



AIRBORNE ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Warren & Panzer Engineers, P.C.
LABORATORY ID #: T02-09-111
ANALYT. METHODOLOGY: AHERA
FILTER TYPE: M.C.E.
AVERAGE G.O. AREA (mm²): 0.013838

PROJECT: NYC DEP, 250 Broadway
DATE OF REPORT: 09/29/02
DATE OF ANALYSIS: 09/29/02
EFFECTIVE FILTER AREA (mm²): 385

LABORATORY RESULTS

CLIENT #	LAB. ID #	LOCATION	VOLUME (lt)	G.O.'s ANALYZED	AREA ANALYZED (mm ²)	ANALYT. SENSITIV. (struct./cm ³)	TOTAL ASBESTOS AIR CONC. (struc./cm ³)	TOTAL ASBESTOS FILTER CONC. (str./mm ²)	AIR CONC. FOR STRUCT. 0.5≤S<5μm	AIR CONC. FOR STRUCT. S≥5.0μm	ASBEST. TYPE CHRYS.	AMPHIB. ASBEST TYPE SPECIFY
01	T02-09-111-2645	Southwest side	1551	4	0.0554	0.0045	<0.0045	<18.07	NA	NA	NA	NA
02	T02-09-111-2646	Southwest side	1692	4	0.0554	0.0041	<0.0041	<18.07	NA	NA	NA	NA
03	T02-09-111-2647	East side area	1692	4	0.0554	0.0041	<0.0041	<18.07	NA	NA	NA	NA
04	T02-09-111-2648	East side area	1692	4	0.0554	0.0041	<0.0041	<18.07	NA	NA	NA	NA
05	T02-09-111-2649	East side area	1692	4	0.0554	0.0041	<0.0041	<18.07	NA	NA	NA	NA

ANALYST
E. Sioukri

LABORATORY DIRECTOR
Spiro Dongaris

LABORATORY CERTIFICATION NUMBERS: NVLAP 101958, ELAP 10955

- Athenica Environmental Services Inc. (AES), is responsible only for information pertaining to samples taken by its employees.
- Air sampling cassettes will be stored for sixty (60) days. AES Inc., should be notified within this time frame for a true duplicate analysis.
- If AES Inc., did not conduct the sampling, the reported airborne concentration was derived based on information provided by the client. Under these circumstances, the air concentration data is supplied solely for the convenience of the client.
- The report relates only to items tested. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. Test reports may not be reproduced except in full and with prior approval of AES Inc.
- The liability of Athenica Environmental Services Inc. with respect to the services charged, shall in no event exceed the amount of the invoice.

ENVIRONMENTAL SERVICES INC.

Tel. (718) 784-7490
Fax (718) 784-4085

CLIENT: <i>Warren & Panzer</i>	DATE: <i>9/29/02</i>
PROJECT: <i>MCDEP/ 250 Broadway Ave</i>	ANALYST: <i>E.S.</i>
BATCH #: <i>T02-09-111</i>	CLIENT ID #: <i>01</i>
SAMPLE ID #: <i>T02-09-111 - 2645</i>	VOLUME (lit): <i>1000 1551</i>
G.O. AREA (mm ²): <i>0.013838</i>	GO's TO ANALYZE: <i>4</i>
MAGNIFICATION: <i>194</i>	ACC. VOLTAGE (KeV): <i>100</i>
INSTRUMENT: JEOL 100CX II	FILTER AREA (mm ²): <i>385</i>
ANALYTICAL METHODOLOGY: EPA FEDERAL REGISTER, VOL. 52, No 210, OCT. 30, 1987, #40 CFR, PART 763, APPENDIX A TO SUBPART E	

[illegible]

Analytical Sensitivity (str/cm ³):	0.0045	Eucentricity check:	☒
Concentration (str/cm ³):	<0.0045	*Grid acceptance criteria check:	(A).....(B).....
Concentration (str/mm ²):	<18.07	**CHR. # STRUCT.:	F M C B
Number of Asbestos Structures:	0.5 ≤ S < 5 μm 0	**AMPH. # STRUCT.:	F M C B
	S ≥ 5 μm 0	Specify AMPH. Type:	AM. ACT. TRE.
Number of Non-asbestos Structures:	 0	CRO. ANTH.	

** CHR.=chrysotile, AMPH.=amphibole, AM.=amosite, ACT.=actinolite, TRE.=tremolite, CRO.=crocidolite, ANTH.=anthophyllite.

ATHENICA
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TEM DEPARTMENT

Tel. (718) 784-7490
Fax (718) 784-4085

TEM AHERA COUNTSHEET

CLIENT: <i>Warren & Panzer</i>	DATE: <i>9/29/02</i>
PROJECT: <i>NYCDEP/ 250 Broadway Ave</i>	ANALYST: <i>E.S.</i>
BATCH #: <i>T02-09-111</i>	CLIENT ID #: <i>03</i>
SAMPLE ID #: <i>T02-09-111 - 2647</i>	VOLUME (lit): <i>1692</i>
G.O. AREA (mm ²): <i>0.013838</i>	GO's TO ANALYZE: <i>4</i>
MAGNIFICATION: <i>194</i>	ACC. VOLTAGE (KeV): <i>100</i>
INSTRUMENT: <i>JEOL 100CX II</i>	FILTER AREA (mm ²): <i>385</i>
ANALYTICAL METHODOLOGY: EPA FEDERAL REGISTER, VOL. 52, No 210, OCT. 30, 1987, #40 CFR, PART 763, APPENDIX A TO SUBPART E	

GRI D	GO ID	Str. #	Str. Classf.	L (µm)	W (µm)	Structure sketch	SAE D	EDXA	PHO TO#	ID
<i>B</i>	<i>F7</i>	<i>NSD</i>								
	<i>J4</i>	<i>NSD</i>								
<i>A</i>	<i>H7</i>	<i>NSD</i>								
	<i>F3</i>	<i>NSD</i>								

Analytical Sensitivity (str/cm ²): <i>0.0041</i>	Bucentricity check: <i>✓</i>
Concentration (str/cm ²): <i><0.0041</i>	*Grid acceptance criteria check: (A).....(B) <i>✓</i>
Concentration (str/mm ²): <i><18.07</i>	**CHR. # STRUCT.: F M C B
Number of Asbestos Structures: <i>0.5 ≤ S < 5µm</i> <i>0</i>	**AMPH. # STRUCT.: F M C B
<i>S ≥ 5µm</i> <i>0</i>	Specify AMPH. Type: AM. ACT. TRE.
Number of Non-asbestos Structures: <i>0</i>	CRO. ANTH.

* Replica covers >50%, at least 20 GO's with no overlapping or folded replica, intact GO's have >50% coverage, <50% Undissolved filter, <5% holes or opaque areas, <10% particulate coverage.

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