



ATHENICA
ENVIRONMENTAL SERVICES INC.

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

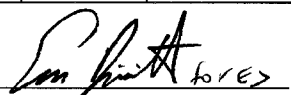
AIRBORNE ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

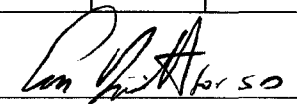
CLIENT: Warren & Panzer Engineers, P. C.
LABORATORY ID #: T02-08-079
ANALYT. METHODOLOGY: AHERA
FILTER TYPE: M.C.E.
AVERAGE G.O. AREA (mm²): 0.012422

PROJECT: NYC DEP, 15 John Street
DATE OF REPORT: 08/16/02
DATE OF ANALYSIS: 08/16/02
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. (struct./cm ³)	TOTAL ASBESTOS FILTER CONC. (str./mm ³)	AIR CONC. FOR STRUCT. 0.5≤S<5μm	AIR CONC. FOR STRUCT. S≥5.0μm	ASBEST. TYPE CHRYS.	AMPHIB. ASBEST TYPE SPECIFY
01	T02-08-079-1592	East of roof	1440	5	0.0621	0.0043	<0.0043	<16.10	NA	NA	NA	NA
02	T02-08-079-1593	North of roof top-exit down	1440	5	0.0621	0.0043	<0.0043	<16.10	NA	NA	NA	NA
03	T02-08-079-1594	North of roof top upper tier	1440	5	0.0621	0.0043	<0.0043	<16.10	NA	NA	NA	NA
04	T02-08-079-1595	West of roof top	1440	5	0.0621	0.0043	<0.0043	<16.10	NA	NA	NA	NA
05	T02-08-079-1596	South of roof top doorway	1740	4	0.0497	0.0045	<0.0045	<20.13	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.

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CLIENT: WARREN & PANZER	DATE: 8/16/02
PROJECT: NYCDEP/15 John Street	ANALYST: E.S.
BATCH #: T02-08-079	CLIENT ID #: 01
SAMPLE ID #: T02-08-079-1592	VOLUME (lt): 1440
G.O. AREA (mm ²): 0.012422	GO's TO ANALYZE: 5
MAGNIFICATION: 190	ACC. VOLTAGE (KeV): 100
INSTRUMENT: JEOL 100CX II	FILTER AREA (mm ²): 385
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):	0.0043	Eucentricity check:	
Concentration (str/cm ³):	40.0043	*Grid acceptance criteria check:	(A)... (B)...
Concentration (str/mm ³):	216.10	**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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45-09 Greenpoint Avenue
Long Island City, N.Y. 11104

TEM DEPARTMENT

Tel. (718) 784-7490
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TEM AHERA COUNTSHEET

CLIENT : <u>WARREN & PANZER</u>	DATE : <u>8/16/02</u>
PROJECT : <u>NYCDEP/15 John Street</u>	ANALYST : <u>E.S.</u>
BATCH # : <u>702-08-079</u>	CLIENT ID # : <u>02</u>
SAMPLE ID # : <u>702-08-079-1593</u>	VOLUME (lt) : <u>1440</u>
G.O. AREA (mm ²) : <u>0.012422</u>	GO's TO ANALYZE : <u>5</u>
MAGNIFICATION : <u>194</u>	ACC. VOLTAGE (KeV) : <u>100</u>
INSTRUMENT : <u>JEOL 100CX II</u>	FILTER AREA (mm ²) : <u>385</u>
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	S&E D	EDXA	PHO TO#	ID
A	F8	NSD								
	G4	NSD								
	C6	NSD								
B	E3	NSD								
	H6	NSD								

Analytical Sensitivity (str/cm ³): <u>0.0043</u>	Eucentricity check :
Concentration (str/cm ³): <u><0.0043</u>	*Grid acceptance criteria check : (A) <u>✓</u> (B) <u>✓</u>
Concentration (str/mm ²): <u>216.10</u>	**CHR. # STRUCT.: F M C B
Number of Asbestos Structures : 0.5 ≤ S < 5 μm : <u>0</u>	**AMPH. # STRUCT.: F M C B
S ≥ 5 μm : <u>0</u>	Specify AMPH. Type : AM. ACT. TRE.
Number of Non-asbestos Structures: <u>0</u>	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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CLIENT : WARREN & PANZER	DATE : 8/16/02
PROJECT : MYCDEP/15 John Street	ANALYST : E.S.
BATCH # : 702-08-079	CLIENT ID # : 04
SAMPLE ID # : 702-08-079-1595	VOLUME (lt) : 1440
G.O. AREA (mm ²) : 0.012422	GO's TO ANALYZE : 5
MAGNIFICATION : 194	ACC. VOLTAGE (KeV) : 100
INSTRUMENT : JEOL 100CX II	FILTER AREA (mm ²) : 385
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):	0.0043	Eucentricity check:	
Concentration (str/cm ³):	<0.0043	*Grid acceptance criteria check:	(A)... (B)...
Concentration (str/mm ²):	<16.10	**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.	

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TEM DEPARTMENT

Tel. (718) 764-7490
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TEM AHERA COUNTSHEET

CLIENT: <u>WARREN & PANZER</u>	DATE: <u>8/26/02</u>
PROJECT: <u>NYCDEP/15 John Street</u>	ANALYST: <u>E.S.</u>
BATCH #: <u>702-08-079</u>	CLIENT ID #: <u>05</u>
SAMPLE ID #: <u>702-08-079-1596</u>	VOLUME (lt): <u>1740</u>
G.O. AREA (mm ²): <u>0.012422</u>	GO's TO ANALYZE: <u>4</u>
MAGNIFICATION: <u>194</u>	ACC. VOLTAGE (KeV): <u>100</u>
INSTRUMENT: <u>JEOL 100CX II</u>	FILTER AREA (mm ²): <u>385</u>
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
B	DS	NSD								
	G4	NSD								
A	E6	NSD								
	H3	NSD								
	C8	NSD								

Analytical Sensitivity (str/cm ²): <u>0.0045</u>	Eucentricity check:
Concentration (str/cm ²): <u>20.0045</u>	*Grid acceptance criteria check: (A) <u>✓</u> (B) <u>✓</u>
Concentration (str/mm ²): <u>220.13</u>	**CHR. # STRUCT.: F M C B
Number of Asbestos Structures: 0.5 ≤ S < 5 μm <u>0</u>	**AMPH. # STRUCT.: F M C B
S ≥ 5 μm <u>0</u>	Specify AMPH. Type: AM. ACT. TRE.
Number of Non-asbestos Structures: <u>0</u>	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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