

09/18/2001 09:27 2123533599

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ATC ENVIRONMENTAL, INC.
104 East 25th Street
New York, NY 10010

APPROVED NY STATE DOH ELAP # 10
ACCREDITED NYLAP Lab Code # 118

Summary of TEM Results

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007
Mr. Brian Clarke

DATE: 09/16/01

Project/Site Identification: 250 Broadway, NY, NY
Floors 31, 27, 19, 8

CONCLUSION:STATISTICAL SUMMARY1) Inside Samples

TEM#	Project #	Volume(l)	Asbestos Concentration		
			S/mm ²	S/cc	ngm/m ³
Average=			N/A	N/A	N/A

2) Outside Samples

TEM#	Project #	Volume(l)	Asbestos Concentration		
			S/mm ²	S/cc	ngm/m ³
5512- 59076 ✓	02	1800	0.0	0.0048 *	
5512- 59077 ✓	03	1800	22.2	0.0048	
5512- 59078 ✓	04	1800	0.0	0.0048 *	
5512- 59079 ✓	05	1800	0.0	0.0048 *	
5512- 59080 ✓	06	1800	0.0	0.0048 *	
5512- 59081 ✓	07	1800	0.0	0.0048 *	
5512- 59082 ✓	08	1800	22.2	0.0048	
5512- 59083 ✓	09	1800	0.0	0.0048 *	
5512- 59084 ✓	10	1800	0.0	0.0048 *	
5512- 59085 ✓	11	1800	0.0	0.0048 *	
5512- 59086 ✓	12	1800	0.0	0.0048 *	
5512- 59087 ✓	13	1800	0.0	0.0048 *	
Average=			3.7	0.0048	26

3) Blanks

TEM#	Project #	Asbestos Concentration		
		S/mm ²	S/cc	ngm/m ³
5512- 59074	00	Not Analyzed		
5512- 59075	01	Not Analyzed		
Average=			N/A	N/A

4) Value of T - Statistic : N/A

* None detected; concentration equivalent to analytical sensitivity assigned.

This test report relates only to the specific items cited in the analysis.

The analysis was carried out according to the approved TEM method. The laboratory is in compliance with the quality specified for the method.

This report must not be used by the client to claim product endorsement by NYLAP or any agency of the U.S. Government.

RP
Analyzed by:
Roman Peysakhov

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

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104 East 25th Street
New York, New York 10010
www.atc-enviro.com
212.353.8280
Fax 212.353.8306

September 16, 2001

N.Y.C. Housing Authority
250 Broadway
New York, NY 10007
Attn: Mr. Brian Clarke

Re: Report of TEM Analysis

Dear Mr. Clarke:

Following are the results of transmission electron microscopy (TEM) analysis of air samples from our Group No. 5512:

Project Name: 250 Broadway, NY, NY
Location: Floors 31, 27, 19, 8
Samples received: 09/16/01

These results will confirm and document the data transmitted today to your office. The analyses were performed in strict conformance with the methodology of the AHERA Final Rule (CFR October 30, 1987) for clearance of abatement sites. As indicated on the attached Summary Results sheet, less than 70 asbestos structures per mm² was detected in all of the twelve samples submitted from the site. Please note that the maximum flow rate of 10 liters per minute was exceeded.

Results reported as Struct/cc are a function of air volume collected in the field and are, as such, not verifiable by this laboratory. This report may be reproduced only in its entirety and not without prior permission of this laboratory. If post-abatement inside samples pass, the response action may be considered to have been completed. The analyses were supervised by Dr. Michael A. Gorycki, Director of Electron Microscopy.

We are pleased to note that our TEM lab has received full accreditation from NVLAP, as is currently required for recognized analysis of TEM air samples for AHERA projects, and also approval under the NY State DOH ELAP program. These analyses were performed by ATC d/b/a ATC Associates Inc. Please contact me regarding any questions relating to these materials.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Michael A. Gorycki'.

