NYC 9/11 Public Portal Document

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Metcalf & Eddy Inc.
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Lebanon, NJ 08833

ELAP Lab Code: 11029
NIOSH and AIHA Lab Code: 100273
NVLAP Lab Code: 101953

Project No.: 01-2102
Analyte: ASBESTOS
Date Received: 9/28/01
Date Analyzed: 9/29/01
Batch #: 0109B385

SUMMARY OF ANALYTICAL RESULTS - PLM

Site: *3 World Financial Center - Floors 3-26*

SAMPLE # / DATE COLLECTED / LAB # / CLIENT'S SAMPLE #	DESCRIPTION / LOCATION	COLOR	ASBESTOS DETECTED?	TOTAL % OF ASBESTOS	CONSTITUENTS	
5001 9/28/01 11037 5-001	5th Floor/ South East/ North East Side/ Sample of Debris	GRAY/ WHITE	NO	0%	CELL FBGL NFIB	15% 10% 75%
5002 9/28/01 11038 5-002	5th Floor/ South East/ North East Side/ Sample of Debris	GRAY/ WHITE	NO	0%	CELL FBGL NFIB	20% 5% 75%
5003 9/28/01 11039 5-003	5th Floor/ South East/ North East Side/ Sample of Debris	BEIGE	NO	0%	CELL FBGL NFIB	5% 25% 70%
5004 9/28/01 11040 5-004	5th Floor/ South East/ North East Side/ Sample of Debris	BROWN/ WHITE	NO	0%	CELL NFIB	10% 90%

*INSUFFICIENT MATERIAL SUBMITTED **TEM RECOMMENDED ***NOT ANALYZED POSITIVE STOP

Sample Analysis by:
Polarized Light Microscopy-Dispersion Staining (PLM-DS)

Method of Sample Preparation and Analysis:
All samples were prepared and analyzed in accordance with the EPA "Method for the Determination of Asbestos in Bulk Building Materials" USEPA/ 600/ R-93/116, July 1993.

Instrumentation:
Olympus PLM, Model BH-2/VM Stereomicroscope, Model VMZ 1x-4x.

ASBESTOS CONSTITUENTS
CHRY = Chrysotile Asbestos
AMOS = Amosite Asbestos
CROC = Crocidolite Asbestos
ACTN = Actinolite Asbestos
TREM = Tremolite Asbestos
ANTH = Anthophylite Asbestos

NON-ASBESTOS CONSTITUENTS
PAPF = Paper Fiber
MINW = Mineral Wool
FBGL = Fiberglass
SYNF = Synthetic Fibers
CELL = Cellulose
NFIB = Non-Fibrous
ORGM = Organic Material
WOLL = Wollastonite
HSHR = Horse Hair
OTHR = Other

Gulam Machhiwala
Laboratory Director

Analytical results reflect the make up of the materials only in the areas sampled. This "Summary of Analytical Results" shall not be reproduced except in full, without the writte approval of JLC Laboratory, and it must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. This method is not applicable to samples containing large amounts of fine fibers below the resolution of the light microscope. The value of this method is limited to the quantitative identification of asbestos and the semi-quantitative determination of asbestos content of bulk samples, expressed as a percentage of the protected area. Quantitation of asbestos content was determined with a visual volume estimate, a calibrated visual area estimate, and/or point counting procedure. CAUTION: Other fibers with optical properties similar to asbesto may give positive interferences and will be considered asbestos under this methodology. Also, PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically-bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can b considered or treated as non-asbestos containing.

CITY_21MC100_002821037

NYC-WTC_000182386

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5005 9/28/01 11041 5-005	5th Floor/ South East/ North East Side/ Sample of Debris	GRAY/ WHITE	NO	0%	CELL FBGL SYNF NFIB	10% 5% 5% 80%
5006 9/28/01 11042 5-006	5th Floor/ South East/ South East Window/ Sample of Debris	GRAY	NO	0%	CELL FBGL NFIB	15% 20% 65%
5007 9/28/01 11043 5-007	5th Floor/ South East/ South East Window/ Sample of Debris	GRAY/ WHITE	NO	0%	FBGL CELL NFIB	20% 10% 70%
5008 9/28/01 11044 5-008	5th Floor/ South East/ South East Window/ Sample of Debris	GRAY/ WHITE	NO	0%	FBGL CELL NFIB	10% 10% 80%

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CITY_21MC100_002821038

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5009 9/28/01 11045 5-009	5th Floor/ South East/ South East Window/ Sample of Debris	GRAY/ WHITE	NO	0%	CELL FBGL NFIB	15% 5% 80%

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