conducted prior to and during the transfer of CS₂ into the storage tank for evidence of malfunctioning equipment. No deficiencies were noted during the visual inspections.
- The annual inspection of the catch basins and surrounding area was conducted during this reporting period. Due to site construction activities, the vegetation cover in this area was disturbed. Grading and reseeding of this site area will be performed in 2004, when conditions permit.
- Site groundwater monitoring was conducted on October 27, 2003 in accordance with procedures specified in the O&M Plan. The monitoring results are summarized in Section 3.0.

2.0 CS₂ Tank System Deficiencies Identified by 3M and Corrective Actions Taken

- No CS₂ tank system deficiencies were noted during this reporting period.

3.0 Groundwater Monitoring Results

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

Date	Sample ID					
	MW-01	MW-02	MW-03	MW-04	LY-01	LY-02
10/27/03	ND	ND	ND	ND/ND*	ND	400

Notes: ND – Not detected. The reporting limit for CS₂ is 5 µg/L.
* - Duplicate sample result.

As indicated in the above table, CS₂ was not detected in the groundwater samples collected from site monitor wells MW-01 through MW-04 and lysimeter LY-01. CS₂ was detected in soil pore water collected from lysimeter LY-02 at 400 mg/L, which is comparable with historical analytical results. Additionally, CS₂ was not detected in the field blank or trip blank. A copy of the analytical data package is provided in Attachment A.

4.0 Activities Planned for the Next Reporting Period

The activities planned for the next reporting period (November 1, 2003 through April 30, 2004) include:

- Daily and periodic inspections of the CS₂ tank system (includes the containment system and unloading stations).
- Maintenance of the drainage swale, catch basins, and CS₂ tank system, as needed. If conditions permit, the area surrounding the catch basins will be regraded and seeded.
- Conduct the annual inspection of the CS₂ tank system and catch basin/surrounding area and conduct a regulatory compliance review pursuant to Order requirements. 3M will notify the NYSDEC at least 10 days in advance of the annual field inspection.
- Collection of groundwater samples from monitor wells MW-01 through MW-04 for CS₂ analysis. The NYSDEC will be notified in advance of sampling.

ATTACHMENT A
LABORATORY ANALYTICAL DATA PACKAGE

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

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A03-A368

STL 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. Nemeč
Project Manager

11/13/2003

STL Buffalo Current Certifications

STATE	Program	Cert # / Lab ID
A2LA (ISO 17025)	SDWA, CWA, RCRA	0732-01
Arizona	SDWA, CWA, RCRA	AZ0525
Arkansas	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
California	NELAP SDWA, CWA, RCRA	01169CA
Canada	GENERAL	SCC 1007-15/10B
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida	NELAP RCRA	E87672
Georgia	SDWA	956
Illinois	NELAP SDWA, CWA, RCRA	200003
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	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	10026
North Carolina	CWA	411
North Dakota	SDWA, CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon	NELAP, SDWA, CWA, RCRA	NY200001
Pennsylvania	NELAP, SDWA, CWA, Env. Lab Reg.	68-281
South Carolina	RCRA	91013
Tennessee	SDWA	2970
USDA	FOREIGN SOIL PERMIT	S-4650
Virginia	SDWA	278
Washington	CWA	C254
West Virginia	CWA	252
Wisconsin	CWA	998310390
Wyoming UST	UST	NA

SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
		<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A3A36808	FIELD BLANK	10/27/2003	15:50	10/27/2003	18:15
A3A36801	LY-01	10/27/2003	17:00	10/27/2003	18:15
A3A36802	LY-02	10/27/2003	17:30	10/27/2003	18:15
A3A36803	MW-01	10/27/2003	14:45	10/27/2003	18:15
A3A36804	MW-02	10/27/2003	14:30	10/27/2003	18:15
A3A36805	MW-03	10/27/2003	13:15	10/27/2003	18:15
A3A36806	MW-04	10/27/2003	16:00	10/27/2003	18:15
A3A36807	MW-04 DUP	10/27/2003	16:00	10/27/2003	18:15
A3A36809	TRIP BLANK	10/27/2003	12:00	10/27/2003	18:15

METHODS SUMMARY

Job#: A03-A368STL Project#: NY1A8679Site Name: 3M Tonawanda, NY - Semi-Annual Monitoring

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
METHOD 8260 - Carbon Disulfide	SW8463 8260/5ML

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#: A03-A368STL Project#: NY1A8679Site Name: 3M Tonawanda, NY - Semi-Annual MonitoringGeneral Comments

The enclosed data 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 and Dissolved Oxygen 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

A03-A368

Sample Cooler(s) were received at the following temperature(s); 2.2 °C
All samples were received in good condition.