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

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BRIAN CLARK

MONITORING DATA SHEET

Page 1 of 1

5512

SITE 250 BROADWAY BORO: Man. ☒ Bx ☐ Bk ☐ Qn ☐ SI ☐ LI DATE: 9-16-01ACTIVITIES: ☒ Pre ☐ During ☐ Final

59074-59087

CLIENT: NYCHATECHNICIAN: MARVIN MOORE HEAD

ROTOMETER #:

WORK AREA:

SIGNATURE: Marvin Moore Head

SAMPLE #	LOCATIONS	PUMP #	START TIME	END TIME	SAMP TIME (min)	FLOW RATE INIT/FINAL	VOL. LTRS	FILE
00	FIELD BLANK	—						
01	FIELD BLANK	—						
02	31 ^{FL} OUTSIDE LUGER	1	3:45P	5:45Pm	120	15 15	1800P	<22
03	31 ^{FL} Filter Room	2	3:45P	5:45Pm	120	15 15	1800P	22
04	31 ^{FL} COIL ROOM	3	3:45P	5:45Pm	120	15 15	1800P	<2
05	27 ^{FL} NEXT TO CHIEF ROOM	4	4:05P	6:05Pm	120	15 15	1800P	<22
06	27 ^{FL} NEXT TO Deputy Director Rm	5	4:05P	6:05Pm	120	15 15	1800P	<22
07	27 ^{FL} NEXT TO PANTRY	6	4:05P	6:05Pm	120	15 15	1800P	<22
08	19 ^{SOUTH} IN LUGER Rm	7	5:00Pm	7:00pm	120	15 15	1800P	22
09	19 ^{SOUTH} FILTER Room	8	5:00Pm	7:00pm	120	15 15	1800P	<22
010	19 ^{SOUTH} COIL Rm	9	5:00pm	7:00pm	120	15 15	1800P	<22
011	8 ^{SOUTH} LUGER Rm	10	5:25pm	7:25pm	120	15 15	1800P	<22
012	8 ^{SOUTH} FILTER Rm	11	5:25pm	7:25pm	120	15 15	1800P	<22
013	8 ^{SOUTH} COIL Rm	12	5:25pm	7:25pm	120	15 15	1800P	<22

ANALYST: R. P. PearsallSIGNATURE: R. P. PearsallDATE: 9.16.01COMMENTS: Fax Results To MR WALKER ASAP(718) 707-5289

SENT TO	DATE	# OF SAMPLES	RECEIVED BY	DATE	TIME

10/01/2001 10:40 FAX 212 353 8306 ATC

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ATC Environmental, Inc.
104 East 25th Street
New York, New York 10010

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, 8
Date Received: 09/16/01

Project Sample No.: 02

Air Volume: 1800 liters

Filter Type: MCF 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

TEM Sample No.: 5512 - 59076

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 s/um²
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

	Single			Matrix	Total	Total
	Fibers	Bundles	Clusters	Struct.	Struct.	Struct. >=5um
Chrysotile Asbestos	0	0	0	0	0	0
Amphibole Asbestos	0	0	0	0	0	0
Ambiguous	0	0	0	0	0	0
Total asbestos (includes ambiguous structures)					0	0
Non-Asbestos	0	0	0	0	0	0
No Identification	0	0	0	0	0	0
Totals (All Structures)					0	0

The estimated uncertainty of this analysis is 1 standard deviation.

