

N61165.AR.003766  
CNC CHARLESTON  
5090.3a

FINAL ASBESTOS INSPECTION REPORT BUILDING NS-27, X-54, NS-84, 180, 290, 641,  
674, 1177, 1346 AND 1737 CNC CHARLESTON SC  
6/1/1998  
SUPERVISOR OF SHIPBUILDING

# ASBESTOS INSPECTION REPORT

BUILDINGS NS-27, X-54, NS-84, 180, 290,  
641, 674, 1177, 1346 & 1737

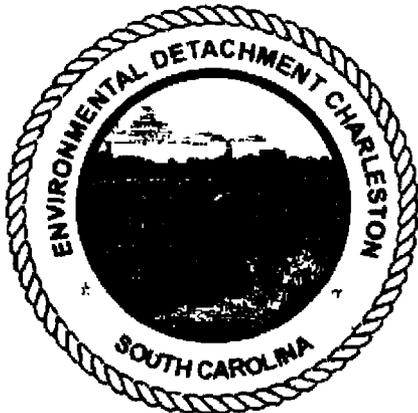
CHARLESTON NAVAL COMPLEX  
CHARLESTON, SC

## FINAL REPORT



Prepared for:

DEPARTMENT OF THE NAVY  
SOUTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
CHARLESTON, SC



Prepared by:

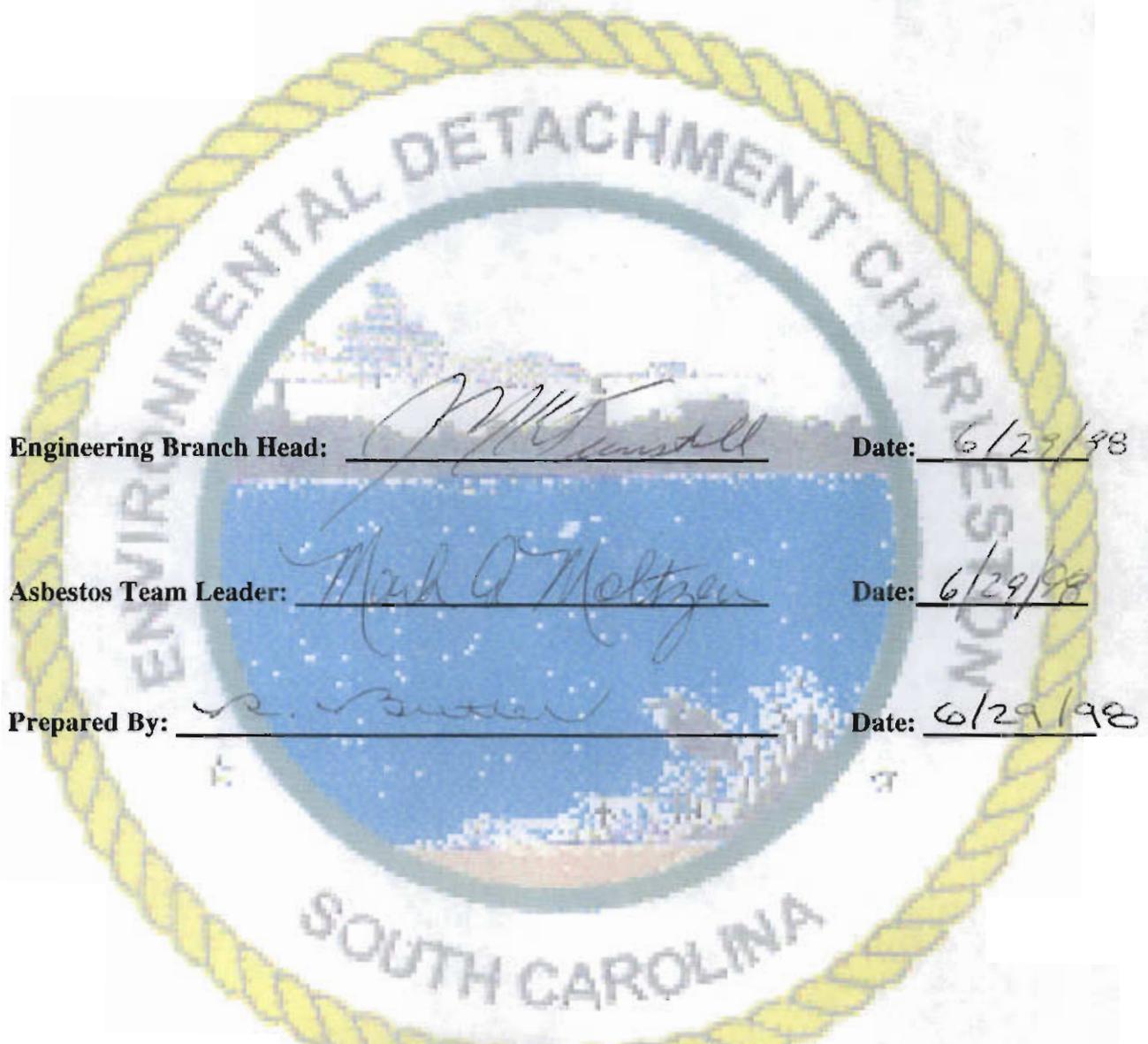
Supervisor of Shipbuilding, Conversion  
& Repair, USN, (SUPSHIP) Portsmouth Va.,  
Environmental Detachment Charleston  
Charleston, SC  
1899 North Hobson Ave.  
North Charleston, SC 29405-2106

