NYC 9/11 Public Portal Document

# ATC ASSOCIATES INC. – TEM ANALYSIS

LAB GROUP #: 5606 - 10/04/01

Lab Sample No. 60080
Client Spl. No. HSEF-B-10/3-02
Instrument I.D. EM 10 CRX
Screen Magnification 16,400X
Acc. Voltage 80 kV

Filter Type MCE 25 mm
Filter Area 385 mm^2
Grid I.D. 432
(GO) Area 0.01124 mm^2
No. GO to be Analyzed 4

Operator YP
Disk No.
Comments ( 3.147 Struct. Corspd. to 70 s/mm^2.)

| GO. No. | GO. Coord. | Structure No. | Structure Type F | B | C | M | Length ≥0.5 um < 5 um | Length ≥ 5um | I.D. of Structure Chrys. | Amphibole | Nonasb. | N or ✓ Ambig./ND | EDS (Nonasb. Elements) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | R1 | HSEC | | | | | | | | | | | |
| 2 | Y1 | — " — | | | | | | | | | | | |
| 3 | BB | — " — | | | | | | | | | | | |
| 4 | JB | — " — | | | | | | | | | | | |

Photo No. (from 1 in 5 asbestos-containing samples)

Identify all structures using EDS

Check diffraction for asbestos structures up to 70s/mm (1st 4)

Store all unrepeated spectra

Struct. = ≥ 0.5um & ≥ 5:1 Aspect Ratio

N= Not Observed (EDS spectrum or diffraction pattern)

✓= Positive diffraction pattern properties conforming to laboratory identification criteria observed.
For chrysotile: 0.73nm spacing for (020) reflections, 0.53nm spacing for the layer line repeat, streaking of (110) and (130) reflections.
For amphiboles: 0.53nm layer line repeat, and approx. 3.5 ratio of non-twinned layer line spot spacing to layer line repeat distance (0.53nm).

✓= EDS spectrum conforming to laboratory identification criteria observed.

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

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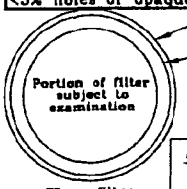
Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage
at least 20 unfolded or overlapped grid squares
<5% holes or opaque areas




Stopping Rules:
>50 s/G.O. or in 1st 4 G.O.

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

| | F | B | C | M | ≥ 5um |
|---|---|---|---|---|---|
| Chrysotile | | | | | |
| Amphibole | | | | | |
| Ambiguous | | | | | |
| Non-asbestos | | | | | |
| Non-Identified | | | | | |

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