NYC 9/11 Public Portal Document

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N.Y.C. Board of Education
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Project: H.S. Of Economics And Finance

Received: 4/14/02 7:00:00 PM
ATC Group #: 7412
Analysis Date: 4/14/02

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	# Structures 5µ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm²)	Asbestos Concentration (S/cc)	Notes
01 *7412 -1*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
02 *7412 -2*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
03 *7412 -3*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
04 *7412 -4*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
05 *7412 -5*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
06 *7412 -6*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
07 *7412 -7*	1952.00	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

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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257532

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: 4/14/02 7:00:00 PM
ATC Group #: 7412
Analysis Date: 4/14/02

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*
08 *7412 -8*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
09 *7412 -9*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
10 *7412 -10*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
11 *7412 -11*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
12 *7412 -12*	1968.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
13 *7412 -13*	1944.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
14 *7412 -14*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
15 *7412 -15*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
16 *7412 -16*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	

MARK PEYSAKHOV
Analyzed by:

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

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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257533

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: 4/14/02 7:00:00 PM
ATC Group #: 7412
Analysis Date: 4/14/02

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*
17 *7412 -17*	1960.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	

MARK PEYSAKHOV
Analyzed by:

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

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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257534

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	EMC	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	N1	1											
2	H1	—											
3	C1	—											
4	A1	—											

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):**	1960
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	E6	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	B3	NSD											
2	E3	—											
3	A7	—											
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:

<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):**	1960
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	91108	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	U1	NSD											
2	Z1	—											
3	M1	—											
4	T1	—											

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):**	1960
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	1000	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	X3	NSD											
2	R3	"											
3	C1	"											
4	S1	"											

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					

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257538

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1944
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	10HJ	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	M1	NSD											
2	N1	—											
3	G3	—											
4	H3	—											

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):	1928
Lab Group #:	7412	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:	1036	Magnification:	20,000
GRID ID:	10.4	Accelerating Voltage:	100 KeV
# Grid Openings:	4	Analysis Date:	4/14/02

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 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					

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TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1952
Lab Group #:	7412	**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:	1036	**Magnification:**	20,000
GRID ID:	10L	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	A7	NSD											
2	D7	〃											
3	C1	〃											
4	M1	〃											

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 #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	8	**Grid Opening Size:**	0.01124
Client Sample #:	08	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	182K	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	N7	NSD											
2	T7	—											
3	P1	—											
4	U1	—											

1F
2K

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):**	1944
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	9	**Grid Opening Size:**	0.01124
Client Sample #:	09	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	2 4 0	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	X9	NSD											
2	R9	—											
3	R1	—											
4	Y1	—											

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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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257543

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1944
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	10	**Grid Opening Size:**	0.01124
Client Sample #:	10	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	29S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	K1	NSD											
2	K1	"											
3	E1	"											
4	J1	"											

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					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1960
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	11	**Grid Opening Size:**	0.01124
Client Sample #:	11	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	3 CC	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	K3	NSD											
2	K3	〃											
3	B1	〃											
4	E1	〃											

3C
3M

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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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257545

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1968
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	12	**Grid Opening Size:**	0.01124
Client Sample #:	12	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	30L	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	C7	NSD											
2	H7	—											
3	D1	—											
3R	E1	—											

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):**	1944
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	13	**Grid Opening Size:**	0.01124
Client Sample #:	13	**Area Examined:**	0.04496 mm²
GRID BOX:	1236	**Magnification:**	20,000
GRID ID:	3 F6 K	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	V1	NSD											
2	P1	—											
3	J8	—											
4	Q8	—											

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_003460122

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000257547

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1960
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	14	**Grid Opening Size:**	0.01124
Client Sample #:	14	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	E040	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	C7	NSD											
2	H7	— "											
3	D1	— "											
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):**	1960
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	15	**Grid Opening Size:**	0.01124
Client Sample #:	15	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	E4S	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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)
1	J8	NSD											
2	E5	—											
3	D1	—											
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					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	16	**Grid Opening Size:**	0.01124
Client Sample #:	16	**Area Examined:**	0.04496 mm²
GRID BOX:	1036	**Magnification:**	20,000
GRID ID:	SCK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	EE	NSD											
2	JF	—											
3	DI	—											
4	E1	—											

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):**	1960
Lab Group #:	7412	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	17	**Grid Opening Size:**	0.01124
Client Sample #:	17	**Area Examined:**	0.04496 mm²
GRID BOX:	2036	**Magnification:**	20,000
GRID ID:	5 B2	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	4/14/02

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	1E1	NSD											
2	J1	"											
3	D1	"											
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					

NYC-WTC_00025752

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

CITY_21MC100_00346012

NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☒ Other RUSH

7412 17120 84948-84967

PROJECT INFORMATION

1. Client:	2. Project Name:	3. Project #:	4. Project Monitor:	4c. Rotameter Number:
NYC BOE	H·S·FOR ECONOMICS and FINANCE M833	14584-865	C. Mathew	HV-27
	2a. Project Address: 100 TRINITY PL NY 10006		4a. Air Sampler: C. Mathew	

