NYC 9/11 Public Portal Document

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Project: H.S. Of Economics And Finance

Received: 5/31/02 9:00:00 PM
ATC Group #: 7922
Analysis Date: 6/1/02

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*
03 *7922 -1*	1896.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
04 *7922 -2*	1904.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
05 *7922 -3*	1904.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
06 *7922 -4*	1912.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
07 *7922 -5*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
08 *7922 -6*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
09 *7922 -7*	1848.00	0.0450	0	None Detected	0	0	0.0046	<22.24	<0.0046	

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

CONFIDENTIAL, CITY_21MC100_003461207

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258463

NYC 9/11 Public Portal Document

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Received: 5/31/02 9:00:00 PM
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Analysis Date: 6/1/02

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	# Structures 5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm²)	Asbestos Concentration (S/cc)	Notes
10 *7922 -8*	1840.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
11 *7922 -9*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
12 *7922 -10*	1824.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
13 *7922 -11*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
14 *7922 -12*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
15 *7922 -13*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
16 *7922 -14*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
17 *7922 -15*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
18 *7922 -16*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	

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

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NYC-WTC_000258464

NYC 9/11 Public Portal Document

Attn: Mr. Bernard Orlan
N.Y.C. Board of Education
28-11 Queens Plaza North
Long Island City, NY 11101
Fax: (212) 475-4122 **Phone:** (212) 477-8941

Project: H.S. Of Economics And Finance

Received: 5/31/02 9:00:00 PM
ATC Group #: 7922
Analysis Date: 6/1/02

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*
19 *7922 -17*	1856.00	0.0450	0	None Detected	0	0	0.0046	<22.24	<0.0046	

MARK PEYSAKHOV
Analyzed by:

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

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CONFIDENTIAL, CITY_21MC100_003461209
SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258465

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1896
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	1	**Grid Opening Size:**	0.01124
Client Sample #:	03	**Area Examined:**	0.04496 mm²
GRID BOX:	1184	**Magnification:**	20,000
GRID ID:	2040	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: [signature]
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	G3	NSD											
2	H3	—											
3	C1	—											
4	H1	—											

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
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):**	1904
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	2	**Grid Opening Size:**	0.01124
Client Sample #:	04	**Area Examined:**	0.04496 mm²
GRID BOX:	1185	**Magnification:**	20,000
GRID ID:	29S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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)
1	1C2	NSD											
2	1P2	—											
3	1011	—											
4	851	—											

29 — 25

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
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):**	1904
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	3	**Grid Opening Size:**	0.01124
Client Sample #:	05	**Area Examined:**	0.04496 mm²
GRID BOX:	H E F	**Magnification:**	20,000
GRID ID:	J C W	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	X 7	NSD											
JC 2	R7	— C											
3	Q2	— C											
JC 4	X2	— 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
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):**	1912
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	4	**Grid Opening Size:**	0.01124
Client Sample #:	06	**Area Examined:**	0.04496 mm²
GRID BOX:	46	**Magnification:**	20,000
GRID ID:	3	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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)
1	A7	NSD											
2	20	—											
3	07	—											
4	21	—											

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
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 #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	5	**Grid Opening Size:**	0.01124
Client Sample #:	07	**Area Examined:**	0.04496 mm²
GRID BOX:	H66	**Magnification:**	20,000
GRID ID:	JFEC	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: MARK PEYSAKHOV

GO. No 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 D7	1050											
2 E7	—											
3 H1	—											
4 H4	—											

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
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):**	1944
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	6	**Grid Opening Size:**	0.01124
Client Sample #:	08	**Area Examined:**	0.04496 mm²
GRID BOX:	1186	**Magnification:**	20,000
GRID ID:	Euro	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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)
1	E8	NSD											
2	J8	—											
3	K1	—											
4	K1	—											

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
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):**	1848
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	7	**Grid Opening Size:**	0.01124
Client Sample #:	09	**Area Examined:**	0.04496 mm²
GRID BOX:	11.8G	**Magnification:**	20,000
GRID ID:	L9S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: MARK PEYSAKHOV

