NYC 9/11 Public Portal Document

ATC Associates

104 East 25 Street, New York, NY 10010

Phone: (212) 353-8280 Fax: (212) 353-8306

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
100 Trinity Place, New York, NY

Received: 6/1/02 5:00:00 PM
ATC Group #: 7931
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
03 *7931 -1*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
04 *7931 -2*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
05 *7931 -3*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
06 *7931 -4*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
07 *7931 -5*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
08 *7931 -6*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
09 *7931 -7*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	

ROMAN PEYSAKHOV
Analyzed by: RRP

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_003461231

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258487

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
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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 *7931 -8*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
11 *7931 -9*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
12 *7931 -10*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
13 *7931 -11*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
14 *7931 -12*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
15 *7931 -13*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
17 *7931 -15*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
18 *7931 -16*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
19 *7931 -17*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	

ROMAN 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_003461232

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258488

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	1187	**Magnification:**	20,000
GRID ID:	5AR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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	
5P 1	FZ	NSD											
2	QZ	4											
3	JE	4											
5R 4	PE	4											

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):**	1800
Lab Group #:	7931	**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:	1187	**Magnification:**	20,000
GRID ID:	5TDK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP

ROMAN 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	I2	NSD											
2	P2	"											
3	J2	"											
4	Q2	"											

5T

6K

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_003461234

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258490

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	1A7	**Magnification:**	20,000
GRID ID:	6MD	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP

ROMAN 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	I2	NSD											
2	P2	1											
3	J2	4											
4	Q2	4											

6M

60

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_003461235

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258491

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	W87	**Magnification:**	20,000
GRID ID:	W87	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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	P2	NSD											
2	I3	4											
3	Q2	4											
4	S2	4											

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_000258492

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7931	**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:	11&7	**Magnification:**	20,000
GRID ID:	TLN	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	I2	NSD											
2	P2	4											
3	J2	4											
4	Q2	4											

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_000258493

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7931	**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:	1187	**Magnification:**	20,000
GRID ID:	TPR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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)
TP 1	F2	NSD											
2	P2	4											
1 3	F2	4											
4	Q2	4											
TR													

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_000258494

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	1187	**Magnification:**	20,000
GRID ID:	HBK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	Q2	NSD											
2	J2	0											
3	I2	0											
4	P2	0											

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	1				
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	487	**Magnification:**	20,000
GRID ID:	SMD	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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)
SM		NSD											
		4											
		4											
SM		4											

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_000258496

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	687	**Magnification:**	20,000
GRID ID:	685	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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	IZ	NSD											
2	QZ	1											
3	P2	11											
4	J2	4											

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 #:	7931	**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:	4 & 7	**Magnification:**	20,000
GRID ID:	9L & 9N	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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)
9L 1	JZ	NSD											
2	JZ	"											
3	RZ	"											
9N 4	RZ	"											

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_000258498

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7931	**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:	7	**Magnification:**	20,000
GRID ID:	9RR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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	Q2	NSD											
2	J2	4											
3	F2	4											
4	P2	4											

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_000258499

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7931	**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:	1187	**Magnification:**	20,000
GRID ID:	9710K	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP

ROMAN 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	F2	100											
2	P2	4											
3	J2	4											
4	Q2	4											

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):**	1800
Lab Group #:	7931	**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:	1&7	**Magnification:**	20,000
GRID ID:	10MD	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	P2	NAD											
2	I2	4											
3	J2	4											
4	Q2	4											

10MD / 10

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):**	1800
Lab Group #:	7931	**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:	188	**Magnification:**	20,000
GRID ID:	TAC	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RJP

ROMAN 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)
1A 1	X3	NSD											
2	R3	9											
3	J4	4											
4	I7	11											
1C													

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 #:	7931	**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:	1188	**Magnification:**	20,000
GRID ID:	1EG	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP

ROMAN 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)
1E 1	P2	NSD											
2	I2	4											
3	J2	4											
4	Q2	4											
1G													

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_003461247

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258503

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7931	**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:	1KB	**Magnification:**	20,000
GRID ID:	1FZB	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	6/1/02

Analysis Performed By: RP
ROMAN 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	I 2	NSD											
2	J 2	4											
3	N 2	4											
4	P 2	4											
1B													

