



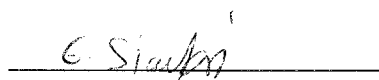
AIRBORNE ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Warren & Panzer Engineers, P.C.
LABORATORY ID #: T02-10-105
ANALYT. METHODOLOGY: AHERA
FILTER TYPE: M.C.E.
AVERAGE G.O. AREA (mm²): 0.013838

PROJECT: NYC DEP, 18 John Street
DATE OF REPORT: 10/17/02
DATE OF ANALYSIS: 10/17/02
EFFECTIVE FILTER AREA (mm²): 385

LABORATORY RESULTS

CLIENT #	LAB. ID #	LOCATION	VOLUME (ft)	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
01IWA	T02-10-105-3211	IWA bottom of WA center of WA	1620	4	0.0554	0.0043	0.0043	18.07	<0.0043	0.0043	Chrys.	NA
02IWA	T02-10-105-3212	IWA bottom of WA east section of WA	1620	4	0.0554	0.0043	0.0043	18.07	0.0043	<0.0043	Chrys.	NA
03IWA	T02-10-105-3213	IWA bottom of WA west section of WA	1620	4	0.0554	0.0043	<0.0043	<18.07	NA	NA	NA	NA
04IWA	T02-10-105-3214	IWA bottom of WA south section of WA	1620	4	0.0554	0.0043	<0.0043	<18.07	NA	NA	NA	NA
05OWA	T02-10-105-3215	OWA on hallway leading to WA 8ft. of door entrance	1620	4	0.0554	0.0043	<0.0043	<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.
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- The liability of Athenica Environmental Services Inc. with respect to the services charged, shall in no event exceed the amount of the invoice.



ATHENICA
ENVIRONMENTAL SERVICES INC.

45-09 Greenpoint Avenue
Long Island City, N.Y. 11104

TEM DEPARTMENT

Tel. (718) 764-7480
Fax (718) 764-4085

TEM AHERA COUNTSHEET

CLIENT: WARREN & PANZER	DATE: 10/17/02
PROJECT: NYC DEP/18 JOHN ST.	ANALYST: E.S.
BATCH #: T02-10-105	CLIENT ID #: 1
SAMPLE ID #: T0-10-105-3211	VOLUME (lt): 1620
G.O. AREA (mm ²): 0.013838	GO's TO ANALYZE: 4
MAGNIFICATION: 19K	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	

GRI D	GO ID	Str. #	Str. Classf.	L (μm)	W (μm)	Structure sketch	SAE D	EDXA	PHO TO#	ID
B	F7	1	F	5.6	0.1		Chr	Hg, S, Fe		Chr
	G4	NSD								
A	E6	NSD								
	H5	NSD								

Analytical Sensitivity (str/cm ²): 0.0043	Eucentricity check: ☒
Concentration (str/cm ²): 0.0043	*Grid acceptance criteria check: (A)..... (B).....
Concentration (str/mm ²): 18.07	**CHR. # STRUCT.: F O I M O C O B O
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.

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



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TEM AHERA COUNTSHEET

CLIENT: WARREN & PANZER	DATE: 10/17/02
PROJECT: NYC DEP/18 JOHN ST.	ANALYST: E.S.
BATCH #: T02-10-105	CLIENT ID #: 2
SAMPLE ID #: T0-10-105-3212	VOLUME (lit): 1620
G.O. AREA (mm ²): 0.013838	GO's TO ANALYZE: 4
MAGNIFICATION: 19K	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	

GRI D	GO ID	Str. #	Str. Classf.	L (μm)	W (μm)	Structure sketch	SAE D	EDXA	PHO TO#	ID
A	B5	NSD								
	D7	NSD								
B	G3	1	F	3.8	0.2		chr	Hg, Si, Fe		chr
	C6	NSD								

Analytical Sensitivity (str/cm ²): 0.0043	Eucentricity check: ☒
Concentration (str/cm ²): 0.0043	*Grid acceptance criteria check: (A)..... (B).....
Concentration (str/mm ²): 18.07	**CHR. # STRUCT.: F O I M O C O B O
Number of Asbestos Structures: 0.5 ≤ S < 5 μm 0+	**AMPH. # STRUCT.: M C B
S ≥ 5 μm 0	Specify AMPH. Type: AM. ACT. TRE.
Number of Non-asbestos Structures: 0	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: 10/17/02
PROJECT: NYCDER/18 JOHN ST.	ANALYST: ES
BATCH #: T02-10-105	CLIENT ID #: 3
SAMPLE ID #: T0-10-105-3213	VOLUME (lt): 1620
G.O. AREA (mm ²): 0.013838	GO's TO ANALYZE: 4
MAGNIFICATION: 19K	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):	20.0043	*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 8	Specify AMPH. Type:	AM. ACT. TRE.
Number of Non-asbestos Structures:	8	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: 10/17/02
PROJECT: NYCDER/18 JOHN ST.	ANALYST: ES
BATCH #: T02-10-105	CLIENT ID #: 4
SAMPLE ID #: T0-10-105-3214	VOLUME (lit): 1620
G.O. AREA (mm ²): 0.013838	GO's TO ANALYZE: 4
MAGNIFICATION: 19K	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):	218.07	**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.	

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Tel. (718) 784-7490
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CLIENT: WARREN & PANZER	DATE: 10/17/02
PROJECT: NYCDER/18 JOHN ST.	ANALYST: ES.
BATCH #: T02-10-105	CLIENT ID #: 5
SAMPLE ID #: T0-10-105-3215	VOLUME (lt): 1620
G.O. AREA (mm ²): 0.013838	GO's TO ANALYZE: 4
MAGNIFICATION: 19K	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):	<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.	

* 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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