NYC 9/11 Public Portal Document

ATHENICA
ENVIRONMENTAL SERVICES INC.

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

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

TEM DEPARTMENT

TEM AHERA COUNTSHEET

CLIENT : Warren Patten Eng	DATE : 3/22/03
PROJECT : NYC DEP / 2 South End	ANALYST : END
BATCH # : 703-03-031	CLIENT ID # : 01
SAMPLE ID # : 703-03-031 - 491	VOLUME (lt) : 1350
G.O. AREA (mm²) : 0.012820	GO's TO ANALYZE : 5
MAGNIFICATION : 19K	ACC. VOLTAGE (KeV) : 100
INSTRUMENT : JEOL 100CX II	FILTER AREA (mm²) : 385
ANALYTICAL METHODOLOGY: EPA FEDERAL REGISTER, VOL. 52, No 210, OCT. 30, 1987, #40 CFR, PART 763, APPENDIX A TO SUBPART E	

GRID	GO ID	Str. #	Str. Classf.	L (µm)	W (µm)	Structure sketch	SAED	EDXA	PHOTO#	ID
B	H9	NSS								
	F3	NSS								
	B2	NSS								
A	H5	NSS								
	D1	NSS								

Analytical Sensitivity (str/cm²): 0.0044	Eucentricity check : ✓
Concentration (str/cm²) : <0.0044	*Grid acceptance criteria check : (A) ✓ (B) ✓
Concentration (str/mm²) : <15.60	**CHR. # STRUCT. : F M C B
Number of Asbestos Structures : 0.5≤S<5µm . 0	**AMPH. # STRUCT. F M C B
S≥5µm . 0	Specify AMPH. Type : AM ACT. TRE.
Number of Non-asbestos Structures . 2	CRO. ANTH.

*Replica grades = "A" at least 20 GO's with no overlapping or folded replica, intact GO's have >50% coverage, <5% Underloaded Filter, <5% Folds or opaque areas, <5% particulate coverage
** CHR = Chrysotile, AMPH=amphibole, AM=amosite, ACT=actinolite, TRE=tremolite, CRO=crocidolite, ANTH=anthophyllite

NYC-WTC_000347232

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TEM DEPARTMENT

TEM AHERA COUNTSHEET

CLIENT : Warren Parker Eng	DATE : 3/21/03
PROJECT : NYC DEP / 2 South End	ANALYST : END
BATCH # : 703-03-031	CLIENT ID # : 02
SAMPLE ID # : 703-03-031 - 492	VOLUME (lt) : 1350
G.O. AREA (mm^2) : 0.012820	GO's TO ANALYZE : 5
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	

GRID	GO ID	Str. #	Str. Classf.	L (µm)	W (µm)	Structure sketch	SAED	EDXA	PHOTO#	ID
A	F3	NSD								
	C4	NSD								
	C9	NSD								
B	B8	NSD								
	E2	NSD								

Analytical Sensitivity (str/cm^2) :	0.0044	Eucentricity check :	✓
Concentration (str/cm^2) :	< 0.0044	*Grid acceptance criteria check :	(A) ✓ (B) ✓
Concentration (str/mm^2) :	< 15.60	**CHR. # STRUCT. : F	M C B
Number of Asbestos Structures :	0.5≤S<5µm 0	**AMPH. # STRUCT. : F	M C B
	S≥5µm 0	Specify AMPH. Type : AM	ACT TRE
Number of Non-asbestos Structures :	0	CRO ANTH	

*Replica acceptance criteria: 80% acceptance with no overlapping or folded replica, intact GO's have 80% transparency, 80% fractured filter, 20% holes or opaque areas, 10% particulate coverage.