GO. No 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 E1	NSD											
2 J1	—C											
3 D1	—C											
4 C1	—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
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):**	1840
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	8	**Grid Opening Size:**	0.01124
Client Sample #:	10	**Area Examined:**	0.04496 mm²
GRID BOX:	118 a	**Magnification:**	20,000
GRID ID:	5 C1 c	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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)
5 C	1 R1	NSD											
	2 K1	—											
5 C	3 J2	—											
	4 Q2	—											

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
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):**	1816
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	9	**Grid Opening Size:**	0.01124
Client Sample #:	11	**Area Examined:**	0.04496 mm²
GRID BOX:	1165	**Magnification:**	20,000
GRID ID:	5 PK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	L2	NSD											
2	P2	—											
3	Q3	—											
4	M3	—											

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
Anthophyllite
Tremolite
Actinolite

Totals

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

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NYC-WTC_000258474

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TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1824
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	10	**Grid Opening Size:**	0.01124
Client Sample #:	12	**Area Examined:**	0.04496 mm²
GRID BOX:	11 B C	**Magnification:**	20,000
GRID ID:	5-7 B 11	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	
5 F	1 D1	NSD											
—	2 E1	— "											
	3 C1	— "											
6 A	4 A3	— "											

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
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):**	1808
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	11	**Grid Opening Size:**	0.01124
Client Sample #:	13	**Area Examined:**	0.04496 mm²
GRID BOX:	1165	**Magnification:**	20,000
GRID ID:	6mo	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: MC

MARK PEYSAKHOV

GO. No	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 C/	NSD											
6 cr	2 M1	—											
—	3 M7	—											
60	4 D7	—											

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:

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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):**	1808
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	12	**Grid Opening Size:**	0.01124
Client Sample #:	14	**Area Examined:**	0.04496 mm²
GRID BOX:	HEA	**Magnification:**	20,000
GRID ID:	6 A S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: MARK PEYSAKHOV

GO. No 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)
6A 1 C1	NSD											
2 A1	—											
3 C1	—											
6S 4 C1	—											

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
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):**	1808
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	13	**Grid Opening Size:**	0.01124
Client Sample #:	15	**Area Examined:**	0.04496 mm²
GRID BOX:	A B F	**Magnification:**	20,000
GRID ID:	2 C a	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	X 9	NSD											
2	R 9	— C											
3	R 1	— C											
4	Y 1	— 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
Anthophyllite
Tremolite
Actinolite

Totals

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

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	14	**Grid Opening Size:**	0.01124
Client Sample #:	16	**Area Examined:**	0.04496 mm²
GRID BOX:	HBC	**Magnification:**	20,000
GRID ID:	>MA	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	C1	NSD											
2	S1	— C											
3	K1	— C											
4	C1	— 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
Anthophyllite
Tremolite
Actinolite

Totals

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

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	15	**Grid Opening Size:**	0.01124
Client Sample #:	17	**Area Examined:**	0.04496 mm²
GRID BOX:	1186	**Magnification:**	20,000
GRID ID:	>F8a	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: MARK PEYSAKHOV

GO. No 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 K1	NSD											
2 K1	— c											
3 E2	— c											
4 J2	— 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
Anthophyllite
Tremolite
Actinolite

Totals

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

CONFIDENTIAL, CITY_21MC100_003461224

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258480

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	16	**Grid Opening Size:**	0.01124
Client Sample #:	18	**Area Examined:**	0.04496 mm²
GRID BOX:	11 E 4	**Magnification:**	20,000
GRID ID:	8 [illegible]	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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	[illegible]	NSD											
2	[illegible]	—											
3	[illegible]	—											
4	[illegible]	—											

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
Anthophyllite
Tremolite
Actinolite