5. Date:	6. Abatement Location:	7. ☒ PCM (0.8 micron MCE)	8. ☐ PCM (0.45 micron MCE)	9. Type:	
4/14/02	Entire Bldg	Cassette/Filter Manufacture: Multimetrics Lot #: 0120 6916	Cassette/Filter Manufacture: MMT Lot #: 01206916	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
19				Field Blank Closed									
20				Field Blank OPEN									
M833-4114-01			X	Roof	754	1155	241	8.0	8.0	8.0	1928		
-02			X	Outside Main Entrance	740	1145	245	8.0	8.0	8.0	1960		
-03		X		Main Entrance lobby by Auditorium	742	1147	245	8.0	8.0	8.0	1960		
-04		X		Inside Auditorium	745	1150	245	8.0	8.0	8.0	1960		
05		X		9th Floor hallway by Rm	758	1201	243	8.0	8.0	8.0	1944		
06		X		Cafeteria 8th Floor by Water Fountain	804	1205	241	8.0	8.0	8.0	1928		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	[illegible]	[illegible]	4/14/02	1700
II				
III				

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

22. Lab Name:	23. Date:	24. Time:
a. Analyzed By:	4/15	2100
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:
Mr. Yiannis Esfthiou	Mr. Yiannis Esfthiou Beeper/Phone #'s: 641-772-1155	Please call Project Manager with results

NY-1 (3/99)

NYC-WTC_00025753

NYC 9/11 Public Portal Document

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL, CITY_21MC100_00346012B

VATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7412

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☒ Other KUSH

PROJECT INFORMATION

1. Client:	2. Project Name / 2a. Project Address	3. Project #	4. Project Monitor: / 4a. Air Sampler:	4c. Rotameter Number:
NYC BOE	H·S·FOR ECONOMICS and FINANCE M833 / 100 TRINITY PL. NY 10006	14584-865	C. Mathew / C. Mathew	HV-27

5. Date:	6. Abatement Location:	7. ☒ PCM (0.8 micron MCE) Cassette/Filter Manufacture / Lot #	8. ☐ PCM (0.45 micron MCE) Cassette/Filter Manufacture / Lot #	9. Type:
4/14/02		Multimetrics / 0120 6916		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									
M833-4/14 -07		X		8th floor class room	8:11	12:15	244	8.0	8.0	8.0	1952		
-08		X		Seventh floor hallway by room	8:17	12:20	243	8.0	8.0	8.0	1944		
-09		X		6th Floor Class room	8:22	12:25	243	8.0	8.0	8.0	1944		
-10		X		5th Floor hallway by Rm	8:37	12:40	243	8.0	8.0	8.0	1944		
-11		X		4th Floor Class room	8:40	12:45	245	8.0	8.0	8.0	1960		
-12		X		3rd Floor hallway by Rm	8:44	12:50	246	8.0	8.0	8.0	1968		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	[illegible]	[illegible]	4/14/02	7PM
II				
III				

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

22. Lab Name:	23. Date:	24. Time:
a. Analyzed By:	4/15	2:00
b. QC By:		
c. Lab Batch #:		

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

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

26. ATC Project Manager:	27. Result To: / Beeper/Phone #'s	28. Comments:
Mr. Yiannis Esfthiou	Mr. Yiannis Esfthiou / 641-772-1155	Please call Project Manager with results

NY-1 (3/99)

NYC-WTC_00025754

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

CITY_21MC100_003460129

NYC 9/11 Public Portal Document

VATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7412

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☒ Other RUSH

PROJECT INFORMATION

1. Client:	2. Project Name / 2a. Project Address	3. Project #	4. Project Monitor / 4a. Air Sampler:	4c. Rotameter Number:
NYC BOE	H.S. FOR ECONOMICS and FINANCE M833 / 100 TRINITY PL NY 10006	14584-865	C. Mathew / C. Mathew	HV-27

5. Date:	6. Abatement Location:	7. ☒ PCM (0.8 micron MCE)	8. ☐ PCM (0.45 micron MCE)	9. Type:
4/14/02		Cassette/Filter Manufacture: Multimetrics; Lot #: 0120 6916	Cassette/Filter Manufacture: ; Lot #:	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									
M1633-414102 -13			X	Staircase B Seventh floor Landing	8 52	12 55	243	8.0	8.0	8.0	1944		
-14			X	Outside Main Entrance	11 45	15 50	245	8.0	8.0	8.0	1960		
-15			X	Roof	11 55	16 00	245	8.0	8.0	8.0	1960		
-16			X	Staircase B Seventh floor landing (open stair)	12 55	16 55	240	8.0	8.0	8.0	1920		
-17		X		1st Floor Lobby outside Auditorium	11 47	15 52	245	8.0	8.0	8.0	1960		
-18				Blank Open	—	—	—	—	—	—	—		

CHAIN OF CUSTODY

18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I		4/14/02	7PM
II			
III			

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

22. Lab Name: ATC Lab	23. Date:	24. Time:
a. Analyzed By:	4/15	2:00
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: Mr. Yiannis Esfthiou

27. Result To: Mr. Yiannis Esfthiou
Beeper/Phone #'s 641-772-1155

28. Comments: Please call project Manager with results

NY-1 (3/99)