

ATC ASSOCIATES INC. - NEW YORK BULK ASBESTOS ANALYSIS SHEET

104 East 23rd Street, 10th Floor, New York, NY 10010, Phone (212) 353-8280, FAX (212) 353-3598 or 8300

HVLAP 101181

ELAP 1999

Microscope OLYMP BH-2

Client / Project

MTA

Project No.

19482

Analysis Date

9/12/01

Analyst

MLL

Batch No.

19482

1	Field No. 5	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>F</u>	Morphology <u>—</u>	Extinction <u>—</u>	Chrysotile <u>—</u>	Cellulose <u>—</u>	Mineral Filler <u>—</u>	Organic <u>—</u>
		Heterogeneity <u>—</u>	Adhesives <u>—</u>	RI <u>—</u>	RI <u>—</u>	Amosite <u>—</u>	Fiberglass <u>—</u>	Organic Binders <u>—</u>	Residue <u>—</u>
		# of Layers <u>20</u>	Dated Yes <u>No</u>	OS Color <u>—</u>	Color, Pile <u>—</u>	Other <u>—</u>	Other <u>—</u>	Vermiculite <u>—</u>	Carbonate <u>—</u>
		Color of Layer <u>—</u>	Detected Yes <u>No</u>	Bial <u>—</u>	Sign <u>—</u>	Other <u>—</u>	Other <u>—</u>	Other <u>—</u>	Adhesives <u>—</u>
		Comments: <u>—</u>							
		Method: <u>—</u>							

2	Field No. 6	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>F</u>	Morphology <u>—</u>	Extinction <u>—</u>	Chrysotile <u>—</u>	Cellulose <u>—</u>	Mineral Filler <u>—</u>	Organic <u>—</u>
		Heterogeneity <u>—</u>	Adhesives <u>—</u>	RI <u>—</u>	RI <u>—</u>	Amosite <u>—</u>	Fiberglass <u>—</u>	Organic Binders <u>—</u>	Residue <u>—</u>
		# of Layers <u>20</u>	Dated Yes <u>No</u>	OS Color <u>—</u>	Color, Pile <u>—</u>	Other <u>—</u>	Other <u>—</u>	Vermiculite <u>—</u>	Carbonate <u>—</u>
		Color of Layer <u>—</u>	Detected Yes <u>No</u>	Bial <u>—</u>	Sign <u>—</u>	Other <u>—</u>	Other <u>—</u>	Other <u>—</u>	Adhesives <u>—</u>
		Comments: <u>—</u>							
		Method: <u>—</u>							

3	Field No. 7	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>F</u>	Morphology <u>—</u>	Extinction <u>—</u>	Chrysotile <u>—</u>	Cellulose <u>—</u>	Mineral Filler <u>—</u>	Organic <u>—</u>
		Heterogeneity <u>—</u>	Adhesives <u>—</u>	RI <u>—</u>	RI <u>—</u>	Amosite <u>—</u>	Fiberglass <u>—</u>	Organic Binders <u>—</u>	Residue <u>—</u>
		# of Layers <u>20</u>	Dated Yes <u>No</u>	OS Color <u>—</u>	Color, Pile <u>—</u>	Other <u>—</u>	Other <u>—</u>	Vermiculite <u>—</u>	Carbonate <u>—</u>
		Color of Layer <u>—</u>	Detected Yes <u>No</u>	Bial <u>—</u>	Sign <u>—</u>	Other <u>—</u>	Other <u>—</u>	Other <u>—</u>	Adhesives <u>—</u>
		Comments: <u>—</u>							
		Method: <u>—</u>							

4	Field No. 8	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>F</u>	Morphology <u>—</u>	Extinction <u>—</u>	Chrysotile <u>—</u>	Cellulose <u>—</u>	Mineral Filler <u>—</u>	Organic <u>—</u>
		Heterogeneity <u>—</u>	Adhesives <u>—</u>	RI <u>—</u>	RI <u>—</u>	Amosite <u>—</u>	Fiberglass <u>—</u>	Organic Binders <u>—</u>	Residue <u>—</u>
		# of Layers <u>20</u>	Dated Yes <u>No</u>	OS Color <u>—</u>	Color, Pile <u>—</u>	Other <u>—</u>	Other <u>—</u>	Vermiculite <u>—</u>	Carbonate <u>—</u>
		Color of Layer <u>—</u>	Detected Yes <u>No</u>	Bial <u>—</u>	Sign <u>—</u>	Other <u>—</u>	Other <u>—</u>	Other <u>—</u>	Adhesives <u>—</u>
		Comments: <u>—</u>							
		Method: <u>—</u>							

CARL

ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

104 East 25th Street, 10th Floor, New York, NY 10010. Phone (212) 353-8280, FAX (212) 353-3529 or 8306

11101 101181

41001 JV73

2014-2015

Client / Project WTA / Project VARIOUS

Client / Project

Project No.

Analysis Date	Analyst	NAI?
9/12/01		

10/2/0

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2019

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09/18/01 TUE 08:44 FAX 718 2434148
09/12/2001 04:02 2123333333M O W SAMOW SAFET EM SUP
ATC ASSOCIATES INC.01014
01/01
 Page _____ of _____
 BATCH NO. 19482

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

PROJECT INFORMATION

1. Client MTA New York City Transit/ Office of System Safety		2. Project Name: <u>NYC</u>		3a. ATC Project No.: 16266-0004		4a. ATC Project Manager: Mark Terjesen	
		2a. Project Address: <u>VARIOUS</u>		3b. Client Project No.:		4b. Client Project Manager:	
5. Date: <u>9.12</u>		6. Building Name:		8. Turnaround Time: ☒ STAT ☐ 24 HRS ☐ 72 HRS ☐ OTHER		9. Comments (Field) <u>Fax 718 243-4357</u> <u>#718 call 718 243-8505</u>	
		7. Sampling Areas:		☐ 6 HRS ☐ 48 HRS ☐ NORMAL			

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Qty. (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
	<u>14</u>	<u>DEBRIS</u>			<u>PORTLAND ST.</u>		
	<u>15</u>				<u>S. POOL BOY OF STAIR</u>		
	<u>16</u>				<u>Chambers St. 'A'</u>		
	<u>17</u>				<u>S. END OF PLATFORM</u>		
	<u>18</u>				<u>Chambers St.</u>		
	<u>19</u>				<u>N. END OF PLATFORM</u>		
	<u>20</u>				<u>Chambers St.</u>		
					<u>Mezz. ENT. @ S. END OF Platform</u>		
					<u>BROADWAY/NASSAU 'A/C'</u>		
					<u>S. END OF PLATFORM</u>		
					<u>BROADWAY NASSAU 'A/C'</u>		
					<u>N. END OF PLATFORM</u>		
					<u>BROADWAY NASSAU 'A/C'</u>		
					<u>Mezz. TOP OF STAIR DB</u>		

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

- ☐ Stop Analysis at First Positive Sample in Each Homogenous Area.
 ☐ Perform TEM/NOB Analysis if Necessary.
- ☐ Fax Results To (Name) _____ at (Number) _____
- ☐ Other _____