Totals

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

CONFIDENTIAL, CITY_21MC100_003461225

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258481

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1856
Lab Group #:	7922	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	17	**Grid Opening Size:**	0.01124
Client Sample #:	19	**Area Examined:**	0.04496 mm²
GRID BOX:	H8C	**Magnification:**	20,000
GRID ID:	8 Q S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

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)
1	J3	NSD											
2	Q3	—											
3	K7	—											
4	K7	—											

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
Anthophyllite
Tremolite
Actinolite

Totals

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

NYC-WTC_000258483

NYC 9/11 Public Portal Document

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL,

CITY_21MC100_00346122

ATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7922

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other ASAP

7922 17/20 92134-92153

PROJECT INFORMATION

1. Client:	2. Project Name	3. Project #	4. Project Monitor:	4c. Rotameter Number:
NYC/B.O.E.	H.S. FOR FINANCE/ECONOMICS	14584-865	—	HP-38
	2a. Project Address 100 TRINITY PLACE, NYC.	3a. Task #	4a. Air Sampler: M. G. KHAN	

5. Date:	6. Abatement Location:	7. ☐ PCM (0.8 micron MCE)	8. ☒ TEM (0.45 micron MCE)	9. Type:		
5/31/02	AS PER PROTOCOL	Cassette/Filter Manufacture N/A.	Cassette/Filter Manufacture Multi-Metrics	a. ☐ Background	c. ☐ Abatement	f. ☐ Environmental
		Lot # -	Lot # 01205916	b. ☐ Pre-Abate	d. ☐ Post-Abate	g. ☒ ~~Ambient~~
					e. ☐ OSHA	h. ☐ Other

DAILY AIR SAMPLE RECORD

10. Sample I.D. Number	11. Pump Number	12. Sample Location 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock) 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.) 14a. Start	14b. End	14b. Avg	15. Total Air Vol. (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
Ø1				Field Blank									
Ø2				Field Blank									
Ø3				OUTSIDE BLDG. BY THE MAIN ENTRANCE.	0732	1129	237	8.0	8.0	8.0	1896		
Ø4				1st FLOOR LOBBY O/SIDE AUDITORIUM.	0733	1131	238	8.0	8.0	8.0	1904		
Ø5				INSIDE AUDITORIUM AT FIRST FLOOR.	0735	1133	238	8.0	8.0	8.0	1904		
Ø6				STAIRCASE "B" OPEN AREA AT 7th FLOOR.	0737	1136	239	8.0	8.0	8.0	1912		
Ø7				CAFETERIA — N/E AT 8th FLOOR.	0739	1139	240	8.0	8.0	8.0	1920		
Ø8				UP AT THE TOP OF THE ROOF.	0743	1146	243	8.0	8.0	8.0	1944		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M. G. Khan.	M. Gray	5/3/02	21:00
II				
III				

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name:	23. Date:	24. Time:
a. Analyzed By:	6/1	1100
b. QC By:		
c. Lab Batch #:		

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
TEM - AHERA

26. ATC Project Manager: MARK TERJESEN

27. Result To: YIANNIS EFSTATHIOU
~~Beeper~~/Phone #'s 646-772-1155

28. Comments: Please call the Project Manager with result.

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)

NYC-WTC_000258484

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL,

CITY_21MC100_003461228

NYC 9/11 Public Portal Document

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7922

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other ASAP

PROJECT INFORMATION

1. Client:	2. Project Name	3. Project #	4. Project Monitor:	4c. Rotameter Number:
NYC/BOE	H.S. FOR FINANCE/ECONOMICS	14584-865	—	HP-38
	2a. Project Address: 100 TRINITY PLACE NYC	3a. Task # 01	4a. Air Sampler: M.G. Khan	

5. Date:	6. Abatement Location:	7. ☐ PCM (0.8 micron MCE)	8. ☑ TEM (0.45 micron MCE)	9. Type:		
5/31/02	AS PER PROTOCOL	Cassette/Filter Manufacture N/A. Lot #	Cassette/Filter Manufacture Multi-Metrics Lot # 01205916	a. ☐ Background b. ☐ Pre-Abate	c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA	f. ☐ Environmental g. ☑ Ambient h. ☐ Other

