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ASBESTOS-CONTAINING MATERIALS SURVEY LEAD-BASED PAINT INSPECTION AND
RISK ASSESSMENT AT BUILDING NH-61 CNC CHARLESTON SC
7/1/2000
CAPE ENVIRONMENTAL MANAGEMENT, INC.

**ASBESTOS-CONTAINING MATERIALS SURVEY,
LEAD-BASED PAINT INSPECTION AND
RISK ASSESSMENT AT BUILDING NH-61
CHARLESTON NAVAL SHIPYARD
CHARLESTON, SOUTH CAROLINA**

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Prepared For:



2155 Eagle Drive, PO Box 190010
North Charleston, SC 29419-9010

Prepared By:



2302 Parklake Drive, NE, Suite 200
Atlanta, GA 30345-2907
(770) 908-7200

Contacts

Hugo Rios, A.I.A., Program Manager
Mike Spradling, Project Manager

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**ASBESTOS-CONTAINING MATERIALS SURVEY,
LEAD-BASED PAINT INSPECTION AND RISK ASSESSMENT AT
BUILDING NH-61
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EXECUTIVE SUMMARY

Cape Environmental Management Inc (CAPE) was retained by Southern Division Naval Facilities Engineering Command (NAVFACENGCOM) to perform an asbestos-containing materials survey, lead-based paint inspection and risk assessment for Building NH-61 at the Charleston Naval Shipyard, Charleston, South Carolina. This building is currently abandoned. Current plans involve the restoration of this building for use as a private school. CAPE personnel, who maintain applicable Environmental Protection Agency/Asbestos Hazard Emergency Response Act (EPA/AHERA) accreditations/certifications, conducted the lead and asbestos survey during the week of May 15-18, 2000.

The findings of this survey are summarized below.

Asbestos-Containing Materials

The following asbestos-containing materials (ACM) were identified in this building:

- 9" × 9" floor tile (with non-ACM mastic), green with white streaks
- Mastic associated with 12" × 12" floor tile, white with brown spots
- 12" × 12" floor tile and mastic, gray with white, orange, and gray streaks
- Sink mastic, gray
- Contaminated soil
- Built-up roofing material, gravel-type (assumed)
- Rolled roofing material, asphalt-type (assumed)

Lead-Based Paint Inspection

Lead-based paint (LBP) was identified on numerous components throughout the interior and exterior of the building. Typical components coated with LBP include the plaster walls, baseboards, wood doors and door casings, plaster and concrete ceilings, exterior soffit, and the exterior metal stairways. For a comprehensive list of components which were found to be coated with LBP, please refer to Section 3.0 of this report for the LBP findings. An aggregate summary of XRF testing and paint chip sample results is provided in Appendix D.

Lead Risk Assessment

The presence of localized lead hazards were identified within the building. Two dust wipe samples out of twenty-four contained lead in excess of the interim lead hazard levels established by HUD. Both samples were collected from floors in rooms with LBP which was chipping, cracking, or peeling.

Most of the painted surfaces at Building NH-61 are either intact or are in fair condition overall (<10% of the total surface area is damaged). Localized damage and deterioration of LBP was observed indicating the presence of lead-based paint hazards. The most significant lead hazards identified include small areas of damaged or deteriorated LBP on door casings, doors, baseboards, ceilings and walls. See Section 3.0 of this report for a comprehensive list of the lead hazards identified including the estimated quantities and locations in this building. Abatement and interim control options for the identified lead hazards are provided in Section 4.0 of this report.

Analysis of two soil samples for total lead content did not indicate the presence of a lead soil hazard. No response actions are recommended for the soil.

1.0 INTRODUCTION

Cape Environmental Management Inc (CAPE) was retained by Southern Division Naval Facilities Engineering Command (NAVFACENGCOM) to perform an asbestos containing materials inspection, lead-based paint inspection and risk assessment for Building NH-61 at the Charleston Naval Shipyard, Charleston, South Carolina.

Building NH-61 is a 16,000 square foot two-story concrete building constructed in 1942. It has been renovated several times since its construction. Previously, it was used as quarters for nurses working at the Charleston Naval Hospital. Most recently, it was used by Education Redirection, Inc. as a private religious school for "at risk" children. Building NH-61 was abandoned and all utilities had been disconnected at the time of the survey. A prospective tenant is considering leasing the building from its ultimate owner, the United States Navy. This prospective tenant intends to open a private school for elementary to middle school age children.

The purpose of this survey was to identify and quantify any asbestos-containing materials (ACM), lead-based paint (LBP), and lead based-paint hazards which might be present at Building NH-61. David Bratley (EPA/AHERA Accreditation Certificate #6419, South Carolina Accreditation Certificate #22840) and Michael Black (EPA/AHERA Accreditation Certificate #2643, South Carolina Accreditation Certificate #23059) performed the asbestos inspection during the period of May 15-18, 2000. Michael Black (EPA certified Lead Inspector and Risk Assessor) performed the lead-based paint inspection and risk assessment during the period of May 15-18, 2000.

2.0 METHODOLOGIES

2.1 Asbestos-Containing Material Survey

The asbestos field investigation criteria established for this project consisted of inspecting interior and exterior areas of the facility for suspect-ACM and collecting bulk samples in accordance with the criteria outlined in 40 CFR Part 763, *Asbestos Hazard Emergency Response Act* (AHERA). Inspection and sampling was performed by personnel accredited as Asbestos Inspectors in accordance with EPA's revised *Asbestos Model Accreditation Plan* (MAP) mandated by the *Asbestos School Hazard Abatement Reauthorization Act* (ASHARA).

Once suspect-ACM were identified, homogeneous sampling areas (areas that are uniform in color, texture, construction/application date, and general appearance) were delineated. Each homogeneous sampling area was then assigned a unique homogeneous area (HA) number and the appropriate number of bulk samples were collected from each HA.

Suspect-ACM samples were analyzed by Polarized Light Microscopy (PLM) using dispersion staining techniques in accordance with U.S. EPA/600/R-93/116 Method of July 1993. Cape Environmental Management, Inc. (NVLAP # 102111-0) located in Atlanta, Georgia, served as the primary laboratory for asbestos analysis. In accordance with EPA's 1994 clarification for analysis of multi-layered systems, suspect materials are treated as asbestos containing if one or more layers of the material is determined to contain greater than 1% asbestos.

Ten percent (10%) of the samples collected were analyzed by Materials Analytical Services, Inc. (NVLAP # 101235) located in Suwanee, Georgia for quality control purposes. See Appendix G for copies of primary and quality control laboratory analytical results.

Limitations of Asbestos Analysis: Transmission electron microscopy (TEM) analysis to confirm negative PLM analysis results of floor tile and/or other resinously bound materials was included in the analytical criteria established by the scope of work for this project. A representative sub-sample from each negative floor tile and/or other resinously bound homogenous material was analyzed by TEM to serve as a final determination for asbestos content.

2.2 Lead-Based Paint Inspection

XRF Testing

XRF testing was performed to determine which components in building NH-61 contain lead-based paint (LBP). Testing was conducted in accordance with the procedures outlined in chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead Hazards in Housing* (1997 revision). The XRF instrument utilized for this project was a portable lead paint analyzer (model LPA-1) manufactured by Radiation Monitoring Devices (RMD).

Testing was performed on distinct component types present in each room equivalent. A component type was distinguished by the combination of a building component and substrate (e.g. wood door casing, metal door, etc.). XRF readings were classified as either (1) *Positive* (≥ 0.7 mg/cm² by XRF testing), (2) *Negative* (< 0.7 mg/cm²), or (3) *Inconclusive* (metal components testing from 0.7 to 0.9 mg/cm²). Components were then grouped and evaluated based on the total number of readings that were *Positive*, *Negative*, or *Inconclusive* by XRF for each component type tested. When one or more components of a particular component type tested positive by XRF testing, all components or surfaces of that type were considered to be positive.

Limitations of XRF Testing

Although a painted surface may be classified as negative by XRF testing, *lead may still be present in low concentrations* and a hazardous dust may still be generated during the disturbance of painted surfaces containing low levels of lead. XRF technology is not effective at accurately measuring low levels of lead, therefore XRF testing should not be relied upon as an indicator of the absence of lead or lead-contamination on a painted surface. Paint chip sampling and analysis is required to determine if a painted surface contain low levels of lead.

Important Note: The regulatory definition of lead-based paint is lower in South Carolina than in most other parts of the United States. Pursuant the South Carolina Code of Regulations Chapter 61 Section 85 *Prevention and Control of Lead Poisoning in Children*, lead-based paint is effectively defined as any coating which contains ≥ 0.7 mg/cm² of lead by XRF testing or 0.06% lead by weight.

Paint Chip Sampling & Laboratory Analysis

Paint chip samples were collected and analyzed from representative component surfaces in the facility that were determined by XRF testing to contain lead at or near the regulatory threshold of 0.7 mg/cm². This sampling was done to confirm the presence of lead in damaged paint films. Confirmation of inconclusive results was not required since these paint films were on minor components which should be assumed to be positive. Paint chip samples were analyzed by flame atomic absorption spectroscopy in accordance with EPA Method 7420. Hygeia Laboratories, Inc. (AIHA/NLLAP accredited, certificate # 583) in Marietta, GA served as the environmental laboratory for paint chip analysis. Paint films from which chip samples were collected were characterized as either (1) *Lead-Based Paint* ($\geq 0.06\%$ lead by weight) or (2) *Negative* ($< 0.06\%$ lead by weight) depending upon the laboratory results.

2.3 Lead Risk Assessment

A lead risk assessment was performed in accordance with the scope of work and procedures developed for single-family housing as outlined in chapter 5 of the *HUD Guidelines for the Evaluation and Control of Lead Hazards in Housing*. The goals of the risk assessment were as follows:

To identify the existence, nature, severity, source, and location of lead-based paint hazards (or document that no such hazards have been identified).

To present various options for controlling lead hazards in the event that hazards are found, including interim controls, abatement measures, and any recommended changes to the management and maintenance systems.

A visual assessment of the building and paint conditions was performed as part of the lead paint inspection. The assessor looked for signs of damage to both the building and the paint on interior and exterior components. The condition of painted components were characterized as good (or intact), fair, or poor depending on the extent of damage to the painted surface in accordance with Chapter 5 of the *HUD Guidelines*.

Dust wipe samples were collected mainly from floors and window sills in accordance with the procedures outline in Appendix 13.1 of the *HUD Guidelines*. Although HUD indicates that samples should be collected from window troughs, the window troughs were not sampled because the windows were new and unpainted. Each sample was collected utilizing an aloe-free disposable wipe (Little Ones™) and placed into an individually labeled 50ml centrifuge tube for submission to the laboratory. The sample wipe area was delineated with masking tape and measured to the nearest eighth of an inch. Powderless surgical gloves were worn during collection of each sample.

Soil samples were collected in general accordance with Chapter 5 and the procedures outlined in Appendix 13.3 of the *HUD Guidelines*. One composite sample was collected from bare soil around the drip line of the building and another sample was collected from bare soil in the front lawn which is potentially accessible to children. Both composite samples consists of five sub-samples that were collected utilizing a 50 ml centrifuge tube. The centrifuge tube was used to scoop the top ½" soil from five separate bare spots for each sample. Powderless surgical gloves were worn during the collection of each sample and the exterior of the tubes were wet wiped after sample collection.

Laboratory Analysis

Hygeia Laboratories located in Marietta, Georgia, performed all laboratory analyses of the dust wipe and soil samples. The *HUD Guidelines* require laboratories which perform analysis of lead in housing to participate in the EPA's National Lead Laboratory Accreditation Program (NLLAP) administered by the American Industrial Hygiene Association (AIHA). Hygeia's NLLAP certifications are presented in Appendix I of this report.

The following criteria (HUD Interim Hazard Levels for Lead-Based Paint Risk Assessments) should be used for interpreting results of the environmental samples collected during this lead risk assessment:

Surface or Soil Type	Lead Hazard Level
Floors (clearance level)	100 $\mu\text{g}/\text{ft}^2$
Interior window sills (clearance level)	500 $\mu\text{g}/\text{ft}^2$
Window trough (clearance level)	800 $\mu\text{g}/\text{ft}^2$
Bare soil in small, high-contact areas	400 mg/kg
Bare soil in perimeter and yard samples	2,000 mg/kg
Soils requiring permanent abatement	5,000 mg/kg

3.0 SURVEY FINDINGS

Asbestos-Containing Materials

A total of 110 bulk samples and 9 quality control samples were collected from 29 distinct suspect ACM HAs identified from the interior and exterior of the Building NH-61. Based on the analytical criteria defined by the requested scope of work, the following table presents a summary of ACM identified:

HA No.	Material Description	Approximate Location	NESHAP Category	OSHA	Approx. Quantity
1	9" x 9" floor tile (with non-ACM mastic), green with white streaks	Room 137	Category I Non-Friable	Class II	70 square feet
4	Mastic associated with 12" x 12" floor tile, white with brown spots	Rooms 125, 132, 225, and 223	Category I Non-Friable	Class II	580 square feet
10	12" x 12" floor tile and mastic, gray with white, orange, and brown streaks	Rooms 224 and 226	Category I Non-Friable	Class II	390 square feet
19	Sink mastic, gray	Room 206	Category I Non-Friable	Class II	1 each
27	Contaminated soil	Crawlspace	Regulated ACM	Class I	8,200 square feet
28	Built-up roofing material (assumed)	Roofs above Rooms 150-154 and above the Porch	Category I Non-Friable	Class II	760 square feet
29	Rolled roofing material (assumed)	Roof above the north wing	Category I Non-Friable	Class II	2,600 square feet

Lead-Based Paint

A total of 678 XRF readings (including calibration checks) were obtained while performing the lead-based paint inspection at Building NH-61. See Appendix C of this report for a shot by shot summary of XRF readings. Seven bulk paint chip samples were collected and analyzed from representative component types to confirm the presence of lead in damaged paint films. An aggregate summary of XRF testing and paint chip sample results can be found at Appendix D of this report. Lead-based paint was identified on the following component types at Building NH-61:

Component Type	Overall Condition	Total Estimated Quantity
Plaster walls	Fair	28,000 square feet
Ceramic wall tile	Intact	250 square feet
Window components (old)	Intact	1 each
Wood doors (old, painted)	Fair	25 each

(continued on next page)

Component Type	Overall Condition	Total Estimated Quantity
Wood door casings	Fair	72 each
Metal door casings	Fair	12 each
Wood baseboards	Poor	3000 square feet
Wood cabinets and shelves	Intact	250 square feet
Wide hand rails at stairways	Poor	40 square feet
Plaster/concrete ceilings	Fair	16,000 square feet
Concrete floors	Intact	100 square feet
Metal pipes	Fair	200 linear feet
Cork board trim	Intact	15 linear feet
Fireplace mantle	Intact	15 square feet
Metal medicine cabinets	Intact	3 each
Wood ladder	Poor	10 square feet
Exterior concrete walls	Intact	33,000 square feet
Exterior concrete window sills	Intact	423 square feet
Wood soffit (assumed)	Poor	1,200 square feet
Parking curb, yellow	Poor	80 square feet
Exterior metal staircase	Poor	3 each
Metal down spouts	Poor	80 square feet
Metal conduit on exterior walls	Poor	40 linear feet

Lead Risk Assessment

A total of 28 dust wipe samples (including two field blanks and two spiked samples) were collected and analyzed for lead. Thirteen of the wipe samples were collected from floors. The average lead dust concentration on floors was 307 $\mu\text{g}/\text{ft}^2$, but only two floor sample results exceeded the HUD standard of 100 $\mu\text{g}/\text{ft}^2$. Both "high" samples were collected in rooms near LBP which was chipping, cracking, or peeling. Visible paint chips were collected with both samples. Nine samples were collected from window sills. The average lead dust concentration for the window sills was 110 $\mu\text{g}/\text{ft}^2$ which is below the HUD standard of 500 $\mu\text{g}/\text{ft}^2$ for interior window sills. Additional wipes were collected from a kitchen counter and a bookcase. The average lead dust level for these two samples was 32 $\mu\text{g}/\text{ft}^2$. Both spiked samples showed acceptable recovery (98-103%) by the laboratory. These lead dust results indicate that localized lead dust hazards are present and that they are associated with paint chips and debris on the floors near components with chipping, cracking, or peeling LBP. See HUD form 5.4 at Appendix F for lead dust wipe sample data.

Two composite soil samples were collected. One sample was collected around the drip line of building NH-61. The other sample was collected from bare spots in the front lawn. Both sample results indicate that soil lead levels are below the interim hazard levels of 2,000 mg/kg established by HUD. See HUD form 5.5 at Appendix F for the soil sample data.

In accordance with the *HUD Guidelines*, any component that contains deteriorated lead based-paint is a lead hazard. The following table provides a detailed list of components which were found to be coated with deteriorated lead-based paint in poor condition which constitute a lead-based paint hazard at building NH-61:

Lead-Based Paint Hazard	Location(s) of Identified Lead Hazards	Severity	Estimated Quantities
Poor condition LBP on original door casings	106, 115, 123, 134, 136, 137, 138, 142, 150, 227, 228, 229, and outside 129	Moderate	72 total (13 are in poor condition)
Poor condition LBP on wood baseboards	107, 112, 118, 120, 121, 127, 129, 131, 132, 150, 151, 217, 230, C1, C3, Stair 1 and Stair 2	Moderate	3000 square feet total (600 square feet in poor condition)
Poor condition LBP on plaster walls	115, 116, 136, 222, 227, 228, and basement	Moderate	> 28,000 square feet total (1,500 square feet damaged)
Poor condition LBP on wide staircase railings	Stair 1 and Stair 2	Moderate	2 total (20 square feet each)
Poor condition LBP on concrete or plaster ceilings	103, 134, 136, 137, 138, 210, and 227	Moderate	16,000 square feet (700 square feet damaged)
Poor condition LBP on wood doors	131, 139/141, 143/145, and basement	Moderate	25 total (5 in poor condition)
Poor condition LBP on metal door casings	218 and basement	Moderate	10 total (2 in poor condition)
Poor condition LBP (assumed) on wood soffit	Exterior roof	Moderate	1,200 square feet
Lead containing dust and debris on floors of rooms with damaged LBP	All rooms with damaged LBP	Moderate	36 rooms total (< 10 square feet of floor with visible paint debris per room)
Poor condition LBP on metal pipes	Basement, 132 and 136	Minor	200 linear feet total (10% in poor condition)
Poor condition LBP on metal hand rail	Basement	Minor	2 each
Poor condition LBP on exterior metal stair cases	Exterior of building	Minor	3 total (250 square feet)
Poor condition LBP on exterior components	Exterior of building	Minor	Isolated spots
Poor condition LBP on metal down spouts	Exterior of building	Minor	10 total
Poor condition LBP on parking curb	Front exterior of building	Minor	80 square feet

Some of the damaged paint films (doors, door casings, and baseboards for example) were damaged by friction or impact. Most of this form of damage is localized in small

damaged areas (<10 square feet each on average) that should be relatively easy to stabilize and repaint. Water damage and weathering have also caused damage to the LBP on some of the components (soffit, some plaster walls, and concrete ceilings for example) at Building NH-61. In rooms where water damage or weathering has caused the damage the areas damaged tend to be larger (>50 square feet on average).

4.0 RECOMMENDATIONS

Lead-Based Paint

Pursuant the HUD guidelines and guidance documentation from SC-DHEC, the following abatement and interim control options are suggested for the lead-based paint hazards identified in the proceeding section of this report.

- Replace components painted with lead-based paint such as the baseboards, painted doors, and door casings, with lead-free materials.
- Stabilize and repaint small areas of damaged lead-based paint on all doors, door casings, baseboards, and handrails. Remove damaged paint only with wet scraping methods. Mist down and plane the friction and impact surfaces such as where doors and door casings rub together.
- Repair and repaint damaged surfaces of all components with lead-based paint which were determined to be in poor condition. Make sure to address the cause(s) of deterioration such as water damage to prevent further deterioration.
- Remove lead dust and paint chip contamination by either wet mopping or HEPA vacuuming floors and other surfaces with visible paint debris.
- Replace carpets contaminated with visible paint debris in all rooms with lead-based paint which is in poor condition.
- Repair and repaint surfaces which are in poor condition but are not coated with lead-based paint. Make sure to address the cause(s) of deterioration such as water damage to prevent further deterioration.
- Dispose of old doors with lead-based paint which are currently stored in the basement.
- Establish a plan to reevaluate the presence of lead-based paint hazards after completion of any anticipated renovations.

The removal of lead-based paint hazards can be dangerous unless proper removal techniques are utilized. CAPE recommends that all lead hazard removal work be performed by properly certified lead abatement professionals. All such work should be monitored by a third party consultant to ensure that the hazards are properly removed.

5.0 OVERVIEW OF ASBESTOS REGULATORY REQUIREMENTS

EPA's Asbestos NESHAP Regulation

In accordance with Section 112 of the Clean Air Act (CAA), EPA established NESHAP. On April 6, 1973, EPA first promulgated NESHAP in 40 CFR Part 61. In 1990, EPA revised the NESHAP regulation.

The purpose of the NESHAP regulation is to protect the public by minimizing the release of asbestos fibers during activities involving the processing, handling, and disposal of ACM. Accordingly, NESHAP specifies work practices to be followed during demolitions and renovations of buildings, facilities and structures. These regulations require the owner of the building and/or contractor to notify applicable State and local agencies and/or EPA Regional Offices before any demolitions, or before renovations of buildings that impact certain threshold amounts of asbestos.

In accordance with NESHAP, ACM are classified as either *Friable ACM* or *Non-Friable ACM*. *Friable ACM* is defined as material that when dry, can be crushed, pulverized, or reduced to powder by hand pressure. *Non-Friable ACM* is defined as material that when dry, cannot be crushed, pulverized, or reduced to powder by hand pressure. EPA further classifies Non-Friable ACM as either Category I Non-Friable ACM or Category II Non-Friable ACM. Category I Non-Friable ACM includes asbestos-containing gaskets, packings, resilient floor coverings, floor covering mastics and asphalt roofing products. Category II Non-Friable ACM includes all other non-friable ACM, for example cement shingles or transite-type panels.

ACM regulated under NESHAP is referred to as *Regulated Asbestos-Containing Material (RACM)*. *RACM* is defined as:

- (1) Friable ACM
- (2) Category I Non-Friable ACM that has become friable
- (3) Category I Non-Friable ACM that has been or will be sanded, ground, cut or abraded
- (4) Category II Non-Friable ACM that has already been or is likely to become crumbled, pulverized or reduced to powder as part of the planned renovation or demolition.

For NESHAP compliance purposes, each Category I non-friable ACM and each Category II non-friable ACM should be evaluated prior to renovation or demolition to determine if the material should be categorized as RACM.

OSHA's Asbestos Standard for the Construction Industry

OSHA began regulating workplace asbestos exposure in 1970, adopting a permissible exposure limit (PEL) to regulate worker exposures. Over the years, more information on the adverse health effects of exposure has become available, prompting the agency to revise the asbestos standard several times. On August 10, 1994 OSHA issued a revised final standard regulating asbestos exposure in the construction industry (29 CFR 1910.1001). They published "corrections" to the standard on June 28 and 29, 1995.