CHAIN OF CUSTODY

17. Requisition By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
<u>[Signature]</u>	<u>9.12</u>	<u>2⁵⁰ A</u>	<u>Miller</u>	<u>9/12/01</u>	<u>2:50 A</u>	☒ Field
II.						☐ Walk In
III.						☐ US Mail
						☐ Fed-Ex
						☐ Other

LABORATORY INFORMATION

24. Name and Signature:	25. Date	26. Time	27. Comments (Lab)
24a. Analyzed By:			
24b. Analyzed By:			
24c. QC By:			

09/18/01 TUE 08:43 FAX 718 2434148
09/12/2001 03:58 2125533599M O W SAMOW SAFET EM SUP
ATC ASSOCIATES INCPAGE 013
81/06
 Page _____ of _____
 BATCH NO. 19482

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

PROJECT INFORMATION

1. Client MTA New York City Transit/ Office of System Safety		2. Project Name: NYCT		3a. ATC Project No.: 16266-0004		4a. ATC Project Manager: Mark Terjesen	
		2a. Project Address: VARIOUS		3b. Client Project No.:		4b. Client Project Manager:	
5. Date: 9.12		6. Building Name:		8. Turnaround Time: ☒ STAT ☐ 24 HRS ☐ 72 HRS ☐ OTHER		9. Comment & (Field) 4357 FAX 718 243-5592 CALL 718 243-8505 ASAP	
		7. Sampling Areas:		☐ 6 HRS ☐ 48 HRS ☐ NORMAL			

BULK SAMPLE LOCATION

10. Homogenous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Qty. (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
	01	DEBRIS			N. END OF S. BOUND PLATFORM - WHITEHALL 'N/R'		
	02				WHITEHALL ST 'N/R' - N. END OF N. BOUND PLATFORM		
	03				WHITEHALL ST. - N. END		
	04				BOUNDARY E.S. LOWER MEZZ		
	05				S. END Bottom of Stair		
	06				M-2 - ENT. TO STREET		
	07				BOWLING GREEN STATION		
	08				NEAR ENT. - N. BOUND PLATFORM		
	09				BOWLING GREEN STATION		
	10				LOWER LEVEL MEZZ		
	11				BOWLING GREEN		
	12				S. END ENT. R St Level		
	13				BOWLING GREEN		
					N. END ENT. - BOUNDARY - Upper Mezz		
					DEBOR ST. 'N/R'		
					S. END NEAR ENT.		
					RECTOR ST 'N/R'		
					N. BOUND PLATFORM		
					RECTOR ST 'N/R'		
					S. BOUND PLATFORM		
					CORTLAND ST		
					N. BOUND PLATFORM		
					CORTLAND ST		
					S. BOUND PLATFORM		

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

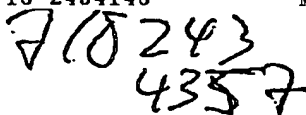
- ☐ Stop Analysis at First Positive Sample in Each Homogenous Area.
 ☐ Perform TEM/NOB Analysis if Necessary.
- ☐ Fax Results To (Name) _____ at (Number) _____
- ☐ Other _____

CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. <i>[Signature]</i>	9.12	2:50	Misner	9/12/01	2:50	Field
II.						Walk In
III.						US Mail
						Fed-Ex
						Other

LABORATORY INFORMATION

24. Name and Signature:	25. Date	26. Time	27. Comments (Lab)
24a. Analyzed By:			
24b. Analyzed By:			
24c. QC By:			



Page 1 of 1
BATCH NO. 19479

PROJECT INFORMATION

1. Client MTA New York City Transit/ Office of System Safety		2. Project Name: EMERGENCY RESPONSE		3a. ATC Project No.: 15266-0004		4a. ATC Project Manager: Mark Terjesen	
6. Date: 9/11/01		2a. Project Address: 2 SUBWAY STATION		3b. Client Project No.:		4b. Client Project Manager:	
6. Building Name: 2 SUBWAY STATION		7. Sampling Areas:		8. Turnaround Time: ☒ STAT ☐ 24 HRS ☐ 72 HRS ☐ OTHER		9. Comments (Field)	
BULK SAMPLE LOCATION				☐ 6 HRS ☐ 48 HRS ☐ NORMAL			

BULK SAMPLE LOCATION

10. Homogeneous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location	15. Material Total Qty. (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates	
	SG-1	DUST/DEBRIS MISC.			CHAMBERS ST "A/C" LEAK CONTROL AREA TB # N-71	
	SG-2	"			CHAMBERS ST "A/C" PLATFORM NEAR STATION REFUSE RM	
	SG-3	"			CHAMBERS ST "A/C" STAIRCASE P-17	
	SG-4	"			PARK PLACE STATION #2/3 NEAR CONTROL AREA TB # R-115	
	SG-5	"			PARK PLACE STATION #2/3 PLATFORM STAIR CASE P-7B	

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

- ☐ Stop Analysis at First Positive Sample in Each Homogenous Area.

☒ Fax Results To (Name) CARL HAMANN

al (Number) (718) 243-4357

☐ Other

CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. <i>Ken Sanders</i>	<i>9/11/01</i>		<i>Mowell</i>	<i>9/11/01</i>	<i>Midnight</i>	Field
II.						Walk In
						US Mail
III.						Fed-Ex
						Other

LABORATORY INFORMATION

LABORATORY INFORMATION

24. Name and Signature:		25. Date	26 Time	27. Comments (Lab)
24a. Analyzed By:				
24b. Analyzed By:				
24c. QC By:				

ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

104 East 25th Street, 10th Floor, New York, NY 10010. Phone (212) 353-0280, FAX (212) 353-3599 or 8388

Client / Project

Emergency Response / 3 Subways Stations

Analysis Date

9/12/01

Analyst

M. Louell

Project No.

19479

Batch No.

19479

INLAP 10/10/01

EAP 2/2/02

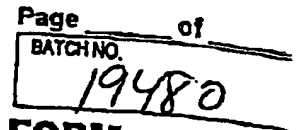
Asbestos ULTP 811-2

1	Field No. 01	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>+</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile <u>90</u>	Cellulose <u>90</u>	Mineral Fiber <u>10</u>	Organic <u>0</u>
		Homogeneity <u>+</u>	Asbestos <u>0</u>	DS Color <u>+</u>	Color/Place <u>+</u>	Amosite <u>0</u>	Fiberglass <u>0</u>	Organic Binders <u>0</u>	Residue <u>0</u>
		# of Layers <u>10</u>	Defected Yes <u>0</u> No <u>0</u>	Sign <u>0</u>		Other <u>0</u>	Vermiculite <u>0</u>	Cellulose <u>0</u>	Cellulose <u>0</u>
		Color of Layer <u>tan</u>	Comments:				Other <u>0</u>	Other <u>0</u>	Asbestos <u>0</u>
		Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>