CONCENTRATION

	Filter	Air
	Struct/mm ²	Struct/cc
Chrysotile Asbestos	0.0	0.0000
Amphibole Asbestos	0.0	0.0000
Ambiguous	0.0	0.0000
Total asbestos (includes ambiguous structures)	0.0	0.0000
Non-Asbestos	0.0	0.0000
No Identification	0.0	0.0000
Totals (All Structures)	0.0	0.0000

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method

Analyzed by:

Roman Peysakhov

Report Reviewed by:

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

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New York, New York 10010

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ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 29, 8

Date Received: 09/16/01

Project Sample No.: 03

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

TEM Sample No.: 5512 - 59077

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 n/mm²
0.0048 n/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

	Single			Matrix	Total	Total
	Fibers	Bundles	Clusters	Struct.	Struct.	Struct.
Chrysotile Asbestos	0	0	0	1	1	0
Amphibole Asbestos	0	0	0	0	0	0
Ambiguous	0	0	0	0	0	0
Total asbestos (includes ambiguous structures)					1	0
Non-Asbestos	0	0	0	0	0	0
No Identification	0	0	0	0	0	0
Totals (All Structures)					1	0

The estimated uncertainty of this analysis is 1 standard deviation.

CONCENTRATION

	Filter	Air
	Struct/mm ²	Struct/cc
Chrysotile Asbestos	22.2	0.0048
Amphibole Asbestos	0.0	0.0000
Ambiguous	0.0	0.0000
Total asbestos (includes ambiguous structures)	22.2	0.0048
Non-Asbestos	0.0	0.0000
No Identification	0.0	0.0000
Totals (All Structures)	22.2	0.0048

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method

Analyzed by:

Roman Peysakhov

Report Reviewed by:

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

10/01/2001 10:41 FAX 212 353 8308

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ATC Environmental, Inc.
104 East 25th Street
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New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, 8
Date Received: 09/15/01

Project Sample No.: 04

Air Volume: 1800 liters

Filter Type: NCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

Analysis Parameters

TEM Sample No.: 5512 - 59078

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 g/mm²
0.0048 g/cc

FIBROUS PARTICULATES ANALYZED

	<u>Number Observed</u>			Matrix Struct.	Total Struct.	Total Struct. ≥ 5um	<u>CONCENTRATION</u>		
	Single Fibers	Bundles	Clusters				Filter Struct./mm ²	Air Struct./cc	ngm/m ³
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Roman Peysakhov

Report Reviewed by:

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

NYC-WTC 000105981

10/01/2001 10:41 FAX 212 353 8308

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ATC Environmental, Inc.
104 East 25th Street
New York, New York 10010

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1997

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY

Floors 21, 27, 19, 8

Date Received: 09/16/01

Project Sample No.: 06

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um

Effective Area: 385 mm2

TEM Sample No.: 5512 - 590A0

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm2

Analytical Sensitivity: 22.2 s/mm2
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

CONCENTRATION

	Single			Matrix	Total	Total	Filter		Air
	Fibers	Bundles	Clusters	Struct.	Struct.	>=5um	Struct/mm2	Struct/cc	ngm/m3
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method

Analyzed by:

Roman Peysakhov

Report Reviewed by:

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

10/01/2001 10:41 FAX 212 353 8308

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New York, New York 10010

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY

Floors 31, 27, 19, 6

Date Received: 09/16/01

Project Sample No.: 07

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um

Effective Area: 385 mm²

TEM Sample No.: 5512 - 59081

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 s/mm²
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

CONCENTRATION

	Single			Matrix	Total.	Total	Filter		Air
	Fibers	Bundles	Clusters	Struct.	Struct.	≥5um	Struct/mm ²	Struct/cc	ngm/m ³
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Report Reviewed by:

Roman Peysakhov

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

10/01/2001 10:42 FAX 212 353 8308

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ATC Environmental, Inc.
104 East 25th Street
New York, New York 10010

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHSRA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, E

Date Received: 09/16/01

Project Sample No.: 08

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

Analysis Parameters

TEM Sample No.: 5512 - 59082

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 s/mm²
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

	<u>Number Observed</u>			Matrix Struct.	Total Struct.	Total Struct. ≥ 5um	<u>CONCENTRATION</u>		
	Single Fibers	Bundles	Clusters				Filter Struct./mm ²	Air Struct./cc	Air ngm/ ³
Chrysotile Asbestos	1	0	0	0	1	0	22.2	0.0048	157
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					1	0	22.2	0.0048	157
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					1	0	22.2	0.0048	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Roman Peysakhov