Major provisions of the standard include a classification scheme for asbestos construction work that ties mandatory work practices to four asbestos work classifications, defined as follows:

- (1) *Class I asbestos work* means activities involving the removal of thermal system insulation (TSI) and surfacing ACM and presumed ACM.
- (2) *Class II asbestos work* means activities involving the removal of ACM that is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding and shingles, and construction mastics.
- (3) *Class III asbestos work* means repair and maintenance operations, where ACM, including TSI and surfacing, is likely to be disturbed.
- (4) *Class IV asbestos work* means maintenance and custodial activities during which employees contact but do not disturb ACM, and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

Based on the asbestos work classification, OSHA sets out several provisions employers must follow to comply with the asbestos standard. The agency has established strict permissible exposure limits and requirements for exposure assessment and monitoring, employee information and training, work practices, respiratory protection, medical surveillance, record keeping, and hazard communication.

Appendix A

Summary of Suspect ACM Bulk Sample Analysis Results

BUILDING NH61

HA No.	Material Description	Approximate Location	Sample I.D.	Analysis Result	ACM (YES/NO)
1	9"× 9" floor tile and mastic, green with white streaks	Room 137	CNSY-NH61-1-01	12% CHR (T) NAD (M)	YES
			CNSY-NH61-1-02	Not analyzed (T) NAD (M)	
			CNSY-NH61-1-03	Not analyzed (T) NAD (M)	
2	12"×12" floor tile and mastic, white with black and gray spots	Rooms 134, 139, 145, and C3	CNSY-NH61-2-01	NAD	NO *
			CNSY-NH61-2-02	NAD	
			CNSY-NH61-2-03	NAD	
3	12"×12" floor tile and mastic, green with white streaks	Room 140	QC-CNSY-NH61-3-01	NAD	NO *
			CNSY-NH61-3-01	NAD	
			CNSY-NH61-3-02	NAD	
			CNSY-NH61-3-03	NAD	
4	12"×12" floor tile and mastic, white with brown spots	Rooms 125, 132, 223, and 225	CNSY-NH61-4-01	NAD (T) 3% CHR (M)	NO (T)* YES (M)
			CNSY-NH61-4-02	NAD (T) 7% CHR (M)	
			CNSY-NH61-4-03	NAD (T) Not analyzed (M)	
5	Residual flooring mastic, black	Rooms 202, C4, and Stair 2	CNSY-NH61-5-01	NAD	NO
			CNSY-NH61-5-02	NAD	
			CNSY-NH61-5-03	NAD	
6	Stair tread and mastic, tan	Stair1 and Stair2	QC-CNSY-NH61-6-01	NAD	NO
			CNSY-NH61-6-01	NAD	
			CNSY-NH61-6-02	NAD	
			CNSY-NH61-6-03	NAD	
7	Plaster walls	Various locations throughout	QC-CNSY-NH61-7-01	NAD	NO
			CNSY-NH61-7-01	NAD	
			CNSY-NH61-7-02	NAD	
			CNSY-NH61-7-03	NAD	
			CNSY-NH61-7-04	NAD	
			CNSY-NH61-7-05	NAD	
			CNSY-NH61-7-06	NAD	
			CNSY-NH61-7-07	NAD	
			CNSY-NH61-7-08	NAD	
CNSY-NH61-7-09	NAD				
8	Spray-applied decorative material on plaster walls	Rooms C3 and C6	CNSY-NH61-8-01	NAD	NO
			CNSY-NH61-8-02	NAD	
			CNSY-NH61-8-03	NAD	

T = Floor Tile
 M = Mastic

NAD = No Asbestos Detected
 CHR = Chrysotile Asbestos

PC = Point Count Analysis Performed
 * = Result Verified by TEM

BUILDING NH61 (continued)

HA No.	Material Description	Approximate Location	Sample I.D.	Analysis Result	ACM (YES/NO)
9	Gypsum board walls with associated joint compound	Various locations throughout	QC-CNSY-NH61-9-01	NAD	NO
			CNSY-NH61-9-01	NAD	
			CNSY-NH61-9-02	NAD	
			CNSY-NH61-9-03	NAD	
			CNSY-NH61-9-04	NAD	
			CNSY-NH61-9-05	NAD	
			CNSY-NH61-9-06	NAD	
10	12"×12" floor tile and mastic, gray with white, orange, and brown streaks	Rooms 224 and 226	CNSY-NH61-10-01	<1% CHR (T) 3% CHR (M)	YES
			CNSY-NH61-10-02	2% CHR (T) Not analyzed (M)	
			CNSY-NH61-10-03	Not analyzed	
11	Blown attic insulation, white mineral wool-like	Attic	CNSY-NH61-11-01	NAD	NO
			CNSY-NH61-11-02	NAD	
			CNSY-NH61-11-03	NAD	
			CNSY-NH61-11-04	NAD	
			CNSY-NH61-11-05	NAD	
			CNSY-NH61-11-06	NAD	
			CNSY-NH61-11-07	NAD	
12	Gypsum board ceiling with associated joint compound	Rooms 103, 104, 106, 107, 109, 112-114, 117-120, 123, 124, 131, 134, 135, 202-208, 210, 211, 213-215, 217, 220, 223-226, 229, and 230	QC-CNSY-NH61-12-01	NAD	NO
			CNSY-NH61-12-01	NAD	
			CNSY-NH61-12-02	NAD	
			CNSY-NH61-12-03	NAD	
			CNSY-NH61-12-04	NAD	
			CNSY-NH61-12-05	NAD	
			CNSY-NH61-12-06	NAD	
13	Plaster ceiling	Rooms 115, 127, 132, 221, 222, 227, and 228	CNSY-NH61-13-01	NAD	NO
			CNSY-NH61-13-02	NAD	
			CNSY-NH61-13-03	NAD	
			CNSY-NH61-13-04	NAD	
			CNSY-NH61-13-05	NAD	
14	Spray-applied decorative material on concrete ceiling	Rooms 129, 131, 134, 136, 138, 150, 151, C3, and C6	QC-CNSY-NH61-14-01	NAD	NO
			CNSY-NH61-14-01	Trace CHR (PC)	
			CNSY-NH61-14-02	0.25% CHR (PC)	
			CNSY-NH61-14-03	NAD	
			CNSY-NH61-14-04	NAD	
			CNSY-NH61-14-05	NAD	
			CNSY-NH61-14-06	NAD	
CNSY-NH61-14-07	NAD				

T = Floor Tile
 M = Mastic

NAD = No Asbestos Detected
 CHR = Chrysotile Asbestos

PC = Point Count Analysis Performed
 * = Result Verified by TEM

BUILDING NH61 (continued)

HA No.	Material Description	Approximate Location	Sample I.D.	Analysis Result	ACM (YES/NO)
15	2'x 2' ceiling tile, grooved-pinhole	Rooms 103, 106, 107, 109, 112-114, 117-120, 123, 124, 202-208, 210, 211, 213-217, 220, 223-226, 229, 230, C1, C2, C4, C5, Stair 1, and Stair 2	CNSY-NH61-15-01	NAD	NO
			CNSY-NH61-15-02	NAD	
			CNSY-NH61-15-03	NAD	
			CNSY-NH61-15-04	NAD	
			CNSY-NH61-15-05	NAD	
			CNSY-NH61-15-06	NAD	
16	2'x 2' ceiling tile, pitted-pinhole	C5 (patches)	CNSY-NH61-16-01	NAD	NO
			CNSY-NH61-16-02	NAD	
			CNSY-NH61-16-03	NAD	
17	Mastic associated with blue basecove	Rooms 202, 203, 205, 207, 208, 210, 211, and C4	QC-CNSY-NH61-17-01	NAD	NO
			CNSY-NH61-17-01	NAD	
			CNSY-NH61-17-02	NAD	
			CNSY-NH61-17-03	NAD	
18	Mastic associated with black basecove	Room 204	CNSY-NH61-18-01	NAD	NO
			CNSY-NH61-18-02	NAD	
			CNSY-NH61-18-03	NAD	
19	Sink mastic, gray	Room 206	CNSY-NH61-19-01	7% CHR	YES
			CNSY-NH61-19-02	Not Analyzed	
			CNSY-NH61-19-03	Not Analyzed	
20	Fire stop putty, reddish-brown	Electrical and HVAC penetrations	QC-CNSY-NH61-20-01	NAD	NO
			CNSY-NH61-20-01	NAD	
			CNSY-NH61-20-02	NAD	
			CNSY-NH61-20-03	NAD	
21	Fire stop putty, reddish-orange	Fire alarm system penetrations	CNSY-NH61-21-01	NAD	NO
			CNSY-NH61-21-02	NAD	
			CNSY-NH61-21-03	NAD	
22	Mastic on metal exhaust duct, gray	Room 128	QC-CNSY-NH61-22-01	NAD	NO
			CNSY-NH61-22-01	NAD	
			CNSY-NH61-22-02	NAD	
			CNSY-NH61-22-03	NAD	
23	Mastic on fiberglass insulated HVAC duct, white	Rooms 218 and 233	CNSY-NH61-23-01	NAD	NO
			CNSY-NH61-23-02	NAD	
			CNSY-NH61-23-03	NAD	
24	Mastic on fiberglass insulated chilled water lines, white	Attic	CNSY-NH61-24-01	NAD	NO
			CNSY-NH61-24-02	NAD	
			CNSY-NH61-24-03	NAD	
25	Tar paper, black	Roof underneath clay shingles	CNSY-NH61-25-01	NAD	NO
			CNSY-NH61-25-02	NAD	
			CNSY-NH61-25-03	NAD	
26	Spray-applied decorative material on concrete walls	Stair 3	CNSY-NH61-26-01	NAD	NO
			CNSY-NH61-26-02	0.25% CHR (PC)	
			CNSY-NH61-26-03	0.75% CHR (PC)	

T = Floor Tile
 M = Mastic

NAD = No Asbestos Detected
 CHR = Chrysotile Asbestos

PC = Point Count Analysis Performed
 * = Result Verified by TEM

BUILDING NH61 (continued)

HA No.	Material Description	Approximate Location	Sample I.D.	Analysis Result	ACM (YES/NO)
27	Soil	Crawlspace	CNSY-NH61-27-01	8% CHR	YES
			CNSY-NH61-27-02	NAD	
			CNSY-NH61-27-03	<1% CHR	
			CNSY-NH61-27-04	NAD	
			CNSY-NH61-27-05	NAD	
			CNSY-NH61-27-06	NAD	
			CNSY-NH61-27-07	<1% CHR	
28	Built-up roofing material, gravel type	Roofs above Rooms 150-154 and above the Porch	Not sampled	Assumed ACM	YES
29	Rolled roofing material, gray asphalt	Roof above the north wing	Not sampled	Assumed ACM	YES

T = Floor Tile
 M = Mastic

NAD = No Asbestos Detected
 CHR = Chrysotile Asbestos

PC = Point Count Analysis Performed
 * = Result Verified by TEM

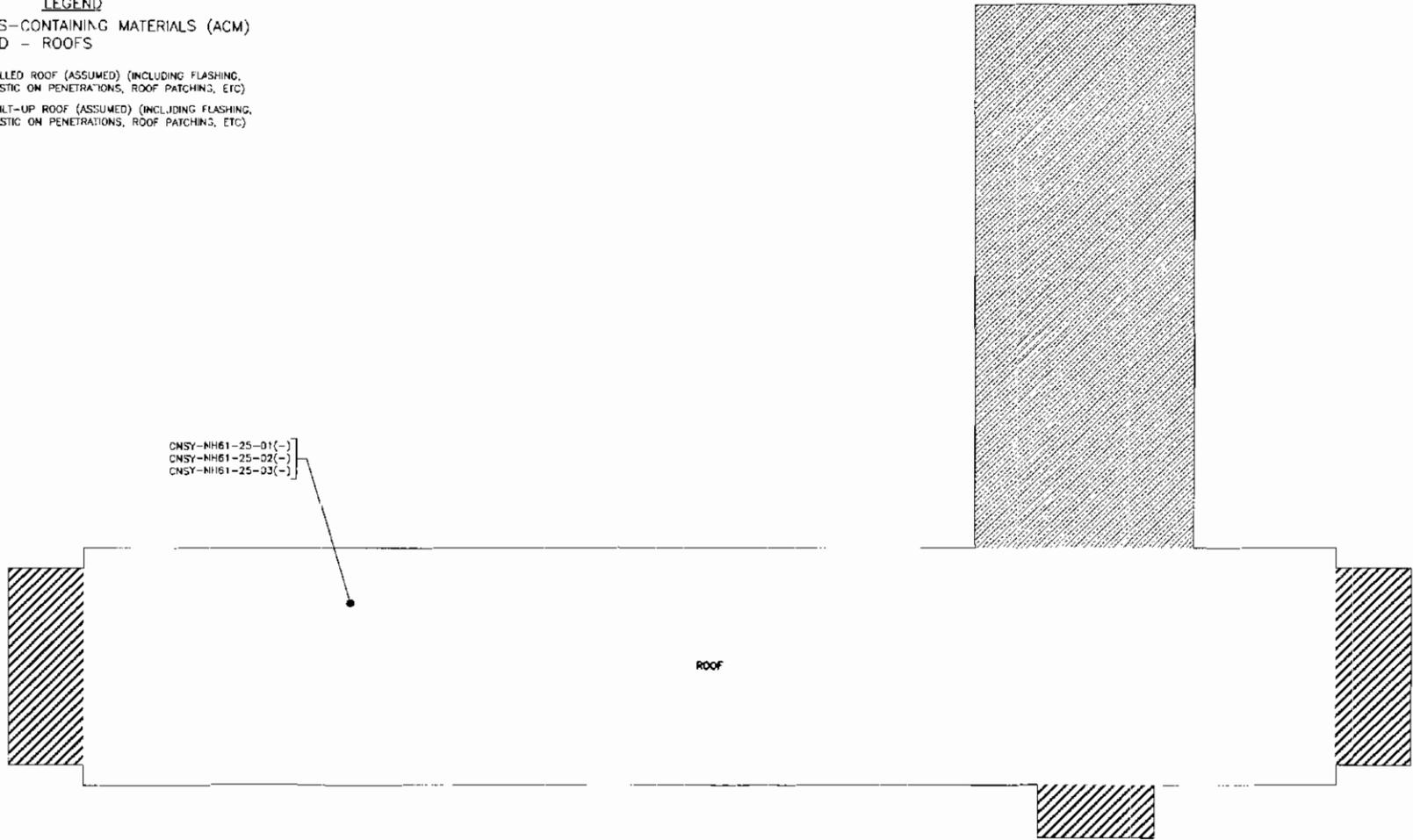
Appendix B

**Survey Drawings: Extent of ACM Identified and
Suspect ACM Bulk Sample Locations**

LEGEND

**ASBESTOS-CONTAINING MATERIALS (ACM)
IDENTIFIED - ROOFS**

-  ROLLED ROOF (ASSUMED) (INCLUDING FLASHING, MASTIC ON PENETRATIONS, ROOF PATCHING, ETC)
-  BUILT-UP ROOF (ASSUMED) (INCLUDING FLASHING, MASTIC ON PENETRATIONS, ROOF PATCHING, ETC)



CNSY-NH61-25-01(-)
CNSY-NH61-25-02(-)
CNSY-NH61-25-03(-)

ROOF

TYPICAL CAPE SAMPLE I.D. No.

CNSY-NH61-1-01(+)

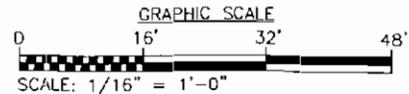
- POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF ASBESTOS OR (NA) FOR NOT ANALYZED
- SAMPLE No.
- HOMOGENEOUS AREA No.
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD

BUILDING NH-61 -- ROOF PLAN

SCALE: 1/16" = 1'-0"

SYMBOLS

-  LOCATION OF SAMPLES COLLECTED
- (-) NON-ASBESTOS-CONTAINING MATERIAL



DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	CAPE ENVIRONMENTAL MANAGEMENT INC.	ATLANTA	DATE APPROVED	PREP BY
SOUTHERN DIVISION		ATLANTA		DATE	BY
CHARLESTON, S.C.		BY		DATE	BY
A-E SERVICES FOR ASBESTOS SURVEY		BY		DATE	BY
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC		BY		DATE	BY
BUILDING NH-61 - ROOF PLAN		BY		DATE	BY
(ROOFING MATERIALS)		BY		DATE	BY
APPROVED		BY		DATE	BY
ED FOR COMMANDER, NAVAL		BY		DATE	BY
APPROVED		BY		DATE	BY
SCALE AREA					
CODE	NO.	REV.			
FIG. DRAWING NO.					
SPL. FILE NO.					
CAPE FILE NO.					
SPEC. NO.					
CONSTR. CHGR. NO.					
REVISIONS					
NAFAC DRAWING NO.					
SHEET #					
NH61ASB-9					

Appendix C

Shot by Shot Summary of XRF Testing Data

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
1			Calibration Check	Red	1.2	Ref. Val. = 1.0
2			Calibration Check	Wood	0.2	Ref. Val. = 0.0
3			Calibration Check	Red	1.1	Ref. Val. = 1.0
4			Calibration Check	Wood	0.1	Ref. Val. = 0.0
5			Calibration Check	Red	1.2	Ref. Val. = 1.0
6			Calibration Check	Wood	0.0	Ref. Val. = 0.0
7	154	Concrete	Wall	Yellow	0.2	Good
8	154	Concrete	Wall	Yellow	0.1	Poor
9	154	Gypsum	Wall	Yellow	-0.1	Good
10	154	Concrete	Wall	Yellow	0.2	Good
11	154	Concrete	Ceiling	White	0.0	Poor
12	154	Wood	Window Casing	Pink	0.1	Good
13	154	Metal	Door Casing	Yellow	0.7	Fair
14	154	Metal	Pipe	White	0.1	Good
15	154	Concrete	Floor	Gray	0.7	Good
16	103	Plaster	Wall	Yellow	0.0	Good
17	103	Plaster	Wall	Yellow	0.2	Good
18	103	Plaster	Wall	Yellow	0.0	Good
19	103	Plaster	Wall	Yellow	0.1	Good
20	103	Gypsum	Ceiling	Yellow	-0.1	Good
21	103	Wood	Door	Brown	-0.1	Good
22	103	Wood	Window Casing	White	0.0	Good
23	103	Wood	Baseboard	Tan	1.0	Fair
24	107	Plaster	Wall	Pink	-0.1	Fair
25	107	Plaster	Wall	Pink	0.2	Poor
26	107	Plaster	Wall	Pink	0.0	Fair
27	107	Plaster	Wall	Pink	0.0	Poor
28	107	Concrete	Celing	White	0.2	Poor
29	107	Wood	Window Casing	White	0.0	Good
30	107	Wood	Door Casing	Pink	0.3	Poor
31	107	Wood	Baseboard	Pink	1.5	Poor
32	107	Gypsum	Ceiling	Pink	0.0	Good
33	109	Plaster	Wall	Tan	0.1	Good
34	109	Gypsum	Wall	Tan	-0.1	Good
35	109	Plaster	Wall	Tan	-0.1	Fair
36	109	Plaster	Wall	Tan	-0.1	Good
37	109	Concrete	Ceiling	White	0.3	Fair
38	109	Wood	Window Sill	Yellow	0.1	Good
39	109	Wood	Door Casing	Green	1.3	Good
40	109	Wood	Baseboard	Green	1.0	Good
41	109	Wood	Threshold	Stained	0.0	Good
42	109	Gypsum	Ceiling	Tan	0.1	Good
43	113	Plaster	Wall	Green	0.0	Good
44	113	Plaster	Wall	Green	-0.1	Fair
45	113	Plaster	Wall	Green	-0.1	Fair

Project: CNSY (NH-61)
 Project #: 00009.006.000
 Inspector: M Black
 Date: 5/15/00
 XRF: RMD LPA-1 #1038
 Abatement Level: 0.7

LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
46	113	Plaster	Wall	Green	0.0	Fair
47	113	Concrete	Ceiling	White	0.3	Good
48	113	Wood	Window Casing	Green	0.0	Good
49	113	Wood	Door	Green	0.1	Good
50	113	Wood	Baseboard	Green	1.7	Good
51	113	Gypsum	Ceiling	Yellow	0.0	Good
52	115	Plaster	Wall	White	1.1	Poor
53	115	Plaster	Wall	White	1.2	Good
54	115	Ceramic Tile	Wall	White	2.1	Good
55	115	Plaster	Wall	White	1.1	Poor
56	115	Plaster	Ceiling	White	1.0	Fair
57	115	Wood	Door Casing	White	2.2	Poor
58	117	Plaster	Wall	Pink	-0.1	Good
59	117	Plaster	Wall	Pink	0.0	Good
60	117	Plaster	Wall	Pink	0.0	Good
61	117	Plaster	Wall	Pink	0.0	Good
62	117	Plaster	Ceiling	White	0.2	Good
63	117	Wood	Window Sill	White	0.1	Good
64	117	Wood	Door Casing	Pink	1.6	Good
65	117	Wood	Baseboard	Pink	1.9	Good
66	117	Gypsum	Ceiling	Pink	0.1	Good
67	119	Plaster	Wall	White	0.1	Good
68	119	Plaster	Wall	White	-0.1	Good
69	119	Plaster	Wall	White	0.0	Good
70	119	Gypsum	Wall	White	-0.1	Good
71	119	Concrete	Ceiling	White	0.2	Good
72	119	Wood	Window Casing	White	0.1	Good
73	119	Wood	Baseboard	Blue	1.3	Good
74	119	Wood	Door	White	0.0	Good
75	119	Gypsum	Ceiling	White	0.2	Good
76	123	Plaster	Wall	Lt Green	-0.1	Good
77	123	Plaster	Wall	Lt Green	0.0	Good
78	123	Gypsum	Wall	Lt Green	0.2	Good
79	123	Plaster	Wall	Lt Green	0.0	Good
80	123	Concrete	Ceiling	White	0.2	Good
81	123	Wood	Window Casing	Green	0.1	Good
82	123	Wood	Baseboard	Green	1.2	Good
83	123	Wood	Door Casing	Green	1.4	Poor
84	123	Gypsum	Ceiling	Lt Green	-0.1	Good
85	125	Plaster	Wall	Lt Green	0.0	Good
86	125	Plaster	Wall	Lt Green	0.2	Good
87	125	Plaster	Wall	Gray	-0.1	Good
88	125	Gypsum	Wall	Yellow	0.1	Good
89	125	Wood	Window Casing	White	0.0	Good
90	125	Concrete	Ceiling	White	0.3	Poor