GC/MS Volatile Data

The requested target analyte list does not include any spiking compounds routinely analyzed. Spike recovery data has not been included in the report.

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: 11/13/2003
Time: 13:54:59

Dilution Log w/Code Information
For Job A03-A368

620

Page: 1
Rept: AN1266R

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
LY-02	A3A36802	8260/5ML	10000.00	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

DATA COMMENT PAGE

ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.
- 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 a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. 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 at or above the reporting limit.
- 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.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
- 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 analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Sample Data Package

Client ID Job No Sample Date	Lab ID	FIELD BLANK A03-A368 10/27/2003	A3A36808	LY-01 A03-A368 10/27/2003	A3A36801	LY-02 A03-A368 10/27/2003	A3A36802	MW-01 A03-A368 10/27/2003	A3A36803
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	400000	16000	ND	5.0
IS/SURROGATE(S)									
Chlorobenzene-D5	%	84	50-200	92	50-200	82	50-200	88	50-200
1,4-Difluorobenzene	%	80	50-200	89	50-200	78	50-200	86	50-200
1,4-Dichlorobenzene-D4	%	76	50-200	87	50-200	73	50-200	83	50-200
Toluene-D8	%	105	77-122	104	77-122	105	77-122	106	77-122
p-Bromofluorobenzene	%	76	74-120	80	74-120	76	74-120	80	74-120
1,2-Dichloroethane-D4	%	131	73-136	127	73-136	135	73-136	130	73-136

Client ID Job No Sample Date	Lab ID	MW-02 A03-A368 10/27/2003	A3A36804	MW-03 A03-A368 10/27/2003	A3A36805	MW-04 A03-A368 10/27/2003	A3A36806	MW-04 DUP A03-A368 10/27/2003	A3A36807
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	ND	5.0
IS/SURROGATE(S)									
Chlorobenzene-D5	%	87	50-200	86	50-200	86	50-200	84	50-200
1,4-Difluorobenzene	%	86	50-200	82	50-200	84	50-200	82	50-200
1,4-Dichlorobenzene-D4	%	82	50-200	81	50-200	81	50-200	79	50-200
Toluene-D8	%	105	77-122	106	77-122	104	77-122	106	77-122
p-Bromofluorobenzene	%	79	74-120	79	74-120	79	74-120	78	74-120
1,2-Dichloroethane-D4	%	129	73-136	133	73-136	130	73-136	130	73-136

Chronology and QC Summary Package

Client ID Job No Sample Date	Lab ID	VBLK31 A03-A368		A3A36810		Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
		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	Sample Value	Reporting Limit
Carbon Disulfide =IS/SURROGATE(S)	UG/L	ND	5.0	NA		NA		NA		NA	
Chlorobenzene-D5	%	94	50-200	NA		NA		NA		NA	
1,4-Difluorobenzene	%	94	50-200	NA		NA		NA		NA	
1,4-Dichlorobenzene-D4	%	91	50-200	NA		NA		NA		NA	
Toluene-D8	%	105	77-122	NA		NA		NA		NA	
p-Bromofluorobenzene	%	82	74-120	NA		NA		NA		NA	
1,2-Dichloroethane-D4	%	124	75-136	NA		NA		NA		NA	

Date: 11/13/2003
Time: 13:55:14

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

Rept: AN0326

Client ID	Lab ID	MSB31 A03-A368	A3A36811	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Carbon Disulfide	ug/L	44	5.0	NA	NA	NA	NA	NA	NA
IS/SURROGATE(S)									
Chlorobenzene-D5	%	100	50-200	NA	NA	NA	NA	NA	NA
1,4-Difluorobenzene	%	99	50-200	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	105	50-200	NA	NA	NA	NA	NA	NA
Toluene-D8	%	106	77-122	NA	NA	NA	NA	NA	NA
p-Bromofluorobenzene	%	90	74-120	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane-D4	%	125	73-136	NA	NA	NA	NA	NA	NA

