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ASBESTOS CONTAINING MATERIAL RE-INSPECTION BUILDING 234 VOLUME 14 CNC CHARLESTON SC

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BAT ASSOCIATES, INC.

Volume 14

Asbestos-Containing Material Re-inspection For Building 234 Charleston Naval Shipyard Charleston, South Carolina

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Prepared for:

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Southern Division
NAVFACENGCOM
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1.0 EXECUTIVE SUMMARY

BAT Associates, Inc. (BAT) was retained by the U.S. Department of the Navy, Southern Division (SouthDiv), Naval Facilities Engineering Command (NAVFACENGCOM) to perform an asbestos-containing material (ACM) re-inspection of Building 234 located at the Charleston Naval Shipyard (CNS) in Charleston, South Carolina.

A list of ACM identified in Building 234 is summarized in Table 1.0.

Table 1.0
Summary of Identified ACM

HA No.	Material Description	Sample Analysis Results	Approx. Quantity of ACM	NESHAP Category
1	Floor Tile, 12" x 12" white with gold w/ black mastic	Tile = NAD, Mastic = 5-10% chrysotile	1,800 SF	Regulated, friable
3	Floor Tile, 12" x 12"white with gray and brown w/ black mastic	Tile = 2-5% chrysotile, Mastic = 5-7% chrysotile	14,000 SF	Regulated, friable
5	Joint Sealer Compound, on drywall	2% chrysotile in tape and compound (5% chrysotile in joint compound)	12,600 SF	Regulated, friable
10	Floor Tile, 12" x 12" black w/ black mastic	Tile = 3-4% chrysotile, Mastic = 7% chrysotile	100 SF	Regulated, friable
11	Floor Tile, 12" x 12" gray w/ black mastic	Tile = 3-4% chrysotile, Mastic = 4-5% chrysotile	58,075 SF	Category I, non-friable
12	Floor Tile, 12" x 12" white pebbling w/ black mastic	Tile = NAD Mastic = 3% chrysotile	800 SF	Category I, non-friable
14	Floor Tile, 12" x 12" gray with white and brown w/ black mastic	Tile = NAD, Mastic = 2-3% chrysotile	800 SF	Category I, non-friable
15	Mastic on Sink, black	<1-4% chrysotile	2 EA	Category I, non-friable
19	Boiler Insulation, white	20-25% chrysotile	65 SF	Regulated, friable

NOTES: HA = Homogeneous Area SF = Square Feet EA = Each

1. One percent or less asbestos content is considered a non-asbestos-containing material by EPA and the State of South Carolina.
2. Federal and state regulations require a minimum of three non-asbestos-containing analysis results per homogeneous area (material) to classify that material as being a non-asbestos-containing material. However, one "positive" asbestos-containing analysis result would classify that material as being an asbestos-containing material.
3. No Quality Control discrepancies were noted.

BAT recommends the following management actions for the identified ACM in Building 234 in Table 2.0.

Table 2.0
Recommended Response Actions

HA No.	Material Description	Recommended Response Action
1	Floor Tile, 12" x 12" white with gold w/ black mastic	Repair and O&M Plan
3	Floor Tile, 12" x 12"white with gray and brown w/ black mastic	Removal
5	Joint Sealer Compound, on drywall	Repair and O&M Plan
10	Floor Tile, 12" x 12" black w/ black mastic	Repair and O&M Plan
11	Floor Tile, 12" x 12" gray w/ black mastic	O&M Plan
12	Floor Tile, 12" x 12" white pebbling w/ black mastic	O&M Plan
14	Floor Tile, 12" x 12" gray with white and brown w/ black mastic	O&M Plan
15	Mastic on Sink, black	O&M Plan
19	Boiler Insulation, white	Repair and O&M Plan

Other suspect ACM not identified could be present in areas of the building inaccessible to the asbestos building inspectors. For example, materials could exist in walls and other locations where access could only be gained by demolition of the building. Also, other materials currently not recognized by the asbestos building inspection industry could exist.

The total estimated cost for the removal of the identified and/or assumed ACM in Building 234 is approximately $221,200. See Section 10.0 for a break down of the preliminary cost estimate for the removal of the identified or assumed ACM.

2.0 BUILDING INSPECTION INFORMATION FORM

Building Name:	Engineering Management Building
Building Number:	234
Facility:	Charleston Naval Shipyard
Building Area (square footage):	166,656
Year Built:	1974
Building Type:	Offices
No. of Floors in Building:	Six
Purpose of ACM Survey:	Re-Inspection
Facility Unit Identification Code (UIC):	N/A

Building Contact:	Mr. William A. Drawdy
Contact's Telephone No.:	(843) 743-9985
Building Survey Date(s):	November 6, 1999

Asbestos Inspector's Name:	Mr. Jason McGlashan
Asbestos Inspector's Accreditation No:	GA2594
Inspection Company:	BAT Associates, Inc.
Company Telephone No.	(770) 242-3908

3.0 INTRODUCTION

BAT Associates, Inc. (BAT) was retained by the U.S. Department of the Navy, Southern Division (SouthDiv), Naval Facilities Engineering Command (NAVFACENGCOM) to perform an asbestos-containing material (ACM) re-inspection of all buildings located at the Charleston Naval Shipyard in Charleston, South Carolina. The purpose of this re-inspection was to:

1. Perform a comprehensive ACM re-inspection of 34 buildings in accordance with Federal and U.S. Navy requirements;
2. Assess the condition of previously identified friable and non-friable ACM; and
3. Provide a preliminary cost estimate for the removal of identified ACM.

The re-inspection was performed in accordance with the Navy's Asbestos Facility Inventory/Assessment Protocol (NEESA 70.2-010) and the U.S. Environmental Protection Agency's (USEPA) Asbestos Hazard Emergency Response Act (AHERA) and the Asbestos School Hazard Abatement Reauthorization Act (ASHARA).

The results of the re-inspection survey are presented in 23 separate volume reports. This report describes the results for Building 234.

This re-inspection survey was performed by Mr. Jason McGlashan, under the direct supervision of Mr. Douglas J. Milton, CIH, on November 6, 1999. Mr. McGlashan is an accredited asbestos building inspector. Mr. Milton, a Certified Industrial Hygienist, is an accredited asbestos inspector, management planner, and project designer.

This report discusses the sampling methodology used during the re-inspection and assessment (Section 4.0); a list of all identified suspect materials (Section 5.0); a summary of the bulk sample analysis results (Section 6.0); results of quality control sampling; (Section 7.0); physical assessments of the identified ACM (Section 8.0); a hazard assessment of the identified ACM (Section 9.0); preliminary cost estimates for removal (Section 10.0); and conclusions (Section 11.0). Appendix A contains drawings identifying the location of collected bulk samples and the locations of identified ACM. Appendix B contains photographic documentation of identified ACM. Appendix C contains personnel and laboratory accreditations. Appendix D contains laboratory analysis results.

The assessment protocol for ACM involved three distinct steps:

1. Performed preliminary walk-though of the building to identify suspect ACM and to determine the amount of suspect ACM, to define the number of samples to be collected, to identify access problems (e.g., collection of samples in a limited access pipe chase below the building), and to determine the degree of personal protection necessary for the bulk sample collection.

2. Visually inspected the building for ACM to identify the location of the suspect ACM and to determine if the material was friable or non-friable. Suspect materials were then categorized according to the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos as: Category I non-friable materials, Category II non-friable materials, and Regulated (friable) Asbestos-Containing Materials (RACM).

3. Collected bulk samples for the analysis for asbestos content (see Section 4.0, *Sampling Methodology*, for details).

4.0 SAMPLE METHODOLOGY

Representative, randomly selected bulk samples were collected in accordance with the Navy's and AHERA sampling protocol, as described in 40 CFR 763.86, and in accordance with BAT's contract requirements. Bulk samples were collected from homogenous areas (materials) in a manner that minimized any release of airborne asbestos fibers. A homogeneous area (material) is defined as a material uniform in size, color and texture.

The minimum number of samples collected from each homogeneous area was as follows:

1. *Friable Spray-Applied or Trowel-Applied Material* (including plaster)

   a. Less than or equal to 1,000 Square Feet (S.F.) = 3 samples
   b. Greater than 1,000 S.F and less than or equal to 5,000 S.F. = 5 samples
   c. Greater than 5,000 = 7 samples

2. *Pipe and Duct Insulation*

   a. Three samples per homogeneous area of insulation.

3. *Elbows, Valves, Fittings, and Connection Mud*

   Three representative samples from each type of insulated elbow, valve, fitting, and connection mud.

4. *Boiler, Tanks, and Furnaces*

   A minimum of 3 samples per unit.

5. *Patchwork*

   Patchwork is defined as a patch or repair to existing material based on the following quantities:

a. Surfacing material patches are limited to a maximum of 6 S.F.
b. Pipe and duct insulation patches are limited to a maximum of 6 Linear Feet (L.F.) or 6 S.F.
c. Boiler, tank, and furnace patches are limited to 6 S.F.

If the patchwork exceeded the limits prescribed above, it was sampled according to the homogeneous area protocol in items 1 to 4 above. If a material qualifies as patchwork, a single sample was collected per patch.

6. *Ceiling or Acoustical Tile*

3 samples

7. *Miscellaneous Friable Material*

3 samples

8. *Non-Friable Material*

Non-friable materials for purpose of this survey included Transite-type panels, floor tiles, floor tile mastic, and other miscellaneous materials.

Minimum of 3 samples.

The procedures followed for collection of each bulk sample is outlined briefly below:

1. The accredited inspector collecting the sample was equipped with the appropriate personal protective equipment. This included a half-mask air-purifying respirator, protective gloves and protective eyewear.

2. The surface of the material being sampled was wetted with amended water (containing a surfactant to aid penetration) mist to lessen the risk of fiber release during sampling.

3. Each sample was extracted using the appropriate equipment, (e.g., a sample container, knife, core borer). Care was taken to insure that all layers of the suspect materials, down to the substrate, were included in the sample.

4. Each sample was placed in an individual container, which was then sealed and labeled with a unique identification number which was also recorded on the sample data log-in sheet.

5. After each sample was collected, the area immediately surrounding the sampling location was inspected for debris and wet-cleaned as necessary to lessen the risk of an airborne fiber release.

6. All necessary data were recorded on the BAT Suspect Material Inventory Form including sample number, sample location, type of suspect material, name of inspector collecting the sample and other relevant information.

7. Samples were then transported to Cape Environmental Management Inc. (CAPE) Asbestos Laboratories in Atlanta, Georgia, for Polarized Light Microscopy (PLM) analysis. The CAPE Asbestos Laboratory participates in the National Voluntary Laboratory Assurance Program (NVLAP) for the analysis of asbestos content in suspect materials. CAPE's NVLAP Laboratory Code is 102111-0.

8. BAT collected duplicate samples during the collection of primary bulk sampling for quality control (QC) purposes. QC samples were collected at ten percent of the bulk sample locations. They were assigned unrelated sample identification numbers and analyzed by Analytical Environmental Services, Inc. (AES). AES participates in the National Voluntary Laboratory Assurance Program (NVLAP) for the analysis of asbestos content in suspect materials. AES's NVLAP Laboratory Code is 102033-0.

9. Upon receipt by the laboratory, the samples were logged in and assigned a unique laboratory identification number. The laboratory analyzed the samples in accordance with 40 CFR 763.87 subpart F. Copies of the laboratory accreditations for both laboratories may be found in Appendix C.

5.0 ASBESTOS INVENTORY AND ASSESSMENT

Table 3.0 describes the suspect ACM identified in and around Building 234.