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 Date: 5/15/00
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LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm ²)	Comments/ Condition
91	125	Wood	Stall	Yellow	-0.2	Good
92	125	Wood	Baseboard	Tan	1.3	Poor
93	125	Wood	Door Casing	Tan	0.1	Good
94	125	Wood	Floor	Stain	-0.1	Good
95	124	Gypsum	Wall	Yellow	-0.1	Good
96	124	Gypsum	Wall	Red	-0.2	Fair
97	124	Plaster	Wall	Yellow	0.1	Good
98	124	Plaster	Wall	Yellow	0.3	Good
99	124	Concrete	Ceiling	White	0.1	Good
100	124	Wood	Window Casing	Red	0.1	Good
101	124	Wood	Door Casing	Red	1.2	Good
102	124	Wood	Baseboard	Yellow	1.3	Good
103	124	Gypsum	Ceiling	Yellow	-0.1	Good
104	120	Plaster	Wall	White	0.2	Good
105	120	Plaster	Wall	White	0.0	Good
106	120	Plaster	Wall	White	0.1	Good
107	120	Plaster	Wall	White	0.0	Good
108	120	Concrete	Ceiling	White	0.3	Good
109	120	Wood	Door Casing	White	0.2	Fair
110	120	Wood	Window Sill	White	-0.2	Good
111	120	Wood	Baseboard	White	1.3	Poor
112	120	Gypsum	Ceiling	White	-0.1	Good
113	118	Plaster	Wall	Lt Blue	0.0	Good
114	118	Plaster	Wall	Lt Blue	0.0	Good
115	118	Plaster	Wall	Lt Blue	0.1	Good
116	118	Plaster	Wall	Lt Blue	0.1	Good
117	118	Concrete	Ceiling	White	0.2	Good
118	118	Wood	Window Casing	White	0.1	Good
119	118	Wood	Door	Lt Blue	0.0	Good
120	118	Wood	Baseboard	White	1.3	Poor
121	118	Gypsum	Ceiling	White	0.0	Good
122	116	Ceramic Tile	Wall	White	3.2	Good
123	116	Plaster	Wall	White	0.1	Poor
124	116	Plaster	Wall	White	0.7	Poor
125	116	Plaster	Wall	Lt Green	1.1	Poor
126	116	Wood	Door Casing	Lt Green	0.0	Poor
127	114	Plaster	Wall	Lt Blue	0.0	Fair
128	114	Plaster	Wall	Lt Blue	0.0	Fair
129	114	Plaster	Wall	Lt Blue	-0.1	Good
130	114	Plaster	Wall	Lt Blue	-0.1	Good
131	114	Concrete	Ceiling	White	0.4	Good
132	114	Wood	Window Sill	White	0.1	Good
133	114	Wood	Door Casing	Blue	1.5	Good
134	114	Wood	Baseboard	Blue	1.3	Good
135	114	Gypsum	Ceiling	Blue	0.1	Good

Project: CNSY (NH-61)
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 Abatement Level: 0.7

LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
136	114	Concrete	Floor	Gray	-0.1	Poor
137	112	Plaster	Wall	Peach	0.1	Good
138	112	Gypsum	Wall	Peach	-0.1	Good
139	112	Plaster	Wall	Peach	-0.1	Good
140	112	Plaster	Wall	Peach	0.2	Fair
141	112	Concrete	Ceiling	White	0.3	Good
142	112	Wood	Windw Sill	White	0.0	Good
143	112	Wood	Door Casing	White	1.6	Good
144	112	Wood	Baseboard	White	1.3	Poor
145	112	Gypsum	Ceiling	White	0.0	Good
146	106	Plaster	Wall	Yellow	0.0	Good
147	106	Plaster	Wall	Yellow	0.2	Good
148	106	Plaster	Wall	Yellow	0.1	Good
149	106	Gypsum	Wall	Yellow	0.0	Good
150	106	Concrete	Ceiling	White	0.2	Good
151	106	Wood	Window Casing	Yellow	0.0	Good
152	106	Wood	Door Casing	Yellow	3.3	Poor
153	106	Wood	Baseboard	Yellow	1.2	Good
154	106	Gypsum	Ceiling	Yellow	0.0	Good
155	104	Plaster	Wall	Peach	0.1	Good
156	104	Plaster	Wall	Peach	-0.1	Good
157	104	Plaster	Wall	Peach	0.0	Good
158	104	Plaster	Wall	Peach	-0.1	Good
159	104	Concrete	Ceiling	Peach	0.2	Good
160	104	Wood	Window Casing	White	0.0	Good
161	104	Metal	Door Casing	Brown	0.0	Good
162	104	Wood	Baseboard	Peach	1.3	Good
163	104	Gypsum	Ceiling	Peach	0.1	Good
164	152	Concrete	Wall	White	0.0	Fair
165	152	Concrete	Wall	White	0.2	Poor
166	152	Concrete	Wall	White	0.0	Fair
167	152	Concrete	Ceiling	White	0.2	Good
168	152	Wood	Window Sill	White	0.0	Good
169	152	Metal	Door Casing	Brown	0.2	Good
170	152	Metal	Pipe	White	0.2	Good
171	153	Plaster	Wall	White	2.0	Good
172	153	Plaster	Wall	White	0.2	Good
173	153	Wood	Window Casing	White	2.5	Good
174	153	Concrete	Ceiling	White	-0.1	Good
175	153	Wood	Door Casing	White	0.2	Good
176	153	Wood	Baseboard	White	0.0	Good
177	153	Metal	Floor	Green/Rec	0.0	Good
178	S1	Plaster	Wall	White	-0.1	Good
179	S1	Gypsum	Wall	White	0.0	Good
180	S1	Plaster	Wall	White	0.0	Fair

Project: CNSY (NH-61)
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LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
181	S1	Plaster	Wall	White	0.2	Good
182	S1	Concrete	Ceiling	White	0.2	Good
183	S1	Wood	Baseboard	White	2.6	Poor
184	S1	Metal	Door Casing	White	0.0	Good
185	S1	Concrete	Stair Tread	Black	0.1	Good
186	S1	Concrete	Stair Riser	Black	-0.3	Good
187	S1	Wood	Railing	Black	1.9	Poor
188	S1	Wood	Window Casing	White	0.0	Good
189	S1	Wood	Door Casing	White	1.5	Good
190	S1	Wood	Floor	Stain	0.1	Good
191	C1	Plaster	Wall	Peach	0.2	Good
192	C1	Gypsum	Wall	Peach	-0.1	Good
193	C1	Plaster	Wall	Peach	0.1	Good
194	C1	Gypsum	Wall	Peach	0.1	Good
195	C1	Wood	Baseboard	Tan	1.5	Poor
196	C1	Wood	Door Casing	White	2.2	Good
197	C1	Concrete	Ceiling	White	0.3	Good
198	C1	Wood	Floor	Stained	0.1	Fair
199	Stair 2	Gypsum	Wall	Peach	-0.1	Good
200	Stair 2	Plaster	Wall	Peach	0.0	Good
201	Stair 2	Plaster	Wall	Peach	0.0	Good
202	Stair 2	Gypsum	Wall	Peach	0.2	Good
203	Stair 2	Concrete	Ceiling	White	0.1	Good
204	Stair 2	Wood	Baseboard	Peach	1.3	Poor
205	Stair 2	Metal	Door Casing	White	0.0	Good
206	Stair 2	Concrete	Stair Tread	Black	0.3	Good
207	127	Concrete	Riser	Black	0.1	Good
208	127	Wood	Wide Railing	Black	1.3	Poor
209	127	Wood	Narrow Railing	Black	0.1	Poor
210	127	Plaster	Wall	Peach	0.0	Good
211	127	Plaster	Wall	Peach	0.2	Fair
212	127	Plaster	Wall	Peach	0.1	Good
213	127	Plaster	Wall	Peach	0.2	Good
214	127	Concrete	Ceiling	White	0.2	Good
215	127	Wood	Baseboard	Peach	0.7	Poor
216	127	Wood	Shelf	Peach	1.8	Good
217	127	Wood	Window Casing	White	0.0	Good
218	127	Metal	Door Casing	Brown	0.1	Good
219	127	Wood	Cork Board Trim	Peach	0.1	Good
220	129	Plaster	Wall	Pink	0.1	Good
221	129	Plaster	Wall	Pink	-0.1	Good
222	129	Plaster	Wall	Pink	0.2	Good
223	129	Plaster	Wall	Pink	0.3	Good
224	129	Wood	Shelf	Black	1.9	Good
225	129	Wood	Door Casing	White	1.3	Good

Project: CNSY (NH-61)
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LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
226	129	Wood	Baseboard	White	2.6	Poor
227	129	Metal	Door Casing	Gray	0.0	Good
228	129	Wood	Floor	Stain	0.0	Fair
229	132	Plaster	Wall	Yellow	0.0	Good
230	132	Plaster	Wall	Yellow	0.1	Good
231	132	Plaster	Wall	Yellow	0.1	Good
232	132	Plaster	Wall	Yellow	0.3	Good
233	132	Wood	Window Sill	White	0.1	Good
234	132	Wood	Door Casing	White	0.1	Good
235	132	Metal	Duct	White	-0.1	Poor
236	132	Metal	Pipe	White	0.7	Poor
237	132	Ceramic Tile	Baseboard	White	1.2	Good
238	132	Wood	Floor	Stained	-0.1	Good
239	132	Wood	Baseboard	Tan	1.1	Poor
240	131	Plaster	Wall	Yellow	0.0	Good
241	131	Plaster	Wall	Yellow	0.2	Good
242	131	Plaster	Wall	Yellow	0.2	Good
243	131	Plaster	Wall	Yellow	0.0	Good
244	131	Wood	Window Casing	White	0.0	Good
245	131	Wood	Baseboard	White	1.9	Poor
246	131	Wood	Door	White	1.1	Poor
247	131	Concrete	Ceiling	White	0.1	Good
248	131	Gypsum	Ceiling	Yellow	-0.1	Good
249	131	Wood	Mantle	White	1.6	Good
250	131	Brick	Fireplace	White	0.0	Good
251	131	Wood	Floor	Stained	-0.2	Good
252	131	Metal	Window Shutter	Gray	0.0	Good
253	151	Plaster	Wall	White	0.0	Good
254	151	Plaster	Wall	White	0.1	Poor
255	151	Plaster	Wall	White	0.0	Good
256	151	Plaster	Wall	White	0.2	Poor
257	151	Wood	Window Casing	White	0.1	Good
258	151	Wood	Baseboard	White	1.6	Poor
259	151	Wood	Door Casing	White	0.0	Poor
260	151	Concrete	Floor	Black	-0.1	Poor
261	150	Plaster	Wall	White	0.0	Fair
262	150	Plaster	Wall	White	-0.1	Fair
263	150	Plaster	Wall	White	-0.2	Poor
264	150	Plaster	Wall	White	0.2	Poor
265	150	Wood	Window Sill	White	0.0	Good
266	150	Wood	Door Casing	White	1.8	Poor
267	150	Wood	Baseboard	White	1.8	Poor
268	150	Concrete	Floor	Black	0.0	Poor
269	134	Plaster	Wall	White	0.1	Good
270	134	Gypsum	Wall	White	0.1	Good

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XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
271	134	Gypsum	Wall	White	0.0	Good
272	134	Gypsum	Wall	White	0.0	Good
273	134	Concrete	Ceiling	White	0.7	Poor
274	134	Gypsum	Ceiling	White	0.0	Good
275	134	Wood	Window Sill	White	0.0	Good
276	134	Wood	Door Casing	White	1.9	Poor
277	134	Wood	Baseboard	White	0.0	Good
278	134	Plaster	Column	White	0.2	Poor
279	C3	Plaster	Wall	Tan	0.3	Good
280	C3	Plaster	Wall	Tan	0.4	Poor
281	C3	Plaster	Wall	Tan	0.1	Good
282	C3	Plaster	Wall	Tan	0.3	Good
283	C3	Concrete	Ceiling	Tan	0.7	Good
284	C3	Wood	Door Casing	Tan	1.9	Good
285	C3	Wood	Baseboard	Tan	1.6	Poor
286	C3	Metal	Duct	Tan	0.1	Poor
287	137	Plaster	Wall	Lt Yellow	0.0	Good
288	137	Plaster	Wall	Lt Yellow	0.0	Good
289	137	Plaster	Wall	Lt Yellow	-0.2	Good
290	137	Plaster	Wall	Lt Yellow	0.0	Good
291	137	Concrete	Ceiling	White	0.7	Poor
292	137	Wood	Window Casing	White	0.0	Good
293	137	Wood	Door Casing	White	2.4	Poor
294	137	Wood	Baseboard	White	1.2	Good
295	139/141	Plaster	Wall	White	0.0	Good
296	139/141	Plaster	Wall	White	0.0	Good
297	139/141	Plaster	Wall	White	0.3	Good
298	139/141	Plaster	Wall	White	0.1	Good
299	139/141	Plaster	Ceiling	White	0.4	Poor
300	139/141	Wood	Shelf	White	0.0	Good
301	139/141	Wood	Window Casing	White	0.1	Good
302	139/141	Wood	Baseboard	White	2.8	Good
303	139/141	Wood	Door	White	1.9	Poor
304	143/145	Plaster	Wall	Yellow	0.2	Good
305	143/145	Plaster	Wall	Yellow	0.1	Good
306	143/145	Plaster	Wall	Tan	-0.1	Good
307	143/145	Plaster	Wall	Tan	-0.1	Good
308	143/145	Wood	Door	White	1.4	Poor
309	143/145	Wood	Baseboard	Tan	1.6	Good
310	143/145	Wood	Window Casing	Tan	0.0	Good
311	138	Plaster	Wall	White	0.7	Good
312	138	Plaster	Wall	White	0.4	Good
313	138	Plaster	Wall	White	0.3	Good
314	138	Plaster	Wall	White	0.4	Good
315	138	Plaster	Ceiling	White	0.7	Poor

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Shot #	Room #	Substrate	Component	Color	Reading (mg/cm ²)	Comments/ Condition
316	138	Wood	Window Casing	White	0.0	Good
317	138	Wood	Door Casing	White	1.9	Poor
318	138	Metal	Pipe	White	0.7	Good
319	138	Wood	Cabinet	White	-0.2	Good
320	140	Wood	Wall	Yellow	0.2	Good
321	140	Plaster	Wall	Yellow	0.1	Poor
322	140	Plaster	Wall	Yellow	0.4	Poor
323	140	Plaster	Wall	Yellow	0.0	Poor
324	140	Plaster	Ceiling	Yellow	0.2	Poor
325	140	Wood	Window Casing	White	0.3	Good
326	140	Wood	Door Casing	White	1.7	Good
327	140	Wood	Baseboard	White	1.2	Good
328	140	Wood	Shelf	White	1.8	Good
329	142	Plaster	Wall	White	0.0	Poor
330	142	Plaster	Wall	White	0.0	Poor
331	142	Plaster	Wall	White	-0.1	Poor
332	142	Plaster	Wall	White	0.2	Poor
333	142	Plaster	Ceiling	White	0.0	Poor
334	142	Metal	Door Casing	Red	0.0	Good
335	142	Concrete	Baseboard	White	0.2	Poor
336	142	Wood	Door Casing	White	2.5	Poor
337	142	Gypsum	Wall	White	0.0	Good
338	142	Concrete	Floor	Gray	0.1	Poor
339	136	Plaster	Wall	White	0.7	Poor
340	136	Plaster	Wall	White	0.0	Good
341	136	Plaster	Wall	White	0.1	Good
342	136	Plaster	Wall	White	0.4	Poor
343	136	Concrete	Ceiling	White	0.7	Poor
344	136	Wood	Door Casing	White	1.6	Poor
345	136	Wood	Counter	White	-0.1	Poor
346	136	Wood	Cabinet	White	0.0	Poor
347	136	Wood	Window Sill	White	0.1	Good
348	136	Metal	Duct	White	0.1	Fair
349	136	Metal	Pipe	White	1.1	Poor
350			Calibration Check	Red	1.2	Ref. Val. = 1.0
351			Calibration Check	Wood	0.2	Ref. Val. = 0.0
352			Calibration Check	Red	1.1	Ref. Val. = 1.0
353			Calibration Check	Wood	0.2	Ref. Val. = 0.0
354			Calibration Check	Red	1.2	Ref. Val. = 1.0
355			Calibration Check	Wood	0.2	Ref. Val. = 0.0
356			Calibration Check	Green	0.4	Ref. Val. = 0.3
357			Calibration Check	Yellow	4.2	Ref. Val. = 3.5
358			Calibration Check	Red	1.1	Ref. Val. = 1.0
359			Calibration Check	Red	1.2	Ref. Val. = 1.0
360			Calibration Check	Red	1.2	Ref. Val. = 1.0

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Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
361			Calibration Check	Wood	0.2	Ref. Val. = 0.0
362			Calibration Check	Wood	0.2	Ref. Val. = 0.0
363			Calibration Check	Wood	0.2	Ref. Val. = 0.0
364	204	Plaster	Wall	Paper	0.1	Good
365	204	Plaster	Wall	Paper	0.2	Good
366	204	Gypsum	Wall	Paper	0.0	Good
367	204	Gypsum	Wall	Paper	0.0	Good
368	204	Wood	Window Sill	White	0.1	Good
369	204	Metal	Door Casing	Gray	0.0	Good
370	204	Concrete	Ceiling	White	0.7	Good
371	204	Gypsum	Ceiling	Paper	0.1	Good
372	206	Plaster	Wall	Paper	0.7	Good
373	206	Gypsum	Wall	Paper	0.1	Good
374	206	Gypsum	Wall	Paper	0.0	Good
375	206	Gypsum	Wall	Paper	0.1	Good
376	206	Gypsum	Ceiling	Paper	0.0	Good
377	206	Wood	Cabinet	Stain	0.0	Good
378	206	Wood	Door Casing	White	0.1	Good
380	206	Wood	Window Casing	White	0.1	Good
379	202	Concrete	Ceiling	White	0.7	Good
381	202	Plaster	wall	Paper	0.0	Good
382	202	Gypsum	wall	Paper	0.0	Good
383	202	Plaster	wall	Paper	0.2	Good
384	202	Plaster	wall	Paper	0.2	Good
385	202	Wood	Window Casing	Paper	0.1	Good
386	202	Metal	Door Casing	White	0.1	Good
387	202	Gypsum	Ceiling	Paper	0.1	Good
388	202	Wood	Floor	Stained	0.0	Poor
389	213	Plaster	Wall	White	0.0	Poor
390	213	Ceramic Tile	Wall	White	-0.1	Good
391	213	Plaster	Wall	White	0.1	Good
392	213	Gypsum	Wall	White	0.0	Good
393	213	Gypsum	Ceiling	White	0.1	Good
394	213	Wood	Stall	Orange	0.3	Good
395	213	Wood	Door Casing	White	-0.1	Good
396	213	Wood	Window Casing	White	0.2	Good
397	215	Plaster	Wall	White	0.2	Good
398	215	Plaster	Wall	White	-0.1	Good
399	215	Plaster	Wall	White	0.1	Good
400	215	Plaster	Wall	White	0.2	Good
401	215	Wood	Window Casing	White	0.1	Good
402	215	Wood	Door Casing	White	0.0	Good
403	215	Wood	Baseboard	White	1.9	Good
404	215	Concrete	Ceiling	White	0.2	Good
405	215	Gypsum	Ceiling	White	-0.1	Good

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XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/Condition
406	217	Plaster	Wall	Paper	0.1	Good
407	217	Plaster	Wall	White	0.2	Good
408	217	Plaster	Wall	Paper	-0.1	Good
409	217	Plaster	Wall	Paper	0.3	Good
410	217	Wood	Window Sill	White	-0.1	Good
411	217	Wood	Door Casing	White	0.1	Good
412	217	Concrete	Ceiling	White	0.2	Good
413	217	Gypsum	Ceiling	White	0.1	Good
414	217	Wood	Baseboard	White	1.8	Poor
415	221	Plaster	Wall	White	0.7	Good
416	221	Plaster	Wall	White	0.7	Good
417	221	Ceramic Tile	Wall	White	0.7	Good
418	221	Plaster	Wall	White	0.7	Good
419	221	Wood	Door Casing	White	3.4	Fair
420	221	Wood	Door	White	0.0	Fair
421	221	Wood	Window Casing	White	0.1	Good
422	221	Wood	Baseboard	White	2.1	Good
423	221	Metal	Cabinet	Yellow	0.4	Good
424	221	Concrete	Ceiling	White	1.3	Good
425	221	Wood	Shelf	White	0.1	Good
426	223	Plaster	Wall	Tan	-0.1	Good
427	223	Plaster	Wall	Tan	0.0	Good
428	223	Plaster	Wall	Tan	0.1	Fair
429	223	Gypsum	Wall	Tan	0.0	Good
430	223	Concrete	Ceiling	White	0.7	Good
431	223	Wood	Window Sill	White	0.1	Good
432	223	Wood	Baseboard	White	0.1	Fair
433	223	Wood	Door Casing	White	1.9	Fair
434	223	Gypsum	Ceiling	Tan	0.0	Good
435	225	Plaster	Wall	White	0.2	Good
436	225	Gypsum	Wall	White	0.0	Good
437	225	Plaster	Wall	White	0.3	Good
438	225	Plaster	Wall	White	0.2	Poor
439	225	Wood	Window Sill	White	0.1	Poor
440	225	Wood	Door Casing	White	1.4	Good
441	225	Wood	Baseboard	White	1.7	Fair
442	225	Concrete	Ceiling	White	0.4	Poor
443	225	Gypsum	Ceiling	White	0.0	Good
444	227	Plaster	Wall	White	0.4	Poor
445	227	Plaster	Wall	White	0.7	Poor
446	227	Ceramic Tile	Wall	White	0.7	Good
447	227	Plaster	Wall	White	0.7	Poor
448	227	Wood	Door Casing	White	2.6	Poor
449	227	Wood	Door	White	0.3	Good
450	227	Concrete	Ceiling	White	1.2	Poor

