NYC 9/11 Public Portal Document


# ATC Associates

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**Project** H S for Leadership & Public Service

**Received** 4/14/05 5 00 00 PM
**ATC Group #** 7409
**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 | # Structures 5 5μ | Analytical Sensitivity (S/cc) | Asbestos Concentration (S/mm²) | Asbestos Concentration (S/cc) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 04 *7409 1* | 1808 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 05 *7409 2* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 06 *7409 3* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 07 *7409 4* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 08 *7409 5* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 09 *7409 6* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 10 *7409 7* | 1808 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |

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/mm 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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NYC-WTC_000296232

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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 | 5µ | Analytical Sensitivity (S/cc) | Asbestos Concentration (S/mm²) | (S/cc) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 7409 8 | 1808 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 12 7409 9 | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 13 7409 10 | 1824 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 14 7409 11 | 1824 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 15 7409 12 | 1832 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 16 7409 13 | 1832 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 17 7409 14 | 1824 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 18 7409 15 | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 19 7409 16 | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |

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

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**ATC Group #** 7409
**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* |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 *7409 17* | 1816 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |
| 21 *7409 18* | 1824 00 | 0 0450 | 0 | None Detected | 0 | 0 | 0 0047 | <22 24 | <0 0047 | |

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

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1808 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 1 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 04 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 726 | **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 59 | NSD | | | | | | | | | | | |
| 7E | 2 88 | — | | | | | | | | | | | |
| — | 3 121 | — | | | | | | | | | | | |
| 78 | 4 121 | — | | | | | | | | | | | |

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)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 2 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 05 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 7185 | **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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2C | 1 21 | NSD | | | | | | | | | | | |
| | 2 W1 | — | | | | | | | | | | | |
| | 3 Y3 | — | | | | | | | | | | | |
| 80 | 4 N5 | — | | | | | | | | | | | |

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)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 3 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 06 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | BOF | **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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BG | 1 R8 | NSD | | | | | | | | | | | |
| | 2 J8 | " | | | | | | | | | | | |
| | 3 R1 | " | | | | | | | | | | | |
| BG | 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 | | | | | |

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 4 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 07 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | C3,5 | **Magnification** | 20 000 |
| **GRID ID** | BKJ | **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 | S1 | NSD | | | | | | | | | | |
| 8 or | 2 | C1 | " | | | | | | | | | | |
| | 3 | K1 | " | | | | | | | | | | |
| BJ | 4 | R1 | " | | | | | | | | | | |

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)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 5 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 08 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 9480 | **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 | E1 | NSD | | | | | | | | | | | |
| 2 | J1 | — | | | | | | | | | | | |
| 3 | A8 | — | | | | | | | | | | | |
| 4 | D8 | — | | | | | | | | | | | |

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)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 6 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 09 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | PE6 | **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 C3 | NSD | | | | | | | | | | | |
| PE | 2 K3 | — | | | | | | | | | | | |
| | 3 A7 | — | | | | | | | | | | | |
| PE | 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 | | | | | |

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1808 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 7 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 10 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 81108 | **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 | 088 | NSD | | | | | | | | | | | |
| 2 | J78 | — | | | | | | | | | | | |
| 3 | K21 | — | | | | | | | | | | | |
| 4 | R1 | — | | | | | | | | | | | |

Struct = > 0 5µ > 5 1 Aspect Ratio

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√ 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 | | | | | |

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1808 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 8 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 11 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 103√ | **Magnification** | 20 000 |
| **GRID ID** | 1001 | **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 | M1 | NSD | | | | | | | | | | | |
| 100 2 | D1 | " | | | | | | | | | | | |
| — 3 | B7 | " | | | | | | | | | | | |
| 104 4 | E7 | " | | | | | | | | | | | |

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 | | | | | |

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 9 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 12 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 1077 | **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 | V 4 | NSD | | | | | | | | | | | |
| 2 | P F | — | | | | | | | | | | | |
| 3 | M | — | | | | | | | | | | | |
| 4 | 5 1 | — | | | | | | | | | | | |

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

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

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

## Totals

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

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1824 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 10 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 13 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 1C N | **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 | V9 | NSD | | | | | | | | | | | |
| 2 | R9 | — | | | | | | | | | | | |
| 3 | C1 | — | | | | | | | | | | | |
| F | S1 | — | | | | | | | | | | | |

1C
1N

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)** | 1824 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 11 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 14 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 18K | **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 | U1 | NSD | | | | | | | | | | | |
| 2 | P1 | — | | | | | | | | | | | |
| 3 | F3 | — | | | | | | | | | | | |
| 4 | W3 | — | | | | | | | | | | | |

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)** | 1832 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 12 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 15 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1036 | **Magnification** | 20 000 |
| **GRID ID** | 1F2C | **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 V9 | 1050 | | | | | | | | | | | |
| 15 | 2 P8 | — | | | | | | | | | | | |
| | 3 Q2 | — | | | | | | | | | | | |
| 2nd | 4 R2 | — | | | | | | | | | | | |

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)** | 1832 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 13 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 16 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 2mO | **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 | E1 | NSD | | | | | | | | | | | |
| 2mO 2 | D1 | — | | | | | | | | | | | |
| — 3 | C1 | — | | | | | | | | | | | |
| 20 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)** | 1824 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 14 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 17 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 29S | **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 | A9 | NSD | | | | | | | | | | | |
| 2 | D9 | — | | | | | | | | | | | |
| 3 | E3 | — | | | | | | | | | | | |
| 4 | H3 | — | | | | | | | | | | | |

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 | | | | | |

CITY_21MC100_003085989

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 15 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 18 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 3C | **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 | 1 | | | | | | | | | | | |
| 2 | R3 | — | | | | | | | | | | | |
| 3 | Q1 | — | | | | | | | | | | | |
| 4 | X1 | — | | | | | | | | | | | |

3C
3C

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)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 16 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 19 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 3Pc | **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 | 07 | NSD | | | | | | | | | | | |
| 30 2 | 27 | — | | | | | | | | | | | |
| 3 | 42 | — | | | | | | | | | | | |
| 31 4 | 32 | — | | | | | | | | | | | |

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

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

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AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

## Totals

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

NYC 9/11 Public Portal Document

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1816 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 17 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 20 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 3 F C | **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 | E1 | NSD | | | | | | | | | | | |
| 2 | J1 | — | | | | | | | | | | | |
| 3 | D2 | — | | | | | | | | | | | |
| 4 | C2 | — | | | | | | | | | | | |

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

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

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<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_000296251

# TEM Asbestos (air) Count Sheet

| | | | |
|---|---|---|---|
| **Client Name** | NYC BOE | **Volume (liters)** | 1824 |
| **Lab Group #** | 7409 | **Filter Type / Filter Area** | MCE 385 mm² |
| **Lab Sample #** | 18 | **Grid Opening Size** | 0 01124 |
| **Client Sample #** | 21 | **Area Examined** | 0 04496 mm² |
| **GRID BOX** | 1035 | **Magnification** | 20 000 |
| **GRID ID** | 4 of 0 | **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 | K1 | NSD | | | | | | | | | | | |
| 2 | K1 | — | | | | | | | | | | | |
| 3 | B1 | — | | | | | | | | | | | |
| 4 | J1 | — | | | | | | | | | | | |

4 of 40

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 | | | | | |

CITY_21MC100_003085993