2	Field No. 02	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>+</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile <u>90</u>	Cellulose <u>90</u>	Mineral Fiber <u>10</u>	Organic <u>0</u>
		Homogeneity <u>+</u>	Asbestos <u>0</u>	DS Color <u>+</u>	Color/Place <u>+</u>	Amosite <u>0</u>	Fiberglass <u>0</u>	Organic Binders <u>0</u>	Residue <u>0</u>
		# of Layers <u>10</u>	Defected Yes <u>0</u> No <u>0</u>	Sign <u>0</u>		Other <u>0</u>	Vermiculite <u>0</u>	Cellulose <u>0</u>	Cellulose <u>0</u>
		Color of Layer <u>tan</u>	Comments:				Other <u>0</u>	Other <u>0</u>	Asbestos <u>0</u>
		Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>

3	Field No. 03	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>+</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile <u>90</u>	Cellulose <u>90</u>	Mineral Fiber <u>10</u>	Organic <u>0</u>
		Homogeneity <u>+</u>	Asbestos <u>0</u>	DS Color <u>+</u>	Color/Place <u>+</u>	Amosite <u>0</u>	Fiberglass <u>0</u>	Organic Binders <u>0</u>	Residue <u>0</u>
		# of Layers <u>10</u>	Defected Yes <u>0</u> No <u>0</u>	Sign <u>0</u>		Other <u>0</u>	Vermiculite <u>0</u>	Cellulose <u>0</u>	Cellulose <u>0</u>
		Color of Layer <u>tan</u>	Comments:				Other <u>0</u>	Other <u>0</u>	Asbestos <u>0</u>
		Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>

4	Field No. 04	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
		Color <u>tan</u>	Texture <u>+</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile <u>90</u>	Cellulose <u>90</u>	Mineral Fiber <u>10</u>	Organic <u>0</u>
		Homogeneity <u>+</u>	Asbestos <u>0</u>	DS Color <u>+</u>	Color/Place <u>+</u>	Amosite <u>0</u>	Fiberglass <u>0</u>	Organic Binders <u>0</u>	Residue <u>0</u>
		# of Layers <u>10</u>	Defected Yes <u>0</u> No <u>0</u>	Sign <u>0</u>		Other <u>0</u>	Vermiculite <u>0</u>	Cellulose <u>0</u>	Cellulose <u>0</u>
		Color of Layer <u>tan</u>	Comments:				Other <u>0</u>	Other <u>0</u>	Asbestos <u>0</u>
		Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>	Method: <u>+</u>



PROJECT INFORMATION

BULK SAMPLE LOCATION

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

- Perform TEM/NOB Analysis if Necessary.**

at (Number) 718 243 4357

CHAIN OF CUSTODY

LABORATORY INFORMATION

NYC-WTC 000097916

19481

Page 1 of 1

BATCH NO.

19481

SAMPLE DATA AND CHAIN OF CUSTODY FORM

Mark T. [Signature]

1. Client MTA New York City Transit/ Office of System Safety		2. Project Name:	3a. ATC Project No.: 16266-0004/CMA-1085 W.O. No. 1	4a. ATC Project Manager: John F. [Signature]
5. Date: 9/12/01		2a. Project Address:	3b. Client Project No.:	4b. Client Project Manager: Carl [Signature]
6. Building Name:		8. Turnaround Time: ☐ STAT ☐ 24 HRS ☐ 72 HRS ☐ OTHER		9. Comments (Field)
7. Sampling Areas:		☐ 6 HRS ☐ 48 HRS ☐ NORMAL		

BULK SAMPLE LOCATION

10. Homogeneous Area No.	11. Bulk Sample ID No.	12. Material	13. Thermal System	14. Sample Location		15. Material Total Qty. (LF, SF, PCS)	16. Asbestos Content (Type & %)
				Floor	Sample Coordinates		
	1	Bulk			# 4 LINE FULTON ST N.B. NE		
	2	Bulk			# 4 LINE DAY ST - BROADWAY S.A. Platform		
	3	Bulk			# 4 LINE FULTON N.B. MEET		
	4	Bulk			# 2+3 LINES FULTON Platform		
	5	Bulk			# 2+3 LINES FULTON Platform		
	6	Bulk			# 2+3 LINE NE 22		
	7	Bulk			WALL ST 2+3 LINES Platform 2nd Street PB		
	8	Bulk			WALL ST 2+3 LINES Platform 2nd Street PB		
	9	Bulk			WALL ST 2+3 LINES MEET 2nd Street PB. Full style		
	10	Bulk			MP TOWN Platform WALL ST 4+5 LINES. Token Booth		
	11	Bulk			WALL ST 4+5 LINES S.A. Platform 2nd Street PB. Token Booth		
	12	Bulk			Lower level 4+5 LINES TUNNEL BETWEEN N.B. and T.A.		

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

☐ Stop Analysis at First Positive Sample in Each Homogeneous Area.☐ Perform TEM/NOB Analysis if Necessary.☐ Fax Results To (Name) _____

at (Number) _____

☐ Other _____

CHAIN OF CUSTODY

17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. J. [Signature]	9/12/01	12:30 AM	M. [Signature]	9/12/01	12:30 AM	Field
II.						Walk In
						US Mail
						Fed-Ex
						Other
III.						

LABORATORY INFORMATION

24. Name and Signature:	25. Date	26. Time	27. Comments (Lab)
24a. Analyzed By:			
24b. Analyzed By:			
24c. QC By:			

ATC ASSOCIATES INC - NEW YORK
101 East 25th Street, 10th Floor - New York NY 10010

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FILED 4470 042501219

Client / Project

Project No.

Analysis Date	9/11/01	Analyst	ML
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Batch No. 19480

Field No.	Stereoscopic Exam			PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Graweolite (HOB) Results %
1	Osmotic (HOB) ☐ Required ☐ Recommended ☐ Gravelite PREP ☐ Osmotic (HOB) PLM ☐ Gravelite (HOB) IGL ☐	Color <u>Yellow</u> Homogeneity <u>F</u> # of Layers <u>1</u> Color of Layer <u>Asbestos</u> Comments: <u>Detected</u>	Texture <u>F</u> Anisotropy <u>Yes</u> Birefringence <u>No</u> Extinction <u>RII</u> RI <u>1.5</u> Color, P/B <u>Sign</u>	Chrysotile <u>90</u> Amosite <u>10</u> Other <u>0</u>	Cellulose <u>90</u> Fiberglass <u>10</u> Other <u>0</u>	Mineral Filler <u>10</u> Organic <u>0</u> Dyed or Blended <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>		
2	Field No.								

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INCLAP 10/11/7
CLAP 10/1/7

Microscopic OLVE 811-3

Client / Project

MTA / City Hall / NR 97A

Project No.

Analysis Date

Analyst

Batch No.