Table 3.0
Summary of Identified Suspect ACM

HA No.	Description of Suspect ACM	Location of Suspect ACM	AHERA Category of Material
1	Floor Tile, 12" x 12" white with gold w/ black mastic	First floor, southeast area behind loading dock	Misc.
2	Ceiling Tile, 2' x 4' white with deep fissures	First floor, southeast area behind loading dock	N/A
3	Floor Tile, 12" x 12" white with gray and brown w/ black mastic	First floor, majority (under carpet in north conference room)	Misc.
4	Ceiling Tile, 2' x 4' white with two size perforations	First floor, northeast printing area	N/A
5	Joint Sealer Compound, on drywall	Throughout the building	Misc.
6	Ceiling Tile, 2' x 4' white with pinholes	First floor, room 118	N/A
7	Ceiling Tile, 2' x 4' white textured	First floor, northwest offices	N/A
8	Ceiling Tile, 1' x 2' white with deep fissures	First floor, lobby and main corridors	N/A
9	Floor Tile, 12" x 12" white with gray w/ brown mastic	First floor, northwest office area; second floor, southeast offices; fourth floor, center corridor and south conference room; fifth floor, center corridor; sixth floor, center corridor	N/A
10	Floor Tile, 12" x 12" black w/ black mastic	First floor, center corridor under HA #9	Misc.
11	Floor Tile, 12" x 12" gray w/ black mastic	Second floor, majority (under carpet in northwest storage rooms); third floor, majority (under carpet in 3 southwest rooms); fifth floor, majority of rooms	Misc.
12	Floor Tile, 12" x 12" white pebbling w/ black mastic	Third floor, northeast room	Misc.
13	Floor Tile, 12" x 12" gray with white and brown w/ brown mastic	Fourth floor, south central conference rooms	N/A
14	Floor Tile, 12" x 12" gray with white and brown w/ black mastic	Fourth floor, northeast corner rooms	Misc.
15	Mastic on Sink, black	Fifth floor, north center room; sixth floor, south center break room	Misc.
16	Window Glazing	Exterior of all windows	N/A
17	Ceiling Tile, 2' x 4' white and yellow	Sixth floor, auditorium	N/A
18	Mastic on Sink, white	Sixth floor, northwest break room	N/A
19	Boiler Insulation, white	Sixth floor, mechanical room	TSI
20	Tank Insulation, condensate tank	Sixth floor, mechanical room	N/A

Notes: Misc. = Miscellaneous Material N/A = Not Applicable

6.0 SUMMARY OF SAMPLE ANALYSIS RESULTS

Table 4.0 contains a summary of the bulk sample analysis results for suspect ACM identified in this building.

All thermal system insulation (TSI), if present, was classified as friable material. As long as the outer covering remains intact and is in good condition the TSI can be considered non-friable (29 CFR 763.85). Ceiling tile, if asbestos is present was considered a friable material. However, if non-friable materials are drilled, sawed, ground or otherwise physically or mechanically disturbed, they may release asbestos fibers to the environment and therefore would be considered a friable material.

According to AHERA protocol, all samples within a homogeneous area must have an asbestos content of one percent or less by weight using Polarized Light Microscopy (PLM) analysis before the material can be categorized as non-asbestos-containing. If one sample is determined as asbestos-containing using PLM analysis, the entire homogeneous area must be classified asbestos-containing.

Table 4.0
Summary of Sample Analysis Results

HA No.	Sample ID No.	Suspect Material Description	Asbestos Content	Friability
1	234-1, 234-46, 234-47	Floor Tile, 12" x 12" white with gold w/ black mastic	Tile= NAD, Mastic= 5-10% chrysotile	Friable
2	234-2, 234-48, 234-49	Ceiling Tile, 2' x 4' white with deep fissures	NAD	N/A
3	234-3, 234-50, 234-51	Floor Tile, 12" x 12" white with gray and brown w/ black mastic	Tile= 2-5% chrysotile, Mastic= 5-7% chrysotile	Friable
4	234-4, 234-6, 234-52	Ceiling Tile, 2' x 4' white with two size perforations	NAD	N/A
5	234-5, 234-60, 234-55	Joint Sealer Compound, on drywall	2% chrysotile total (5% chrysotile in joint compound only)	Friable
6	234-12, 234-53, 234-54	Ceiling Tile, 2' x 4' white with pinholes	NAD	N/A
7	234-7, 234-8, 234-58	Ceiling Tile, 2' x 4' white textured	NAD	N/A
8	234-9, 234-10, 234-11	Ceiling Tile, 1' x 2' white with deep fissures	NAD	N/A
9	234-13, 234-56, 234-57	Floor Tile, 12" x 12" white with gray w/ brown mastic	Tile= NAD, Mastic= NAD	N/A
10	234-14, 234-15, 234-16	Floor Tile, 12" x 12" black w/ black mastic	Tile= 3-4% chrysotile, Mastic= 7% chrysotile	Friable

HA No.	Sample ID No.	Suspect Material Description	Asbestos Content	Friability
11	234-17, 234-18, 234-19	Floor Tile, 12" x 12" gray w/ black mastic	Tile= 2-3% chrysotile, Mastic= 4-5% chrysotile	Non
12	234-21, 234-22, 234-20	Floor Tile, 12" x 12" white pebbling w/ black mastic	Tile= NAD, Mastic= 3% chrysotile	Non
13	234-23, 234-24, 234-25	Floor Tile, 12" x 12" gray with white and brown w/ brown mastic	NAD	N/A
14	234-26, 234-27, 234-28	Floor Tile, 12" x 12" gray with white and brown w/ black mastic	Tile= NAD, Mastic= 2-3% chrysotile	Non
15	234-29, 234-30, 234-31	Mastic on Sink, black	< 1-4% chrysotile	Non
16	234-32, 234-33, 234-59	Window Glazing	NAD	N/A
17	234-34, 234-35, 234-36	Ceiling Tile, 2' x 4' white and yellow	NAD	N/A
18	234-37, 234-38, 234-39	Mastic on Sink, white	NAD	N/A
19	234-40, 234-41, 234-42	Boiler Insulation, white	20-25% chrysotile	Friable
20	234-43, 234-44, 234-45	Tank Insulation, condensate tank	NAD	N/A

Notes: NAD = No Asbestos Detected N/A = Not Applicable

7.0 RESULTS OF QUALITY CONTROL SAMPLING

The purpose of quality control (QC) sampling was to ensure reproducibility of the primary laboratory analysis results. Duplicate samples were collected for ten percent of the total building samples for QC purposes.

Table 5.0
Validation of Quality Control Sampling

Sample I.D. No.	Primary Laboratory Analysis Results	QC Laboratory Analysis Results
234-1	Tile= NAD, Mastic= 5% chrysotile	Tile= < 1% chrysotile, Mastic= 10% chrysotile
234-4	NAD	NAD
234-13	NAD	NAD
234-37	NAD	NAD

Notes: QC = Quality Control NAD = No Asbestos Detected

No discrepancies between primary laboratory and quality control laboratory bulk sample analysis were noted.

8.0 PHYSICAL ASSESSMENT OF IDENTIFIED ACM

The following sections contain a summary of the methodology BAT specialists used to conduct the physical assessment for this building. This methodology was developed in accordance with USEPA AHERA re-inspection requirements contained in 40 CFR Part 763.85.

1. Physical Assessment for Friable ACM.

   A. **Condition.** Friable ACM were assigned to one of the following categories based on a visual inspection and touch test:

      1) **Significantly Damaged Condition.** Material which met one or both of the following characteristics:

         a. Ten percent (10%) or more of the material in the functional space is crumbled, blistered, or is hanging from the surface, deteriorated, showing adhesive failure, water stained, gouged or marred, and the damage is evenly distributed.

         b. Twenty-five percent (25%) or more of the material in the functional space is crumbled, blistered, or is hanging from the surface, deteriorated, showing adhesive failure, water stained, gouged or marred, and the damage is localized.

      2) **Damaged Condition.** Material which met one or both of the following characteristics:

         a. The surface is crumbling, blistered, water stained, gouged or marred, or otherwise damaged on less than ten percent (10%) of the material in the functional space (but material is too damaged to be characterized as good condition) and the damage is evenly distributed.

         a. The surface is crumbling, blistered, water stained, gouged or marred, or otherwise damaged on twenty-five percent (25%) or more of the material in the functional space (but material is too damaged to be characterized as good condition) and the damage is localized.

      3) **Good Condition.** Material with very limited, or no visible damage or deterioration.

   B. **Potential for Disturbance.** Friable ACM were assigned to one of the following categories based on a visual inspection and assessment of surroundings:

1) **Potential for Significant Damage.** Material which met one or more of the following conditions:

   a. High potential for Contact. Service workers are in the vicinity of the material more than once each week or the material is in a public area and is accessible to building occupants.

   b. High Potential for Vibration. Loud motors or engines present in the vicinity of the material or there are intrusive noises or easily sensed vibrations from surrounding area, such as nearby highways or airports.

   c. High Potential for Air Erosion. High velocity air moving across or against material.

2) **Potential for Damage.** Material which met one or more of the following conditions for potential for significant damage:

   a. Moderate Potential for Contact. Service workers are in the vicinity of the material at least once each month, but less than once each week or the material is in a room or office and is accessible to the occupants.

   b. Moderate Potential for Vibration. Motors or engines present but not obtrusive or occasional loud noise in the vicinity of the material.

   c. Moderate potential for Air Erosion. Noticeable movement of air across or against material, but not high in velocity.

3) **Low Potential for Damage.** Material which met one or more of the following conditions and met none of the conditions for potential for significant damage or potential for damage:

   a. Low Potential for Contact. Service workers are in the vicinity of the material less than once each month or the material is visible but not accessible to the building occupants in the course of normal activity.

   b. Low Potential for Vibration. None of the conditions for high or moderate potential for vibration are met.

   c. Low Potential for Air Erosion. None of the conditions for high or moderate potential for air erosion are met.

2. Physical Assessment for Thermal ACM.

A. **Condition.** Thermal ACMs were assigned to one of the following categories based on a visual inspection:

1) **Significantly Damaged Condition.** Material which met one or both of the following characteristics:

a. Missing jackets, crushed, heavily gouged, or punctured insulation on equal to or greater than ten percent (10%) of the material in the functional space, and the damage is evenly distributed.

b. Missing jackets, crushed, heavily gouged, or punctured insulation on equal to or greater than twenty-five percent (25%) of the material in the functional space, and the damage is localized.

2) **Damaged Condition.** Material which met one or both of the following characteristics:

a. Missing jackets, crushed, heavily gouged, or punctured insulation on less than ten percent (10%) of the material in the functional space, and the damage is evenly distributed.

b. Missing jackets, crushed, heavily gouged, or punctured insulation on greater than twenty-five percent (25%) of the material in the functional space, and the damage is localized.

3) **Good Condition.** Material with very limited, or no visible damage or deterioration.

B. **Potential for Disturbance.** Thermal ACMs were assigned to one of the following categories based on a visual inspection and assessment of surroundings:

1) **Potential for Significant Damage.** Material which met one or more of the following conditions:

a. High Potential for Contact. Service workers are in the vicinity of the material more than once each week or the material is in a public area and is accessible to building occupants.

b. High Potential for Vibration. Loud motors or engines present in the vicinity of the material or there are intrusive noises or easily sensed vibrations from surrounding area, such as a nearby highway or airport.

c. High Potential for Air Erosion. High velocity air moving across or against the material.

2) **Potential for Damage.** Material which met one or more of the following conditions and met none of the conditions for potential for significant damage.

a. Moderate Potential for Contact. Service workers are in the vicinity of the material at least once each month but less than once each week or the material is in a room or office and is accessible to the occupants.

b. Moderate Potential for Vibration. Motors or engines present but not obtrusive or occasional loud noise in the vicinity of the material.

c. Moderate Potential for Air Erosion. Noticeable movement of air across or against material, but not high in velocity.

3) **Low Potential for Damage.** Material which met one or more of the following conditions and met none of the conditions for potential for significant damage or potential for damage:

a. Low Potential for Contact. Service workers are in the vicinity of the material less than once per month or the material is visible but not accessible to the building occupants in the course of normal activity.

b. Low Potential for Vibration. None of the conditions for high or moderate potential for vibration are met.

c. Low Potential for Air Erosion. None of the conditions for high or moderate potential for air erosion are met.