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Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
451	227	Wood	Window Casing	White	0.1	Good
452	229	Plaster	Wall	Beige	0.2	Fair
453	229	Plaster	Wall	Beige	0.2	Poor
454	229	Plaster	Wall	Beige	0.1	Good
455	229	Plaster	Wall	Beige	0.1	Good
456	229	Concrete	Ceiling	White	0.2	Good
457	229	Wood	Door Casing	White	1.2	Poor
458	229	Wood	Baseboard	White	1.3	Good
459	229	Wood	Window Sill	White	-0.1	Poor
460	229	Wood	Door Casing	White	1.2	Poor
461	229	Gypsum	Ceiling	Beige	0.2	Good
462	230	Plaster	Wall	Beige	0.0	Good
463	230	Plaster	Wall	Beige	0.0	Good
464	230	Plaster	Wall	Beige	0.0	Good
465	230	Plaster	Wall	Beige	0.1	Good
466	230	Concrete	Ceiling	White	0.4	Good
467	230	Gypsum	Ceiling	Beige	0.0	Good
468	230	Metal	Window Shutter	Gray	0.0	Good
469	230	Wood	Door Casing	White	1.3	Good
470	230	Wood	Baseboard	White	1.0	Poor
471	228	Plaster	Wall	White	0.7	Good
472	228	Plaster	Wall	White	0.7	Poor
473	228	Ceramic Tile	Wall	White	0.7	Good
474	228	Plaster	Wall	White	1.0	Fair
475	228	Wood	Door Casing	White	2.7	Poor
476	228	Wood	Window Casing	White	0.2	Good
477	228	Metal	Cabinet	Yellow	0.7	Good
478	228	Concrete	Ceiling	White	1.0	Good
479	226	Plaster	Wall	Beige	0.3	Fair
480	226	Gypsum	Wall	Beige	0.0	Good
481	226	Plaster	Wall	Beige	0.2	Good
482	226	Plaster	Wall	Beige	0.0	Fair
483	226	Wood	Window Casing	White	0.0	Good
484	226	Wood	Door Casing	White	1.9	Fair
485	226	Plaster	Ceiling	White	0.4	Good
486	226	Wood	Baseboard	White	0.2	Fair
487	226	Gypsum	Ceiling	Beige	-0.2	Good
488	224	Plaster	Wall	White	0.3	Fair
489	224	Plaster	Wall	White	0.3	Fair
490	224	Plaster	Wall	White	-0.1	Good
491	224	Gypsum	Wall	White	0.1	Good
492	224	Wood	Window Sill	White	0.0	Good
493	224	Wood	Door Casing	White	1.2	Good
494	224	Concrete	Ceiling	White	0.1	Good
495	224	Gypsum	Ceiling	White	-0.2	Good

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Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/ Condition
496	224	Wood	Shelf	White	-0.1	Good
497	224	Metal	Pipe	White	0.7	Good
498	224	Concrete	Floor	Gray	0.1	Good
499	224	Wood	Baseboard	White	2.1	Good
500	222	Ceramic Tile	Wall	White	2.8	Good
501	222	Plaster	Wall	White	0.7	Poor
502	222	Plaster	Wall	White	0.7	Good
503	222	Plaster	Wall	White	1.4	Fair
504	222	Wood	Window Casing	White	0.1	Good
505	222	Wood	Door Casing	White	1.7	Good
506	220	Plaster	Wall	Paper	0.0	Good
507	220	Plaster	Wall	Paper	0.3	Good
508	220	Plaster	Wall	Paper	-0.2	Good
509	220	Plaster	Wall	Paper	0.3	Good
510	220	Concrete	Ceiling	White	0.3	Good
511	220	Gypsum	Ceiling	White	0.1	Good
512	220	Wood	Door Casing	White	2.0	Good
513	220	Wood	Window Casing	White	0.0	Good
514	220	Wood	Baseboard	White	1.8	Good
515	216	Gypsum	Wall	Lt Green	0.0	Good
516	216	Gypsum	Wall	Lt Green	0.0	Good
517	216	Plaster	Wall	Lt Green	0.1	Good
518	216	Plaster	Wall	Lt Green	0.4	Good
519	216	Wood	Door Casing	White	0.2	Good
520	216	Concrete	Celing	White	0.2	Fair
521	216	Wood	Baseboard	White	0.0	Good
522	216	Wood	Window Casing	White	-0.1	Good
523	214	Gypsum	Wall	White	0.0	Good
524	214	Gypsum	Wall	White	0.0	Good
525	214	Plaster	Wall	White	0.4	Good
526	214	Gypsum	Wall	Yellow	0.0	Good
527	214	Wood	Stall	Orange	0.4	Good
528	214	Wood	Window Casing	Yellow	0.0	Good
529	214	Ceramic Tile	Wall	Yellow	-0.2	Good
530	214	Wood	Door Casing	White	0.1	Good
531	211	Plaster	Wall	Paper	0.2	Good
532	211	Plaster	Wall	Paper	0.0	Good
533	211	Plaster	Wall	Paper	0.2	Good
534	211	Concrete	Celing	White	0.4	Good
535	211	Wood	Window Casing	White	0.1	Good
536	211	Wood	Door Casing	White	0.2	Good
537	211	Wood	Shelf	White	0.0	Good
538	210	Plaster	Wall	Paper	-0.1	Good
539	210	Plaster	Wall	Paper	0.1	Good
540	210	Plaster	Wall	Paper	1.6	Good

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Shot #	Room #	Substrate	Component	Color	Reading (mg/cm ²)	Comments/ Condition
541	210	Gypsum	Wall	Paper	0.1	Good
542	210	Wood	Window Casing	White	0.1	Good
543	210	Concrete	Ceiling	White	1.2	Poor
544	210	Wood	Door Casing	White	0.0	Good
545	208	Plaster	Wall	Paper	1.3	Good
546	208	Gypsum	Wall	Paper	0.0	Good
547	208	Plaster	Wall	Paper	0.7	Good
548	208	Gypsum	Wall	Paper	-0.2	Good
549	208	Wood	Window Casing	White	0.2	Good
550	208	Concrete	Ceiling	White	0.3	Good
551	208	Wood	Door Casing	White	0.1	Fair
552	207	Plaster	Wall	Paper	0.2	Good
553	207	Gypsum	Wall	Paper	0.1	Good
554	207	Plaster	Wall	Paper	0.1	Good
555	207	Gypsum	Wall	Paper	0.1	Good
556	207	Wood	Window Sill	White	0.2	Good
557	207	Concrete	Ceiling	White	0.7	Good
558	207	Wood	Door Casing	White	0.1	Good
559	205	Plaster	Wall	Paper	0.3	Good
560	205	Gypsum	Wall	Paper	0.1	Good
561	205	Plaster	Wall	Paper	0.2	Good
562	205	Gypsum	Wall	Paper	0.0	Good
563	205	Wood	Window Casing	White	0.2	Good
564	205	Wood	Door Casing	White	-0.1	Fair
565	205	Concrete	Ceiling	White	0.0	Good
566	203	Plaster	Wall	Paper	0.3	Good
567	203	Plaster	Wall	Red	0.0	Good
568	203	Plaster	Wall	Paper	0.0	Good
569	203	Gypsum	Wall	White	0.1	Good
570	203	Wood	Window Casing	White	-0.1	Good
571	203	Wood	Door Casing	Red	0.1	Good
572	C1	Metal	Firehose box	White	0.2	Good
573	Outside 129	Concrete	Wall	White	0.1	Good
574	Outside 129	Concrete	Window Sill	White	0.0	Good
575	Outside 129	Concrete	Soffit	White	0.2	Good
576	Outside 129	Wood	Door Casing	Black	2.2	Good
577	Outside 129	Concrete	Landing Floor	Red	0.1	Poor
578	Outside 129	Wood	Door	Black	0.1	Good
579	Outside 129	Wood	Door Casing	Black	7.4	Poor
580	Outside 129	Concrete	Wall	White	0.0	Fair
581	Outside 129	Concrete	Wall	Black	0.2	Fair
582	Outside 129	Concrete	Parking Curb	White	-0.1	Fair
583	Outside 129	Concrete	Parking Curb	Yellow	4.5	Poor
584	Outside 151	Concrete	Wall	White	0.7	Poor
585	Outside 151	Concrete	Window Sill	Black	0.3	Poor

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586	Outside 151	Metal	Stairs	Black	1.1	Poor
587	Outside 151	Metal	Door	Black	0.2	Good
588	Outside 151	Wood	Door Casing	Black	0.2	Good
589	Outside 131	Concrete	Wall	White	0.7	Good
590	Outside 131	Concrete	Window Casing	Black	0.7	Poor
591	Outside 131	Metal	Stairs	Black	3.4	Poor
592	Outside 131	Metal	Down Spout	White	1.6	Poor
593	Outside 141	Concrete	Wall	White	-0.1	Good
594	Outside 141	Metal	Down Spout	White	5.8	Poor
595	Outside 142	Concrete	Wall	White	0.1	Good
596	Outside 142	Metal	Door	Black	0.2	Good
597	Outside 136	Concrete	Wall	White	0.3	Good
598	Outside 124	Concrete	Wall	White	0.4	Good
599	Outside 124	Concrete	Window Sill	Black	0.0	Poor
600	Outside 124	Metal	Down Spout	White	2.1	Poor
601	Outside 124	Metal	Elec. Conduit	White	0.7	Poor
602	Outside 154	Concrete	Wall	White	0.1	Good
603	Outside 154	Concrete	Window Sill	Black	5.0	Poor
604	Outside 113	Concrete	Wall	White	0.1	Good
605	Outside 113	Concrete	Window Sill	Black	-0.1	Good
606	Outside 113	Metal	Down Spout	White	4.6	Poor
607			Calibration Check	Red	1.2	Ref. Val. = 1.0
608			Calibration Check	Wood	0.1	Ref. Val. = 0.0
609			Calibration Check	Red	1.1	Ref. Val. = 1.0
610			Calibration Check	Wood	0.1	Ref. Val. = 0.0
611			Calibration Check	Red	1.0	Ref. Val. = 1.0
612			Calibration Check	Wood	0.2	Ref. Val. = 0.0
613			Calibration Check	Red	1.0	Ref. Val. = 1.0
614			Calibration Check	Wood	0.1	Ref. Val. = 0.0
615			Calibration Check	Red	1.2	Ref. Val. = 1.0
616			Calibration Check	Wood	0.3	Ref. Val. = 0.0
617			Calibration Check	Red	1.1	Ref. Val. = 1.0
618			Calibration Check	Wood	0.2	Ref. Val. = 0.0
619	Basement	Plaster	Wall	White	0.0	Poor
620	Basement	Plaster	Wall	White	0.1	Poor
621	Basement	Plaster	Wall	White	0.7	Poor
622	Basement	Plaster	Wall	White	0.7	Poor
623	Basement	Plaster	Ceiling	White	0.7	Good
624	Basement	Wood	Ladder	Green	0.7	Fair
625	Basement	Wood	Door	Brown	2.4	Poor
626	Basement	Metal	Door Casing	Green	2.6	Poor
627	Basement	Wood	Door	White	1.7	Poor
628	Basement	Wood	Door Casing	Brown	0.0	Poor
629	Basement	Concrete	Stair Riser	Gray	0.3	Poor
630	Basement	Metal	Hand Rail	Gray	0.7	Poor

Project: CNSY (NH-61)
 Project #: 00009.006.000
 Inspector: M Black
 Date: 5/15/00
 XRF: RMD LPA-1 #1038
 Abatement Level: 0.7

LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm2)	Comments/Condition
631	134	Wood	Door (New)	Unfinished	0.0	Good
632	136	Wood	Door (New)	Unfinished	0.0	Good
633	137	Wood	Door (New)	Unfinished	0.0	Good
634	139	Wood	Door (New)	Unfinished	0.1	Good
635	145	Wood	Door (New)	Unfinished	0.0	Good
636	138	Wood	Door (New)	Unfinished	0.0	Good
637	124	Wood	Door (New)	Unfinished	0.0	Good
638	114	Wood	Door (New)	Unfinished	0.0	Good
639	104	Wood	Door (New)	Unfinished	0.0	Good
640	109	Wood	Door (New)	Unfinished	0.2	Good
641	117	Wood	Door (New)	Unfinished	0.0	Good
642	123	Wood	Door (New)	Unfinished	0.1	Good
643	216	Wood	Door (New)	Unfinished	0.0	Good
644	211	Wood	Door (New)	Unfinished	0.0	Good
645	208	Wood	Door (New)	Unfinished	0.0	Good
646	203	Wood	Door (New)	Unfinished	-0.1	Good
647	204	Wood	Door (New)	Unfinished	0.0	Good
648	213	Wood	Door (New)	Unfinished	0.1	Good
649	154	Wood	Door Casing	Yellow	1.6	Good
650	154	Concrete	Floor	Gray	0.7	Good
651	116	Plaster	Wall	White	0.7	Poor
652	127	Wood	Baseboard	Peach	0.7	Poor
653	134	Concrete	Ceiling	White	0.7	Poor
654	137	Concrete	Ceiling	White	0.3	Poor
655	136	Plaster	Wall	White	0.7	Poor
656	136	Concrete	Ceiling	White	0.4	Poor
657	204	Concrete	Ceiling	White	0.4	Good
658	206	Plaster	Wall	Paper	1.0	Good
659	221	Plaster	Wall	White	0.7	Good
660	223	Concrete	Ceiling	White	0.3	Good
661			Calibration Check	Red	1.1	Ref. Val. = 1.0
662			Calibration Check	Wood	0.1	Ref. Val. = 0.0
663			Calibration Check	Red	1.1	Ref. Val. = 1.0
664			Calibration Check	Wood	0.2	Ref. Val. = 0.0
665			Calibration Check	Red	1.1	Ref. Val. = 1.0
666			Calibration Check	Wood	0.0	Ref. Val. = 0.0
667			Calibration Check	Red	1.1	Ref. Val. = 1.0
668			Calibration Check	Wood	0.2	Ref. Val. = 0.0
669			Calibration Check	Red	1.0	Ref. Val. = 1.0
670			Calibration Check	Wood	0.2	Ref. Val. = 0.0
671			Calibration Check	Red	1.1	Ref. Val. = 1.0
672			Calibration Check	Wood	0.2	Ref. Val. = 0.0
673	154	Wood	Door	White	0.1	Fair
674	103	Concrete	Ceiling	White	0.7	Poor
675	116	Wood	Door	Lt Blue	0.0	Good

Project: CNSY (NH-61)
 Project #: 00009.006.000
 Inspector: M Black
 Date: 5/15/00
 XRF: RMD LPA-1 #1038
 Abatement Level: 0.7

LBP shown in BOLD

XRF Testing Data - Shot by Shot Summary

Shot #	Room #	Substrate	Component	Color	Reading (mg/cm ²)	Comments/ Condition
676	C5	Metal	Door	Yellow	-0.1	Poor
677	C5	Metal	Door Casing	White	0.7	Poor
678	230	Wood	Door	White	0.0	Poor

Notes:

Pursuant South Carolina Regulations, readings ≥ 0.7 mg/cm² indicate Lead-Based Paint (LBP).

All LBP is identified by **BOLD** printing.

Project: CNSY (NH-61)
Project #: 00009.006.000
Inspector: M Black
Date: 5/15/00
XRF: RMD LPA-1 #1038
Abatement Level: 0.7

LBP shown in **BOLD**

Appendix D

Aggregate Summary of XRF Test Results

Building NH-61 (Interior)

Component Type	XRF Testing Results			Paint Chip Sample Results		Overall Classification
	Total # of XRF Readings	# Positive (≥ 0.7 mg/cm ²)	# Negative (< 0.7 mg/cm ²)	Sample I.D.	Analytical Result (% by Weight)	
Plaster walls	201	23	178	CNSY-NH61-P02 CNSY-NH61-P06	0.18 1	LBP
Gypsum walls	42	0	42	Not sampled	N/A	Negative
Concrete walls	7	0	7	Not sampled	N/A	Negative
Ceramic wall tile	9	7	2	Not sampled	N/A	LBP
Window components (new)	54	0	54	Not sampled	N/A	Negative
Window components (old)	1	1	0	Not sampled	N/A	LBP
Wood doors (new)	18	0	18	Not sampled	N/A	Negative
Wood doors (old)	15	5	10	Not sampled	N/A	LBP
Wood door casings	52	35	27	Not sampled	N/A	LBP
Metal door casings	12	3	9	Not sampled	N/A	LBP
Wood baseboards	43	38	5	Not sampled	N/A	LBP
Wood cabinets and shelves	11	3	8	Not sampled	N/A	LBP
Wide hand rail at stairways	2	2	0	Not sampled	N/A	LBP
Other stairway components	7	0	7	Not sampled	N/A	Negative
Concrete ceilings	50	14	36	CNSY-NH61-P07	0.22	LBP
Gypsum ceilings	29	0	29	Not sampled	N/A	Negative
Plaster ceilings	8	2	6	CNSY-NH61-P03	0.47	LBP
Concrete floors	7	2	5	Not sampled	N/A	LBP
Wood floors	8	0	8	Not sampled	N/A	Negative
Metal floor	1	0	1	Not sampled	N/A	Negative
Metal piping	6	4	2	CNSY-NH61-P01	0.22	LBP
Bathroom stall	3	0	3	Not sampled	N/A	Negative
Cork Board Trim	1	1	0	Not sampled	N/A	LBP
Metal HVAC duct	3	0	3	Not sampled	N/A	Negative
Fireplace mantle	1	1	0	Not sampled	N/A	LBP
Fireplace bricks	1	0	1	Not sampled	N/A	Negative
Metal window shutters	2	0	2	Not sampled	N/A	Negative
Plaster column	1	0	1	Not sampled	N/A	Negative
Metal medicine cabinets	2	1	1	Not sampled	N/A	LBP
Fire hose cabinet	1	0	1	Not sampled	N/A	Negative
Wood ladder	1	1	0	Not sampled	N/A	LBP

Building NH-61 (Exterior)

Component Type	XRF Testing Results			Paint Chip Sample Results		Final Classification
	Total # of XRF Readings	# Positive (≥ 0.7 mg/cm ²)	# Negative (< 0.7 mg/cm ²)	Sample I.D.	Analytical Result (% by Weight)	
Concrete walls	11	2	9	CNSY-NH61-P04	0.01	LBP
Concrete window sills	6	2	4	CNSY-NH61-P05	0.28	LBP
Concrete soffit	1	0	1	Not sampled	N/A	Negative
Wood soffit	0	0	0	Not sampled	N/A	Assumed LBP [†]
Wood door	1	0	1	Not sampled	N/A	Negative
Wood door casings	3	2	1	Not sampled	N/A	LBP
Metal door	3	0	3	Not sampled	N/A	Negative
Parking curb, yellow	1	1	0	Not sampled	N/A	LBP
Parking curb, white	1	0	1	Not sampled	N/A	Negative
Metal staircase	2	2	0	Not sampled	N/A	LBP
Concrete landing	1	0	1	Not sampled	N/A	Negative
Metal down spouts	4	3	1	Not sampled	N/A	LBP
Metal conduit box	1	1	0	Not sampled	N/A	LBP
Calibration checks	44	22	22	-	-	-

[†] The exterior wooden soffit was inaccessible at the time of inspection.

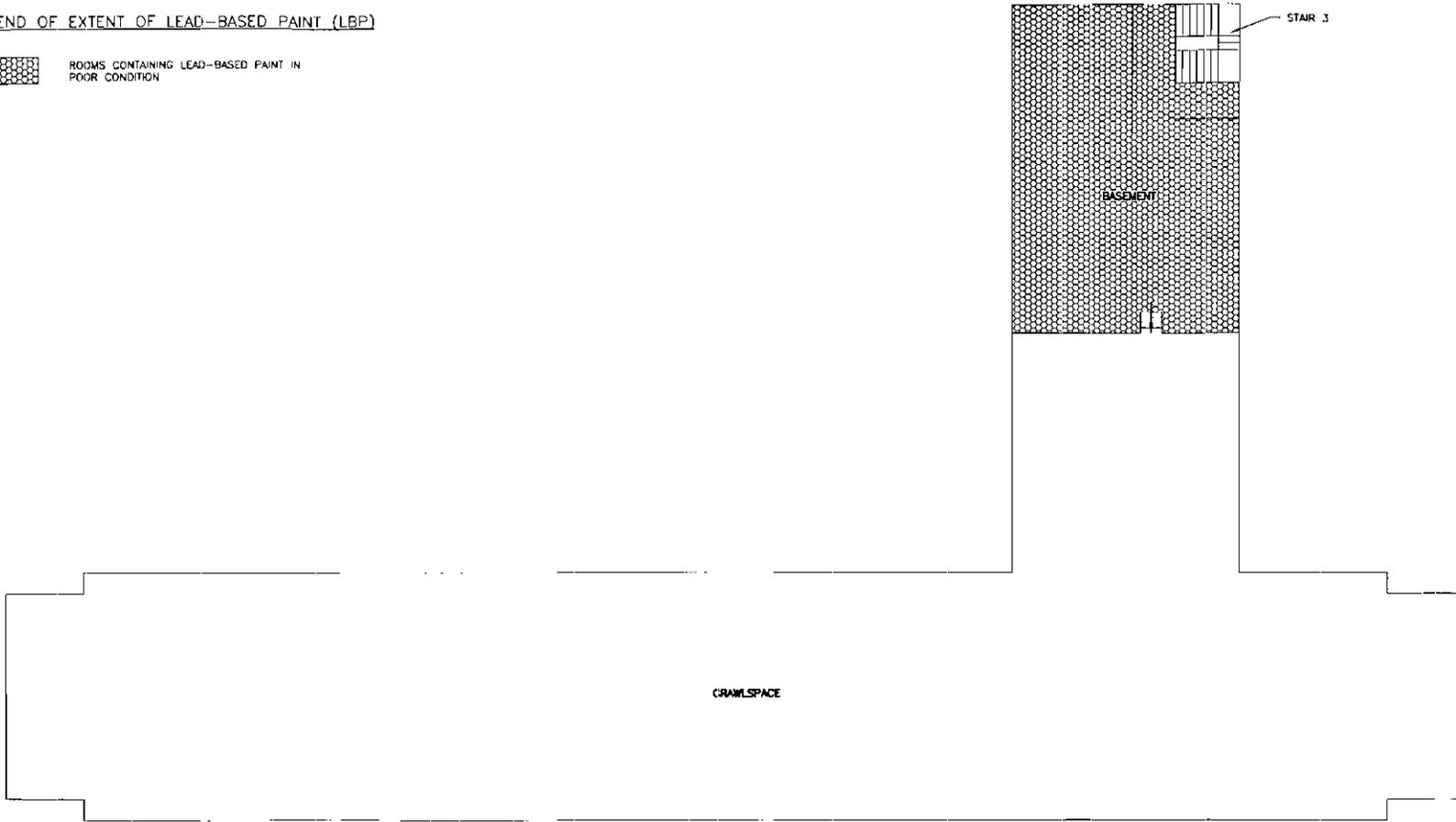
Appendix E

Survey Drawings: Extent of LBP Identified in Poor Condition and Paint Chip and Wipe Sample Locations

LEGEND OF EXTENT OF LEAD-BASED PAINT (LBP)



ROOMS CONTAINING LEAD-BASED PAINT IN POOR CONDITION



BUILDING NH-61 -- CRAWLSPACE PLAN

SCALE: 1/16" = 1'-0"

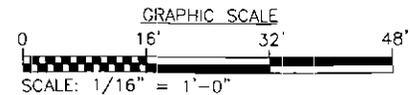


NOTE:

LEAD-BASED PAINT WAS IDENTIFIED IN MULTIPLE EXTERIOR COMPONENTS.

NOTE

LEAD-BASED PAINT WAS IDENTIFIED THROUGHOUT THE BUILDING. REFER TO REPORT AND XRF DATA FOR MORE DETAILS ON LOCATIONS AND QUANTITIES OF LEAD-BASED PAINT.