19480

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NDB) Results %
1	Color <u>Gray</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Gray</u> Comments: <u>None</u>	Morphology <u>RI</u> RI I <u>RI</u> RI II <u>RI</u> DS Color <u>Gray</u> Color, Pile <u>Gray</u> Sign <u>None</u>	Chrysotile <u>0</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>0</u> Fiberglass <u>0</u> Other <u>0</u>	Mineral Fiber <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residues <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
2	Color <u>Gray</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Gray</u> Comments: <u>None</u>	Morphology <u>RI</u> RI I <u>RI</u> RI II <u>RI</u> DS Color <u>Gray</u> Color, Pile <u>Gray</u> Sign <u>None</u>	Chrysotile <u>0</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>0</u> Fiberglass <u>0</u> Other <u>0</u>	Mineral Fiber <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residues <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
3	Color <u>Gray</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Gray</u> Comments: <u>None</u>	Morphology <u>RI</u> RI I <u>RI</u> RI II <u>RI</u> DS Color <u>Gray</u> Color, Pile <u>Gray</u> Sign <u>None</u>	Chrysotile <u>0</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>0</u> Fiberglass <u>0</u> Other <u>0</u>	Mineral Fiber <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residues <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
4	Color <u>Gray</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Gray</u> Comments: <u>None</u>	Morphology <u>RI</u> RI I <u>RI</u> RI II <u>RI</u> DS Color <u>Gray</u> Color, Pile <u>Gray</u> Sign <u>None</u>	Chrysotile <u>0</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>0</u> Fiberglass <u>0</u> Other <u>0</u>	Mineral Fiber <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residues <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>

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NYLAP 10101

ELAP 10101

Microscopic OLYMP 5114

Client / Project MTA / Tunnel Project No. 19481

Analysis Date 9/12/01 Analyst ML Batch No. 19481

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	Color <u>tan</u> Homogeneity <u>yes</u> # of Layers <u>1</u> Color of Layer <u>tan</u> Defected Yes ☐ No ☒	Morphology <u>fibrous</u> RI <u>1.5</u> DS Color <u>tan</u> Bld <u>yes</u>	Chrysotile <u>95</u> Amosite <u>5</u> Other <u>0</u>	Cellulose <u>3</u> Fiberglass <u>95</u> Other <u>0</u>	Mineral Fiber <u>2</u> Organic binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
Comments: <u>Method: X-ray diffraction</u> ☐ <u>Scanning electron microscopy</u> ☐ <u>IR spectroscopy</u> ☐ <u>EDS</u> ☐ <u>Other</u> ☐						

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
2	Color <u>tan</u> Homogeneity <u>yes</u> # of Layers <u>1</u> Color of Layer <u>tan</u> Defected Yes ☐ No ☒	Morphology <u>fibrous</u> RI <u>1.5</u> DS Color <u>tan</u> Bld <u>yes</u>	Chrysotile <u>95</u> Amosite <u>5</u> Other <u>0</u>	Cellulose <u>3</u> Fiberglass <u>95</u> Other <u>0</u>	Mineral Fiber <u>2</u> Organic binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
Comments: <u>Method: X-ray diffraction</u> ☐ <u>Scanning electron microscopy</u> ☐ <u>IR spectroscopy</u> ☐ <u>EDS</u> ☐ <u>Other</u> ☐						

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
3	Color <u>tan</u> Homogeneity <u>yes</u> # of Layers <u>1</u> Color of Layer <u>tan</u> Defected Yes ☐ No ☒	Morphology <u>fibrous</u> RI <u>1.5</u> DS Color <u>tan</u> Bld <u>yes</u>	Chrysotile <u>95</u> Amosite <u>5</u> Other <u>0</u>	Cellulose <u>3</u> Fiberglass <u>95</u> Other <u>0</u>	Mineral Fiber <u>2</u> Organic binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
Comments: <u>Method: X-ray diffraction</u> ☐ <u>Scanning electron microscopy</u> ☐ <u>IR spectroscopy</u> ☐ <u>EDS</u> ☐ <u>Other</u> ☐						

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
4	Color <u>tan</u> Homogeneity <u>yes</u> # of Layers <u>1</u> Color of Layer <u>tan</u> Defected Yes ☐ No ☒	Morphology <u>fibrous</u> RI <u>1.5</u> DS Color <u>tan</u> Bld <u>yes</u>	Chrysotile <u>95</u> Amosite <u>5</u> Other <u>0</u>	Cellulose <u>3</u> Fiberglass <u>95</u> Other <u>0</u>	Mineral Fiber <u>2</u> Organic binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
Comments: <u>Method: X-ray diffraction</u> ☐ <u>Scanning electron microscopy</u> ☐ <u>IR spectroscopy</u> ☐ <u>EDS</u> ☐ <u>Other</u> ☐						

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INCLAP 101187
 BLANK 100075

Internal tags ONLY 811.2

Client / Project

Analysis Date

Analysis

Project No.

Batch No.

19482

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	Color: <u>Gray</u> Homogeneity: <u>Yes</u> # of Layers: <u>2</u> Color of Layer: <u>Gray</u> Comments: <u>None</u>	Morphology: <u>RI</u> Extinction: <u>RI</u> RI: <u>1.549</u> DS Color: <u>Gray</u> DS Blue: <u>Gray</u> Sign: <u>+</u>	Chrysotile: <u>1</u> Amphibole: <u>1</u> Other: <u>1</u>	Calcite: <u>10</u> Fiberglass: <u>10</u> Other: <u>0</u>	Mineral Filler: <u>10</u> Organic Binders: <u>10</u> Vermiculite: <u>10</u> Other: <u>0</u>	Organic: <u>0</u> Residue: <u>0</u> Carbonate: <u>0</u> Other: <u>0</u> Asbestos: <u>0</u>
2	Color: <u>Gray</u> Homogeneity: <u>Yes</u> # of Layers: <u>2</u> Color of Layer: <u>Gray</u> Comments: <u>None</u>	Morphology: <u>RI</u> Extinction: <u>RI</u> RI: <u>1.549</u> DS Color: <u>Gray</u> DS Blue: <u>Gray</u> Sign: <u>+</u>	Chrysotile: <u>1</u> Amphibole: <u>1</u> Other: <u>1</u>	Calcite: <u>10</u> Fiberglass: <u>10</u> Other: <u>0</u>	Mineral Filler: <u>10</u> Organic Binders: <u>10</u> Vermiculite: <u>10</u> Other: <u>0</u>	Organic: <u>0</u> Residue: <u>0</u> Carbonate: <u>0</u> Other: <u>0</u> Asbestos: <u>0</u>
3	Color: <u>Gray</u> Homogeneity: <u>Yes</u> # of Layers: <u>2</u> Color of Layer: <u>Gray</u> Comments: <u>None</u>	Morphology: <u>RI</u> Extinction: <u>RI</u> RI: <u>1.549</u> DS Color: <u>Gray</u> DS Blue: <u>Gray</u> Sign: <u>+</u>	Chrysotile: <u>1</u> Amphibole: <u>1</u> Other: <u>1</u>	Calcite: <u>10</u> Fiberglass: <u>10</u> Other: <u>0</u>	Mineral Filler: <u>10</u> Organic Binders: <u>10</u> Vermiculite: <u>10</u> Other: <u>0</u>	Organic: <u>0</u> Residue: <u>0</u> Carbonate: <u>0</u> Other: <u>0</u> Asbestos: <u>0</u>
4	Color: <u>Gray</u> Homogeneity: <u>Yes</u> # of Layers: <u>2</u> Color of Layer: <u>Gray</u> Comments: <u>None</u>	Morphology: <u>RI</u> Extinction: <u>RI</u> RI: <u>1.549</u> DS Color: <u>Gray</u> DS Blue: <u>Gray</u> Sign: <u>+</u>	Chrysotile: <u>1</u> Amphibole: <u>1</u> Other: <u>1</u>	Calcite: <u>10</u> Fiberglass: <u>10</u> Other: <u>0</u>	Mineral Filler: <u>10</u> Organic Binders: <u>10</u> Vermiculite: <u>10</u> Other: <u>0</u>	Organic: <u>0</u> Residue: <u>0</u> Carbonate: <u>0</u> Other: <u>0</u> Asbestos: <u>0</u>

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MTA / Juvos

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Client / Project

Project No.