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-1, 234-46 and 234-47

HOMOGENEOUS AREA No.: 1

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" white with gold w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **1,800 SF**

CONDITION:

Percent Damage:	5-7	% Damage		X	Distributed
Type of Damage:		Deterioration	Water	X	Physical

DESCRIPTION:

Overall Rating:		Good	X	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	X	High	Moderate		Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High	Moderate	X	Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	X	Low

Description: **None identified.**

OVERALL RATING:	X	Potential for Significant Damage	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be included in the facility Operations and Maintenance (O&M) Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-3, 234-50 and 234-51**

HOMOGENEOUS AREA No.: **3**

TYPE OF MATERIAL: Surfacing TSI **X** Other

Description: **Floor Tile, 12" x 12" white with gray and brown w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **14,000 SF**

CONDITION:

Percent Damage:	**>25**	% Damage	Localized	**X**	Distributed
Type of Damage:		Deterioration	Water	**X**	Physical

DESCRIPTION:

Overall Rating:		Good	Fair	**X**	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	**X**	High	Moderate		Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High	Moderate	**X**	Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	**X**	Low

Description: **None identified.**

OVERALL RATING:	**X**	Potential for Significant Damage	Potential for Damage		Low Potential for Damage

COMMENTS: **Material should be removed.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-5, 234-20 and 234-55**

HOMOGENEOUS AREA No.: **5**

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Joint Sealer Compound, on drywall**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **12,600 SF**

CONDITION:

Percent Damage:	5-7	% Damage	Localized	X	Distributed
Type of Damage:		Deterioration	Water	X	Physical

DESCRIPTION:

Overall Rating:		Good	X	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	X	High		Moderate	Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High		Moderate	X Low

Description: **None identified.**

Potential for Air Erosion:		High		Moderate	X Low

Description: **None identified.**

OVERALL RATING:	X	Potential for Significant Damage	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be repaired and included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-14, 234-15 and 234-16**

HOMOGENEOUS AREA No.: **10**

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" black w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **100 SF**

CONDITION:

Percent Damage:	5-7	% Damage	Localized	X	Distributed
Type of Damage:		Deterioration	Water	X	Physical

DESCRIPTION:

Overall Rating:		Good	X Fair		Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	X	High	Moderate		Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High	Moderate	X	Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	X	Low

Description: **None identified.**

OVERALL RATING:	X	Potential for Significant Damage	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be repaired and included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-17, 234-18 and 234-19**

HOMOGENEOUS AREA No.: 11

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" gray w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **58,075 SF**

CONDITION:

Percent Damage:	<1	% Damage	Localized	X	Distributed
Type of Damage:		Deterioration	Water	X	Physical

DESCRIPTION:

Overall Rating:	X	Good	Fair		Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:		High	Moderate	X	Low

Description: **Material is located below other floor tile.**

Influence of Vibration:		High	Moderate	X	Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	X	Low

Description: **None identified.**

OVERALL RATING:		Potential for Significant Damage	Potential for Damage	X	Low Potential for Damage

COMMENTS: **Material should be included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-21, 234-22 and 234-60

HOMOGENEOUS AREA No.: 12

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" white pebbling w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **800 SF**

CONDITION:

Percent Damage:	<1	% Damage	Localized	Distributed
Type of Damage:		Deterioration	Water	Physical

DESCRIPTION:

Overall Rating:	X	Good	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	X	High	Moderate	Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High	Moderate	X Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	X Low

Description: **None identified.**

OVERALL RATING:		Potential for Significant Damage	Potential for Damage	X Low Potential for Damage

COMMENTS: **Material should be included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-26, 234-27 and 234-28**

HOMOGENEOUS AREA No.: **14**

TYPE OF MATERIAL: Surfacing TSI **X** Other

Description: **Floor Tile, 12" x 12" gray with white and brown w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **800 SF**

CONDITION:

Percent Damage:	**<1**	% Damage	Localized	Distributed
Type of Damage:		Deterioration	Water	Physical

DESCRIPTION:

Overall Rating:	**X**	Good	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	**X**	High	Moderate	Low

Description: **Material is located in high traffic areas.**

Influence of Vibration:		High	Moderate	**X** Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	**X** Low

Description: **None identified.**

OVERALL RATING:	**X**	Potential for Significant Damage	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-29, 234-30 and 234-31

HOMOGENEOUS AREA No.: 15

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Mastic on Sink, black**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **2 EA**

CONDITION:

Percent Damage:	<1	% Damage	Localized	Distributed
Type of Damage:		Deterioration	Water	Physical

DESCRIPTION:

Overall Rating:	X	Good	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:	X	High	Moderate	Low

Description: **Material is located under the sink, in a cabinet.**

Influence of Vibration:		High	Moderate	X Low

Description: **None identified.**

Potential for Air Erosion:		High	Moderate	X Low

Description: **None identified.**

OVERALL RATING:	X	Potential for Significant Damage	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be included in the facility O&M Plan until removal is accomplished.**

PHYSICAL ASSESSMENT DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-40, 234-41 and 234-42

HOMOGENEOUS AREA No.: 19

TYPE OF MATERIAL: Surfacing X TSI Other

Description: **Boiler Insulation, white**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **65 SF**

CONDITION:

Percent Damage:	10-12	% Damage	Localized	X	Distributed
Type of Damage:	X	Deterioration	Water		Physical

DESCRIPTION:

Overall Rating:		Good	X	Fair	Poor

POTENTIAL FOR DISTURBANCE:

Frequency of Potential Contact:		High		Moderate	X Low

Description: **Material is located in the mechanical room.**

Influence of Vibration:		High	X	Moderate	X Low

Description: **Possible vibration due to equipment opertion.**

Potential for Air Erosion:		High		Moderate	X Low

Description: **None identified.**

OVERALL RATING:		Potential for Significant Damage	X	Potential for Damage	Low Potential for Damage

COMMENTS: **Material should be repaired and included in the facility O&M Plan until removal is accomplished.**

9.0 HAZARD ASSESSMENT OF IDENTIFIED ACM

AHERA describes a hazard assessment as "the means of collecting and considering whatever data were necessary for the management planner to make an informed, responsible recommendation to the LEA [Local Education Agency] consistent with response action requirements". As stated in AHERA, there is no single assessment method that is required in the regulations.

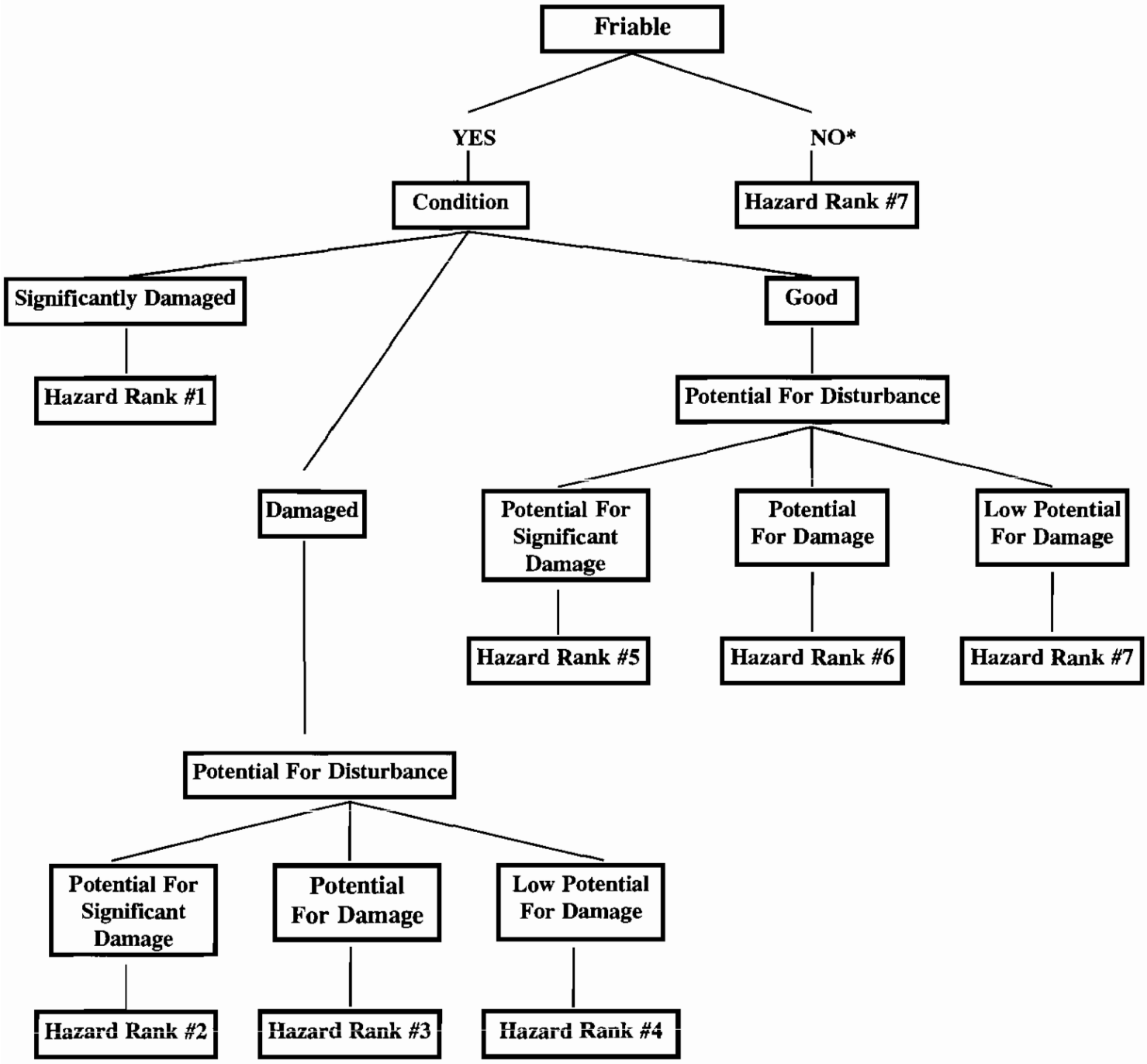
BAT adopted for this re-inspection one of the four general classes of hazard assessment models considered during the AHERA rule-making process. This method for hazard assessment is a modified decision tree as detailed in the USEPA, *Guidance for Assessing and Managing Exposure to Asbestos in Buildings*, or the *Pink Book*. Based on the physical assessment responses documented in the field, the BAT Management Planner proceeded through the decision tree process depicted in Figure 1.0 on the following page.

Only the identified and/or assumed asbestos-containing materials were assessed for hazards.

All of the identified and/or assumed asbestos-containing materials observed in this building were in good condition on the day of the survey.

Figure 1.0 Decision Tree Diagram For Hazard Assessment

Hazard rank #1 are materials of highest concern, and hazard rank #7 are the materials least likely to release asbestos fibers to the work area.



