NYC 9/11 Public Portal Document

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Project: NYC-BOE PS 150M Project#: 14584-0824

Received: 3/14/02 9:00:00 PM
ATC Group #: 7073
Analysis Date: 3/14/02

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

Sample	*Volume*	*Area Analyzed*	*Non Asb*	*Asbestos Type(s)*	*# Structures 0.5μ-5*	*5μ*	*Analytical Sensitivity (S/cc)*	*Asbestos Concentration (S/mm²)*	*(S/cc)*	*Notes*
01 7073 -1	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
02 7073 -2	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
03 7073 -3	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
04 7073 -4	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
05 7073 -5	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
06 7073 -6	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
07 7073 -7	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	

MARK PEYSAKHOV
Analyzed by:

MICHAEL A. GORYCKI, Ph.D.
Approved by:

Disclaimer: The laboratory is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may not be reproduced, except in full, without written approval by ATC Associates Inc. This report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. This reports relates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analysis' accuracy and precision) is available upon request.

Accredited for NVLAP PLM/TEM #101187-0, NY State ELAP #10879

CITY_21MC100_000464272

NYC-WTC_000376167

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	1	**Grid Opening Size:**	0.01124
Client Sample #:	01	**Area Examined:**	0.04496 mm²
GRID BOX:	E3E	**Magnification:**	20,000
GRID ID:	2-3	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	H3	1-50											
2	H3	-C											
3	E2	-C											
4	E2	-C											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyilite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	2	**Grid Opening Size:**	0.01124
Client Sample #:	02	**Area Examined:**	0.04496 mm²
GRID BOX:	93F	**Magnification:**	20,000
GRID ID:	4F5F	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: [signature]
MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	H9	NSD											
2	N9	—											
3	E1	—											
4	P1	—											

4F
5F

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√= EDS spectrum conforming to laboratory identification criteria observed

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C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

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<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

CITY_21MC100_000464274

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TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	3	**Grid Opening Size:**	0.01124
Client Sample #:	03	**Area Examined:**	0.04496 mm²
GRID BOX:	E3E	**Magnification:**	20,000
GRID ID:	1626	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: MARK PEYSAKHOV

GO.		Structure No	Structure Type				Length		ID of Structure N or √				EDS (Nonadb Elements)
No	Coord		F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	
1	D7	1E0											
2	C7	— c											
3	E2	— c											
4	J2	— c											

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√= EDS spectrum conforming to laboratory identification criteria observed

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M = Matrix

NSD = No Structures Detected

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AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

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TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	4	**Grid Opening Size:**	0.01124
Client Sample #:	04	**Area Examined:**	0.04496 mm²
GRID BOX:	935	**Magnification:**	20,000
GRID ID:	3656	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
36	1 V6	#50											
—	2 P6	—											
46	3 M'	—											
	4 F'	—											

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√= EDS spectrum conforming to laboratory identification criteria observed

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C = Cluster (>3 Intersections)

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NSD = No Structures Detected

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AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	5	**Grid Opening Size:**	0.01124
Client Sample #:	05	**Area Examined:**	0.04496 mm²
GRID BOX:	93E	**Magnification:**	20,000
GRID ID:	56IN	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	Length >=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
56	1 E1	ASB											
—	2 J1	—											
104	3 D2	—											
	4 C2	—											

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Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

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TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	6	**Grid Opening Size:**	0.01124
Client Sample #:	06	**Area Examined:**	0.04496 mm²
GRID BOX:	B3F	**Magnification:**	20,000
GRID ID:	2003	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	V1	NSD											
2	R1	-C											
3	Q9	-C											
4	X9	-C											

Struct = > 0.5µ _> 5:1 Aspect Ratio

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√= EDS spectrum conforming to laboratory identification criteria observed

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Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7073	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	7	**Grid Opening Size:**	0.01124
Client Sample #:	07	**Area Examined:**	0.04496 mm²
GRID BOX:	834	**Magnification:**	20,000
GRID ID:	4454	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	3/14/02

Analysis Performed By: [signature]
MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	R7	NSD											
2	R7	—											
3	X2	—											
4	Q2	—											

4 4
5 4

Struct = > 0.5µ _> 5:1 Aspect Ratio

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√= EDS spectrum conforming to laboratory identification criteria observed

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Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					