

ATC ASSOCIATES INC. - TEM ANALYSIS

LAB GROUP #: 5515 - 09/17/01

Lab Sample No. 59048

Filter Type MCE 25 mm

Operator RP

Client Spl. No. 021

Filter Area 385 mm²

Instrument I.D. EM 10 CRX

Grid I.D. 406 S-PR

Disk No. _____

Screen Magnification 16,400X

(GO) Area 0.01124 mm²

Comments _____

Acc. Voltage 80 kV

No. GO to be Analyzed 26

(20.457 Struct. Corrod. to 70 s/mm².)

GO.	Structure No.	Structure Type				Length		I.D. of Structure				N or ✓	EDS (Nonasb. Elements)
		F	B	C	M	≥ 0.5 um < 5 um	≥ 5um	Chrys.	Amphibole	Nonasb.	Ambig./ND		
1	K2	1			✓		✓	✓					
2	J2	2	✓				✓	✓					
		3			✓	✓		✓					
3	I3	4			✓	✓		✓					
		5			✓	✓		✓					
4	P1	6			✓	✓		✓					
5	Q9	7			✓	✓		✓					
		8			✓	✓		✓					
		9	✓				✓	✓					
6	H6	10			✓	✓		✓					
7	IG	NSD											
8	JE	11	✓			✓		✓					
9	R7	12			✓	✓		✓					
10	X2	13			✓		✓	✓					
		14	✓				✓	✓					
		15	✓				✓	✓					

Photo No. (from 1 in 5 asbestos-containing samples) Identify all structures using EDS Check diffraction for asbestos structures up to 70 s/mm² (1st 4) Store all unrepeat 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. 3:3 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)

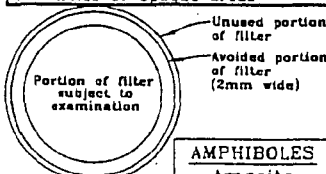
B = Bundle (>3 fibers <1 fiber diameter apart)

C = Cluster (>3 intersections)

M = Matrix

NSD = No Structures Detected

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Grid acceptance: structures up to 70 s/mm² (1st 4)
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage
at least 20 unfolded or overlapped grid squares
<5% holes or opaque areasStopping Rules:
>50 s/G.O. or in 1st 4 G.O.

AMPHIBOLES

Amosite

Crocidolite

Anthophyllite

Tremolite

Actinolite

Chrysotile

Amphibole

Ambiguous

Non-asbestos

Non-identified

Totals

	F	B	C	M	≥ 5um
Chrysotile	2	3		10	6
Amphibole					
Ambiguous					
Non-asbestos					
Non-identified					