*Miscellaneous materials that are considered non-friable were placed in the Hazard Rank #8 category, which is in good condition with a low potential for damage.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-1, 234-46 and 234-47

HOMOGENEOUS AREA No.: 1

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" white with gold w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **1,800 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

- (1) Significantly damaged
- X (2) Damaged plus potential for significant damage
- (3) Damaged plus potential for damage
- (4) Damaged plus low potential for damage
- (5) ACM (good condition) with potential for significant damage
- (6) ACM (good condition) with potential for damage
- (7) Any remaining friable ACM or friable suspect ACM
- (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

- (1) Removal
- (2) Encapsulation
- (3) Enclosure
- X (4) Repair
- X (5) Operations and Maintenance Program

COMMENTS: For removal purposes, floor tile is to be considered asbestos-contaminated.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-3, 234-50 and 234-51

HOMOGENEOUS AREA No.: 3

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" white with gray and brown w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **14,000 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

X (1) Significantly damaged
(2) Damaged plus potential for significant damage
(3) Damaged plus potential for damage
(4) Damaged plus low potential for damage
(5) ACM (good condition) with potential for significant damage
(6) ACM (good condition) with potential for damage
(7) Any remaining friable ACM or friable suspect ACM
(8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

X (1) Removal
(2) Encapsulation
(3) Enclosure
(4) Repair
(5) Operations and Maintenance Program

COMMENTS: None.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-5, 234-20 and 234-55

HOMOGENEOUS AREA No.: 5

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Joint Sealer Compound, on drywall**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **12,600 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

- (1) Significantly damaged
- X (2) Damaged plus potential for significant damage
- (3) Damaged plus potential for damage
- (4) Damaged plus low potential for damage
- (5) ACM (good condition) with potential for significant damage
- (6) ACM (good condition) with potential for damage
- (7) Any remaining friable ACM or friable suspect ACM
- (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

- (1) Removal
- (2) Encapsulation
- (3) Enclosure
- X (4) Repair
- X (5) Operations and Maintenance Program

COMMENTS: None.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: **Charleston Naval Shipyard, Building Number 234**

SAMPLE NUMBER(S): **234-14, 234-15 and 234-16**

HOMOGENEOUS AREA No.: **10**

TYPE OF MATERIAL: Surfacing TSI **X** Other

Description: **Floor Tile, 12" x 12" black w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **100 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

- (1) Significantly damaged
- **X** (2) Damaged plus potential for significant damage
- (3) Damaged plus potential for damage
- (4) Damaged plus low potential for damage
- (5) ACM (good condition) with potential for significant damage
- (6) ACM (good condition) with potential for damage
- (7) Any remaining friable ACM or friable suspect ACM
- (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

- (1) Removal
- (2) Encapsulation
- (3) Enclosure
- **X** (4) Repair
- **X** (5) Operations and Maintenance Program

COMMENTS: **None.**

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-17, 234-18 and 234-19

HOMOGENEOUS AREA No.: 11

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" gray w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **58,075 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

(1) Significantly damaged
(2) Damaged plus potential for significant damage
(3) Damaged plus potential for damage
(4) Damaged plus low potential for damage
(5) ACM (good condition) with potential for significant damage
(6) ACM (good condition) with potential for damage
(7) Any remaining friable ACM or friable suspect ACM
X (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

(1) Removal
(2) Encapsulation
(3) Enclosure
(4) Repair
X (5) Operations and Maintenance Program

COMMENTS: Material is located below HA # 10.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-21, 234-22 and 234-60

HOMOGENEOUS AREA No.: 12

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" white pebbling w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **800 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

(1) Significantly damaged
(2) Damaged plus potential for significant damage
(3) Damaged plus potential for damage
(4) Damaged plus low potential for damage
(5) ACM (good condition) with potential for significant damage
(6) ACM (good condition) with potential for damage
(7) Any remaining friable ACM or friable suspect ACM
X (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

(1) Removal
(2) Encapsulation
(3) Enclosure
(4) Repair
X (5) Operations and Maintenance Program

COMMENTS: For removal purposes, floor tile is to be considered asbestos-contaminated.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-26, 234-27 and 234-28

HOMOGENEOUS AREA No.: 14

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Floor Tile, 12" x 12" gray with white and brown w/ black mastic**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **800 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

(1) Significantly damaged
(2) Damaged plus potential for significant damage
(3) Damaged plus potential for damage
(4) Damaged plus low potential for damage
(5) ACM (good condition) with potential for significant damage
(6) ACM (good condition) with potential for damage
(7) Any remaining friable ACM or friable suspect ACM
X (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

(1) Removal
(2) Encapsulation
(3) Enclosure
(4) Repair
X (5) Operations and Maintenance Program

COMMENTS: For removal purposes, floor tile is to be considered asbestos-contaminted.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-29, 234-30 and 234-31

HOMOGENEOUS AREA No.: 15

TYPE OF MATERIAL: Surfacing TSI X Other

Description: **Mastic on Sink, black**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **2 EA**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

(1) Significantly damaged
(2) Damaged plus potential for significant damage
(3) Damaged plus potential for damage
(4) Damaged plus low potential for damage
(5) ACM (good condition) with potential for significant damage
(6) ACM (good condition) with potential for damage
(7) Any remaining friable ACM or friable suspect ACM
X (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

(1) Removal
(2) Encapsulation
(3) Enclosure
(4) Repair
X (5) Operations and Maintenance Program

COMMENTS: None.

HAZARD ASSESSMENT AND RESPONSE ACTION DATA FOR IDENTIFIED ACM

BUILDING: Charleston Naval Shipyard, Building Number 234

SAMPLE NUMBER(S): 234-40, 234-41 and 234-42

HOMOGENEOUS AREA No.: 19

TYPE OF MATERIAL: Surfacing X TSI Other

Description: **Boiler Insulation, white**

Approximate Amount of Asbestos-Containing Material (Linear or Square Foot): **65 SF**

Approximate Recommended Response Action Cost:

HAZARD ASSESSMENT

- (1) Significantly damaged
- (2) Damaged plus potential for significant damage
- X (3) Damaged plus potential for damage
- (4) Damaged plus low potential for damage
- (5) ACM (good condition) with potential for significant damage
- (6) ACM (good condition) with potential for damage
- (7) Any remaining friable ACM or friable suspect ACM
- (8) Non-friable ACM

RESPONSE ACTION RECOMMENDATION

- (1) Removal
- (2) Encapsulation
- (3) Enclosure
- X (4) Repair
- X (5) Operations and Maintenance Program

COMMENTS: None.

10.0 PRELIMINARY COST ESTIMATE FOR REMOVAL OF IDENTIFIED ACM

The following is a preliminary cost estimate for the abatement (removal) of identified ACM in Building 234. This estimate is based on removing all of the materials during the same project. It does not include the cost of replacement materials. The cost estimate includes, project surveillance, air monitoring, and disposal of materials. These costs are estimates only; BAT made no attempt to obtain bids from removal contractors for this work, however, the average unit costs of three asbestos abatement contractors were used to develop the preliminary removal costs. Additionally, quantities noted are based upon engineering measurements. BAT recommends the use of architectural measurements for more accurate quantification.

Material Description	Unit Cost ($)	Quantity	Total Abatement Cost ($)
Floor Tile with Mastic	1.78	75,575 SF	134,524
Mastic on Sink	140	2 EA	280
Boiler Insulation	8.21	65 SF	534
Handling Cost	25.00	458 EA	11,450
Mobilization	300.00	2 EA	600
Waste Disposal Cost	50.00	235 CY	11,750
Removal Subtotal			159,138
IH Supervision and Monitoring			19,250
Project Subtotal			178,388
Contingency (24%)			42,813
Project Total			**221,201**

SF = Square Feet EA = Each CY = Cubic Yard

11.0 CONCLUSIONS

Inspection of Building 234 and confirmatory laboratory bulk sample analysis of selected samples identified the following materials with asbestos concentrations greater than one percent.

Identified ACM	Quantity	NESHAP Category
Floor Tile, 12" x 12" white with gold w/ black mastic	1,800 SF	Regulated, friable
Floor Tile, 12" x 12"white with gray and brown w/ black mastic	14,000 SF	Regulated, friable
Joint Sealer Compound, on drywall	12,600 SF	Regulated, friable
Floor Tile, 12" x 12" black w/ black mastic	100 SF	Regulated, friable
Floor Tile, 12" x 12" gray w/ black mastic	58,075 SF	Category I, non-friable
Floor Tile, 12" x 12" white pebbling w/ black mastic	800 SF	Category I, non-friable
Floor Tile, 12" x 12" gray with white and brown w/ black mastic	800 SF	Category I, non-friable
Mastic on Sink, black	2 EA	Category I, non-friable
Boiler Insulation, white	65 SF	Regulated, friable

The following materials were not sampled in order to avoid disrupting their integrity, and they were assumed to contain asbestos:

Assumed ACM	Quantity	NESHAP Category
None.		

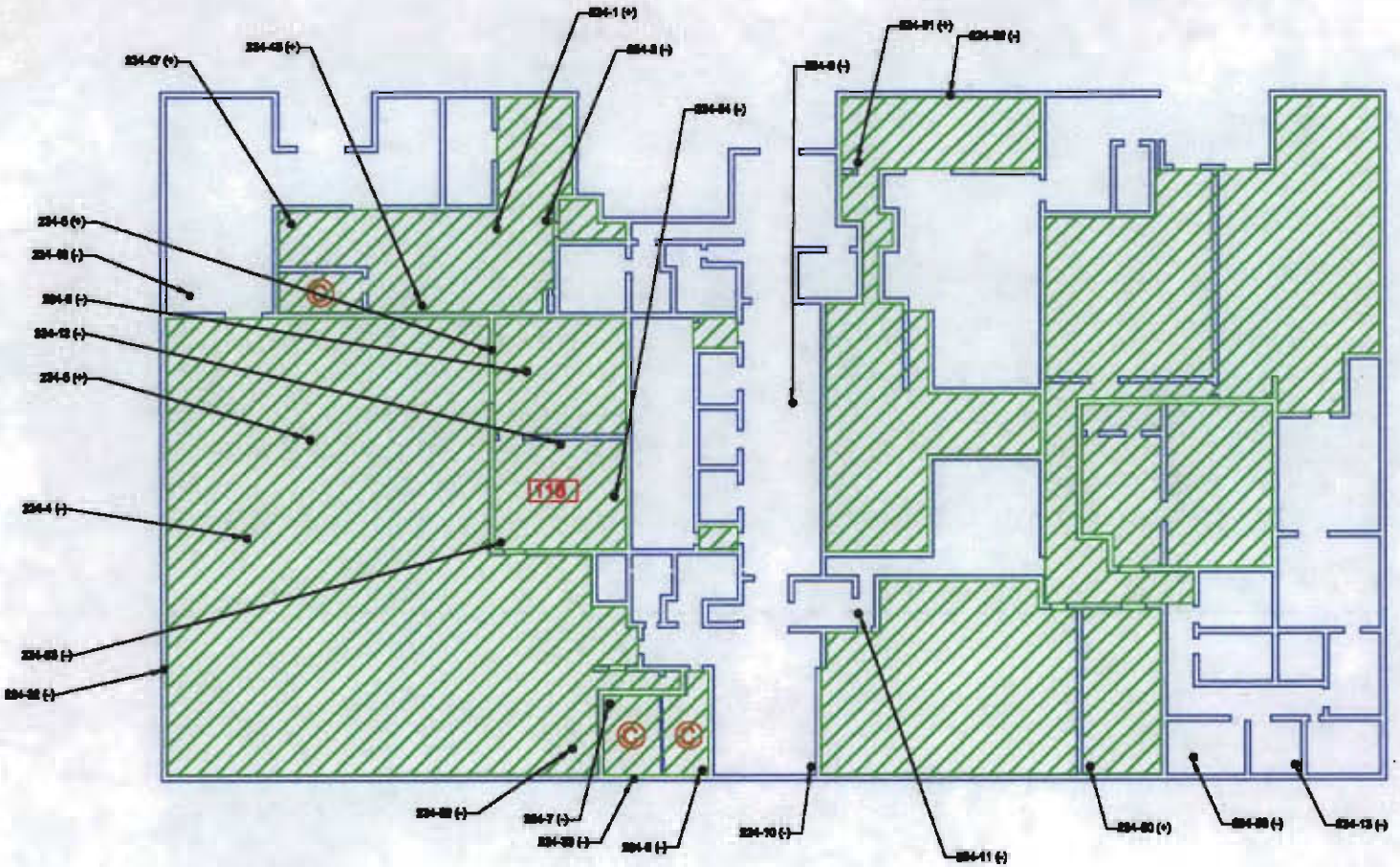
Other suspect ACM not identified could be present in areas of the building inaccessible to the asbestos-building inspectors. For example, material could exist in walls and other locations where access could only be gained by demolition of the building. Also, other materials currently not recognized as ACM by the asbestos building inspection industry could exist.