Analyst's Date 9/12/01 Analyst WJ

Batch No. 19481

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOR) Results %
1	Color <u>gray</u> Homogeneity <u>OK</u> # of Layers <u>2</u> Color of Layer <u>—</u> Detected Yes ☐ No ☒ Comments: <u>—</u>	Morphology <u>—</u> RI <u>—</u> DS Color <u>—</u> Dial <u>—</u> Sign <u>—</u>	Chrysotile <u>—</u> Amosite <u>—</u> Other <u>—</u>	Cellulose <u>—</u> Fiberglass <u>—</u> Other <u>—</u>	Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other <u>—</u>	Organic <u>—</u> Residue <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos <u>—</u>
Method: ☐ 100x ☐ 200x ☐ 400x ☐ 600x ☐ 800x ☐ 1000x	Field 1 prep. Asbestos = 0					
2	Color <u>gray</u> Homogeneity <u>OK</u> # of Layers <u>2</u> Color of Layer <u>—</u> Detected Yes ☐ No ☒ Comments: <u>—</u>	Morphology <u>—</u> RI <u>—</u> DS Color <u>—</u> Dial <u>—</u> Sign <u>—</u>	Chrysotile <u>—</u> Amosite <u>—</u> Other <u>—</u>	Cellulose <u>—</u> Fiberglass <u>—</u> Other <u>—</u>	Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other <u>—</u>	Organic <u>—</u> Residue <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos <u>—</u>
Method: ☐ 100x ☐ 200x ☐ 400x ☐ 600x ☐ 800x ☐ 1000x	Field 2 prep. Asbestos = 0					
3	Color <u>gray</u> Homogeneity <u>OK</u> # of Layers <u>2</u> Color of Layer <u>—</u> Detected Yes ☐ No ☒ Comments: <u>—</u>	Morphology <u>—</u> RI <u>—</u> DS Color <u>—</u> Dial <u>—</u> Sign <u>—</u>	Chrysotile <u>—</u> Amosite <u>—</u> Other <u>—</u>	Cellulose <u>—</u> Fiberglass <u>—</u> Other <u>—</u>	Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other <u>—</u>	Organic <u>—</u> Residue <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos <u>—</u>
Method: ☐ 100x ☐ 200x ☐ 400x ☐ 600x ☐ 800x ☐ 1000x	Field 3 prep. Asbestos = 0					
4	Color <u>gray</u> Homogeneity <u>OK</u> # of Layers <u>2</u> Color of Layer <u>—</u> Detected Yes ☐ No ☒ Comments: <u>—</u>	Morphology <u>—</u> RI <u>—</u> DS Color <u>—</u> Dial <u>—</u> Sign <u>—</u>	Chrysotile <u>—</u> Amosite <u>—</u> Other <u>—</u>	Cellulose <u>—</u> Fiberglass <u>—</u> Other <u>—</u>	Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other <u>—</u>	Organic <u>—</u> Residue <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos <u>—</u>
Method: ☐ 100x ☐ 200x ☐ 400x ☐ 600x ☐ 800x ☐ 1000x	Field 4 prep. Asbestos = 0					

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NYCAP 1010P

BLAP 1010P

Microscope OLYMP BH-1

Client / Project

MTA / Tunnel

Project No.

Analysis Date

9/12/01

Analyst

ML

Batch No.

P481

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	Color <u>tan</u> Homogeneity <u>NO</u> # of Layers <u>2</u> Color of Layer <u>---</u> Comments: <u>---</u>	Texture <u>granular</u> RI <u>---</u> DS Color <u>---</u> Color <u>---</u> Blind <u>---</u> Sign <u>---</u>	Chrysotile <u>---</u> Amosite <u>---</u> Other <u>---</u>	Cellulose <u>---</u> Fiberglass <u>---</u> Other <u>---</u>	Mineral Fiber <u>100</u> Organic Binders <u>---</u> Vermiculite <u>---</u> Other <u>---</u>	Organic <u>---</u> Rust/iron <u>---</u> Carbonate <u>---</u> Oxide <u>---</u> Asbestos <u>---</u>

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
2	Color <u>tan</u> Homogeneity <u>NO</u> # of Layers <u>2</u> Color of Layer <u>---</u> Comments: <u>---</u>	Texture <u>---</u> RI <u>---</u> DS Color <u>---</u> Color <u>---</u> Blind <u>---</u> Sign <u>---</u>	Chrysotile <u>---</u> Amosite <u>---</u> Other <u>---</u>	Cellulose <u>---</u> Fiberglass <u>---</u> Other <u>---</u>	Mineral Fiber <u>10</u> Organic Binders <u>---</u> Vermiculite <u>---</u> Other <u>---</u>	Organic <u>---</u> Rust/iron <u>---</u> Carbonate <u>---</u> Oxide <u>---</u> Asbestos <u>---</u>

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
3	Color <u>tan</u> Homogeneity <u>NO</u> # of Layers <u>2</u> Color of Layer <u>---</u> Comments: <u>---</u>	Texture <u>---</u> RI <u>---</u> DS Color <u>---</u> Color <u>---</u> Blind <u>---</u> Sign <u>---</u>	Chrysotile <u>---</u> Amosite <u>---</u> Other <u>---</u>	Cellulose <u>---</u> Fiberglass <u>---</u> Other <u>---</u>	Mineral Fiber <u>5</u> Organic Binders <u>---</u> Vermiculite <u>---</u> Other <u>---</u>	Organic <u>---</u> Rust/iron <u>---</u> Carbonate <u>---</u> Oxide <u>---</u> Asbestos <u>---</u>

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
4	Color <u>tan</u> Homogeneity <u>NO</u> # of Layers <u>2</u> Color of Layer <u>---</u> Comments: <u>---</u>	Texture <u>---</u> RI <u>---</u> DS Color <u>---</u> Color <u>---</u> Blind <u>---</u> Sign <u>---</u>	Chrysotile <u>---</u> Amosite <u>---</u> Other <u>---</u>	Cellulose <u>---</u> Fiberglass <u>---</u> Other <u>---</u>	Mineral Fiber <u>10</u> Organic Binders <u>---</u> Vermiculite <u>---</u> Other <u>---</u>	Organic <u>---</u> Rust/iron <u>---</u> Carbonate <u>---</u> Oxide <u>---</u> Asbestos <u>---</u>