12/20

Date: 11/13/2003
Time: 13:55:14

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

Rept: AN0326

Client ID	Lab ID	TRIP BLANK	A3A36809	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
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			
IS/SURROGATE(S)									
Chlorobenzene-D5	%	92	50-200	NA		NA			
1,4-Difluorobenzene	%	92	50-200	NA		NA			
1,4-Dichlorobenzene-D4	%	88	50-200	NA		NA			
Toluene-D8	%	106	77-122	NA		NA			
p-Bromofluorobenzene	%	83	74-120	NA		NA			
1,2-Dichloroethane-D4	%	125	73-136	NA		NA			

13/20

METHOD 8260 - CARBON DISULFIDE

Client sample ID Job No & Lab sample ID	FIELD BLANK A03-A368 A3A36808	LY-01 A03-A368 A3A36801	LY-02 A03-A368 A3A36802	MW-01 A03-A368 A3A36803	MW-02 A03-A368 A3A36804
Sample Date	10/27/2003 15:50	10/27/2003 17:30	10/27/2003 17:30	10/27/2003 14:45	10/27/2003 14:30
Extraction Date	10/27/2003 18:15	10/27/2003 18:15	10/27/2003 18:15	10/27/2003 18:15	10/27/2003 18:15
Analysis Date	10/29/2003 18:51	10/29/2003 15:56	10/29/2003 19:20	10/29/2003 16:25	10/29/2003 16:54
Extraction HT Met?	-	-	-	-	-
Analytical HT Met?	YES	YES	YES	YES	YES
Sample Matrix	WATER	GW	GW	GW	GW
Dilution Factor	1.0	1.0	10000.0	1.0	1.0
Sample wt/vol % Dry	0.005 LITERS	0.005 LITERS	0.005 LITERS	0.005 LITERS	0.005 LITERS

14/20

METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	MW-03 A03-A368 A3A36805	MW-04 A03-A368 A3A36806	MW-04 DUP A03-A368 A3A36807
Sample Date	10/27/2003 13:15	10/27/2003 16:00	10/27/2003 16:00
Received Date	10/27/2003 18:15	10/27/2003 18:15	10/27/2003 18:15
Extraction Date	10/29/2003 17:23	10/29/2003 17:53	10/29/2003 18:22
Analytical HT Met?	-	-	-
Extraction HT Met?	YES	YES	YES
Sample Matrix	GW	GW	GW
Dilution Factor	1.0	1.0	1.0
Sample wt/vol	0.005 LITERS	0.005 LITERS	0.005 LITERS
% Dry			

METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	TRIP BLANK A03-A368 A3A36809			
Sample Date Received Date Extraction Date Analysis Date Extraction HT Met? Analytical HT Met? Sample Matrix Dilution Factor Sample wt/vol % Dry	10/27/2003 12:00 10/27/2003 18:15 10/29/2003 15:26 - YES WATER 1.0 0.005 LITERS			

METHOD 8260 - CARBON DISULFIDE

Client Sample ID Job No & Lab Sample ID	MSB31 A03-A368 A3A36811			
Sample Date	10/29/2003 13:21			
Received Date	-			
Extraction Date	-			
Analysis Date				
Extraction HT Met?				
Analytical HT Met?				
Sample Matrix	WATER			
Dilution Factor	1.0			
Sample wt/vol	0.005 LITERS			
% Dry				

METHOD 8260 - CARBON DISULFIDE

Job No & Lab Sample ID	Client Sample ID	Sample Date	Received Date	Extraction Date	Analysis Date	Extraction HI Met?	Analytical HI Met?	Sample Matrix	Dilution Factor	Sample wt/vol	% Dry
A03-A368 A3A36810	VLK31	10/29/2003 14:40	-	-	-	-	-	WATER	1.0	0.005 LITERS	

1820

Chain of Custody