DEPARTMENT OF THE NAVY		SOUTHERN DIVISION		NAVAL FACILITIES ENGINEERING COMMAND		REV. DESCRIPTION		DATE APPROV.		CAPE ENVIRONMENTAL MANAGEMENT, INC.	
A-E SERVICES FOR ASBESTOS SURVEY		AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC		BUILDING NH-61 - CRAWLSPACE PLAN		(LEAD-BASED PAINT)		DATE		ATLANTA	
APPROVED		DATE		FOR COMMANDER, NAVFAC		APPROVED		DATE		OFFICE IN CHARGE	
DRAWN BY		DATE		CHECKED BY		DATE		DESIGNED BY		DATE	
SCALE		DATE		PROJECT NO.		DATE		PROJECT NO.		DATE	
SHEET NO.		DATE		PROJECT NO.		DATE		PROJECT NO.		DATE	
SHEET 1		OF 3		PROJECT NO.		DATE		PROJECT NO.		DATE	
NH61LBP-1											

LEGEND OF EXTENT OF LEAD-BASED PAINT (LBP)

 ROOMS CONTAINING LEAD-BASED PAINT IN POOR CONDITION

TYPICAL PAINT CHIP SAMPLE I.D. No.

CNSY-NH61-P01(+/-)

POSITIVE (+) OR NEGATIVE (-) FOR THE PRESENCE OF LEAD-BASED PAINT

SAMPLE ID No.

BUILDING IDENTIFICATION

CHARLESTON NAVAL SHIPYARD

TYPICAL DUST WIPE SAMPLE I.D. No.

CNSY-NH61-WIPE-10(18)

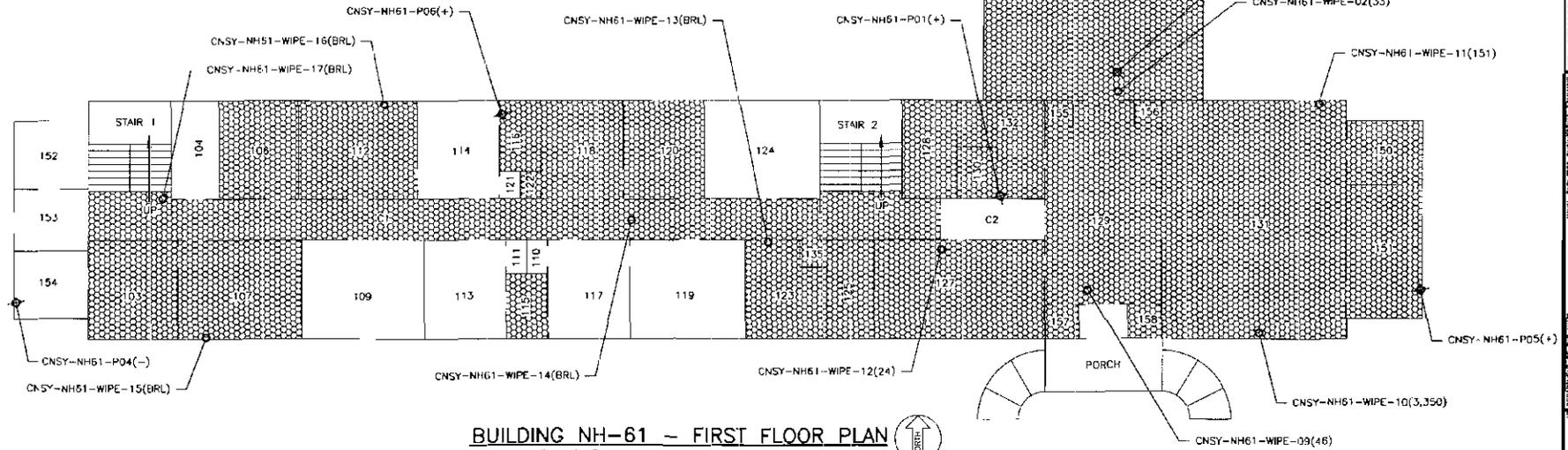
LEAD CONCENTRATION, mg/st

SAMPLE ID No.

SAMPLE TYPE

BUILDING IDENTIFICATION

CHARLESTON NAVAL SHIPYARD



BUILDING NH-61 - FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



NOTES:

LEAD-BASED PAINT WAS IDENTIFIED IN MULTIPLE EXTERIOR COMPONENTS.

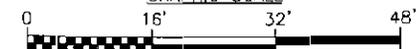
NOTE

LEAD-BASED PAINT WAS IDENTIFIED THROUGHOUT THE BUILDING. REFER TO REPORT AND XRF DATA FOR MORE DETAILS ON LOCATIONS AND QUANTITIES OF LEAD-BASED PAINT.

SYMBOLS

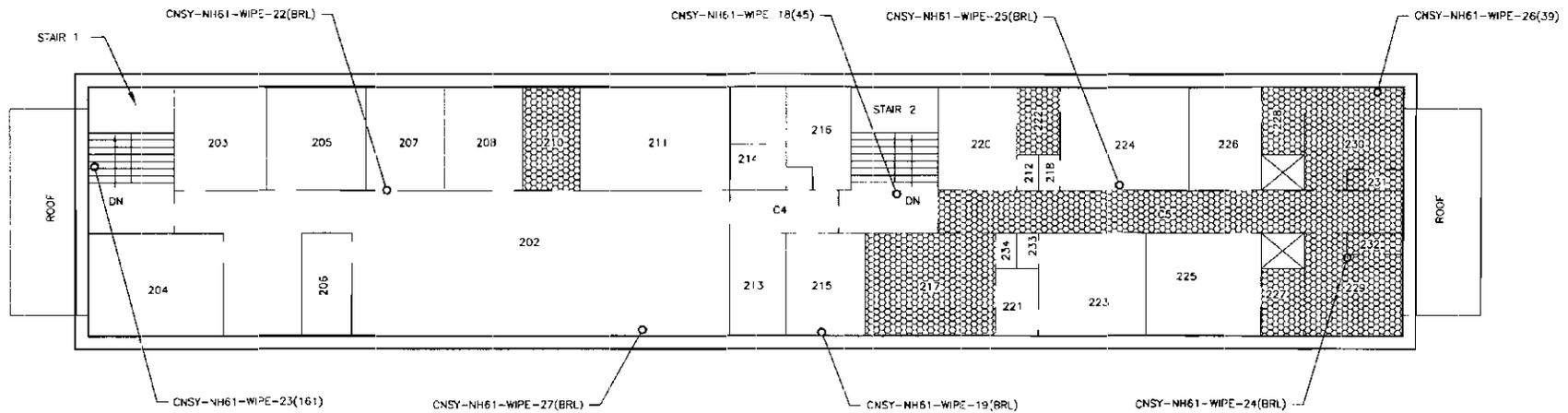
-  LOCATION OF PAINT CHIP SAMPLES COLLECTED
-  LOCATION OF DUST WIPE SAMPLES COLLECTED
- (100) LEAD CONCENTRATION IN mg/st
- (BRL) BELOW REPORTING LIMITS

GRAPHIC SCALE



SCALE: 1/16" = 1'-0"

DATE	DATE	DATE	DATE
OFFICE IN CHARGE	DATE	DATE	DATE
PREP BY	DATE APPROV	DATE	DATE
REV. DESCRIPTION	DATE	DATE	DATE
DEPARTMENT OF THE NAVY SOUTHERN DIVISION CHARLESTON, SC A-E SERVICES FOR ASBESTOS SURVEY AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC BUILDING NH-61 - FIRST FLOOR PLAN (LEAD-BASED PAINT)	CAPE ENVIRONMENTAL MANAGEMENT INC. ATLANTA, GA PROJECT NO. 0805 DRAWING NO. 0805-0-0341 SUBMITTED BY (FROM WORKSHEET) DATE DATE	STATE OF GEORGIA DEPARTMENT OF REVENUE SALES TAX PERMIT NO. 0805-0-0341 DATE	OFFICE IN CHARGE DATE
APPROVED DATE	APPROVED DATE	APPROVED DATE	APPROVED DATE
PLAN AREA SQ. FT. FOR COMMERCIAL NOTICE	APPROVED DATE	APPROVED DATE	APPROVED DATE
FLOOR PLAN NO. 0805-0-0341 PROJ. ENGINEERING NO. 0805-0-0341 CIVIL ENGINEER NO. 0805-0-0341 SCALE PLAN NO. 0805-0-0341 SPEC. NO. N/A CONTRACTING CONTROL NO. 0805-0-0341 NAUTAC DRAWING NO. N/A SHEET 3 OF 3 NH61LBP-2	APPROVED DATE	APPROVED DATE	APPROVED DATE



BUILDING NH-61 - SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0"



LEGEND OF EXTENT OF LEAD-BASED PAINT (LBP)



ROOMS CONTAINING LEAD-BASED PAINT IN POOR CONDITION



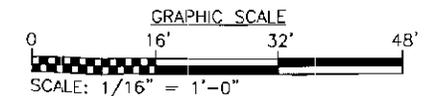
SOFFIT (ASSUMED LBP) IN POOR CONDITION

SYMBOLS

- LOCATION OF DUST WIPE SAMPLES COLLECTED
- (100) LEAD CONCENTRATION IN mg/sf
- (BRL) BELOW REPORTING LIMITS

TYPICAL DUST WIPE SAMPLE I.D. No.
CNSY-NH61-WIPE-10(f)

- LEAD CONCENTRATION, mg/sf
- SAMPLE ID No.
- SAMPLE TYPE
- BUILDING IDENTIFICATION
- CHARLESTON NAVAL SHIPYARD



DEPARTMENT OF THE NAVY	DATE	APPROVED
SOUTHERN DIVISION	DATE	APPROVED
CHARLESTON, S.C.	DATE	APPROVED
A-E SERVICES FOR ASBESTOS SURVEY	DATE	APPROVED
AT CHARLESTON NAVAL SHIPYARD, CHARLESTON, SC	DATE	APPROVED
BUILDING NH-61 SECOND FLOOR PLAN	DATE	APPROVED
(LEAD-BASED PAINT)	DATE	APPROVED
EDS FOR COMMENTS, SURVEY	DATE	APPROVED
REVISION	DATE	APPROVED
NO. 1	DATE	APPROVED
NO. 2	DATE	APPROVED
NO. 3	DATE	APPROVED
NO. 4	DATE	APPROVED
NO. 5	DATE	APPROVED
NO. 6	DATE	APPROVED
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NO. 97	DATE	APPROVED
NO. 98	DATE	APPROVED
NO. 99	DATE	APPROVED
NO. 100	DATE	APPROVED

Appendix F

HUD Risk Assessment Forms

HUD Guidelines Form 5.1
Building Condition

Condition	Yes	No
Roof missing parts of surfaces (tiles, boards, shakes, etc.)	✓	
Roof has holes or large cracks		✓
Gutters or downspouts broken		✓
Chimney masonry cracked, bricks loose or missing, obviously out of plumb		✓
Exterior or interior walls have obvious large cracks or holes, requiring more than routine painting or pointing (if masonry)		✓
Exterior siding has missing boards or shingles		✓
Plaster walls or ceilings deteriorated	✓	
Two or more windows broken, missing, or boarded up		✓
Porch or steps have major elements broken, missing, or boarded up		✓
Foundation has major cracks, missing material, structure leans, or is visibly unsound		✓
Total Number of Checks †	2	8

† If the “Yes” column has two or more checks, the dwelling is usually considered to be in poor condition for the purpose of a risk assessment. However, specific conditions and extenuating circumstances should be considered before determining the final condition of the dwelling and the appropriateness of a lead hazard screen.

Comments:

Primary lead concern in this facility is the physical damage to existing LBP on interior components:

- Original doors have been mostly replaced. Old doors are stored in basement mechanical room. Most door casings and some of the original doors are painted with LBP and have been damaged by friction and impact. The degree of damage varies.
- Wooden baseboards are mostly painted with LBP and show varying degrees of damage.
- Plaster walls and ceilings apparently have small amounts of LBP applied in limited locations. Conditions vary from intact to poor.
- Other components are minor or in generally good condition.
- Some painted surfaces (non-LBP) are in poor condition, but should be repaired.
- Damaged LBP surfaces should be stabilized, repaired, and/or replaced.

Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

HUD Guidelines Form 5.2 Paint Condition on Selected Surfaces

Building Component	Location*	Paint Condition (intact, fair, poor, or not present)	Deterioration due to friction or impact? (Yes/No)	Is deterioration Due to moisture? (Yes/No; specify source if known)	Are bite marks visible on painted component? (Yes/No; specify location if found)
Exterior walls	-	Intact	No	No	No
Exterior trim	-	Not Present	-	-	No
Exterior windows	Exterior	Intact	No	No	No
Exterior doors	129, 218	Intact	No	No	No
Exterior stairways and railings	Exterior	Poor	No	No	No
Porch floors	-	Not Present	-	-	No
Soffit and joists	Roof	Poor	No	Yes	No
Columns	-	Not Present	-	-	No
Interior walls	†	Fair	Yes	Yes	No
Interior doors	†	Fair	Yes	No	No
Interior door casings	†	Fair	Yes	No	No
Ceilings	†	Fair	No	Yes	No
Interior windows	225	Intact	No	No	No
Interior floors	†	Fair	Yes	No	No
Interior baseboards	†	Fair	Yes	No	No
Interior Stairway	-	Intact	No	No	No
Stairway handrail	S1, S2	Poor	Yes	No	No
Radiator / covers	-	Not Present	-	-	No
Kitchen cabinets	-	Intact	No	No	No
Bathroom cabinets	-	Intact	No	No	No
Metal pipes	136	Fair	No	No	No
Down spouts	Exterior	Poor	No	No	No
Fireplace mantle	-	Intact	No	No	No
Parking curb	Front	Poor	No	No	No
HVAC Duct	132	Intact	No	No	No
Bookcases/shelves	136	Intact	No	No	No

* If the overall condition of a component is similar throughout a dwelling, that condition should be recorded. If a component is in poor condition in a couple of locations, but the overall condition is intact or fair, identify the specific location(s) of the deteriorated paint.

Comments: † = Poor condition paint was identified on the following building components in the rooms identified - *Walls:* C3, 107, 115, 116, 136, 140, 142, 150-152, 154, 213, 222, 225, 227-230; *Exterior doors:* 129, 139, 141, 218; *Floors:* 114, 142, 150, 151, 202; *Interior doors:* 131, 143, 154, 230; *Interior door casings:* 106, 107, 115, 116, 136-138, 142, 150, 151, 227-229; *HVAC Duct:* C3, 132; *Ceilings:* 103, 107, 121, 134, 136-142, 154, 210, 225, 227; *Baseboards:* S1, S2, C1, C2, C3, 107, 112, 118, 120, 121, 127, 129, 131, 132, 134, 142, 150, 151, 217, 230 Also, see attached drawing and the shot by shot listing of XRF readings.

Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

HUD Guidelines Form 5.4
Field Sampling Form for Lead Dust
 (Single-Surface Sampling)

Sample ID	Room Equivalent (or function)	Surface Type	Is surface smooth and cleanable?	Dimensions of area wiped (inches × inches)	Sample area (ft ²)	Result of lab analysis (µg/ ft ²)
CNSY-NH61-Wipe-01	Field Blank	-	-	0 × 0	0.00	BRL
CNSY-NH61-Wipe-02	134	Floor	Yes	12 × 12	1.00	33
CNSY-NH61-Wipe-03	134	Window sill	Yes	13.25 × 7	0.64	BRL
CNSY-NH61-Wipe-04	136	Counter top	Yes	12 × 6	0.50	BRL
CNSY-NH61-Wipe-05	136	Window sill	Yes	10 × 7	0.49	300
CNSY-NH61-Wipe-06	136	Floor	Yes	12 × 6	0.50	201
CNSY-NH61-Wipe-07	142	Floor	Yes	10 × 10	0.69	BRL
CNSY-NH61-Wipe-08	C3	Floor	Yes	12 × 12	1.00	BRL
CNSY-NH61-Wipe-09	129	Floor	Yes	9 × 7	0.44	46
CNSY-NH61-Wipe-10	131	Floor	No (carpet)	7.625 × 10	0.53	3,350
CNSY-NH61-Wipe-11	131	Window sill	Yes	14.5 × 7	0.70	151
CNSY-NH61-Wipe-12	127	Shelf	Yes	12 × 14	1.17	24
CNSY-NH61-Wipe-13	123	Floor	No (carpet)	10.5 × 10.5	0.77	BRL
CNSY-NH61-Wipe-14	C1	Floor	Yes	6.75 × 8	0.38	BRL
CNSY-NH61-Wipe-15	107	Window sill	Yes	13 × 7	0.63	BRL

[†] Measured to the nearest 1/8 inch.

HUD standards: 100 µg/ ft² (floors), 500 µg/ ft² (interior window sills), and 800 µg/ ft² (window troughs)
 Dwelling Selection protocol: ___ All dwellings ___ Targeted ___ Worst Case ___ Random NA

Target Dwelling criteria (check all that apply)

- Code violations
- Judged to be in poor condition
- Presence of two or more children between the ages of 6 months and 6 years
- Serves as a day care facility
- Recently prepared for reoccupancy
- Random sampling

Laboratory: Hygeia Laboratories
Date Shipped: 22 May 2000
Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

NLLAP Accreditation ID: 583
Date Results Reported: 1 June 2000
Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

HUD Guidelines Form 5.4
Field Sampling Form for Lead Dust
 (Single-Surface Sampling)

Sample ID	Room Equivalent (or function)	Surface Type	Is surface smooth and cleanable?	Dimensions of area wiped (inches × inches)	Sample area (ft ²)	Result of lab analysis (µg/ft ²)
CNSY-NH61-Wipe-16	114	Window sill	Yes	4 × 4	0.11	BRL
CNSY-NH61-Wipe-17	S1	Floor	Yes	8 × 4	0.22	BRL
CNSY-NH61-Wipe-18	S2	Floor	Yes	8 × 8.75	0.49	45
CNSY-NH61-Wipe-19	215	Window sill	Yes	7 × 7.375	0.36	BRL
CNSY-NH61-Wipe-20	Spiked	+ 50 µg	-	0 × 0	0.50	103
CNSY-NH61-Wipe-21	Blank	-	-	0 × 0	0.50	BRL
CNSY-NH61-Wipe-22	207	Floor	No	8.75 × 8	0.49	BRL
CNSY-NH61-Wipe-23	S1	Window sill	Yes	8 × 4	0.22	161
CNSY-NH61-Wipe-24	229	Floor	No (carpet)	8 × 4	0.22	BRL
CNSY-NH61-Wipe-25	224	Floor	Yes	12 × 12	1.00	BRL
CNSY-NH61-Wipe-26	230	Window sill	Yes	10.5 × 7	0.51	BRL
CNSY-NH61-Wipe-27	202	Window sill	Yes	10.125 × 7	0.49	BRL
CNSY-NH61-Wipe-28	Spiked	+ 50 µg	-	0 × 0	0.25	196

[†] Measured to the nearest 1/8 inch.

HUD standards: 100 µg/ft² (floors), 500 µg/ft² (interior window sills), and 800 µg/ft² (window troughs)
 Dwelling Selection protocol: ___ All dwellings ___ Targeted ___ Worst Case ___ Random NA

Target Dwelling criteria (check all that apply)

- Code violations
- Judged to be in poor condition
- Presence of two or more children between the ages of 6 months and 6 years
- Serves as a day care facility
- Recently prepared for reoccupancy
- Random sampling

Laboratory: Hygeia Laboratories
Date Shipped: 22 May 2000
Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

NLLAP Accreditation ID: 583
Date Results Reported: 1 June 2000
Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

Field Sampling Form for Soil
(Composite Sampling Only[†])

Sample ID	Location	Bare or covered	Result of lab analysis (mg/kg)
CNSY-NH61-Soil-01	Drip line of building	Covered	627
CNSY-NH61-Soil-02	Bare spots away from the drip line	Bare	71

[†] Collect only the top 1/2 inch of soil.

HUD interim standard for play areas is 400 mg/kg and for perimeter samples 2,000 mg/kg

Dwelling Selection protocol: All dwellings Targeted Worst Case Random NA

Target Dwelling criteria (check all that apply)

- Code violations
- Judged to be in poor condition
- Presence of two or more children between the ages of 6 months and 6 years
- Serves as a day care facility
- Recently prepared for reoccupancy
- Random sampling

Laboratory: Hygeia Laboratories

Date Shipped: 22 May 2000

NLLAP Accreditation ID: 583

Date Results Reported: 1 June 2000

Project: Charleston NSY (5 bldgs)

Project #: 00009.006.000

Project Manager: Michael Spradling

Building Number: NH-61

Risk Assessor(s): Michael Black (EPA Certified)

Date: 16 May 2000

HUD Guidelines Form 5.7
Maintenance Data

1. Overall condition of paint on selected surfaces recorded during onsite investigation.

Building Component	Paint Condition (intact, fair, poor, or not present)	Deterioration due to friction or impact? (Yes/No)	Is deterioration Due to moisture? (Yes/No; specify source if known)	Are bite marks visible on painted component? (Yes/No; specify location if found)
Exterior walls	Intact	No	No	No
Exterior trim	Not Present	-	-	No
Exterior windows	Intact	No	No	No
Exterior doors	Intact	No	No	No
Exterior stairways and railings	Poor	No	No	No
Porch floors	Not Present	-	-	No
Soffit and joists	Poor	No	Yes	No
Columns	Not Present	-	-	No
Interior walls	Fair	Yes	Yes	No
Interior doors	Fair	Yes	No	No
Interior door casings	Fair	Yes	No	No
Ceilings	Fair	No	Yes	No
Interior windows	Intact	No	No	No
Interior floors	Fair	Yes	No	No
Interior baseboards	Fair	Yes	No	No
Interior Stairway	Intact	No	No	No
Stairway handrail	Poor	Yes	No	No
Radiator / covers	Not Present	-	-	No
Kitchen cabinets	Intact	No	No	No
Bathroom cabinets	Intact	No	No	No
Metal pipes	Fair	No	No	No
Down spouts	Poor	No	No	No
Fireplace mantle	Intact	No	No	No
Parking curb	Poor	No	No	No
HVAC Duct	Intact	No	No	No
Bookcases/shelves	Intact	No	No	No

* If the overall condition of a component is similar throughout a dwelling, that condition should be recorded. If a component is in poor condition in a couple of locations, but the overall condition is intact or fair, identify the specific location(s) of the deteriorated paint.

Comments: none

Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

HUD Guidelines Form 5.7 (continued)
Maintenance Data

2. Painting frequency and methods

- a. How often is painting conducted? every ???? years
- b. Is painting conducted upon vacancy, if necessary? Yes No N/A*
- c. Who does the painting? Property owner Contractor Occupants N/A*
- d. Is painting accompanied by scraping, sanding or paint removal? Yes No N/A*
- e. How are paint dust and chips cleaned up? (check all that apply) N/A*
 sweeping vacuuming mopping HEPA/wet wash/HEPA cycle
- d. Is the work area sealed off during painting? Yes No N/A*
- e. Is furniture removed from the work area? Yes No N/A*
- f. If no, is the furniture covered with plastic during work? Yes No N/A*

3. Is there a preventative maintenance program? Yes No N/A*

4. Describe the work order system (If applicable, attach a copy of the work order request form)

N/A *

5. How are resident complaints received and addressed? How are requests prioritized? If formal work orders are issued, is the presence or potential presence of lead-based paint considered in the work instructions?