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INLAP 09/18/01
 BLAP 09/18/01
 Microscopic OLVP 811-2

Client / Project MTA

Analysis Date 9/12/01

Analyst MLL

Project No. _____

Batch No. 19482

Field No. <u>3</u>	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravelite (HOB) Results %
Color <u>Gray</u>	Texture <u>F</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile	Cellulose	Mineral Fiber		
Homogeneity <u>RI</u>	Asbestos <u>RI</u>	DS Color <u>RI</u>	Color/PIro	Amosite	Fiberglass	Organic Binders		
# of Layers <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign	Other	Other	Vermiculite		
Color of Layer <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign			Other		
Comments:								
Method: <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>

Field No. <u>2</u>	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravelite (HOB) Results %
Color <u>Gray</u>	Texture <u>F</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile	Cellulose	Mineral Fiber		
Homogeneity <u>RI</u>	Asbestos <u>RI</u>	DS Color <u>RI</u>	Color/PIro	Amosite	Fiberglass	Organic Binders		
# of Layers <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign	Other	Other	Vermiculite		
Color of Layer <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign			Other		
Comments:								
Method: <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>

Field No. <u>1</u>	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravelite (HOB) Results %
Color <u>Gray</u>	Texture <u>F</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile	Cellulose	Mineral Fiber		
Homogeneity <u>RI</u>	Asbestos <u>RI</u>	DS Color <u>RI</u>	Color/PIro	Amosite	Fiberglass	Organic Binders		
# of Layers <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign	Other	Other	Vermiculite		
Color of Layer <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign			Other		
Comments:								
Method: <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>

Field No. <u>4</u>	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravelite (HOB) Results %
Color <u>Gray</u>	Texture <u>F</u>	Morphology <u>RI</u>	Extinction <u>RI</u>	Chrysotile	Cellulose	Mineral Fiber		
Homogeneity <u>RI</u>	Asbestos <u>RI</u>	DS Color <u>RI</u>	Color/PIro	Amosite	Fiberglass	Organic Binders		
# of Layers <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign	Other	Other	Vermiculite		
Color of Layer <u>RI</u>	Defected Yes <u>No</u>	Color/PIro	Sign			Other		
Comments:								
Method: <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>	Color/PIro <u>RI</u>

09/18/01 TUE 08:51 FAX 718 2434148

M O W SAMOW SAFET EM SUP

027

ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET 104 East 25th Street, 10th Floor - New York, NY 10010 - Phone (212) 353 - 5280, FAX (212) 353 - 3589 or 0308

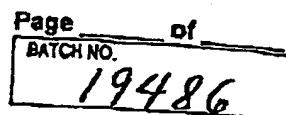
INVLAP 101187
ELAP 18290

Microscope OLYMP BH-2

Client / Project MTA-NYCT / Bxvd St. Jan. i Furred St. Project No. 19484

Analysis Date 9/12/01 Analyst C. Reaga Batch No. 19484

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	Color <u>Grey</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Grey</u> Detected Yes ☒ No ☐ Comments:	Morphology <u>W</u> RI <u>1.549</u> DS Color <u>1.549</u> Birefr. <u>1.549</u> Sign <u>+</u>	Chrysotile <u>100</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>5</u> Fiberglass <u>5</u> Other <u>0</u>	Mineral Filler <u>44</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
2	Color <u>Grey</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Grey</u> Detected Yes ☒ No ☐ Comments:	Morphology <u>W</u> RI <u>1.549</u> DS Color <u>1.549</u> Birefr. <u>1.549</u> Sign <u>+</u>	Chrysotile <u>100</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>5</u> Fiberglass <u>5</u> Other <u>0</u>	Mineral Filler <u>44</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
3	Color <u>Grey</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Grey</u> Detected Yes ☒ No ☐ Comments:	Morphology <u>W</u> RI <u>1.549</u> DS Color <u>1.549</u> Birefr. <u>1.549</u> Sign <u>+</u>	Chrysotile <u>100</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>5</u> Fiberglass <u>5</u> Other <u>0</u>	Mineral Filler <u>44</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
4	Color <u>Grey</u> Homogeneity <u>Yes</u> # of Layers <u>1</u> Color of Layer <u>Grey</u> Detected Yes ☒ No ☐ Comments:	Morphology <u>W</u> RI <u>1.549</u> DS Color <u>1.549</u> Birefr. <u>1.549</u> Sign <u>+</u>	Chrysotile <u>100</u> Amosite <u>0</u> Other <u>0</u>	Cellulose <u>5</u> Fiberglass <u>5</u> Other <u>0</u>	Mineral Filler <u>44</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>



BULK SAMPLE LOCATION

09/18/01 TUE 08:49 FAX 718 2434148

M O W SAMOW SAFET EM SUP

022

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IN LAP 10/1/07
ELAP 10/1/05
Microscopic ULVP 8/1/04

Client / Project MTA-NYCT / South Ferry Station
Analysis Date 09/12/01 Analyst E.A. Cuatrecasas
Project No. _____ Batch No. 19486

Field No.	Gravimetric (HOB) Required	Microscopic	Gravimetric (HOB) Recommended	Gravimetric (HOB) PLEP	Gravimetric (HOB) PLEP	Gravimetric (HOB) TEM	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	☐	☐	☐	☐	☐	☐	Color <u>Gray</u> Texture <u>F</u> Homogeneity <u>Y</u> # of Layers <u>1</u> Color of Layer <u>Asbestos</u> ☐ <u>Defected</u> Yes No Comments:	Morphology <u>RI I</u> DS Color <u>Blue</u> Sign <u>+</u>	Chrysotile <u>35</u> Amosite <u>30</u> Other <u>0</u>	Cellulose <u>35</u> Fiberglass <u>30</u> Other <u>0</u>	Mineral Filler <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
2	☐	☐	☐	☐	☐	☐	Color <u>Gray</u> Texture <u>F</u> Homogeneity <u>Y</u> # of Layers <u>1</u> Color of Layer <u>Asbestos</u> ☐ <u>Defected</u> Yes No Comments:	Morphology <u>RI I</u> DS Color <u>Blue</u> Sign <u>+</u>	Chrysotile <u>35</u> Amosite <u>30</u> Other <u>0</u>	Cellulose <u>35</u> Fiberglass <u>30</u> Other <u>0</u>	Mineral Filler <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
3	☐	☐	☐	☐	☐	☐	Color <u>Gray</u> Texture <u>F</u> Homogeneity <u>Y</u> # of Layers <u>1</u> Color of Layer <u>Asbestos</u> ☐ <u>Defected</u> Yes No Comments:	Morphology <u>RI I</u> DS Color <u>Blue</u> Sign <u>+</u>	Chrysotile <u>35</u> Amosite <u>30</u> Other <u>0</u>	Cellulose <u>35</u> Fiberglass <u>30</u> Other <u>0</u>	Mineral Filler <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
4	☐	☐	☐	☐	☐	☐	Color <u>Gray</u> Texture <u>F</u> Homogeneity <u>Y</u> # of Layers <u>1</u> Color of Layer <u>Asbestos</u> ☐ <u>Defected</u> Yes No Comments:	Morphology <u>RI I</u> DS Color <u>Blue</u> Sign <u>+</u>	Chrysotile <u>35</u> Amosite <u>30</u> Other <u>0</u>	Cellulose <u>35</u> Fiberglass <u>30</u> Other <u>0</u>	Mineral Filler <u>0</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>