Rooms that were inaccessible to the asbestos-building inspectors have been identified on the drawings of the building in Appendix B, *Sample and ACM Location Drawings.*

EPA rules governing the application, removal and disposal of ACM were promulgated under NESHAP [40 CFR 61 Part M]. NESHAP requires the building owner or asbestos removal contractor to notify EPA when a building containing ACM is to be renovated, ACM is to be removed, or the building is to be demolished. At least 20 days notification is required "...if less than 260 linear feet of asbestos pipe covering or 160 square feet of asbestos material are removed during building renovation". Ten days notification is required when the amount is greater than 260 linear feet or 160 square feet of friable ACM.

APPENDIX A

SAMPLE AND ACM LOCATION DRAWINGS



NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

LEGEND

- • - Sample Location
- (-) - Non-Asbestos-Containing Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic
- © - Under Carpet

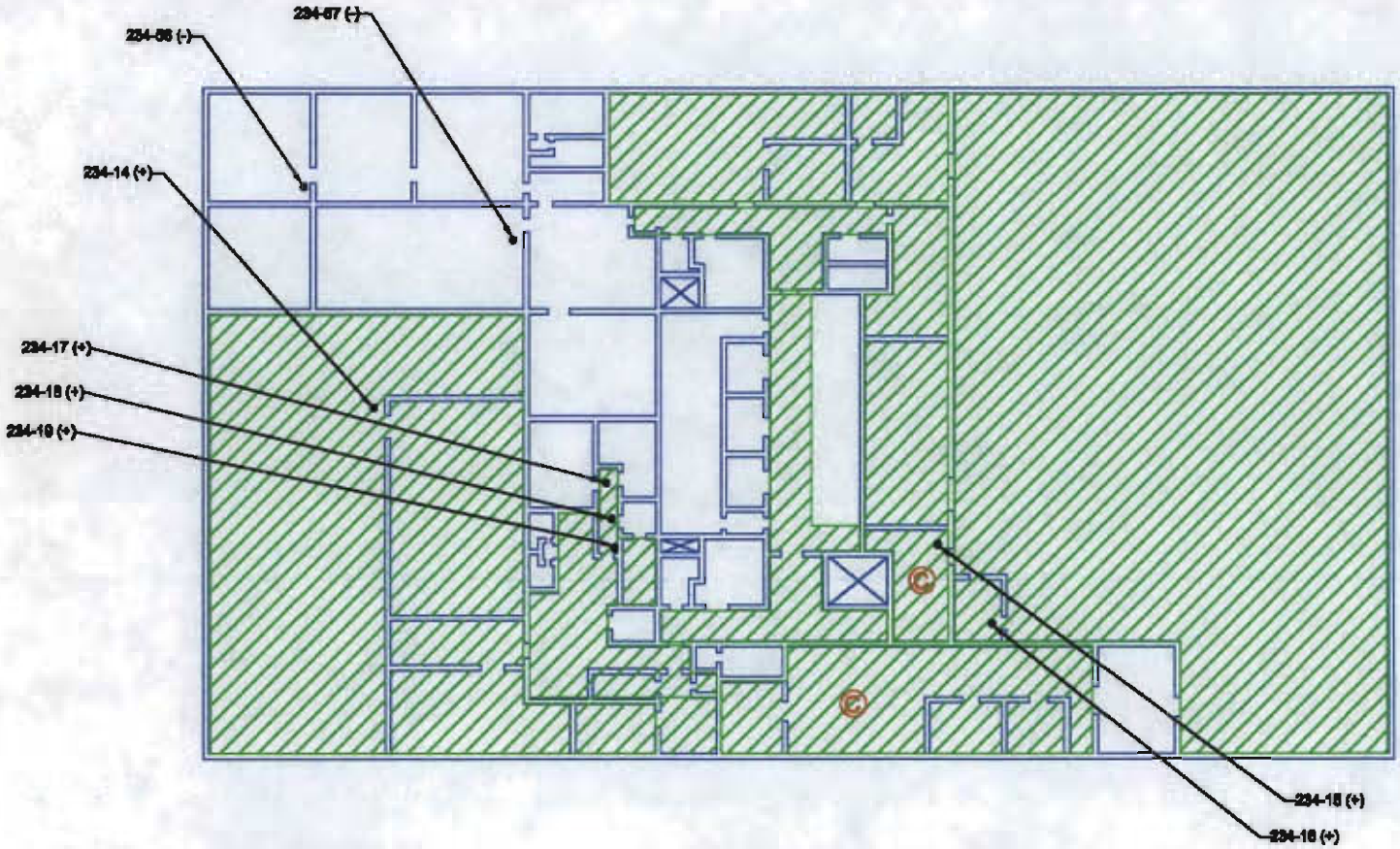
BUILDING 234 FLOOR 1

Sample and Asbestos-Containing Material Locations

N

0' 10' 20' 40'

BAT Associates, Inc.
ENVIRONMENTAL, HEALTH & SAFETY SERVICES
5151 BROOK HOLLOW PARKWAY, SUITE 250
NORCROSS, GA 30071



LEGEND

- • - Sample Location
- (-) - Non-Asbestos-Containing Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic
- © - Under Carpet

BUILDING 234 FLOOR 2

Sample and Asbestos-Containing Material Locations

N

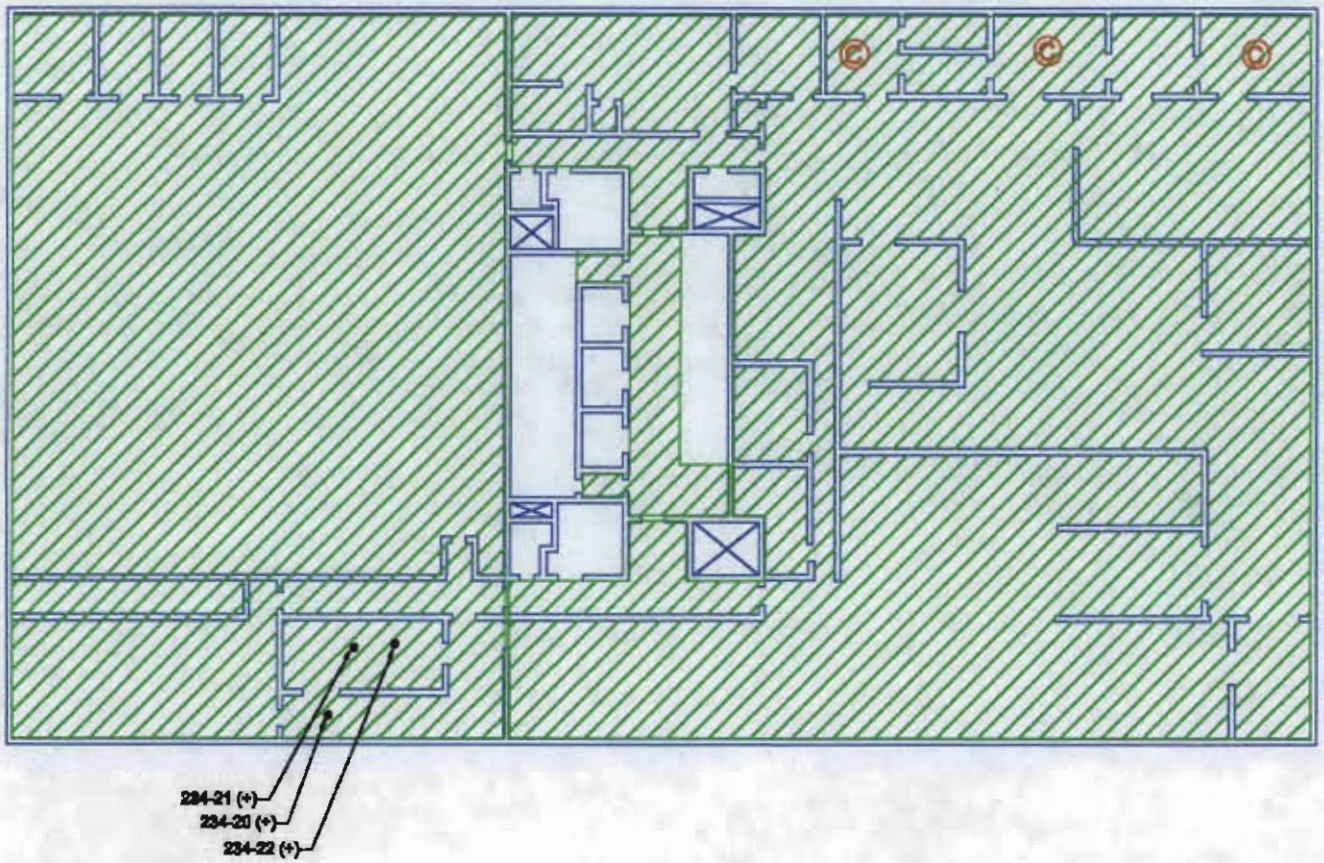
0' 10' 20' 40'

NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
Majority Of Floors Have Multiple Layers Of Asbestos-Containing Floor Tile And Mastic

NOTE 3:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

BAT Associates, Inc.
ENVIRONMENTAL, HEALTH & SAFETY SERVICES
5151 BROOK HOLLOW PARKWAY, SUITE 250
NORCROSS, GA 30071



NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

LEGEND

- • - Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic
- © - Under Carpet

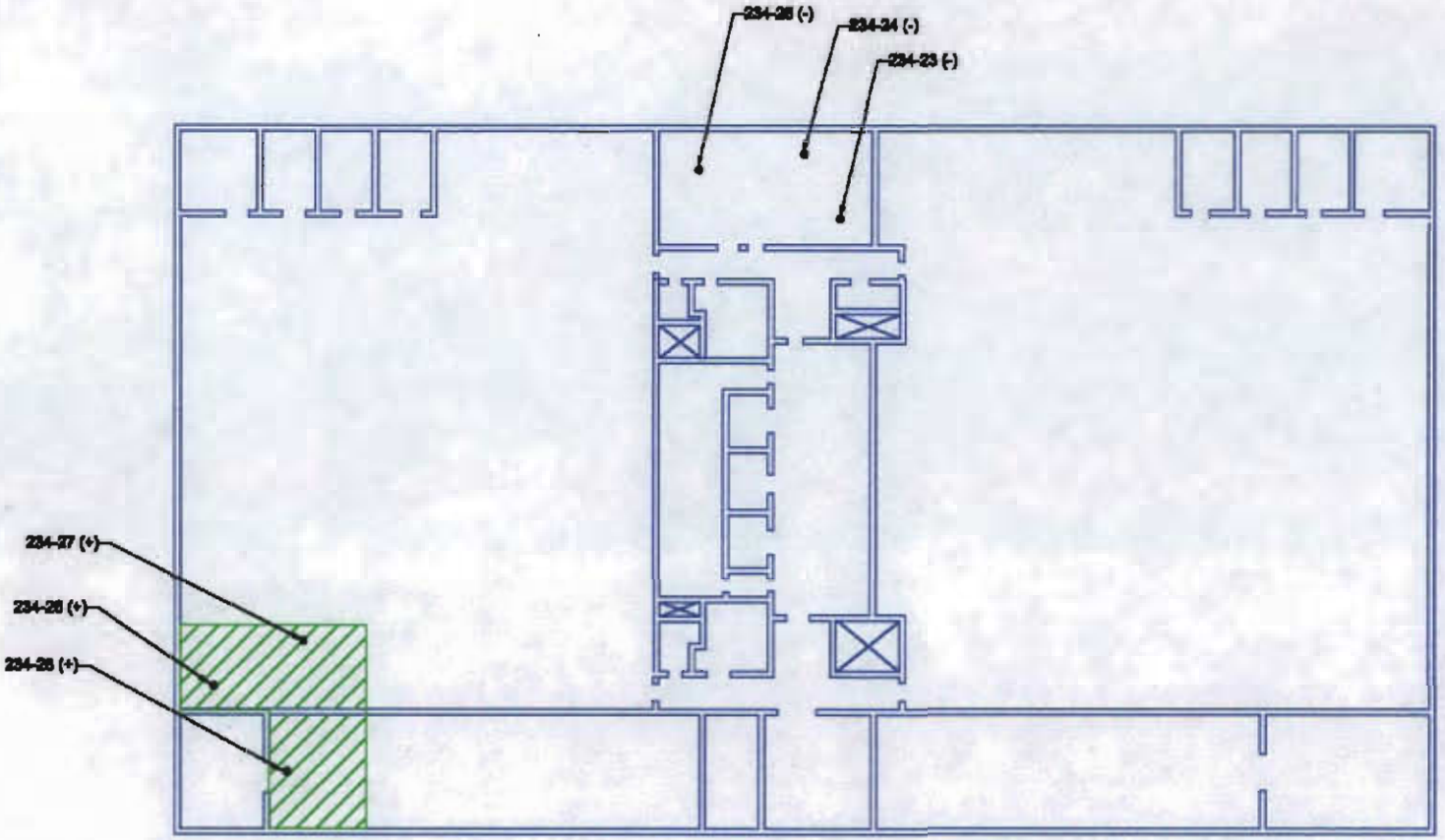
BUILDING 234 FLOOR 3

Sample and Asbestos-Containing Material Locations

N

0' 10' 20' 40'