N/A *

6. Record location of dwellings recently prepared for reoccupancy: Not applicable

N/A* - indicates that the information is either unavailable or not applicable.

Resident Questionnaire

(To be completed by risk assessor via interview with resident)

Children's Habits

- 1. (a) Do you have any children that live in this building? Yes No N/A*
 (If no children, skip to Question 5.)
 (b) If yes, how many? _____
 (c) Record blood lead levels if known. _____
 (d) Are there women of child-bearing age present? Yes No
- 2. Location of the rooms/areas where each child sleeps, eats, and plays. N/A*

Name of child	Location of bedroom	Location of rooms in which child feeds	Primary location where child plays indoors	Primary location where child plays outdoors
????		Cafeteria (134)		

- 3. Where are toys kept/stored? N/A*
- 4. Is there any visible evidence of chewed or peeling paint on the woodwork, furniture, or toys?
 Yes No

Family Use Patterns

- 5. Which entrances are used most frequently? N/A*
- 6. Which windows are opened most frequently? N/A*
 (a) Are window air conditioners used? If yes, where? N/A*
 (Look for damage of painted surfaces from condensate)
- 8. (a) Do any household members work in the garden? Yes No N/A*
 (b) Location of garden. _____
 (c) Are you planning any landscaping activities that will remove grass or ground cover? Yes No
- 9. (a) How often is the household cleaned? N/A*
 (b) What cleaning methods are used? N/A*
 (b) Is building debris stored in the yard/onsite? Yes
- 10. (a) Were any building renovations completed recently? Yes No
 (b) If yes, where? August 1999, cafeteria and classrooms
 (c) Was building debris stored in the yard? If yes, where? N/A*

Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

HUD Guidelines Form 5.0 (continued)

Resident Questionnaire

(To be completed by risk assessor via interview with resident)

- 11. Are you planning any building renovations? If yes, where? N/A*
- 12. (a) Do any family members work in a lead-related industry? ___ Yes ___ No N/A*
(b) If yes, where are dirty work clothes stored and cleaned? _____

Additional Questions/Answers, Observations, and Comments:

N/A* - indicates that the information is either unavailable or not applicable.

Building NH61 was originally constructed c. 1943 and has been renovated several times since then.

Previously, NH61 was used as quarters for nurses working at the Naval Hospital. Recently, it was used
by Education Redirection Inc. as a school for "troubled children". NH61 is currently unoccupied and the
utilities have been disconnected. A prospective tenant is considering leasing the property from its
ultimate owner, the United States Navy for the purpose of creating a privately operated middle school.

Any new tenant will need perform some minor repairs and refurbishing. Limited architectural
renovations are likely to be made. Operations and maintenance activities will be up to the new tenant.

The number of children likely to be present at the facility could not be determined.

Project: Charleston NSY (5 bldgs)
Project #: 00009.006.000
Project Manager: Michael Spradling

Building Number: NH-61
Risk Assessor(s): Michael Black (EPA Certified)
Date: 16 May 2000

Appendix G

Laboratory Reports: Asbestos Bulk Sample Analysis

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental

CLIENT NAME: S.D.V PROJECT MANAGER: M. Spradling

PROJECT NAME: Charleston NSY (5 Bldgs) PROJECT NUMBER: 00009.006.000

ANALYSIS REQUESTED: PLM OTHER: _____

TURNAROUND TIME SAME DAY NEXT DAY 3 DAYS 5 DAYS NEED BY: _____

REQUESTED: _____

INSTRUCTIONS: ANALYZE ALL STOP POSITIVE

SAMPLE ID		SAMPLE ID	
1	CNSY-NH61-1-01	16	CNSY-NH61-6-01
2	- 1-02	17	- 6-02
3	- 1-03	18	- 6-03
4	- 2-01	19	- 7-01
5	- 2-02	20	- 7-02
6	- 2-03	21	- 7-03
7	- 3-01	22	- 7-04
8	- 3-02	23	- 7-05
9	- 3-03	24	- 7-06
	- 4-01	25	- 7-07
11	- 4-02	26	- 7-08
12	- 4-03	27	- 7-09
13	- 5-01	28	- 8-01
14	- 5-02	29	- 8-02
15	- 5-03	30	- 8-03

SPECIAL INSTRUCTIONS: Analyze all D/W samples

RELINQUISHED BY: <u>M. Black</u>	RECEIVED BY: <u>[Signature]</u>
DATE: <u>5/22/00</u> TIME: <u>0800</u>	DATE: <u>5/23/00</u> TIME: <u>10:00</u>
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:

CHAIN OF CUSTODY

LABORATORY NAME: <u>Cape Environmental</u>			
CLIENT NAME: <u>S.D.V</u>		PROJECT MANAGER: <u>M. Spradling</u>	
PROJECT NAME: <u>Charleston NSY (5 Bldgs)</u>		PROJECT NUMBER: <u>00009.006.000</u>	
ANALYSIS REQUESTED: PLM <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	
TURNAROUND TIME REQUESTED: SAME DAY <input type="checkbox"/>		NEXT DAY <input type="checkbox"/>	
		3 DAYS <input checked="" type="checkbox"/>	
		5 DAYS <input type="checkbox"/>	
INSTRUCTIONS: ANALYZE ALL <input type="checkbox"/>		STOP POSITIVE <input checked="" type="checkbox"/>	
SAMPLE ID		SAMPLE ID	
1	<u>CNSY-NH61-9-01</u>	16	<u>CNSY-NH61-11-07</u>
2	<u>-9-02</u>	17	<u>-12-01</u>
3	<u>-9-03</u>	18	<u>-12-02</u>
4	<u>-9-04</u>	19	<u>-12-03</u>
5	<u>-9-05</u>	20	<u>-12-04</u>
6	<u>-9-06</u>	21	<u>-12-05</u>
7	<u>-10-01</u>	22	<u>-12-06</u>
8	<u>-10-02</u>	23	<u>-13-01</u>
9	<u>-10-03</u>	24	<u>-13-02</u>
	<u>-11-01</u>	25	<u>-13-03</u>
11	<u>-11-02</u>	26	<u>-13-04</u>
12	<u>-11-03</u>	27	<u>-13-05</u>
13	<u>-11-04</u>	28	<u>-14-01</u>
14	<u>-11-05</u>	29	<u>-14-02</u>
15	<u>-11-06</u>	30	<u>-14-03</u>
SPECIAL INSTRUCTIONS: <u>Analyze all D/W samples</u>			
RELINQUISHED BY: <u>M. Black</u>		RECEIVED BY: <u>[Signature]</u>	
DATE: <u>5/22/00</u>	TIME: <u>0800</u>	DATE: <u>5/23/00</u>	TIME: <u>10:00</u>
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:
RELINQUISHED BY:		RECEIVED BY:	
DATE:	TIME:	DATE:	TIME:

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental

CLIENT NAME: S. DV PROJECT MANAGER: M. Spadling

PROJECT NAME: Charleston NSY (5 Bldgs) PROJECT NUMBER: 00009.006.000

ANALYSIS REQUESTED: PLM OTHER: _____

TURNAROUND TIME SAME DAY NEXT DAY 3 DAYS 5 DAYS NEED BY:
 REQUESTED:

INSTRUCTIONS: ANALYZE ALL STOP POSITIVE

SAMPLE ID		SAMPLE ID	
1	CNSY-NH61-14-04	16	CNSY-NH61-17-03
2	-14-05	17	-18-01
3	-14-06	18	-18-02
4	-14-07	19	-18-03
5	-15-01	20	-19-01
6	-15-02	21	-19-02
7	-15-03	22	-19-03
8	-15-04	23	-20-01
9	-15-05	24	-20-02
	-15-06	25	-20-03
11	-16-01	26	-21-01
12	-16-02	27	-21-02
13	-16-03	28	-21-03
14	-17-01	29	-22-01
15	-17-02	30	-22-02

SPECIAL INSTRUCTIONS Analyze all D/W samples

RELINQUISHED BY: <u>M. Black</u>	RECEIVED BY: <u>[Signature]</u>
DATE: <u>5/22/00</u> TIME: <u>0800</u>	DATE: <u>5/23/00</u> TIME: <u>10:00</u>
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:

CHAIN OF CUSTODY

LABORATORY NAME: Cape Environmental

CLIENT NAME: S. Div PROJECT MANAGER: M Spradling

PROJECT NAME: Charleston NSP (SBL/SS) PROJECT NUMBER: 00009.006.000

ANALYSIS REQUESTED: PLM OTHER:

TURNAROUND TIME SAME DAY NEXT DAY 3 DAYS 5 DAYS NEED BY:

REQUESTED:

INSTRUCTIONS: ANALYZE ALL STOP POSITIVE

SAMPLE ID		SAMPLE ID	
1	CNSY-NH61-22-03	16	CNSY-NH61-27-03
2	-23-01	17	-27-04
3	-23-02	18	-27-05
4	-23-03	19	-27-06
5	-24-01	20	-27-07
6	-24-02	21	
7	-24-03	22	
8	-25-01	23	
9	-25-02	24	
	-25-03	25	
11	-26-01	26	
12	-26-02	27	
13	-26-03	28	
14	-27-01	29	
15	-27-02	30	

SPECIAL INSTRUCTIONS:

RELINQUISHED BY: <u>[Signature]</u>	RECEIVED BY: <u>[Signature]</u>
DATE: <u>5/22/00</u> TIME: <u>0800</u>	DATE: <u>5/23/00</u> TIME: <u>1000</u>
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

REPORT ISSUED: 5/26/00
PAGE: 1 of 6

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6800-1	CNSY-NH61-1-01		1 (of 2)	GREEN HARD RESILIENT TO GRANULAR (FT)		12 CHRYSOTILE		25 AGGREGATES 63 OTHER
6800-2	CNSY-NH61-1-01		2 (of 2)	BLACK SOFT BITUMINOUS TO FIBROUS			25 CELLULOSE	65 BITUMEN 10 OTHER
6801	CNSY-NH61-1-02		2+3 (of 3)	2. BLACK SOFT BITUMINOUS TO FIBROUS; 3. BLACK SOFT BITUMINOUS	LAYER 1: NOT ANALYZED		40 CELLULOSE	50 BITUMEN 10 OTHER
6802	CNSY-NH61-1-03		2+3 (of 3)	2. BLACK SOFT BITUMINOUS TO FIBROUS; 3. BLACK SOFT BITUMINOUS	LAYER 1: NOT ANALYZED		45 CELLULOSE	50 BITUMEN 5 OTHER
6803	CNSY-NH61-2-01		1 (of 1)	OFF-WHITE HARD RESILIENT TO GRANULAR (FT) WITH BLACK MASTIC			1 CELLULOSE 2 SYNTHETICS	10 BITUMEN 25 AGGREGATES 62 OTHER
6804	CNSY-NH61-2-02		1 (of 1)	OFF-WHITE HARD RESILIENT TO GRANULAR (FT) WITH BLACK MASTIC			2 CELLULOSE 1 SYNTHETICS	5 BITUMEN 25 AGGREGATES 67 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS. EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST

STEVE JARVIS

QUALITY CONTROL

ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

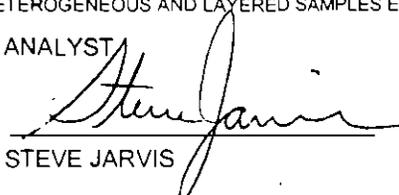
REPORT ISSUED: **5/26/00**
PAGE: **2 of 6**

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6805	CNSY-NH61-2-03		1 (of 1)	OFF-WHITE HARD RESILIENT TO GRANULAR (FT) WITH BITUMINOUS FELT AND YELLOW GLUE			25 CELLULOSE	30 BITUMEN 10 AGGREGATES 5 MASTIC 30 OTHER
6806	CNSY-NH61-3-01		1 (of 1)	GREEN HARD RESILIENT TO GRANULAR (FT) WITH BLACK MASTIC, BROWN MASTIC, AND BITUMINOUS FELT			20 CELLULOSE	25 BITUMEN 15 AGGREGATES 2 MASTIC 38 OTHER
6807	CNSY-NH61-3-02		1 (of 1)	GREEN HARD RESILIENT TO GRANULAR (FT) WITH BLACK MASTIC, BROWN MASTIC, AND BITUMINOUS FELT			15 CELLULOSE	20 BITUMEN 15 AGGREGATES 2 MASTIC 48 OTHER
6808	CNSY-NH61-3-03		1 (of 1)	GREEN HARD RESILIENT TO GRANULAR (FT) WITH BLACK MASTIC, BROWN MASTIC, AND BITUMINOUS FELT			10 CELLULOSE	15 BITUMEN 20 AGGREGATES 2 MASTIC 53 OTHER
6809-1	CNSY-NH61-4-01		1 (of 2)	OFF-WHITE HARD RESILIENT TO GRANULAR (FT)				35 AGGREGATES 65 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993. FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/31/00**
PAGE: **3 of 6**

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6809-2	CNSY-NH61-4-01		2 (of 2)	MIXTURE OF BLACK MASTIC AND YELLOW GLUE		3 CHRYSOTILE	3 CELLULOSE	60 BITUMEN 20 MASTIC 14 OTHER
6810-1	CNSY-NH61-4-02		1+2 (of 3)	1. YELLOW GUMMY GLUE; 2. OFF-WHITE HARD RESILIENT TO GRANULAR (FT)			2 CELLULOSE 1 SYNTHETICS	30 AGGREGATES 7 MASTIC 60 OTHER
6810-2	CNSY-NH61-4-02		3 (of 3)	BLACK SOFT BITUMINOUS WITH FIBERS		7 CHRYSOTILE	3 CELLULOSE	80 BITUMEN 10 OTHER
6811	CNSY-NH61-4-03		1 (of 2)	OFF-WHITE HARD RESILIENT TO GRANULAR (FT)	LAYER 2: BLACK MASTIC = NOT ANALYZED		1 CELLULOSE	30 AGGREGATES 69 OTHER
6812	CNSY-NH61-5-01		1 (of 1)	GREEN SOFT GUMMY			3 CELLULOSE 5 SYNTHETICS	85 MASTIC 7 OTHER
6813	CNSY-NH61-5-02		1 (of 1)	GRAY, GREEN, AND WHITE SEMI-HARD RESILIENT WITH GLUE			3 CELLULOSE 2 GLASS FIBERS 3 SYNTHETICS	15 MASTIC 77 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST

STEVE JARVIS

QUALITY CONTROL

ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/26/00**
PAGE: **4 of 6**

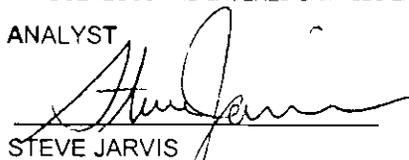
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6814	CNSY-NH61-5-03		1 (of 1)	GRAY, GREEN, AND WHITE SEMI-HARD RESILIENT WITH GLUE			3 CELLULOSE 3 GLASS FIBERS 2 SYNTHETICS	15 MASTIC 77 OTHER
6815	CNSY-NH61-6-01		1 (of 1)	TAN SEMI-HARD RESILIENT WITH GRAY GLUE AND PAINT			1 CELLULOSE	2 MASTIC 95 VINYL 2 OTHER
6816	CNSY-NH61-6-02		1 (of 1)	TAN SEMI-HARD RESILIENT WITH GRAY GLUE AND PAINT				3 MASTIC 95 VINYL 2 OTHER
6817	CNSY-NH61-6-03		1 (of 1)	TAN SEMI-HARD RESILIENT WITH YELLOW GLUE AND PAINT			1 CELLULOSE	2 MASTIC 95 VINYL 2 OTHER
6818	CNSY-NH61-7-01		1 (of 1)	WHITE HARD SILTY TO GRANULAR WITH PAINT				35 AGGREGATES 65 OTHER
6819	CNSY-NH61-7-02		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR				45 AGGREGATES 55 OTHER

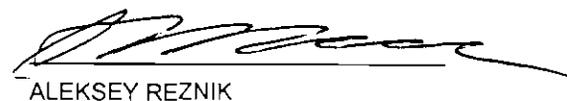
ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

REPORT ISSUED: 5/26/00
PAGE: 5 of 6

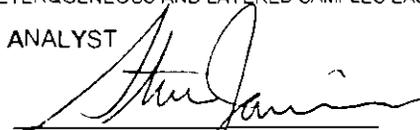
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6820	CNSY-NH61-7-03		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT				25 AGGREGATES 75 OTHER
6821	CNSY-NH61-7-04		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR				20 AGGREGATES 80 OTHER
6822	CNSY-NH61-7-05		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT			1 CELLULOSE	30 AGGREGATES 69 OTHER
6823	CNSY-NH61-7-06		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT				30 AGGREGATES 70 OTHER
6824	CNSY-NH61-7-07		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT				30 AGGREGATES 70 OTHER
6825	CNSY-NH61-7-08		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR			1 CELLULOSE	35 AGGREGATES 64 OTHER
6826	CNSY-NH61-7-09		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT				35 AGGREGATES 65 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST



STEVE JARVIS

QUALITY CONTROL



ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/26/00**
PAGE: **6 of 6**

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6827	CNSY-NH61-8-01		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR			1 CELLULOSE	30 AGGREGATES 69 OTHER
6828	CNSY-NH61-8-02		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT			1 CELLULOSE	35 MASTIC 1 MICA/ VERMICULITE 63 OTHER
6829	CNSY-NH61-8-03		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR			1 CELLULOSE	30 AGGREGATES 69 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST

STEVE JARVIS

QUALITY CONTROL

ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-1**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/26/00**
PAGE: **1 of 7**

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

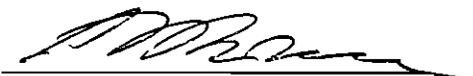
SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6830	CNSY-NH61-9-01		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			15 CELLULOSE	2 MICA/ VERMICULITE 83 OTHER
6831	CNSY-NH61-9-02		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			20 CELLULOSE 2 GLASS FIBERS	3 MICA/ VERMICULITE 75 OTHER
6832	CNSY-NH61-9-03		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			25 CELLULOSE 3 GLASS FIBERS	2 MICA/ VERMICULITE 70 OTHER
6833	CNSY-NH61-9-04		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS, GLUE AND CANVAS			30 CELLULOSE	2 MASTIC 3 MICA/ VERMICULITE 65 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-1**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/26/00**
PAGE: **2 of 7**

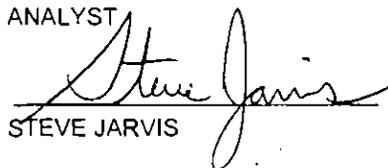
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6834	CNSY-NH61-9-05		1+2 (of 2)	1. GRAY SOFT FIBROUS WITH PAINT; 2. LIGHT GRAY HARD SILTY WITH FIBERS			25 CELLULOSE	75 OTHER
6835	CNSY-NH61-9-06		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2. GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			25 CELLULOSE 3 GLASS FIBERS	3 MICA/ VERMICULITE 69 OTHER
6836-1	CNSY-NH61-10-01		1 (of 2)	GRAY HARD RESILIENT TO GRANULAR (FT)		<1 CHRYSOTILE	1 CELLULOSE	25 AGGREGATES 74 OTHER
6836-2	CNSY-NH61-10-01		2 (of 2)	BLACK SOFT BITUMINOUS WITH FIBERS		3 CHRYSOTILE	5 CELLULOSE	80 BITUMEN 12 OTHER
6837	CNSY-NH61-10-02		1 (of 2)	GRAY HARD RESILIENT TO GRANULAR (FT)	LAYER 2: NOT ANALYZED	2 CHRYSOTILE	1 CELLULOSE 1 SYNTHETICS	30 AGGREGATES 66 OTHER
6838	CNSY-NH61-10-03			NOT ANALYZED	NOT ANALYZED			
6839	CNSY-NH61-11-01		1 (of 1)	WHITE SOFT FIBROUS			5 CELLULOSE 80 GLASS FIBERS	15 OTHER

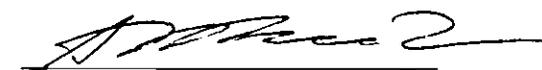
ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U S EPA/600/R-93/116 METHOD OF JULY 1993

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY LAST CALIBRATION OF EQUIPMENT WAS PERFORMED QN: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-1
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

REPORT ISSUED: 5/26/00
PAGE: 3 of 7

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6840	CNSY-NH61-11-02		1 (of 1)	WHITE SOFT FIBROUS			5 CELLULOSE 85 GLASS FIBERS	10 OTHER
6841	CNSY-NH61-11-03		1 (of 1)	WHITE SOFT FIBROUS			5 CELLULOSE 85 GLASS FIBERS	10 OTHER
6842	CNSY-NH61-11-04		1 (of 1)	WHITE SOFT FIBROUS			10 CELLULOSE 75 GLASS FIBERS	15 OTHER
6843	CNSY-NH61-11-05		1 (of 1)	WHITE SOFT FIBROUS			5 CELLULOSE 85 GLASS FIBERS	10 OTHER
6844	CNSY-NH61-11-06		1 (of 1)	WHITE SOFT FIBROUS WITH GLUE			10 CELLULOSE 75 GLASS FIBERS	2 MASTIC 13 OTHER
6845	CNSY-NH61-11-07		1 (of 1)	WHITE SOFT FIBROUS WITH AGGREGATES			5 CELLULOSE 80 GLASS FIBERS	2 AGGREGATES 13 OTHER
6846	CNSY-NH61-12-01		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C); 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			40 CELLULOSE	3 MICA/ VERMICULITE 57 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/25/00

ANALYST

STEVE JARVIS

QUALITY CONTROL

ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-1
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

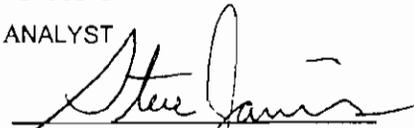
REPORT ISSUED: 5/26/00
PAGE: 4 of 7

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

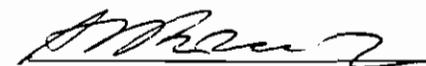
SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6847	CNSY-NH61-12-02		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			5 CELLULOSE	3 MICA/ VERMICULITE 92 OTHER
6848	CNSY-NH61-12-03		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			30 CELLULOSE	1 MICA/ VERMICULITE 69 OTHER
6849	CNSY-NH61-12-04		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			20 CELLULOSE 1 GLASS FIBERS	3 MICA/ VERMICULITE 76 OTHER
6850	CNSY-NH61-12-05		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2.GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			25 CELLULOSE	3 MICA/ VERMICULITE 72 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-1**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