Page _____ of _____
BATCH NO. 19485

BULK SAMPLE DATA AND CHAIN OF CUSTODY FORM

PROJECT INFORMATION

PROJECT INFORMATION			
1. Client		2. Project Name:	
MTA New York City Transit/ Office of System Safety		3a. ATC Project No.: 16266-0004	
2a. Project Address:		4a. ATC Project Manager: Mark Terjesen	
3b. Client Project No.:		4b. Client Project Manager:	
5. Date:	6. Building Name:	8. Turnaround Time:	
9/12/01	Reactor St. Station (1,9)	☐ STAT ☐ 24 HRS ☐ 72 HRS ☒ OTHER ☐ 6 HRS ☐ 48 HRS ☐ NORMAL	
7. Sampling Areas:		9. Comment s (Field)	
Platforms / Taken both Ave		For Results to 718-293-4357	

BULK SAMPLE LOCATION

[illegible]

SPECIAL INSTRUCTIONS (CHECK ALL THAT APPLY)

□ Stop Analysis at First Positive Sample in Each Homogenous Area.

☐ Perform TEM/NOB Analysis if Necessary.

☐ Fax Results To (Name) Carl Hansen at (Number) 718-243-4357

☐ Other _____

CHAIN OF CUSTODY

CHAIN OF CUSTODY						
17. Relinquished By	18. Date	19. Time	20. Received By	21. Date	22. Time	23. Method of Submittal
I. 	9/12/01	2:29 PM	R A L	9/12/01	2:20 PM	Field
II.						Walk In
						US Mail
						Fed-Ex
III.						Other

LABORATORY INFORMATION

LABORATORY INFORMATION			
24. Name and Signature:	25. Date	26 Time	27. Comments (Lab)
24a. Analyzed By: <i>E. A. Morales</i>	<i>9/12/01</i>	<i>PM</i>	
24b. Analyzed By:			
24c. QC By:			

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61061 0V712
401101 JV244

ALLERANDE WITH OLYMPIC

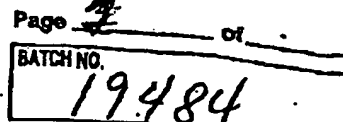
Client / Project MTA-NYCT / Rector S. Sa.

Project No.

Analysis Date 09/12/01 Analyst E. A. Canfield

Batch No. 19485

Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
1	Color <u>Gray</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>Mo</u> Comments:	Texture <u>F</u> RI <u>1.54</u> DS Color <u>Mo</u> Biref <u>Mo</u>	Chrysotile <u>15</u> Amosite <u>40</u> Other <u>0</u>	Celadon <u>15</u> Fiberglass <u>40</u> Other <u>0</u>	Mineral Filler <u>45</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
2	Color <u>Gray</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>Mo</u> Comments:	Texture <u>F</u> RI <u>1.54</u> DS Color <u>Mo</u> Biref <u>Mo</u>	Chrysotile <u>15</u> Amosite <u>40</u> Other <u>0</u>	Celadon <u>15</u> Fiberglass <u>40</u> Other <u>0</u>	Mineral Filler <u>45</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
3	Color <u>Gray</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>Mo</u> Comments:	Texture <u>F</u> RI <u>1.54</u> DS Color <u>Mo</u> Biref <u>Mo</u>	Chrysotile <u>15</u> Amosite <u>40</u> Other <u>0</u>	Celadon <u>15</u> Fiberglass <u>40</u> Other <u>0</u>	Mineral Filler <u>45</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>
4	Color <u>Gray</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>Mo</u> Comments:	Texture <u>F</u> RI <u>1.54</u> DS Color <u>Mo</u> Biref <u>Mo</u>	Chrysotile <u>15</u> Amosite <u>40</u> Other <u>0</u>	Celadon <u>15</u> Fiberglass <u>40</u> Other <u>0</u>	Mineral Filler <u>45</u> Organic Binders <u>0</u> Vermiculite <u>0</u> Other <u>0</u>	Organic <u>0</u> Residue <u>0</u> Carbonate <u>0</u> Other <u>0</u> Asbestos <u>0</u>



BULK SAMPLE DATA AND CHAIN OF CUSTODY FOR

1. Client: Nyc		2. Project Name: ROAD ST. STATION		3. Project No:		4. Project Manager: C. Hamani		
		2a. Project Address: 7 FULTON ST STATION				4a. Investigator:		
5. Date: 9/12/01		6. Building Name:		8. Turnaround Time:			9. Comments (Field): (fax) 718-243-4357	
7. Sampling Areas: S, M, Z				☒ STAT ☐ 24 HRS ☐ 72 HRS ☐ OTHER ☐ 6 HRS ☐ 48 HRS ☐ NORMAL ☐ _____				

[illegible]

17. Relinquished By:	18. Date:	19. Time:	20. Received By:	21. Date:	22. Time:	23. Method of Submission
I <u>Bernard Jones</u>	<u>7/12/01</u>	<u>2:20</u>	<u>2nd A/C Mr. [Signature]</u>	<u>7/12/01</u>	<u>2:20 PM</u>	FIELD
II						WALK IN
III						US MAIL
						FED EX
						OTHER

24. Name and Signature	25. Date:	26. Time:	27. Comments (Lab)
24a. Analyzed By: Helena Keryachov	9/12/01	PM	
24b. Analyzed By:			
24c. QC By:			

09/18/01 TUE 08:51 FAX 718 2434148

M O W SAMOW SAFET EM SUP

026

ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

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NYC 9/11
09/18/01

Minneapolis 01/10/01

Client / Project: HTA-NYCT/Beard St Sta i Fulton St

Project No.