Report Reviewed by:

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

10/01/2001 10:42 FAX 212 353 8308

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New York, NY 10007

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Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS).
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, 8
Date Received: 09/16/01

Project Sample No.: 09

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm2

TEM Sample No.: 5512 - 59083

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm2

Analytical Sensitivity: 22.2 n/mm2
0.0048 g/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

CONCENTRATION

	Number Observed			Matrix Struct.	Total Struct.	Total Struct. >Sum	CONCENTRATION		
	Single Fibers	Bundles	Clusters				Filter Struct/mm2	Air Struct/cc	ngm/m3
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Report Reviewed by:

Roman Peysakhov

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

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ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AHERA Final Rule, EPA Federal Register (40 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, 8

Date Received: 09/16/01

Project Sample No.: 10

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

TEM Sample No.: 5512 - 59084

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 s/mm²
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

	<u>Number Observed</u>						<u>CONCENTRATION</u>		
	<u>Single</u>			<u>Matrix</u>		<u>Total</u>	<u>Filter</u>		<u>Air</u>
	<u>Fibers</u>	<u>Bundles</u>	<u>Clusters</u>	<u>Struct.</u>	<u>Struct.</u>		<u>Struct/mm²</u>	<u>Struct/cc</u>	
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Report Reviewed by:

Roman Peysakhov

Michael A. Gorycki, Ph.D.
Director of Electron Microscopy

10/01/2001 10:43 FAX 212 353 8308

ATC

018/020

ATC Environmental, Inc.
104 East 25th Street
New York, New York 10010

N.Y.C. Housing Authority
250 Broadway, 16th Floor
New York, NY 10007

Approved N.Y. State ELAP #10879
ACCREDITED NVLAP Lab Code # 1187
Report Date: 09/16/01

ASBESTOS FIBER ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY (TEM)

With Fiber Identification by Selected-Area Electron Diffraction (SAED) and Energy-Dispersive X-RAY Spectroscopy (EDS)
Method: AMSRA Final Rule, EPA Federal Register (43 CFR, Part 763), Vol. 52, No. 210, October 30, 1987

Sample Identification

Analysis Parameters

Project/Site: 250 Broadway, NY, NY
Floors 31, 27, 19, 8

Date Received: 09/16/01

Project Sample No.: 11

Air Volume: 1800 liters

Filter Type: MCE 25 mm diam., Pore Size: 0.45 um
Effective Area: 385 mm²

TEM Sample No.: 5512 - 52085

Grid Openings Analyzed: 4

Average Grid Opening: 106.00 um

Total Area Analyzed: 0.0450 mm²

Analytical Sensitivity: 22.2 s/mm²
0.0048 s/cc

FIBROUS PARTICULATES ANALYZED

Number Observed

CONCENTRATION

	Single			Matrix	Total.	Total	Filter		Air
	Fibers	Bundles	Clusters	Struct.	Struct.	>Sum	Struct./mm ²	Struct./cc	ngm/m ³
Chrysotile Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Amphibole Asbestos	0	0	0	0	0	0	0.0	0.0000	0
Ambiguous	0	0	0	0	0	0	0.0	0.0000	0
Total asbestos (includes ambiguous structures)					0	0	0.0	0.0000	0
Non-Asbestos	0	0	0	0	0	0	0.0	0.0000	N/A
No Identification	0	0	0	0	0	0	0.0	0.0000	N/A
Totals (All Structures)					0	0	0.0	0.0000	N/A

The estimated uncertainty of this analysis is 1 standard deviation.

Non-asbestos fiber i.d. (EDS/SAED): None detected
Amphibole Asbestos Type: None detected

The Analysis was carried out in accordance with the approved TEM method.
This laboratory is in compliance with the quality specified for the method.

Analyzed by:

Report Reviewed by:

Roman Peysakhov

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