DAILY AIR SAMPLE RECORD

10. Sample I.D. Number	11. Pump Number	12. Sample Location 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock) 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.) 14a. Start	14b. End	14b. Avg	15. Total Air Vol. (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
				Field Blank									
				Field Blank									
09				OUTSIDE BLDG. BY THE MAIN ENTRANCE	1129	1520	231	8.0	8.0	8.0	1848		
10				1ST FLOOR LOBBY O/SIDE AUDITORIUM.	1131	1521	230	8.0	8.0	8.0	1840		
11				STAIRCASE "B" OPEN AREA AT 7TH FLOOR.	1136	1523	227	8.0	8.0	8.0	1816		
12				UP AT THE TOP OF THE ROOF.	1146	1534	228	8.0	8.0	8.0	1824		
13				MAIN FLOOR HALLWAY AT 9TH FLOOR	1538	1924	226	8.0	8.0	8.0	1808		
14				BET. RM 801 AND CAFE-ERIA @ 8TH FLOOR	1540	1926	226	8.0	8.0	8.0	1808		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan	H. Cruz	5/31/02	21:00
II	—			
III				

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name: TEA	23. Date:	24. Time:
a. Analyzed By:	6/1	1:00
b. QC By:		
c. Lab Batch #:		

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
(TEM - AHERA)

26. ATC Project Manager:	27. Result To:	28. Comments:
MARK TERJESEN	YIANNIS EFSTATHIOU Beeper/Phone #'s 646-772-1155	See page 1 of 3

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)

NYC-WTC_000258485

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL,

CITY_21MC100_003461229

NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7922

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other ASAP

PROJECT INFORMATION

1. Client:	2. Project Name	3. Project #	4. Project Monitor:	4c. Rotameter Number:
NYC/B.O.E.	H.S. FOR FINANCE/ECONOMICS	14584-865		HP-38
	2a. Project Address: 100 TRINITY PLACE	3a. Task # 01	4a. Air Sampler: M. G. KHAN	

5. Date:	6. Abatement Location:	7. ☐ PCM (0.8 micron MCE)	8. ☒ TEM (0.45 micron MCE)	9. Type:		
5/31/02	As Per Protocol	Cassette/Filter Manufacture N/A. Lot #	Cassette/Filter Manufacture Multi-Metrics Lot # 01205916	a. ☐ Background b. ☐ Pre-Abate	c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA	f. ☐ Environmental g. ☐ Ambient h. ☐ Other

DAILY AIR SAMPLE RECORD

10. Sample I.D. Number	11. Pump Number	12. Sample Location 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock) 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.) 14a. Start	14b. End	14b. Avg	15. Total Air Vol. (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
				Field Blank									
				Field Blank									
15				MAIN FLOOR HALLWAY AT 7th FLOOR.	1542	1928	226	8.0	8.0	8.0	1808		
16				INSIDE CLASS Rm. 608 AT 6th FLOOR	1544	1931	227	8.0	8.0	8.0	1816		
17				MAIN FLOOR HALLWAY AT 5th FLOOR.	1547	1933	226	8.0	8.0	8.0	1808		
18				INSIDE CLASS Rm. 406 AT 4th FLOOR.	1549	1936	227	8.0	8.0	8.0	1816		
19				MAIN FLOOR HALLWAY AT 3RD FLOOR.	1552	1944	232	8.0	8.0	8.0	1856		
20				SEALED BLANK									

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M. G. Khan	H. Ghosh	5/31/02	21:00
II				
III				

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name:	23. Date:	24. Time:
a. Analyzed By:		
b. QC By:		
c. Lab Batch #:		

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
TEM - AHERA

26. ATC Project Manager: MARK TERTESEN

27. Result To: YIANNIS EFSTATHIOU
Beeper/Phone #'s 646-772-1155

28. Comments: See Page 1 of 3

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)