BAT Associates, Inc.
ENVIRONMENTAL, HEALTH & SAFETY SERVICES
5151 BROOK HOLLOW PARKWAY, SUITE 250
NORCROSS, GA 30071



NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

LEGEND

- • - Sample Location
- (-) - Non-Asbestos-Containing Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic

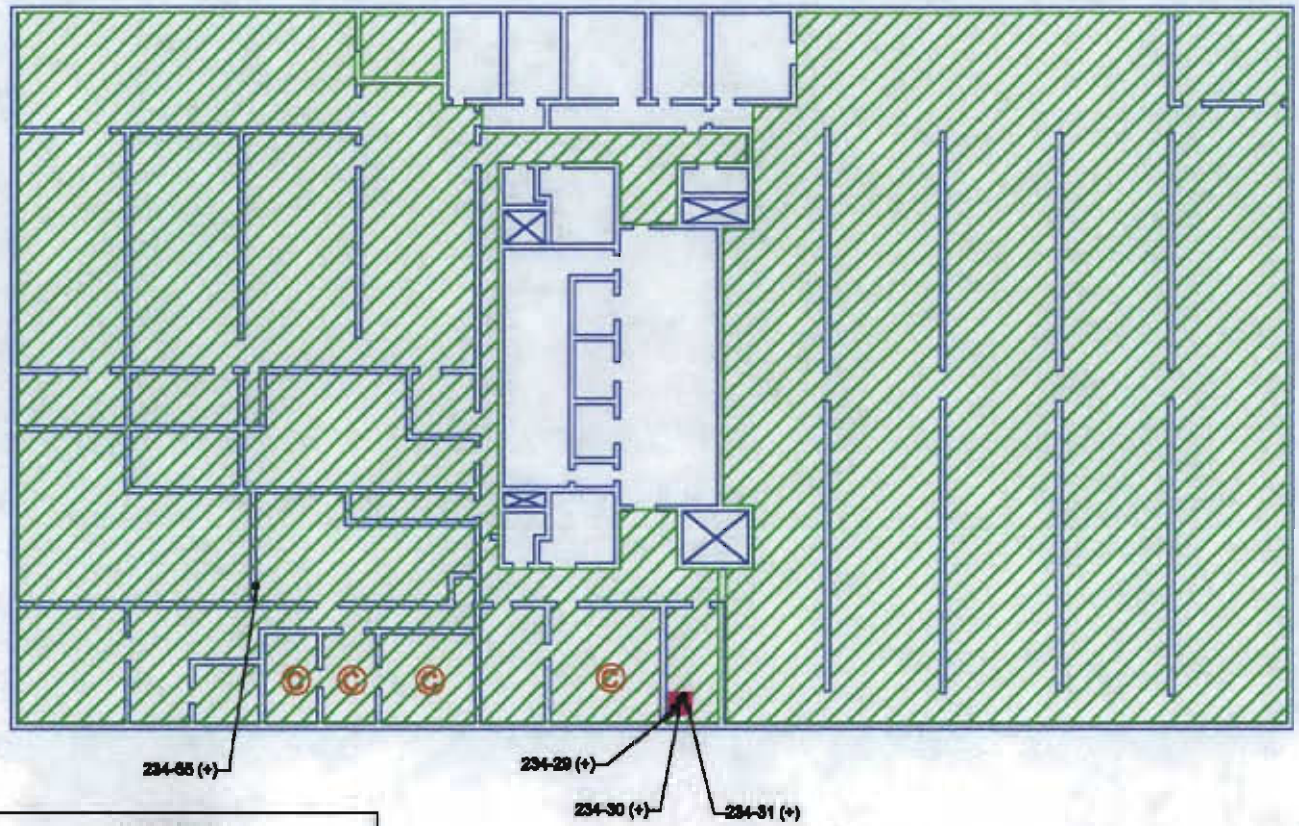
BUILDING 234 FLOOR 4

Sample and Asbestos-Containing Material Locations

N

0' 10' 20' 40'

BAT Associates, Inc.
ENVIRONMENTAL, HEALTH & SAFETY SERVICES
5151 BROOK HOLLOW PARKWAY, SUITE 250
NORCROSS, GA 30071



LEGEND

- • - Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic
- © - Under Carpet
- ■ - Asbestos-Containing Sink Mastic

BUILDING 234 FLOOR 5

Sample and Asbestos-Containing Material Locations

N

0' 10' 20' 40'

NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

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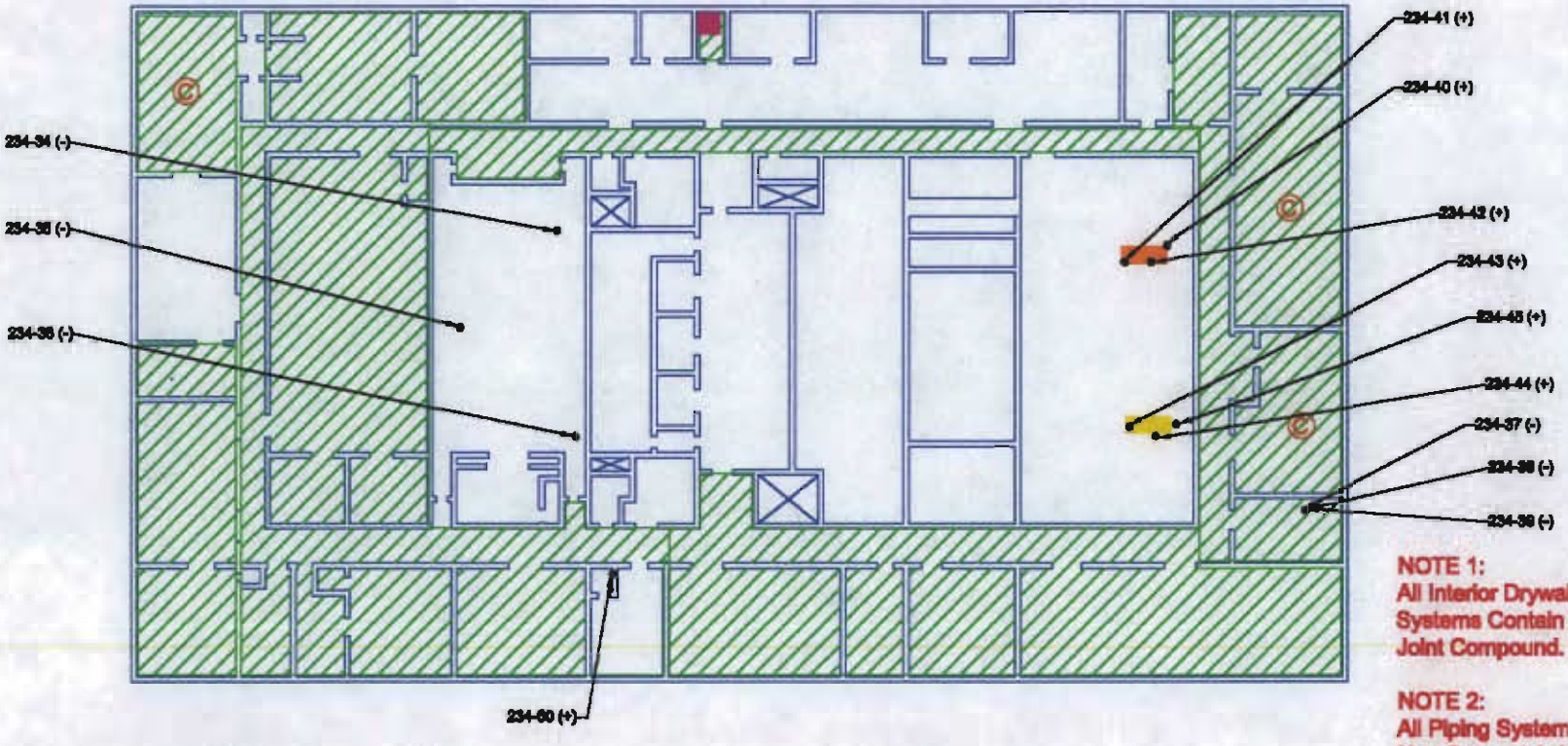
NORCROSS, GA 30071



NOTE 1:
All Interior Drywall Wall and Ceiling Systems Contain Asbestos-Containing Joint Compound.

NOTE 2:
All Piping Systems Are Insulated With Non-Suspect Asbestos-Containing Materials.

LEGEND

- • - Sample Location
- (-) - Non-Asbestos-Containing Sample Location
- (+) - Asbestos-Containing Sample Location
- ▨ - Asbestos-Containing And/Or Contaminated Floor Tile And Mastic
- © - Under Carpet
- ■ - Asbestos-Containing Sink Mastic
- ▬ - Asbestos-Containing Tank Insulation
- ▬ - Asbestos-Containing Boiler Insulation

BUILDING 234 FLOOR 6

Sample and Asbestos-Containing Material Locations

N

0' 10' 20' 40'

BAT Associates, Inc.
ENVIRONMENTAL, HEALTH & SAFETY SERVICES
5151 BROOK HOLLOW PARKWAY, SUITE 250
NORCROSS, GA 30071

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION OF IDENTIFIED ACM

Floor Tile, 12" x 12" white with gold w/ black mastic, HA # 1

Floor Tile, 12" x 12" white with gray and brown w/ black mastic, HA # 3

Joint Sealer Compound, on drywall, HA # 5

Floor Tile, 12" x 12" black w/ black mastic, HA # 10

Floor Tile, 12" x 12" gray w/ black mastic, HA # 11

Floor Tile, 12" x 12" white pebbling w/ black mastic, HA # 12

Floor Tile, 12" x 12" gray with white and brown w/ black mastic, HA # 14

Mastic on Sink, black, HA # 15

Boiler Insulation, white, HA # 19

APPENDIX C

PERSONNEL AND LABORATORY ACCREDITATIONS

The Environmental Institute

Jason McGlashan

Social Security Number - 137-62-0377

Has completed coursework and satisfactorily passed

an examination that meets all criteria required for

EPA/AHERA/ASHARA (TSCA Title II) Approved Accreditation

and NESHAP Regulations Training

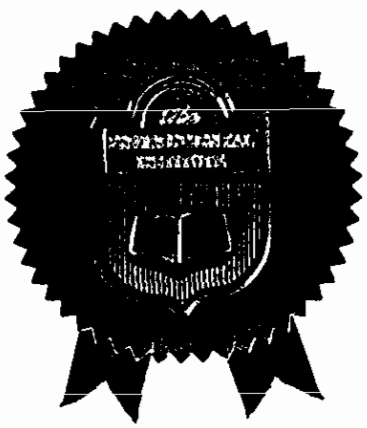
Asbestos in Buildings: Inspection and Assessment

June 21-23, 1999
Course Date

2594
Certificate Number

June 23, 1999
Examination Date

June 22, 2000
Expiration Date



R. A. Short
Ronald A. Short - Course Director

Rachel G. McCain - Exam Administrator

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

The Environmental Institute

Douglas J. Milton

Social Security Number - 266-55-7179

Has completed coursework and satisfactorily passed

an examination that meets all criteria required for

EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

and NESHAP Regulations Training

Asbestos in Buildings: Inspector & Management

Planner Refresher

December 15, 1999
Course Date

6398
Certificate Number

December 15, 1999
Examination Date

December 14, 2000
Expiration Date

Tod A. Dawson - Course Director

Rachel G. McCain - Exam Administrator

TEI - 1300 Williams Drive, Suite E - Marietta, Georgia 30066 - (770) 427-3600

The

American Board of Industrial Hygiene®

ABIH®

organized to improve the practice of Industrial Hygiene
proclaims that

Douglas J. Milton

having met all requirements through
education, experience and examination,
is hereby certified in the

COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH

November 12, 1997
date

J. Kenneth Crowe
Chair ABIH

CP 7612
certificate
number

Secretary ABIH

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 22860

This certifies that

Douglas J Milton

266-MB-7179

doing business as B A T Associates, Inc

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Consultant/Management Planner

The holder of this license shall comply with all the requirements of said Regulation.

