ATC ASSOCIATES INC. – TEM ANALYSIS

LAB GROUP #: 5623 - 10/06/01

Lab Sample No. 60347
Client Spl. No. NSHS-EBR-10/6-03
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.
(GO) Area 0.01124 mm^2
No. GO to be Analyzed 4

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

	G.O. No.	G.O. Coord.	Structure No.	Structure Type F	B	C	M	Length ≥0.5 um < 5 um	≥ 5um	I.D. of Structure Chrys.	Amphibole	Nonasb.	N or ✓ Ambig./ND	EDS (Nonasb. Elements)
5T	1	E2	NSD											
	2	J2	—											
6K	3	M1	—											
	4	N1	—											

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

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

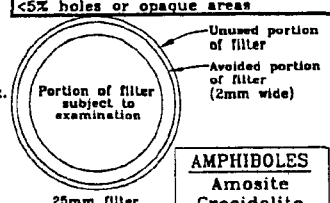
N= Not Observed (EDS spectrum or diffraction pattern)

✓= 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

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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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008