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

CITY_21MC100_002993238

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TEM DEPARTMENT

TEM AHERA COUNTSHEET

CLIENT : Wavrin Parcel Eng	DATE : 3/22/03
PROJECT : NYC DEP / 2 South End	ANALYST : END
BATCH # : 703-03-031	CLIENT ID # : 03
SAMPLE ID # : 703-03-031 - 493	VOLUME (lt) : 1350
G.O. AREA (mm²) : 0.012820	GO's TO ANALYZE : 5
MAGNIFICATION : 19K	ACC. VOLTAGE (KeV) : 100
INSTRUMENT : JEOL 100CX II	FILTER AREA (mm²) : 385

ANALYTICAL METHODOLOGY: EPA FEDERAL REGISTER, VOL. 52, No 210,OCT. 30, 1987, #40 CFR, PART 763, APPENDIX A TO SUBPART E

GRID	GO ID	Str. #	Str. Classf.	L (µm)	W (µm)	Structure sketch	SAED	EDXA	PHOTO#	ID
B	C3	NSS								
	C8	NSS								
	F9	NSS								
A	G4	NSS								
	C9	NSS								

Analytical Sensitivity (str/cm²): 0.0044	Eucentricity check : ✓
Concentration (str/cm³) : <0.0044	*Grid acceptance criteria check : (A) ✓ (B) ✓
Concentration (str/mm²) : <15.60	**CHR. # STRUCT. : F M C B
Number of Asbestos Structures : 0.5≤S<5µm : 0	**AMPH. # STRUCT. : F M C B
S≥5µm : 0	Specify AMPH. Type : AM ACT TRE
Number of Non-asbestos Structures : 0	CRO ANTH

*Replica covers >80% of at least 36 of 50 grids with no overlapping or folded replica, intact GO's have >50% coverage, >50% Undissolved filter, <5% holes or opaque areas, <10% particle coverage

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

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TEM AHERA COUNTSHEET

CLIENT : Warren Parker Eng	DATE : 3/21/03
PROJECT : NYC DEP / 2 South End	ANALYST : END
BATCH # : 703-03-031	CLIENT ID # : 04
SAMPLE ID # : 703.03.031 - 494	VOLUME (lt) : 1350
G.O. AREA (mm^2) : 0.012820	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

GRID	GO ID	Str #	Str Classf.	L (µm)	W (µm)	Structure sketch	SAED	EDXA	PHOTO#	ID
A	I2	ND								
	E3	ND								
	A4	ND								
B	B4	ND								
	D8	ND								

Analytical Sensitivity (str/cm²) :	0.0044	Eucentricity check :	✓
Concentration (str/cm²) :	<0.0044	*Grid acceptance criteria check : (A). ✓ (B) ✓	
Concentration (str/mm²) :	<15.60	**CHR. # STRUCT : F	M C B
Number of Asbestos Structures :	0.5≤S<5µm 0	**AMPH. # STRUCT F	M C B
	S≥5µm 0	Specify AMPH. Type : AM	ACT TRE
Number of Non-asbestos Structures :	0	CRO. ANTH	

*Replica covers ≥80% at least 20 GO's with no overlapping or folded replica, intact GO's have ≤50% coverage, ≤5% Undissolved Lobes or opaque areas, ≤3% particulate coverage

**: CHR = chrysotile, AMPH = amphibole, AM = any site, ACT = actinolite, TRE = tremolite, CRO = crocidolite, ANTH = anthophyllite

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TEM DEPARTMENT

TEM AHERA COUNTSHEET

CLIENT : Warren Parker Eng	DATE : 3/22/03
PROJECT : NYC DEP / 2 South End	ANALYST : END
BATCH # : 703-03-031	CLIENT ID # : 05
SAMPLE ID # : 703-03-031 - 495	VOLUME (l) : 1350
G.O. AREA (mm^2) : 0.012820	GO's TO ANALYZE : 5
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

GRID	GO ID	Str. #	Str. Classf.	L (µm)	W (µm)	Structure sketch	SAED	EDXA	PHOTO#	ID
B	B6	NSS								
	C2	NSS								
	I4	NSS								
A	I6	NSS								
	F2	NSS								

Analytical Sensitivity (str/cm^2): 0.0044	Eucentricity check : ✓
Concentration (str/cm^2) : <0.0044	*Grid acceptance criteria check : (A) ✓ (B) ✓
Concentration (str/mm^2) : <15.60	**CHR. # STRUCT. : F M C B
Number of Asbestos Structures : 0.5≤S<5µm . 0	**AMPH. # STRUCT : F M C B
S≥5µm 0	Specify AMPH. Type AM ACT TRE
Number of Non-asbestos Structures: 0	CRO ANTH.

*Replica covers >50% of least 20 GO's with no overlapping or holes | replica intact GO's have >50% coverage, <50% Uniformed fibers, <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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