REPORT ISSUED: **5/26/00**
PAGE: **5 of 7**

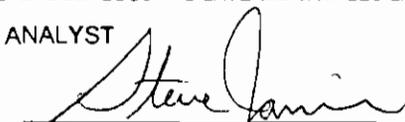
RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6851	CNSY-NH61-12-06		1+2+3 (of 3)	1. WHITE HARD SILTY WITH MICA (J/C) AND PAINT; 2. GRAY SOFT FIBROUS; 3. LIGHT GRAY HARD SILTY WITH FIBERS			10 CELLULOSE 2 GLASS FIBERS	2 MICA/ VERMICULITE 86 OTHER
6852	CNSY-NH61-13-01		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR			1 CELLULOSE	30 AGGREGATES 69 OTHER
6853	CNSY-NH61-13-02		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR				25 AGGREGATES 75 OTHER
6854	CNSY-NH61-13-03		1 (of 1)	WHITE HARD POWDERY TO SILTY WITH AGGREGATES AND PAINT			1 CELLULOSE	3 AGGREGATES 96 OTHER
6855	CNSY-NH61-13-04		1+2 (of 2)	1. WHITE HARD SILTY WITH PAINT; 2. GRAY HARD CEMENTITIOUS TO GRANULAR WITH FIBERS			3 CELLULOSE	35 AGGREGATES 62 OTHER
6856	CNSY-NH61-13-05		1 (of 1)	WHITE HARD POWDERY TO SILTY TO GRANULAR WITH PAINT			2 CELLULOSE	20 AGGREGATES 78 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS. EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-1**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

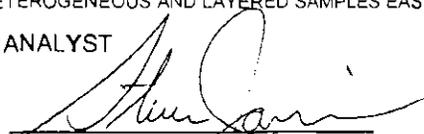
REPORT ISSUED: **5/31/00**
PAGE: **6 of 7**

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6857	CNSY-NH61-14-01		1 (of 1)	WHITE SEMI-HARD SILTY TO PLATY WITH PAINT		<1 CHRYSOTILE		35 MICA/ VERMICULITE 65 OTHER
6858	CNSY-NH61-14-02		1 (of 1)	TAN AND WHITE HARD SILTY WITH MICA AND PAINT		<1 CHRYSOTILE	2 CELLULOSE	10 MICA/ VERMICULITE 88 OTHER
6859	CNSY-NH61-14-03		1 (of 1)	WHITE HARD SILTY WITH AGGREGATES, MICA, AND PAINT			3 CELLULOSE	2 AGGREGATES 10 MICA/ VERMICULITE 85 OTHER
6860	CNSY-NH61-14-04		1 (of 1)	WHITE HARD SILTY WITH MICA AND PAINT			2 CELLULOSE	25 MICA/ VERMICULITE 73 OTHER
6861	CNSY-NH61-14-05		1 (of 1)	WHITE HARD SILTY WITH MICA AND PAINT			2 WOLLASTONITE 1 TALC	15 MICA/ VERMICULITE 82 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.
FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST



STEVE JARVIS

QUALITY CONTROL



ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM) BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-1**
DATE RECEIVED: **5/23/00**
DATE ANALYZED: **5/25/00**

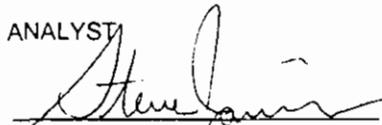
REPORT ISSUED: **5/26/00**
PAGE: **7 of 7**

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

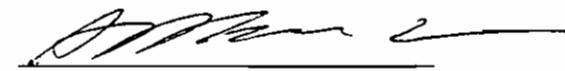
SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6862	CNSY-NH61-14-06		1 (of 1)	WHITE HARD SILTY WITH MICA AND PAINT			2 CELLULOSE	10 MICA/ VERMICULITE 88 OTHER
6863	CNSY-NH61-14-07		1 (of 1)	WHITE HARD SILTY WITH MICA AND PAINT			1 CELLULOSE	10 MICA/ VERMICULITE 89 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993 FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT (POINT COUNT)**

CLIENT NAME: NAVY SOUTH DIVISION LAB JOB NO: B0107-1
PROJECT NAME: CHARLESTON NSY (5 BLDGS.) DATE RECEIVED: 5/23/00
PROJECT NO: 00009.006.000
FIELD ID: CNSY-NH61-14-01 LAB ID: 6857
DATE ANALYZED: 6/9/00

RESULT OF POINT COUNTING ANALYSIS

COMPONENT	ASBESTOS FIBERS		NONASBESTOS FIBERS
	CHRYSTOLE		
POINTS OF COMPONENT COUNTED	0		
TOTAL POINTS COUNTED	400		
CONTENT (area %)	Trace (<0.25%)		

Analyzed in accordance with EPA/600/R-93/116 Method.

- Only fibrous components were point-counted.
- For additional information on the sample content refer to Visual Estimate lab report # 6857

ANALYZED BY:



ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT (POINT COUNT)**

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-1
DATE RECEIVED: 5/23/00

FIELD ID: CNSY-NH61-14-02

LAB ID: 6858
DATE ANALYZED: 6/9/00

RESULT OF POINT COUNTING ANALYSIS

COMPONENT	ASBESTOS FIBERS	NONASBESTOS FIBERS
	CHRYSTOLE	
POINTS OF COMPONENT COUNTED	1	
TOTAL POINTS COUNTED	400	
CONTENT (area %)	0.25	

Analyzed in accordance with EPA/600/R-93/116 Method.

- Only fibrous components were point-counted.
- For additional information on the sample content refer to Visual Estimate lab report # 6858

ANALYZED BY:


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-2
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/26/00

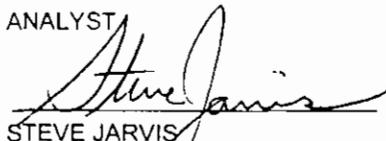
REPORT ISSUED: 5/26/00
PAGE: 1 of 5

**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6864	CNSY-NH61-15-01		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			35 CELLULOSE 35 GLASS FIBERS	20 PERLITE 10 OTHER
6865	CNSY-NH61-15-02		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			35 CELLULOSE 35 GLASS FIBERS	20 PERLITE 10 OTHER
6866	CNSY-NH61-15-03		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			35 CELLULOSE 30 GLASS FIBERS	25 PERLITE 10 OTHER
6867	CNSY-NH61-15-04		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			40 CELLULOSE 35 GLASS FIBERS	10 PERLITE 15 OTHER
6868	CNSY-NH61-15-05		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			40 CELLULOSE 35 GLASS FIBERS	15 PERLITE 10 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993 FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/26/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
 PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
 PROJECT NO: **00009.006.000**

LAB JOB NO: **80107-2**
 DATE RECEIVED: **5/23/00**
 DATE ANALYZED: **5/26/00**

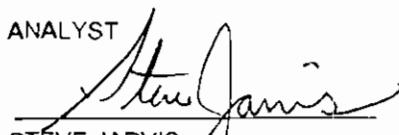
REPORT ISSUED: **5/26/00**
 PAGE: **2 of 5**

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

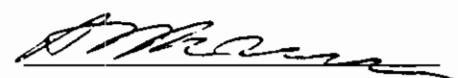
SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6869	CNSY-NH61-15-06		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			35 CELLULOSE 35 GLASS FIBERS	20 PERLITE 10 OTHER
6870	CNSY-NH61-16-01		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			40 CELLULOSE 10 GLASS FIBERS	35 PERLITE 15 OTHER
6871	CNSY-NH61-16-02		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			30 CELLULOSE 30 GLASS FIBERS	30 PERLITE 10 OTHER
6872	CNSY-NH61-16-03		1 (of 1)	GRAY SOFT FIBROUS TO GRANULAR TO POWDERY WITH PAINT			40 CELLULOSE 20 GLASS FIBERS	30 PERLITE 10 OTHER
6873	CNSY-NH61-17-01		1 (of 1)	BROWN HARD BRITTLE MASTIC WITH JOINT COMPOUND			1 CELLULOSE	70 MASTIC 2 MICA/ VERMICULITE 27 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993. FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/26/00

ANALYST


 STEVE JARVIS

QUALITY CONTROL


 ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-2
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/26/00

REPORT ISSUED: 5/26/00
PAGE: 3 of 5

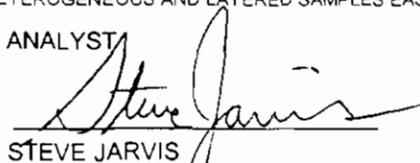
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6874	CNSY-NH61-17-02		1 (of 1)	BROWN HARD BRITTLE MASTIC			4 CELLULOSE 1 GLASS FIBERS	90 MASTIC 5 OTHER
6875	CNSY-NH61-17-03		1 (of 1)	BROWN HARD BRITTLE MASTIC WITH TAN GLUE			4 CELLULOSE 1 GLASS FIBERS	90 MASTIC 5 OTHER
6876	CNSY-NH61-18-01		1 (of 1)	BROWN SEMI-HARD GUMMY MASTIC			2 CELLULOSE 5 WOLLASTONITE	90 MASTIC 3 OTHER
6877	CNSY-NH61-18-02		1 (of 1)	BROWN SEMI-HARD GUMMY MASTIC WITH FIBERS, VINYL, AND JOINT COMPOUND			5 CELLULOSE 5 WOLLASTONITE	70 MASTIC 2 MICA/ VERMICULITE 10 VINYL 8 OTHER
6878	CNSY-NH61-18-03		1 (of 1)	GRAY SEMI-HARD RESILIENT WITH BROWN GLUE AND PAINT			3 WOLLASTONITE	10 MASTIC 85 VINYL 2 OTHER
6879	CNSY-NH61-19-01		1 (of 1)	PURPLE SEMI-HARD RESILIENT WITH MICA		7 CHRYSOTILE	2 CELLULOSE 1 GLASS FIBERS	20 MICA/ VERMICULITE 70 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/26/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-2
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/26/00

REPORT ISSUED: 5/31/00
PAGE: 4 of 5

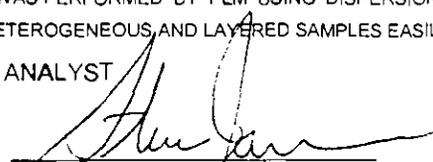
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6880	CNSY-NH61-19-02			NOT ANALYZED	NOT ANALYZED			
6881	CNSY-NH61-19-03			NOT ANALYZED	NOT ANALYZED			
6882	CNSY-NH61-20-01		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH FIBERS AND PAINT			2 CELLULOSE 5 GLASS FIBERS	93 OTHER
6883	CNSY-NH61-20-02		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH FIBERS AND PAINT			2 CELLULOSE 3 GLASS FIBERS 20 SYNTHETICS	75 OTHER
6884	CNSY-NH61-20-03		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH FIBERS AND PAINT			2 CELLULOSE 3 GLASS FIBERS 20 SYNTHETICS	75 OTHER
6885	CNSY-NH61-21-01		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH FIBERS AND PAINT			1 CELLULOSE 5 GLASS FIBERS	94 OTHER
6886	CNSY-NH61-21-02		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH FIBERS AND PAINT			1 CELLULOSE 2 GLASS FIBERS 10 SYNTHETICS	87 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/26/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
 BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: **NAVY SOUTH DIVISION**
 PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
 PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-2**
 DATE RECEIVED: **5/23/00**
 DATE ANALYZED: **5/26/00**

REPORT ISSUED: **5/31/00**
 PAGE: **5 of 5**

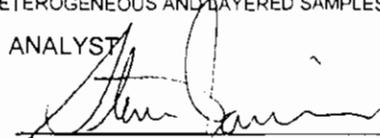
**RESULT OF ANALYSIS IN VOLUME
 PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6887	CNSY-NH61-21-03		1 (of 1)	RED SEMI-HARD RESILIENT TO GUMMY WITH PAINT			1 CELLULOSE 1 GLASS FIBERS 3 SYNTHETICS	95 OTHER
6888	CNSY-NH61-22-01		1 (of 1)	GRAY AND OFF-WHITE SEMI-HARD RESILIENT CANVAS WITH GRAY GLUE AND MUD-PAINT			10 CELLULOSE 10 SYNTHETICS	50 MASTIC 30 OTHER
6889	CNSY-NH61-22-02		1 (of 1)	GRAY AND OFF-WHITE SEMI-HARD RESILIENT CANVAS WITH GRAY GLUE AND MUD-PAINT			10 CELLULOSE 5 SYNTHETICS	10 MASTIC 75 OTHER
6890	CNSY-NH61-22-03		1 (of 1)	GRAY AND OFF-WHITE SEMI-HARD RESILIENT CANVAS WITH GRAY GLUE AND MUD-PAINT			10 CELLULOSE 3 SYNTHETICS	7 MASTIC 80 OTHER

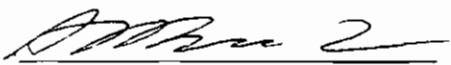
ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/26/00

ANALYST


 STEVE JARVIS

QUALITY CONTROL


 ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-3
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

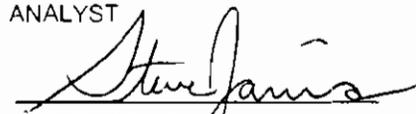
REPORT ISSUED: 5/26/00
PAGE: 1 of 4

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

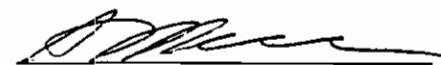
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6891	CNSY-NH61-23-01		1 (of 1)	WHITE HARD SILTY			1 CELLULOSE	1 MICA/ VERMICULITE 98 OTHER
6892	CNSY-NH61-23-02		1 (of 1)	WHITE HARD SILTY			1 CELLULOSE 1 WOLLASTONITE	1 MICA/ VERMICULITE 97 OTHER
6893	CNSY-NH61-23-03		1 (of 1)	WHITE HARD SILTY			1 CELLULOSE 1 WOLLASTONITE	1 MICA/ VERMICULITE 97 OTHER
6894	CNSY-NH61-24-01		1 (of 1)	YELLOW SOFT FIBROUS WITH ALUMINUM FOIL, CANVAS, MUD-PAINT, AND PAPER			15 CELLULOSE 60 GLASS FIBERS 2 WOLLASTONITE	10 METAL 13 OTHER
6895	CNSY-NH61-24-02		1 (of 1)	YELLOW SOFT FIBROUS WITH ALUMINUM FOIL, CANVAS, MUD-PAINT, AND PAPER			7 CELLULOSE 20 GLASS FIBERS 5 WOLLASTONITE	3 METAL 65 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993. FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-3
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

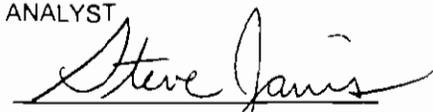
REPORT ISSUED: 5/26/00
PAGE: 2 of 4

RESULT OF ANALYSIS IN VOLUME PERCENTAGE (BY VISUAL ESTIMATE)

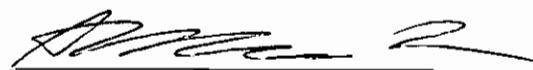
SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6896	CNSY-NH61-24-03		1 (of 1)	YELLOW SOFT FIBROUS WITH ALUMINUM FOIL, CANVAS, MUD-PAINT, AND PAPER			7 CELLULOSE 25 GLASS FIBERS 5 WOLLASTONITE	5 METAL 58 OTHER
6897	CNSY-NH61-25-01		1 (of 1)	BLACK HARD BITUMINOUS WITH FIBERS			15 CELLULOSE 5 GLASS FIBERS 5 SYNTHETICS	70 BITUMEN 5 OTHER
6898	CNSY-NH61-25-02		1 (of 1)	BLACK HARD BITUMINOUS WITH FIBERS			15 CELLULOSE 8 GLASS FIBERS 2 SYNTHETICS	70 BITUMEN 5 OTHER
6899	CNSY-NH61-25-03		1 (of 1)	BLACK HARD BITUMINOUS WITH FIBERS			15 CELLULOSE 7 GLASS FIBERS 3 SYNTHETICS	70 BITUMEN 5 OTHER
6900	CNSY-NH61-26-01		1 (of 1)	TAN AND GREEN HARD SILTY WITH MICA AND PAINT			1 CELLULOSE	5 MICA/ VERMICULITE 94 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD QF JULY 1993. FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT**

CLIENT NAME: NAVY SOUTH DIVISION
PROJECT NAME: CHARLESTON NSY (5 BLDGS.)
PROJECT NO: 00009.006.000

LAB JOB NO: B0107-3
DATE RECEIVED: 5/23/00
DATE ANALYZED: 5/25/00

REPORT ISSUED: 5/31/00
PAGE: 3 of 4

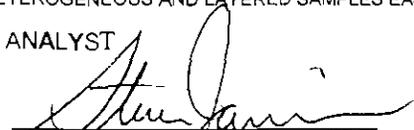
**RESULT OF ANALYSIS IN VOLUME
PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6901	CNSY-NH61-26-02		1 (of 1)	TAN AND GREEN HARD SILTY WITH MICA AND PAINT		<1 CHRYSOTILE	2 CELLULOSE	3 MICA/ VERMICULITE 95 OTHER
6902	CNSY-NH61-26-03		1 (of 1)	TAN AND GREEN HARD SILTY WITH MICA AND PAINT		<1 CHRYSOTILE	2 CELLULOSE	2 MICA/ VERMICULITE 96 OTHER
6903	CNSY-NH61-27-01		1 (of 1)	BROWN HARD POWDERY TO GRANULAR SOIL WITH ACM MATERIAL	ACM MATERIAL CONTAINS 80% CHRYSOTILE. ACM MATEREIAL IS 10% OF THE SAMPLE VOLUME.	8 CHRYSOTILE	3 CELLULOSE 2 GLASS FIBERS	75 AGGREGATES 12 OTHER
6904	CNSY-NH61-27-02		1 (of 1)	BROWN HARD POWDERY TO GRANULAR SOIL			1 CELLULOSE	90 AGGREGATES 9 OTHER
6905	CNSY-NH61-27-03		1 (of 1)	BLACK HARD POWDERY SOIL WITH DEBRIS		<1 CHRYSOTILE	3 CELLULOSE 2 GLASS FIBERS	15 AGGREGATES 80 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.

FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON: 5/25/00

ANALYST


STEVE JARVIS

QUALITY CONTROL


ALEKSEY REZNIK

POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLES ANALYSIS REPORT

CLIENT NAME: **NAVY SOUTH DIVISION**
 PROJECT NAME: **CHARLESTON NSY (5 BLDGS.)**
 PROJECT NO: **00009.006.000**

LAB JOB NO: **B0107-3**
 DATE RECEIVED: **5/23/00**
 DATE ANALYZED: **5/25/00**

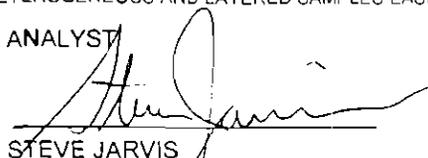
REPORT ISSUED: **5/31/00**
 PAGE: **4 of 4**

**RESULT OF ANALYSIS IN VOLUME
 PERCENTAGE (BY VISUAL ESTIMATE)**

SAMPLE LAB ID	SAMPLE FIELD ID	SAMPLE INFO	LAYER NUMBER	APPEARANCE	COMMENT	% ASBESTOS FIBERS	% NON ASBESTOS FIBERS	% NON FIBROUS COMPONENTS
6906	CNSY-NH61-27-04		1 (of 1)	BLACK HARD POWDERY SOIL WITH DEBRIS			3 CELLULOSE	7 AGGREGATES 90 OTHER
6907	CNSY-NH61-27-05		1 (of 1)	BROWN HARD POWDERY TO GRANULAR SOIL			1 CELLULOSE 1 SYNTHETICS	90 AGGREGATES 8 OTHER
6908	CNSY-NH61-27-06		1 (of 1)	BROWN HARD POWDERY TO GRANULAR SOIL			4 CELLULOSE 1 GLASS FIBERS	70 AGGREGATES 25 OTHER
6909	CNSY-NH61-27-07		1 (of 1)	BROWN HARD POWDERY TO GRANULAR SOIL WITH PLASTER DEBRIS		<1 CHRYSOTILE	3 CELLULOSE	85 AGGREGATES 12 OTHER

ANALYSIS WAS PERFORMED BY PLM USING DISPERSION STAINING TECHNIQUES IN ACCORDANCE WITH U.S. EPA/600/R-93/116 METHOD OF JULY 1993.
 FOR ALL HETEROGENEOUS AND LAYERED SAMPLES EASILY SEPARATED INTO SUBLAYERS, EACH LAYER WAS ANALYZED SEPARATELY. LAST CALIBRATION OF EQUIPMENT WAS PERFORMED ON 5/25/00

ANALYST



STEVE JARVIS

QUALITY CONTROL



ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT (POINT COUNT)**

CLIENT NAME: NAVY SOUTH DIVISION LAB JOB NO: B0107-3
PROJECT NAME: CHARLESTON NSY (5 BLDGS.) DATE RECEIVED: 5/23/00
PROJECT NO: 00009.006.000
FIELD ID: CNSY-NH61-26-02 LAB ID: 6901
DATE ANALYZED: 6/9/00

RESULT OF POINT COUNTING ANALYSIS

COMPONENT	ASBESTOS FIBERS	NONASBESTOS FIBERS
	CHRYSTILE	
POINTS OF COMPONENT COUNTED	1	
TOTAL POINTS COUNTED	400	
CONTENT (area %)	0.25	

Analyzed in accordance with EPA/600/R-93/116 Method.

- Only fibrous components were point-counted.
- For additional information on the sample content refer to Visual Estimate lab report # 6901

ANALYZED BY:



ALEKSEY REZNIK

**POLARIZED LIGHT MICROSCOPY (PLM)
BULK SAMPLE ANALYSIS REPORT (POINT COUNT)**

CLIENT NAME: NAVY SOUTH DIVISION LAB JOB NO: B0107-3
PROJECT NAME: CHARLESTON NSY (5 BLDGS.) DATE RECEIVED: 5/23/00
PROJECT NO: 00009.006.000
FIELD ID: CNSY-NH61-26-03 LAB ID: 6902
DATE ANALYZED: 6/9/00

RESULT OF POINT COUNTING ANALYSIS

COMPONENT	ASBESTOS FIBERS		NONASBESTOS FIBERS
	CHRYSTOTILE		
POINTS OF COMPONENT COUNTED	3		
TOTAL POINTS COUNTED	400		
CONTENT (area %)	0.75		

Analyzed in accordance with EPA/600/R-93/116 Method.