This License, License Number, or any Representation thereof, is not transferable to any other licensee or company. Use of this License is only authorized for the licensee and Company whose name appears hereon and shall expire one year from 09/24/98.

The holder of this license is qualified in accordance with requirements of the Asbestos Hazard Emergency Response Act of 1986 (AHERA) to perform as an abatement Building Inspector.

07/28/99

Richard D. Sharpe

Richard D. Sharpe, Director
Air Compliance Management Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

CR-001126

ORIGINAL

07/28/99 14:31

Bureau of Air Quality

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 22859

This certifies that

Douglas J Milton

266-BG-7179

doing business as B A T Associates, Inc

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Consultant/Building Inspector

The holder of this license shall comply with all the requirements of said Regulation.

This License, License Number, or any Representation thereof, is not transferable to any other licensee or company. Use of this License is only authorized for the licensee and Company whose name appears hereon and shall expire one year from 09/23/98.

07/28/99

Richard D. Sharpe

Richard D. Sharpe, Director
Air Compliance Management Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

CR-001126

ORIGINAL

07/28/99 14:28

Bureau of Air Quality

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

CAPE ENVIRONMENTAL MANAGEMENT, INC.
ATLANTA, GA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

June 30, 2000
Effective through

For the National Institute of Standards and Technology

NVLAP Lab Code: 102111-0

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

ATLANTA, GA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

BULK ASBESTOS FIBER ANALYSIS

September 30, 2000

Effective through

For the National Institute of Standards and Technology

NVLAP Lab Code: 102033-0

NVLAP-01C (11-95)

APPENDIX D

LABORATORY ANALYSIS RESULTS

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-1**	LAB ID:	920702-1
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1** NO. OF LAYERS: **2**

APPEARANCE: TAN HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	70

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST

ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

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ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-1**	LAB ID:	920702-2
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

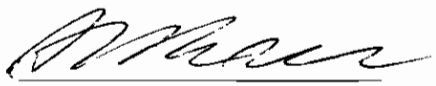
RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	5	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	90
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	5

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST



ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-2**	LAB ID:	920703
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY
REPORT 1 OF 1

ANALYST

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2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-3**	LAB ID:	920704
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY-BROWN HARD RESILIENT TO GRANULAR WITH BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	4	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	3
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	1	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	62

COMMENTS: **5% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-4**	LAB ID:	920705
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	20	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

ANALYST

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2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
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ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-5**	LAB ID:	920706
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1+2+3** NO. OF LAYERS: **3**

APPEARANCE: 1. WHITE HARD SILTY WITH MICA (J/C); 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	50	VERMICULITE/MICA	3	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	2	PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	45

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY
REPORT 1 OF 1

ANALYST

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2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-6**	LAB ID:	920707
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

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ALEKSEY REZNIK

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-7**	LAB ID:	920708
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTQ SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST

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ACCREDITED
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-8**	LAB ID:	920709
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	20	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-9**	LAB ID:	920710
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	40	PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	20

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-10**	LAB ID:	920711
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	40	PERLITE	10	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-11**	LAB ID:	920712
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	40	PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	20

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-12**	LAB ID:	920713
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION QF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

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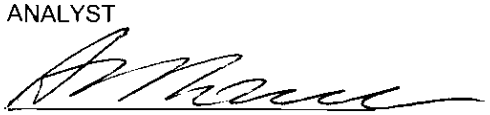

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-13**	LAB ID:	920714
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BROWN MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE		VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE	SAND/AGGR.	35
CROCIDOLITE	SYNTHETICS	1	EXPANDED GLASS	GLUE/CAULK	5
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	59

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-14**	LAB ID:	920715
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK HARD RESILIENT TO GRANULAR WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	67

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-15**	LAB ID:	920716
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK HARD RESILIENT TO GRANULAR WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	4	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	66

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-16**	LAB ID:	920717
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK HARD RESILIENT TO GRANULAR WITH FIBERS AND BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	2
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	65

COMMENTS: **7% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-17**	LAB ID:	920718
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	2
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	4	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC	1	ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	61

COMMENTS: **4% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-18**	LAB ID:	920719
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	2
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	3	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	62

COMMENTS: **5% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-19**	LAB ID:	920720
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	3
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	40
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	5	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	50

COMMENTS: **4% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
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2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

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ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-20**	LAB ID:	920721
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1+2+3** NO. OF LAYERS: **3**

APPEARANCE: 1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS

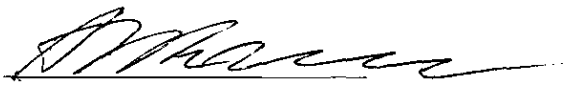
RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE	25	VERMICULITE/MICA	5	BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	68

COMMENTS: **5% CHRYSOTILE IN JOINT COMPOUND**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST



ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-21**	LAB ID:	920722-1
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1** NO. OF LAYERS: **2**

APPEARANCE: TAN-GRAY HARD RESILIENT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	90
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-21**	LAB ID:	920722-2
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	90
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	7

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-22**	LAB ID:	920723
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY-TAN HARD RESILIENT WITH BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	10
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	80
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	9

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-23**	LAB ID:	920724
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BROWN MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	3
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	67

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-24**	LAB ID:	920725
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BROWN MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	35
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	3
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	62

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-25**	LAB ID:	920726
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH BROWN MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	5
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	64

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-26**	LAB ID:	920727-1
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1** NO. OF LAYERS: **2**

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	2	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	68

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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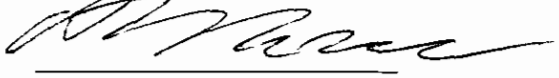
ANALYST



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BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-26**	LAB ID:	920727-2
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: MIX OF BLACK MASTIC AND GLUE

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE	5	VERMICULITE/MICA		BITUMEN/TAR	70
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	15
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	7

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-27**	LAB ID:	920728-1
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: 1 NO. OF LAYERS: 2

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	30
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	69

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-27**	LAB ID:	920728-2
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: MIXTURE OF BLACK MASTIC AND GLUE

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE	3	VERMICULITE/MICA		BITUMEN/TAR	60
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	25
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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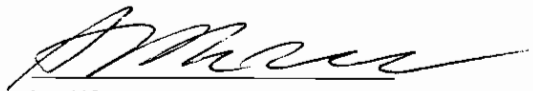
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST



ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

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2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-28**	LAB ID:	920729-1
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: 1 NO. OF LAYERS: 2

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	3	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE	SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	67

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-28**	LAB ID:	920729-2
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: MIXTURE OF BLACK MASTIC AND GLUE

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	3	CELLULOSE	3	VERMICULITE/MICA		BITUMEN/TAR	60
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	20
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	14

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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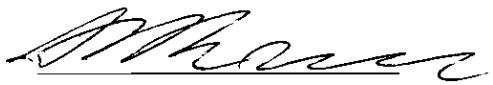
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST



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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-29**	LAB ID:	920730
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	4	CELLULOSE	2	VERMICULITE/MICA		BITUMEN/TAR	80
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	14

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-30**	LAB ID:	920731
SAMPLE INFO:		DATE ANALYZED:	11/17/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	<1	CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	80
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	19

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/17/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-31**	LAB ID:	920732
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	<1	CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	90
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	5
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	4

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-32**	LAB ID:	920733
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT GUMMY

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	90
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	9

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-33**	LAB ID:	920734
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT GUMMY

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	1	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	90
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	9

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-34**	LAB ID:	920735
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1+2** NO. OF LAYERS: **2**

APPEARANCE: 1. GRAY SOFT FIBROUS; 2. LIGHT GRAY HARD SILTY WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	70

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch I (7-1-92) PT. 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-35**	LAB ID:	920736
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1+2** NO. OF LAYERS: **2**

APPEARANCE: 1. GRAY SOFT FIBROUS; 2. LIGHT GRAY HARD SILTY WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	25	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	75

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-36**	LAB ID:	920737
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **1+2** NO. OF LAYERS: **2**

APPEARANCE: 1. GRAY SOFT FIBROUS; 2. LIGHT GRAY HARD SILTY WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	20	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	80

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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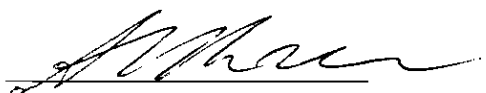

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-37**	LAB ID:	920738
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: CREAM POWDERY WITH FIBERS AND MICA

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	15	VERMICULITE/MICA	15	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	70

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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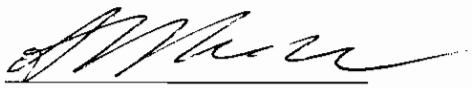

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LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-38**	LAB ID:	920739
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: CREAM POWDERY WITH FIBERS AND MICA

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	15	VERMICULITE/MICA	10	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	75

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-39**	LAB ID:	920740
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: CREAM POWDERY WITH FIBERS AND MICA

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	20	VERMICULITE/MICA	10	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	70

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-40**	LAB ID:	920741
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	**20**	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	3	PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	47

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-41**	LAB ID:	920742
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	**25**	CELLULOSE	15	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	5	PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	55

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-42**	LAB ID:	920743
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS WITH CANVAS AND PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	25	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	2	PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	43

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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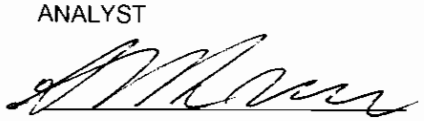

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-43**	LAB ID:	920744-1
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: 1 NO. OF LAYERS: 2

APPEARANCE: CANVAS WITH MUD (WRAP LAYER)

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE	50	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	48

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-43**	LAB ID:	920744-2
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	15	PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	85

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-44**	LAB ID:	920745
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	1	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	20	PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	79

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-45**	LAB ID:	920746
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT POWDERY TO FIBROUS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE		VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	20	PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	80

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-46**	LAB ID:	920747-1
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: 1 NO. OF LAYERS: 2

APPEARANCE: TAN HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	35
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	65

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-46**	LAB ID:	920747-2
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	6	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	90
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	4

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-47**	LAB ID:	920748-1
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: 1 NO. OF LAYERS: 2

APPEARANCE: TAN HARD RESILIENT TO GRANULAR

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	35
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	65

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

ANALYST

ALEKSEY REZNIK

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-47**	LAB ID:	920748-2
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: YES LAYER NO: **2** NO. OF LAYERS: **2**

APPEARANCE: BLACK SOFT BITUMINOUS WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	**8**	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	90
AMOSITE		GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	
TREMOLITE		WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE		TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	2

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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NO OF LAYERS - INDICATES NUMBER OF SUBSAMPLES ANALYZED AND REPORTS ISSUED (UNLESS COMPOSITED).