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_000258504

NYC-WTC_000258505

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

CONFIDENTIAL,

CITY_21MC100_00346124

NYC 9/11 Public Portal Document

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7931

TURNAROUND TIME

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

PROJECT INFORMATION 7931 12/20 92801-92320

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

5. Date:	6. Abatement Location: AS PER PROTOCOL	7. ☐ PCM (0.8 micron MCE) Cassette/Filter Manufacture: N/A. Lot #:	8. ☒ TEM (0.45 micron MCE) Cassette/Filter Manufacture: Multi-Metrics Lot #: 012059/6	9. Type: 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
Ø1				Field Blank									
Ø2				Field Blank									
Ø3				OUTSIDE BLDG. BY THE MAIN ENTRANCE.	0703	1048	225	8.0	8.0	8.0	1800		
Ø4				1ST FL. LOBBY OUTSIDE Auditorium.	0704	1049	225	8.0	8.0	8.0	1800		
Ø5				INSIDE AUDITORIUM AT 1ST FLOOR.	0705	1050	225	8.0	8.0	8.0	1800		
Ø6				STAIRCASE "B" OPEN AREA @ 7th FLOOR.	0707	1052	225	8.0	8.0	8.0	1800		
Ø7				CAFETERIA (MIDDLE AREA) @ 8th FLOOR.	0709	1055	226	8.0	8.0	8.0	1808		
Ø8				UP AT THE TOP OF THE ROOF.	0713	1100	227	8.0	8.0	8.0	1816		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan	H. Gray	06.01.02	17:00
II				
III				

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

22. Lab Name: ATC-TEM		23. Date:	24. Time:
a. Analyzed By: RDM		6.1.02	23:00
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: MARK TERSEGEN	27. Result To: YIANNIS EFSTATHIOU Beeper/Phone #'s 646-772-1155	28. Comments: Please call Project Manager with Result.

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

NY-1 (1/01)

NYC-WTC_000258506

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

CITY_21MC100_003461250

NYC 9/11 Public Portal Document

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM 7931

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			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:		
6/1/02	AS PER PROTOCOL	Cassette/Filter Manufacture: N/A.	Cassette/Filter Manufacture: MULTI-METRICS	a. ☐ Background	c. ☐ Abatement	f. ☐ Environmental
		Lot #: —	Lot #: 012655/6	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
				Field Blank									
				Field Blank									
09				OUTSIDE BLDG. BY THE MAIN ENTRANCE.	1048	1433	225	8.0	8.0	8.0	1800		
10				1st FL. LOBBY OUTSIDE Auditorium.	1049	1434	225	8.0	8.0	8.0	1800		
11				STAIR CASE "B" OPEN AREA AT 7th FLOOR.	1052	1437	225	8.0	8.0	8.0	1800		
12				UP AT THE TOP OF THE ROOF.	1100	1446	226	8.0	8.0	8.0	1808		
13				MAIN FLOOR HALLWAY AT 9th FLOOR	1103	1449	226	8.0	8.0	8.0	1808		
14				BET. RM. 801 & ENTRY LEVEL TO CAFETERIA	1105	1450	225	8.0	8.0	8.0	1800		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan	H. Gray	6/1/02	17:00
II	—			
III				

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

22. Lab Name:	23. Date:	24. Time:
ATC-TEM		
a. Analyzed By: RKW	6.1.02	23:00
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: MIKE TENJESEN

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)

NYC-WTC_000258507

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

CITY_21MC100_003461251

NYC 9/11 Public Portal Document

ATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7931

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 PL - 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:		
6/1/02	AS PER PROTOCOL	Cassette/Filter Manufacture N/A. Lot #	Cassette/Filter Manufacture MULT-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.	1107	1452	225	8.0	8.0	8.0	1800		
16				INSIDE ROOM NO. 607 AT 6th FLOOR.	1109	1454	225	8.0	8.0	8.0	1800	VOID	
17				MAIN FLOOR HALLWAY AT 5th FLOOR.	1111	1456	225	8.0	8.0	8.0	1800		
18				INSIDE CLASS RM.# 407 AT 4th FLOOR.	1113	1459	226	8.0	8.0	8.0	1808		
19				MAIN FLOOR HALLWAY AT 3RD FLOOR.	1115	1502	227	8.0	8.0	8.0	1816		
20				SEALED BLANK									

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan	H. Gray	06.01.02	17:00
II				
III				

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

22. Lab Name: ATC-TEM	23. Date:	24. Time:
a. Analyzed By: RKY	6.1.02	23:00
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: MARK TENGESEN

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