- Only fibrous components were point-counted.
- For additional information on the sample content refer to Visual Estimate lab report # 6902

ANALYZED BY:


ALEKSEY REZNIK

PLM IS NOT CONSISTENTLY RELIABLE IN DETECTING SMALL CONCENTRATION 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. THIS REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, AND NOT WITHOUT WRITTEN APPROVAL OF THE LABORATORY. THIS REPORT SHALL NOT BE USED TO CLAIM ENDORSEMENT BY NVLAP OR ANY AGENCY OF U.S. GOVERNMENT

CAPE ENVIRONMENTAL MANAGEMENT INC

2302 Parklake Drive, Suite 200, Atlanta, GA 30345

770/908-7200 Fax 770/908-7219

CHAIN OF CUSTODY

LABORATORY NAME: MAS	
CLIENT NAME: Cape Environmental	PROJECT MANAGER: M. Spradling
PROJECT NAME: Charleston NSY (SBB/lys)	PROJECT NUMBER: 00009.006.000
ANALYSIS REQUESTED: PLM <input checked="" type="checkbox"/>	OTHER: <input type="checkbox"/>
TURNAROUND TIME REQUESTED: SAME DAY <input type="checkbox"/>	NEXT DAY <input type="checkbox"/>
	3 DAYS <input type="checkbox"/>
	5 DAYS <input checked="" type="checkbox"/>
NEED BY:	
INSTRUCTIONS: ANALYZE ALL <input checked="" type="checkbox"/>	STOP POSITIVE <input type="checkbox"/>

*
*
*
*
*
*
*
*
*

SAMPLE ID		SAMPLE ID
1	QC-CNSY-NH61-3-01	16
2	-6-01	17
3	-7-01	18
4	-9-01	19
5	-12-01	20
6	-14-01	21
7	-17-01	22
8	-20-01	23
9	-22-01	24
10	QC-CNSY-759-2-01	25
11	QC-CNSY-760-1-01	26
12	QC-CNSY-760-3-01	27
13	QC-CNSY-762-2-01	28
14		29
15		30

SPECIAL INSTRUCTIONS:

RELINQUISHED BY: <i>MBla</i>	RECEIVED BY: <i>Donna</i>
DATE: <i>5/22/00</i> TIME: <i>0830</i>	DATE: <i>5/23/00</i> TIME: <i>0900</i>
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:
RELINQUISHED BY:	RECEIVED BY:
DATE: TIME:	DATE: TIME:

MATERIALS ANALYTICAL SERVICES, INC.
PLM ANALYSIS

Proj#-Spl# M23712-006 Analyst Derrill Duncan Date 5/23/00
 ClientName Cape Environmental Management ClientSpl QC-NSY-NH61-14-01
 Location _____
 Type_Mat _____
 Gross Paint on white granular compound with imbedded tan shiny books
 Visual _____

OPTICAL DATA FOR ASBESTOS IDENTIFICATION

Morphology	_____	_____	_____
Pleochroism	_____	_____	_____
Refract Index	_____	_____	_____
Sign	_____	_____	_____
Extinction	_____	_____	_____
Birefringence	_____	_____	_____
Melt	_____	_____	_____
Fiber Name	_____	_____	_____

ASBESTOS MINERALS

EST. VOL. %

NO ASBESTOS OBSERVED

Chrysotile.....	_____
Amosite.....	_____
Crocidolite.....	_____
Tremolite/Actinolite.....	_____
Anthophyllite.....	_____

OTHER FIBROUS COMPONENTS

_____	_____
_____	_____
_____	_____
_____	_____

NON FIBROUS COMPONENTS

_____	_____
Vermiculite	X
Mineral grains	X
Binder	X

Binder Description _____

Comments X = Materials detected.



**Summary of Results of Analyses by
Transmission Electron Microscopy (TEM)**

Client Name: Cape Environmental Management
Client Job Number/Name: 00009.006.000 / Charleston
MAS Project Number: M24084
Date: 7/24/00
Analytical Protocol: MAS SOP #MT-011, "Modified Chatfield TEM Method"

Reviewer:

Will D. Galt

Client Sample Number	MAS Sample Number	Material	Asbestos Detected
CNSY-NH61-2-01	M24084-001	Floor Tile	NAO
CNSY-NH61-3-01	M24084-002	Floor Tile	NAO
CNSY-NH61-4-01	M24084-003	Floor Tile	NAO

NAO = No Asbestos Observed

X029

CHAIN-OF-CUSTODY

CLIENT NAME: <u>CAPE</u>		REPORT RESULTS BY: PHONE <input type="checkbox"/> FAX <input checked="" type="checkbox"/> MAIL <input checked="" type="checkbox"/>	
PROJECT NAME: <u>Charleston</u>		ADDRESS: <u>CAPE Atlanta</u>	
PROJECT NO: <u>06009.006.000</u>			
ANALYSIS REQUESTED: PLM <input type="checkbox"/>	OTHER: <u>TEM</u>	PHONE NO:	
TURNAROUND TIME SAME DAY <input type="checkbox"/>	NEXT DAY <input type="checkbox"/>	3 DAYS <input type="checkbox"/>	5 DAYS <input type="checkbox"/>
REQUESTED: <u>Monday</u>		FAX NO:	
SPECIAL INSTRUCTIONS:		NAME CONTACT: <u>Aleksey Reznik</u>	

SAMPLE ID	SAMPLE LOCATION	DATE COLLECTED	SAMPLE TYPE	COMMENTS
1	<u>CNSY-NHG1-2-01</u>			
2	<u>CNSY-NHG1-3-01</u>			
3	<u>CNSY-NHG1-4-01</u>			<u>→ Floor tile only</u>
4				
5				
6				
7				
8				
9				
10				
11				
12				

RELINQUISHED BY: <u>Angelle Deaford</u>	RECEIVED BY: <u>Amazayano MAS</u>	SAMPLES: RETURN <input type="checkbox"/>	DISCARD <input checked="" type="checkbox"/>
DATE: <u>7/20/00</u> TIME: <u>3:66 pm</u>	DATE: <u>7/20/00</u> TIME: <u></u>	ADDRESS:	
RELINQUISHED BY:	RECEIVED BY:		
DATE: TIME:	DATE: TIME:		
RELINQUISHED BY:	RECEIVED BY:		
DATE: TIME:	DATE: TIME:		

U:\1125\00 9:41 AM, 8/18/00 #201, Page 1/1 7/10/00 0000000001 sent by:

Appendix H

Laboratory Reports: Lead Sample Analysis



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

ANALYTICAL REPORT

Client: **Cape Environmental**
2302 Parklake Drive
Suite 200
Atlanta, GA 30345

Attention: **Michael Spradling**

Project Name: **CNSY-NH61**
Project ID: 00009.006.000
Received: 5/22/00

Lab Project No. 33811

Report Date: 6/1/00

CASE NARRATIVE

- 1 The holding times for each sample were met.
- 2 Where applicable, results & reporting limits are based on wet weight; dry weight calculations available.

Reviewed by: ME

Respectfully Submitted,


Raymond Wu
Hygeia Laboratories, Inc.

<u>LAB ID</u>	<u>CLIENT ID</u>	<u>MATRIX</u>	<u>COLLECTED</u>
251566	CNSY-NH61-WIPE-01	WIPE	5/16/00
251567	CNSY-NH61-WIPE-02	WIPE	5/16/00
251568	CNSY-NH61-WIPE-03	WIPE	5/16/00
251569	CNSY-NH61-WIPE-04	WIPE	5/16/00
251570	CNSY-NH61-WIPE-05	WIPE	5/16/00
251571	CNSY-NH61-WIPE-06	WIPE	5/16/00
251572	CNSY-NH61-WIPE-07	WIPE	5/16/00
251573	CNSY-NH61-WIPE-08	WIPE	5/16/00
251574	CNSY-NH61-WIPE-09	WIPE	5/16/00
251575	CNSY-NH61-WIPE-10	WIPE	5/16/00
251576	CNSY-NH61-WIPE-11	WIPE	5/16/00
251577	CNSY-NH61-WIPE-12	WIPE	5/16/00
251578	CNSY-NH61-WIPE-13	WIPE	5/16/00
251579	CNSY-NH61-WIPE-14	WIPE	5/16/00
251580	CNSY-NH61-WIPE-15	WIPE	5/16/00
251581	CNSY-NH61-WIPE-16	WIPE	5/16/00
251582	CNSY-NH61-WIPE-17	WIPE	5/16/00
251583	CNSY-NH61-WIPE-18	WIPE	5/16/00
251584	CNSY-NH61-WIPE-19	WIPE	5/16/00
251585	CNSY-NH61-WIPE-20	WIPE	5/16/00



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No.

33811

Report Date: 6/1/00

<u>LAB ID</u>	<u>CLIENT ID</u>	<u>MATRIX</u>	<u>COLLECTED</u>
251586	CNSY-NH61-WIPE-21	WIPE	5/16/00
251587	CNSY-NH61-WIPE-22	WIPE	5/16/00
251588	CNSY-NH61-WIPE-23	WIPE	5/16/00
251589	CNSY-NH61-WIPE-24	WIPE	5/16/00
251590	CNSY-NH61-WIPE-25	WIPE	5/16/00
251591	CNSY-NH61-WIPE-26	WIPE	5/16/00
251592	CNSY-NH61-WIPE-27	WIPE	5/16/00
251593	CNSY-NH61-WIPE-28	WIPE	5/16/00
251594	CNSY-NH61-SOIL-01	SOIL	5/16/00
251595	CNSY-NH61-SOIL-02	SOIL	5/16/00
251596	CNSY-NH61-P01	CHIPS	5/16/00
251597	CNSY-NH61-P02	CHIPS	5/16/00
251598	CNSY-NH61-P03	CHIPS	5/16/00
251599	CNSY-NH61-P04	CHIPS	5/16/00
251600	CNSY-NH61-P05	CHIPS	5/16/00
251601	CNSY-NH61-P06	CHIPS	5/16/00
251602	CNSY-NH61-P07	CHIPS	5/16/00



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No. **33811**

Report Date: 06/01/00

Total Lead

Matrix: Soil

Analysis Date: 05/26/00

Units: **mg/Kg (ppm)**

Method: **EPA 7420**

Prep. Date: 05/26/00

Analyst: SS

<u>Lab ID</u>	<u>Client ID</u>	<u>Result</u>	<u>Report Limit</u>
251594	CNSY-NH61-SOIL-01	627	10
251595	CNSY-NH61-SOIL-02	71	10

Total Lead

Matrix: Wipe

Analysis Date: 05/23/00

Units: **ug/ft²**

Method: **EPA 7420**

Prep. Date: 05/23/00

Analyst: DT

<u>Lab ID</u>	<u>Client ID</u>	<u>Result</u>	<u>Report Limit</u>
251566	CNSY-NH61-WIPE-01	BRL	20
251567	CNSY-NH61-WIPE-02	33	20
251568	CNSY-NH61-WIPE-03	BRL	31
251569	CNSY-NH61-WIPE-04	BRL	40
251570	CNSY-NH61-WIPE-05	300	41
251571	CNSY-NH61-WIPE-06	201	40
251572	CNSY-NH61-WIPE-07	BRL	29
251573	CNSY-NH61-WIPE-08	BRL	20
251574	CNSY-NH61-WIPE-09	46	45
251575	CNSY-NH61-WIPE-10	3,350	377
251576	CNSY-NH61-WIPE-11	151	29
251577	CNSY-NH61-WIPE-12	24	17
251578	CNSY-NH61-WIPE-13	BRL	26
251579	CNSY-NH61-WIPE-14	BRL	53
251580	CNSY-NH61-WIPE-15	BRL	32
251581	CNSY-NH61-WIPE-16	BRL	182
251582	CNSY-NH61-WIPE-17	BRL	91
251583	CNSY-NH61-WIPE-18	45	41
251584	CNSY-NH61-WIPE-19	BRL	56
251585	CNSY-NH61-WIPE-20	103	40
251586	CNSY-NH61-WIPE-21	BRL	40
251587	CNSY-NH61-WIPE-22	BRL	41
251588	CNSY-NH61-WIPE-23	161	91
251589	CNSY-NH61-WIPE-24	BRL	91
251590	CNSY-NH61-WIPE-25	BRL	20
251591	CNSY-NH61-WIPE-26	BRL	39
251592	CNSY-NH61-WIPE-27	BRL	41
251593	CNSY-NH61-WIPE-28	196	80



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A - Marietta, Georgia 30066-6299 - (770) 514-6933, FAX (770) 514-6966

Lab Project No. 33811

Report Date: 6/1/00

Total Lead

Units: **Percent (%)** Method: **EPA 7420**
By Weight

Matrix: Paint Chips Analysis Date: 5/24/00 Prep. Date: 5/23/00 Analyst: SS

<u>Lab ID</u>	<u>Client ID</u>	<u>Result</u>	<u>Report Limit</u>
251596	CNSY-NH61-P01	0.22	0.01
251597	CNSY-NH61-P02	0.18	0.01
251598	CNSY-NH61-P03	0.47	0.25
251599	CNSY-NH61-P04	0.01	0.01
251600	CNSY-NH61-P05	0.28	0.01
251601	CNSY-NH61-P06	1	0.5
251602	CNSY-NH61-P07	0.22	0.01

NOTES:

- Results relate only to the samples tested as received (see chain-of-custody).
- BRL = "Below Reporting Limit"
- RL = "Reporting Limit"
- Dates are presented in the format "month/day/year"

Certifications

Alabama - Lab ID 40970; Arkansas; Connecticut - No. PH 0208; Delaware; Florida - No. 97056 (EW), No. 97268 (DW);
 Georgia - No. 804; Indiana - Lab ID C-GA-01; Kentucky - Lab ID 90053; Maryland - No. 293; North Carolina - No. 409;
 South Carolina - No. 98012; Tennessee - Lab ID 02827 (DW), UST Program; Virginia - Lab ID 0024

Accreditations

American Association for Laboratory Accreditation (A2LA) - No. 0330-01; American Industrial Hygiene Association (AIHA) - Lab ID 100649

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CHAIN OF CUSTODY RECORD FOR LEAD



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A
Marietta, Georgia 30066-6299

(770) 514-6933 FAX (770) 514-6966

CLIENT PROJ. NO.
00009 006.000
LAB PROJ. NO.
33811

CLIENT PROJECT NAME
CNSY - NH61
CLIENT
Cape Environ mental

SAMPLERS: (SIGNATURE)				TYPE		MATRIX					LABORATORY ANALYSIS		AREA WIPES	AIR SAMPLING	SAMPLE DESCRIPTION
RESERVED FOR LABORATORY USE	CLIENT SAMPLE I. D. NO.	DATE	TIME	COMPOSITE	GRAB	PAINT CHIPS	WATER	SOIL	WIPES	AIR FILTERS	TOTAL-LEAD	TCLP-LEAD	TOTAL AREA (Circle Units- FT ² OR CM ²)	TOTAL VOLUME (Liters) (Flow Rate x Time)	
51566	CNSY-NH61-WIPE-01	5/16/00	1100		X				X		X		1.00		
517	-WIPE-02				X				X		X		1.00		
518	-WIPE-03				X				X		X		0.64		
519	-WIPE-04				X				X		X		0.50		
520	-WIPE-05				X				X		X		0.49		
521	-WIPE-06				X				X		X		0.50		
522	-WIPE-07				X				X		X		0.69		
523	-WIPE-08				X				X		X		1.00		
524	-WIPE-09				X				X		X		0.44		
525	-WIPE-10				X				X		X		0.53		
526	-WIPE-11				X				X		X		0.70		
527	-WIPE-12				X				X		X		1.17		
528	-WIPE-13				X				X		X		0.77		
529	-WIPE-14				X				X		X		0.38		
530	-WIPE-15				X				X		X		0.63		
531	-WIPE-16				X				X		X		0.11		
532	-WIPE-17				X				X		X		0.22		
533	-WIPE-18				X				X		X		0.49		
534	-WIPE-19				X				X		X		0.36		
535	-WIPE-20				X				X		X		0.50		

REMARKS: Digest + wipe samples TAW Appendix H.2 of HMD Guidelines (copy attached) and Analyze by Flame - AAS.

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	PROJECT MANAGER / PHONE NO.
M. Earl	5/16/00		M. Spradling 770-908-7200
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	
Stephanie	5/16/00		

CHAIN OF CUSTODY RECORD FOR LEAD



HYGEIA LABORATORIES, INC.

1300 Williams Drive, Suite A
Marietta, Georgia 30066-6299

(770) 514-6933 FAX (770) 514-6966

CLIENT PROJ. NO.
00009.006.000
LAB PROJ. NO.
33811

CLIENT PROJECT NAME
CNSY-NH61
CLIENT
Cape Environmental

SAMPLERS: (SIGNATURE)				TYPE	MATRIX						LABORATORY ANALYSIS		AREA WIPES	AIR SAMPLING	SAMPLE DESCRIPTION
RESERVED FOR LABORATORY USE	CLIENT SAMPLE I. D. NO.	DATE	TIME		COMPOSITE	GRAB	PAINT CHIPS	WATER	SOIL	WIPES	AIR FILTERS	TOTAL-LEAD	TCLP-LEAD	TOTAL AREA (Circle Units- FT ² OR CM ²)	
251286	CNSY-NH61-WIPE-21	5/16/00	1200		X				X		X		0.50		
587	-WIPE-22				X				X		X		0.49		
588	-WIPE-23				X				X		X		0.22		
589	-WIPE-24				X				X		X		0.22		
590	-WIPE-25				X				X		X		1.00		
591	-WIPE-26				X				X		X		0.51		
592	-WIPE-27				X				X		X		0.49		
593	-WIPE-28				X				X		X		0.25		
594	CNSY-NH61-Soil-01			X				X			X				
595	Soil-02			X				X			X				
596	CNSY-NH61-P01				X	X					X				
597	P02				X	X					X				
598	P03				X	X					X				
599	P04				X	X					X				
600	P05				X	X					X				
601	P06				X	X					X				
602	P07				X	X					X				

REMARKS: Prepare/Digest soil samples IAW Appendix B3 of the HHS Guidelines (C, amended) & Analyze by Flame AA.

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	PROJECT MANAGER / PHONE NO.
<i>[Signature]</i>	5/16/00		M Spaulding 770-908-7200
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	
	5/16/00		

Appendix I

Personnel and Laboratory Certifications

The Environmental Institute

David Bratley

Social Security Number - 594-44-4358

*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 Refresher

January 20, 2000

Course Date

6419

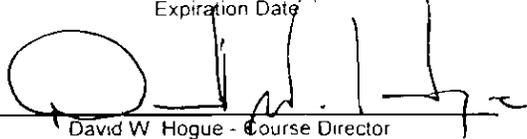
Certificate Number

January 20, 2000

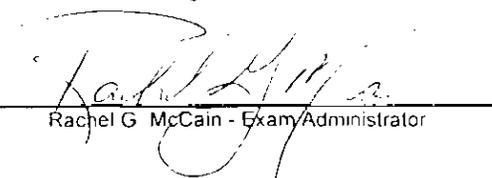
Examination Date

January 19, 2001

Expiration Date



David W. Hogue - Course Director



Rachel G. McCain - Exam Administrator



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



ASBESTOS ABATEMENT LICENSE

No. 22840

This certifies that

W David Bratley

594-Bej-4358

doing business as *Cape Environmental Management 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

01/20/00.

04/24/00

Richard D. Sharpe

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

04/24/00 09:44



ORIGINAL

CR-001126



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

4APT-TS

MAY 0 8 2000

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Michael J. Black
Cape Environmental
2302 Parklake Drive, Suite 200
Atlanta, GA 30345



SUBJ: Individual Certification for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities

Dear Mr. Black:

The United States Environmental Protection Agency (U.S. EPA), Region 4 has completed its review of your individual application dated February 29, 2000, for certification to engage in lead-based paint activities pursuant to 40 CFR Part 745, Subpart L (61 FR 45778, August 29, 1996). I am pleased to inform you that as of the date of this letter, you are U.S. EPA certified for the lead-based paint activities discipline of Risk Assessor. You will be mailed a U.S. EPA certificate for this discipline under separate cover at a future date.

This individual certification, which expires three years after the date of issuance, is valid only for U.S. EPA Region 4 and only in the States of South Carolina and Tennessee excluding Indian tribes. If any of these U.S. EPA-administered states obtain program authorization at any time during the term of your current certification, the scope of your individual certification will be correspondingly diminished to exclude this affected area. Please be aware that your U.S. EPA certification does not relieve you of any obligations that you may otherwise have to any authorized or unauthorized state or Indian tribe to obtain licensure or certification from that state or Indian tribe under its statutory or regulatory requirements relating to lead-based paint activities. Your U.S. EPA individual certification is subject to the following restrictions.

- 1) Certification pertains only to the specific discipline, jurisdiction, and individual listed above that performs or offers to perform the associated lead-based paint activities within the scope of the discipline described in 40 CFR §745.223 and 40 CFR §745.227 pursuant to Section 402 of the Toxic Substances Control Act (TSCA) (15 U.S.C. 2682).
- 2) U.S. EPA certification does not mean that a state or Indian tribe with its own certification program must accept or recognize a U.S. EPA certification. Individual states and Indian tribes, whether authorized or not, have the right to accept or reject any certification under their own authority.

Internet Address (URL) • <http://www.epa.gov>

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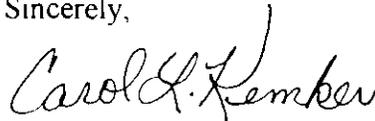
- 3) U.S. EPA certification is specific and limited to the location and discipline described above. If you wish to obtain certification in other U.S. EPA administered states or Indian tribes or in other lead-based paint activity disciplines, you will need to apply separately for this certification.
- 4) In advertising the U.S. EPA's certification, individuals must indicate clearly that the individual is only certified under Section 402 of TSCA for the respective discipline. Failure to accurately state U.S. EPA certification conditions could result in the U.S. EPA suspending or withdrawing certification.
- 5) The U.S. EPA may revoke or suspend its certification of any individual if subsequent alterations or deviations result with the individual no longer meeting the standards found at 40 CFR Part 745, Subpart L.
- 6) The U.S. EPA may conduct audits and/or inspections to ensure continued compliance with its regulatory standards.

Please submit any future notifications or correspondence with this office to the address given below.

*Regional Lead Coordinator
U.S. EPA, Region 4
Pesticides and Toxic Substances Branch
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960*

If you have questions, or need assistance, please contact the Regional Lead Coordinator, Ms. Rose Anne Rudd of the U.S. EPA Region 4 staff at 404-562-8998. Thank you for your interest in providing certified lead-based paint activities services in the U.S. EPA Region 4.

Sincerely,



Carol L. Kemker
Chief
Pesticides and Toxic
Substances Branch

cc: Traci Brown, EPA HQ
Bill Palm, Optimus Corporation

The Environmental Institute

Michael Black

Social Security Number - 228-11-6508

*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

March 6-8, 2000

Course Date

2643

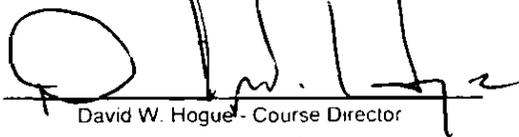
Certificate Number

March 8, 2000

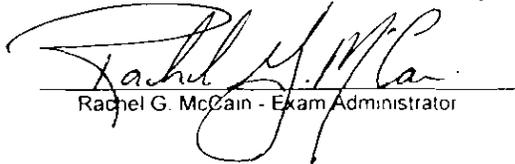
Examination Date

March 7, 2001

Expiration Date



David W. Hogue - Course Director



Rachel G. McCain - Exam Administrator



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



ASBESTOS ABATEMENT LICENSE

No. 23059

This certifies that

Michael Black

228-BoJ-6508

doing business as *Cape Environmental*

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

03/08/00.

04/21/00

Richard D. Sharpe

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

ORIGINAL

04/21/00 16:19



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