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-48**	LAB ID:	920749
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-49**	LAB ID:	920750
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	30	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	30	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-50**	LAB ID:	920751
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BROWN HARD RESILIENT TO GRANULAR WITH FIBERS AND BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	5	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	3
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	35
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	1	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	56

COMMENTS: **7% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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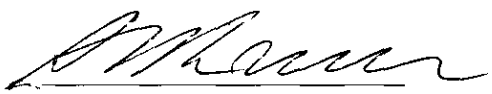

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-51**	LAB ID:	920752
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BROWN-GRAY HARD RESILIENT TO GRANULAR WITH FIBERS AND BLACK MASTIC

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	2	CELLULOSE		VERMICULITE/MICA		BITUMEN/TAR	3
AMOSITE		GLASS FIBERS		PERLITE		SAND/AGGR.	35
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE	2	SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC	1	ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	57

COMMENTS: **5% CHRYSOTILE IN BLACK MASTIC**

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-52**	LAB ID:	920753
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	25	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	25	PERLITE	40	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-53**	LAB ID:	920754
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	20	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-54**	LAB ID:	920755
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS		NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE		CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE		GLASS FIBERS	30	PERLITE	20	SAND/AGGR.	
CROCIDOLITE		SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE		WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE		TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE				FOAM RUBBER		LATEX/RUBBER	
						PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

ANALYST

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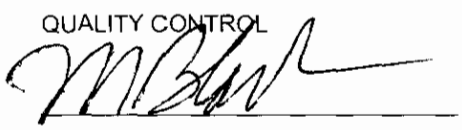
QUALITY CONTROL



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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-55**	LAB ID:	920756
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: WHITE HARD SILTY WITH MICA (J/C)

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	3	VERMICULITE/MICA	7	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE		SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	90

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-56**	LAB ID:	920757
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH GLUE

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	5
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	65

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
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REPORT 1 OF 1

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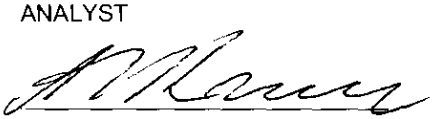

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POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-57**	LAB ID:	920758
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY HARD RESILIENT TO GRANULAR WITH GLUE

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	30
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	5
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	65

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST

ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

C A P E
ENVIRONMENTAL
MANAGEMENT
I N C

2302 PARKLAKE DRIVE, SUITE 200, ATLANTA, GA 30345
TEL: (770) 908-7200 FAX: (770) 908-7219

NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-58**	LAB ID:	920759
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS		OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	40	VERMICULITE/MICA		BITUMEN/TAR	
AMOSITE	GLASS FIBERS	30	PERLITE	20	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS		GLUE/CAULK	
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM		VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL		CORK	
ANTHOPHYLLITE			FOAM RUBBER		LATEX/RUBBER	
					PAINT/OTHER	10

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST

ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

C A P E
ENVIRONMENTAL
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NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-59**	LAB ID:	920760
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: BLACK SOFT GUMMY WITH FIBERS

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS		NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	1	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS		PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS		EXPANDED GLASS	GLUE/CAULK	90
TREMOLITE	WOLLASTONITE		SYNTHETIC FOAM	VINYL	
ACTINOLITE	TALC		ALUMINUM/METAL	CORK	
ANTHOPHYLLITE			FOAM RUBBER	LATEX/RUBBER	
				PAINT/OTHER	9

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON. 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST

ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

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NVLAP ®
ACCREDITED
LAB CODE - 102111

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT

CLIENT NAME:	BAT ASSOCIATES	LAB JOB NO:	B9286-1
PROJECT NAME:	CHARLESTON NSY / 971001-13.03	DATE RECEIVED:	10/28/99
PROJECT NO:	L802Z.000.000	REPORT ISSUED:	11/30/99
SAMPLE FIELD ID:	**234-60**	LAB ID:	920761
SAMPLE INFO:		DATE ANALYZED:	11/18/99

SAMPLE DESCRIPTION

LAYERED: NO

APPEARANCE: CREAM HARD RESILIENT WITH BLACK MASTIC

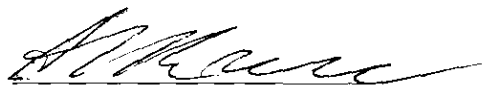
RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

ASBESTOS FIBERS	NONASBESTOS FIBERS	NONFIBROUS COMPONENTS	OTHER COMPONENTS	
CHRYSOTILE	CELLULOSE	VERMICULITE/MICA	BITUMEN/TAR	
AMOSITE	GLASS FIBERS	PERLITE	SAND/AGGR.	
CROCIDOLITE	SYNTHETICS	EXPANDED GLASS	GLUE/CAULK	5
TREMOLITE	WOLLASTONITE	SYNTHETIC FOAM	VINYL	90
ACTINOLITE	TALC	ALUMINUM/METAL	CORK	
ANTHOPHYLLITE		FOAM RUBBER	LATEX/RUBBER	
			PAINT/OTHER	5

COMMENTS:

SAMPLE WAS ANALYZED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA METHOD 40CFR Ch. I (7-1-92) PT. 763, SUBPT. F, APP. A. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 11/18/99
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER IS ANALYZED SEPARATELY.
REPORT 1 OF 1

ANALYST



ALEKSEY REZNIK

QUALITY CONTROL

MICHAEL BLACK

BAT
BAT Associates, Inc.
ENGINEERS • SCIENTISTS • PLANNERS

5151 Brook Hollow Pkwy., Suite 250
Norcross, GA 30071
Phone: (770) 242-3908
Fax: (770) 242-3912

CHAIN OF CUSTODY FORM

2 of 2

BAT PROJECT CONTACT **DOUGLAS J. MILTON**

BAT JOB NAME **Charleston Naval Shipyard** | BAT JOB NO. **971001** TASK NO. **13.03**

ANALYSIS REQUESTED ■ PLM □ PCM □ AAS For Lead Content □ OTHER_____

CHECK ONE:
□ ROUTINE
■ ROUTINE - FAX (HANDWRITTEN) AS SOON AS POSSIBLE
□ RUSH - FAX (HANDWRITTEN) AS SOON AS POSSIBLE

SAMPLE ID		SAMPLE ID	
1. 234-1	FB	16. 234-60	FB
2. 234-46	FB	17. 234-21	FB
3. 234-47	FB	18. 234-22	FB
4. 234-3	FB	19. 234-23	FB
5. 234-50	FB	20. 234-24	FB
6. 234-51	FB	21. 234-25	FB
7. 234-13	FB	22. 234-26	FB
8. 234-56	FB	23. 234-27	FB
9. 234-57	FB	24. 234-28	FB
10. 234-15	FB	25. 234-32	FB
11. 234-16	FB	26. 234-33	FB
12. 234-14	FB	27. 234-59	FB
13. 234-17	FB	28. 234-29	FB
14. 234-18	FB	29. 234-30	FB
15. 234-19	FB	30. 234-31	FB

SPECIAL INSTRUCTIONS: **Navy Project Rates**

Relinquished by: Sophia Bell | Received by: Mrs. Marie Williams

Date: 10/27/99 Time: 0500 | Date: Time:

23 1356 AE 10/28/99 1400

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Norcross, GA 30071
Phone: (770) 242-3908
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CHAIN OF CUSTODY FORM

1 of 2

BAT PROJECT CONTACT **DOUGLAS J. MILTON**

BAT JOB NAME **Charleston Naval Shipyard** | BAT JOB NO. **971001** TASK NO. **13.03**

ANALYSIS REQUESTED ■ PLM □ PCM □ AAS For Lead Content □ OTHER_____

CHECK ONE:
□ ROUTINE
■ ROUTINE - FAX (HANDWRITTEN) AS SOON AS POSSIBLE
□ RUSH - FAX (HANDWRITTEN) AS SOON AS POSSIBLE

SAMPLE ID		SAMPLE ID	
1. 234-37	FB	16. 234-9	FB
2. 234-38	FB	17. 234-10	FB
3. 234-39	FB	18. 234-11	FB
4. 234-2	FB	19. 234-34	FB
5. 234-48	FB	20. 234-35	FB
6. 234-49	FB	21. 234-36	FB
7. 234-5	FB	22. 234-40	FB
8. 234-20	FB	23. 234-41	FB
9. 234-55	FB	24. 234-42	FB
10. 234-12	FB	25. 234-43	FB
11. 234-53	FB	26. 234-44	FB
12. 234-54	FB	27. 234-45	FB
13. 234-7	FB	28. 234-4	FB
14. 234-8	FB	29. 234-6	FB
15. 234-58	FB	30. ~~234-52~~	FB

SPECIAL INSTRUCTIONS: **Navy Project Rates**

Relinquished by: Joshua Bell	Received by: Dre Williams
Date: 10/~~27~~/28/97 (FB) Time: ~~0500~~ 1550 (FB)	Date: 10/28/97 Time: 14:00

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Suite 111
Atlanta, GA. 30340
NVLAP # 102053
PH: (770) 457-8177
FAX: (770) 457-8188

POLARIZED LIGHT MICROSCOPY (PLM)

BULK SAMPLE SUMMARY

EPA Method 600/R-93/116. "Method for Determination of Asbestos in Bulk Building Material."

CLIENT NAME: BAT Associates, Inc.
PROJECT NAME: Charleston Naval Shipyard / 971001 Task # 13.03
MICROANALYST: Arkadiy Gendlin

AES JOB #: B9372.2
DATE RECEIVED: 10/28/99
DATE ANALYZED: 11/01/99

CLIENT I.D.	AES LAB NUMBER	SAMPLE LOCATION	% OF ASBESTOS	TYPE OF ASBESTOS	COMMENTS
234-QC1	140281	n/a	<1%	Chrysotile	1
234-QC2	140282	n/a	ND		
234-QC3	140283	n/a	ND		
234-QC4	140284	n/a	ND		
234-QC5	140285	n/a	ND		

ND - None Detected

1 - Bitumen Contains 10% Chrysotile. Floor Tile Does Not Contain Asbestos.

Approved By: J. Schwartz Date: 11-2-99

PLM is not consistently reliable to detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to get the conclusive asbestos content

2

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CHAIN OF CUSTODY FORM

BAT PROJECT CONTACT **DOUGLAS J. MILTON**	
BAT JOB NAME **Charleston Naval Shipyard**	BAT JOB NO. **971001** TASK NO. **13.03**
ANALYSIS REQUESTED ■ PLM □ PCM □ AAS For Lead Content □ OTHER_____	
CHECK ONE: □ ROUTINE ■ ROUTINE - FAX (HANDWRITTEN) AS SOON AS POSSIBLE □ RUSH - FAX (HANDWRITTEN) AS SOON AS POSSIBLE	

SAMPLE ID	SAMPLE ID
1. 234-QC1 fb	16.
2. 234-QC#2 fb	17.
(fb) 3. 234-QC3 fb	18.
4. 234-QC4 fb	19.
5. 234-QC5 fb	20.
6.	21.
7.	22.
8.	23.
9.	24.
10.	25.
11.	26.
12.	27.
13.	28.
14.	29.
15.	30.

SPECIAL INSTRUCTIONS: **Navy Project Rates**	
Relinquished by: Debbie Bell	Received by: M. Kovaric
Date: 10/28/99 Time: ~~0500~~ 1405 (fb)	Date: 10/28/99 Time: 1405