

ATC ASSOCIATES INC. - TEM ANALYSIS

Lab Sample No. 59241Client Spl. No. 04Instrument I.D. EM 10 CRXScreen Magnification 15,400XAcc. Voltage 80 kVLAB GROUP #: 5512 - 09/20/01Filter Type MCE 25 mmFilter Area 385 mm²Grid I.D. 412 20T(GO) Area 0.01124 mm²No. GO to be Analyzed 4Operator RO

Disk No. _____

Comments _____

(3 147 Struct. Corrad. to 70 s/mm².)

GO No.	Structure Coord.	Structure No.	Structure Type				Length		I.D. of Structure				N or ✓	EDS (Nonash. Elements)
			F	B	C	M	>0.5 um < 5 um	> 5um	Chrys.	Amphibole	Nonash.	Ambig./ND		
		Chrysotile					—	8 str			8.7			
		Cyprus					—	60 str			6.2			
		F. Glass					—	23 str			23.5			
		Cellulose					—	7 str			7.1			
								98						
								$\frac{8}{98} (0.011) =$			0.009			

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

Identify all structures using EDS

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

Store all unreported spectra

Struct. = > 0.5um & > 3:1 Aspect Ratio

N= Not Observed (EDS spectrum or diffraction pattern)

✓ Positive diffraction pattern properties conforming to laboratory identification criteria observed.
 For chrysotile: 0.70nm spacing for (020) reflections, 0.63nm spacing for the layer line repeat, streaking of (110) and (130) reflections.

For amphiboles: 0.59nm layer line repeat, and approx. 0.5 ratio of non-twinned layer line spot spacing to layer line repeat distance (0.63nm).

✓ EDS spectrum conforming to laboratory identification criteria observed.

F= Single Fiber (1-3 intersections = 1-3 fibers)

B= Bundle (>5 fibers <1 fiber diameter apart)

C= Cluster (>3 intersections)

M= Matrix

NED= 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 vacuum areas



Unused portion of filter
 Avoided portion of filter (5mm wide)

AMPHIBOLES

Amosite
 Crocidolite
 Anthophyllite
 Tremolite
 Actinolite

Slapping Rules:
 >90 s/G.O. or in 1st 4 C.R.

Totals

	F	B	C	M	> 5um
Chrysotile					
Amphibole					
Ambiguous					
Non-asbestos					
Non-identified					