Analysis Date 9/12/01 Analyst Y. Goye

Batch No. 19484

Field No. <u>04</u>	Stereoscopic Exam Color <u>Grey</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>—</u> Defected Yes ☐ No ☐	PLM Optical Properties Morphology <u>RI</u> Extinction <u>RI II</u> Color, Plo <u>—</u> Sign <u>—</u>	Asbestos Results PLM % <u>Chrysotile</u> <u>Amphibole</u> <u>Other</u>	Other Fibrous % <u>3</u> Cellulose <u>46</u> Fiberglass <u>—</u> Other	Non Fibrous % <u>51</u> Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other	Gravimetric (HOB) Results % <u>—</u> Organic <u>—</u> Residues <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos
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Field No. <u>05</u>	Stereoscopic Exam Color <u>Grey</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>—</u> Defected Yes ☐ No ☐	PLM Optical Properties Morphology <u>RI</u> Extinction <u>RI II</u> Color, Plo <u>—</u> Sign <u>—</u>	Asbestos Results PLM % <u>Chrysotile</u> <u>Amphibole</u> <u>Other</u>	Other Fibrous % <u>3</u> Cellulose <u>46</u> Fiberglass <u>—</u> Other	Non Fibrous % <u>55</u> Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other	Gravimetric (HOB) Results % <u>—</u> Organic <u>—</u> Residues <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos
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Field No. <u>06</u>	Stereoscopic Exam Color <u>Grey</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>—</u> Defected Yes ☐ No ☐	PLM Optical Properties Morphology <u>RI</u> Extinction <u>RI II</u> Color, Plo <u>—</u> Sign <u>—</u>	Asbestos Results PLM % <u>Chrysotile</u> <u>Amphibole</u> <u>Other</u>	Other Fibrous % <u>3</u> Cellulose <u>46</u> Fiberglass <u>—</u> Other	Non Fibrous % <u>56</u> Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other	Gravimetric (HOB) Results % <u>—</u> Organic <u>—</u> Residues <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos
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Field No. <u>07</u>	Stereoscopic Exam Color <u>Grey</u> Homogeneity <u>Y</u> # of Layers <u>4</u> Color of Layer <u>—</u> Defected Yes ☐ No ☐	PLM Optical Properties Morphology <u>RI</u> Extinction <u>RI II</u> Color, Plo <u>—</u> Sign <u>—</u>	Asbestos Results PLM % <u>Chrysotile</u> <u>Amphibole</u> <u>Other</u>	Other Fibrous % <u>3</u> Cellulose <u>46</u> Fiberglass <u>—</u> Other	Non Fibrous % <u>54</u> Mineral Filler <u>—</u> Organic Binders <u>—</u> Vermiculite <u>—</u> Other	Gravimetric (HOB) Results % <u>—</u> Organic <u>—</u> Residues <u>—</u> Carbonate <u>—</u> Other <u>—</u> Asbestos
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ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

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NYLAP 101187

ELAP 10070

Microscope OLYMP BH-2

Client / Project

WTA

Analysis Date

9/12/01

Analyst

Project No.

Batch No.

19482

Field No. 1	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
Color	Texture	Morphology	Extinction	Chrysotile	Celadon	Mineral Fiber	Organic Binders	Organic
Homogeneity	Asbestos	RI	RI	Anisotropic	Other	Organic Binders	Vermiculite	Carbonate
# of Layers	Detected	Yes	No	Other	Other	Other	Other	Asbestos
Color of Layer	Color	Color	Color	Color	Color	Color	Color	Color
Comments:								
Method:	100x magnification, 100x magnification, 100x magnification							

Field No. 2	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
Color	Texture	Morphology	Extinction	Chrysotile	Celadon	Mineral Fiber	Organic Binders	Organic
Homogeneity	Asbestos	RI	RI	Anisotropic	Other	Organic Binders	Vermiculite	Carbonate
# of Layers	Detected	Yes	No	Other	Other	Other	Other	Asbestos
Color of Layer	Color	Color	Color	Color	Color	Color	Color	Color
Comments:								
Method:	100x magnification, 100x magnification, 100x magnification							

Field No. 3	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
Color	Texture	Morphology	Extinction	Chrysotile	Celadon	Mineral Fiber	Organic Binders	Organic
Homogeneity	Asbestos	RI	RI	Anisotropic	Other	Organic Binders	Vermiculite	Carbonate
# of Layers	Detected	Yes	No	Other	Other	Other	Other	Asbestos
Color of Layer	Color	Color	Color	Color	Color	Color	Color	Color
Comments:								
Method:	100x magnification, 100x magnification, 100x magnification							

Field No. 4	Stereoscopic Exam		PLM Optical Properties		Asbestos Results PLM %	Fibrous %	Non Fibrous %	Gravimetric (HOB) Results %
Color	Texture	Morphology	Extinction	Chrysotile	Celadon	Mineral Fiber	Organic Binders	Organic
Homogeneity	Asbestos	RI	RI	Anisotropic	Other	Organic Binders	Vermiculite	Carbonate
# of Layers	Detected	Yes	No	Other	Other	Other	Other	Asbestos
Color of Layer	Color	Color	Color	Color	Color	Color	Color	Color
Comments:								
Method:	100x magnification, 100x magnification, 100x magnification							



370 Jay Street
Brooklyn, NY 11201

Lawrence G. Reuter
President



New York City Transit

VIA FAX

February 22, 2002

Mr. R. Radhakrishnan, P.E.
Director, Asbestos Control Program
New York City Department of Environmental Protection
59-17 Junction Blvd.
Corona, NY 11638-5107

Dear Mr. Radhakrishnan:

This is in response to your February 12, 2002 request for information on environmental assessments and cleanup activities at the building located at 77 Murray Street in Manhattan. The building at this address is an unmanned power substation which is owned and operated by New York City Transit.

While there was no assessment performed in the substation, NYCT did utilize the September 12th bulk asbestos analytical results from ATC Associates.. The building was cleaned by means of shoveling, sweeping, vacuuming, and wiping of dust and debris which resulted from the collapse of the World Trade Center. Furthermore, personal protective equipment was utilized during the cleanup effort.

If there are any further questions regarding this issue, please contact me or Josephine Brown, Manager, Environmental Protection, at 718-243-4581. Thank you.

Sincerely,

Charles Burrus, Dr. P.H., CIH
Director, Environmental Protection & Industrial Hygiene
Office of System Safety

c: C. Kennedy
J. Wincek
P. Rao

77MurrayWTC

370 Jay Street
Brooklyn, NY 11201

Lawrence G. Reuter
President



New York City Transit

July 31, 2002

Mr. R. Radhakrishnan, P.E.
Director, Asbestos Control Program
New York City Department of Environmental Protection
59-17 Junction Blvd.
Corona, NY 11638-5107

Re: 77 Murray Street

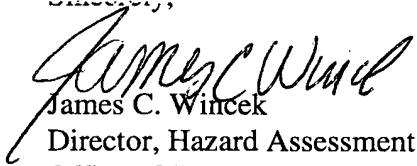
Dear Mr. Radhakrishnan:

This is to response to your July 19, 2002 letter requesting information regarding visible debris on the exterior of the New York City Transit (NYCT) building located at 77 Murray Street, New York, New York.

As stated in a letter to you, dated February 22, 2002, the substation was cleaned based on the September 12th bulk asbestos analytical results from ATC Associates. In response to your letter, NYCT performed a site inspection of the above-mentioned facility. While no visible debris was observed on the facade, there was a minute amount of debris on the roof level. The debris material was bulk sampled, sent to an accredited laboratory, analyzed for asbestos and found not to be asbestos containing.

NYCT believes that the minimal quantity of debris does not justify a clean-up effort. If the NYC DEP still wishes to conduct a cleaning of the exterior of the building or has any questions, please contact Carl Hamann, P.E., Manager, Hazard Abatement, at (718) 243-8924. Thank you.

Sincerely,


James C. Winick
Director, Hazard Assessment
Office of System Safety

cc: C. Hamann
C. Burrus
R. Stannish
E. Sacco

C:/CH/Asbestos/WTC-77Murray St

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Peter S. Kalikow, Chairman

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