JUNE 1998

# ASBESTOS INSPECTION REPORT

BUILDINGS NS-27, X-54, NS-84, 180, 290, 641,  
674, 1177, 1346 & 1737

CHARLESTON NAVAL COMPLEX  
CHARLESTON, SC



Engineering Branch Head:

[Signature]

Date:

6/29/98

Asbestos Team Leader:

[Signature]

Date:

6/29/98

Prepared By:

[Signature]

Date:

6/29/98

**SURVEY PERFORMED BY:**  
**ENVIRONMENTAL DETACHMENT CHARLESTON**  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405

---

---

# CHARLESTON NAVAL COMPLEX

---

---

## ASBESTOS INSPECTION REPORT

---

### TABLE OF CONTENTS

	Page No.
<b>I. EXECUTIVE SUMMARY.....</b>	<b>SECTION I-1</b>
REPORT INTRODUCTION .....	1
FINDINGS SUMMARY .....	2
RENOVATION/DEMOLITION .....	2
REPORT ORGANIZATION .....	3
ABATEMENT COSTS .....	3
DISCLAIMER .....	3
<b>II. BUILDING SUMMARIES.....</b>	<b>SECTION II-1</b>
<b>BUILDINGS</b>	<b>Page No.</b>
BLDG. NS-27: Naval Admin Facility.....	BLDG NS-27-1
BLDG. X-54: Former Correctional Custody Unit.....	BLDG X-54-1
BLDG. NS-84: Administrative .....	BLDG NS-84-1
BLDG. 180: Recreation (Sterret Hall).....	BLDG 180-1
BLDG. 290: Electrical Switch House.....	BLDG 290-1
BLDG. 641: Admin/Warehouse.....	BLDG 641-1
BLDG. 674: Administrative.....	BLDG 674-1
BLDG. 1177: Fire Station # 3.....	BLDG 1177-1
BLDG. 1346: Former Service Station.....	BLDG 1346-1
BLDG. 1737: Restroom Facility.....	BLDG 1737-1
<b>III. LABORATORY ANALYTICAL RESULTS SUMMARY.....</b>	<b>SECTION III-1</b>
<b>IV. COPIES OF CHAIN OF CUSTODY RECORDS.....</b>	<b>SECTION IV-1</b>
<b>V. TRAINING QUALIFICATIONS.....</b>	<b>SECTION V-1</b>

## I. EXECUTIVE SUMMARY

### 1. INTRODUCTION

Asbestos Building Inspectors from Environmental Detachment, Charleston, SC conducted a survey to identify asbestos containing material (ACM) at Charleston Naval Complex. The surveys were conducted between May and June of 1998. The results of the survey provide an inventory of ACM in ten buildings; Buildings NS-27, X-54, NS-84, 180, 290, 641, 674, 1177, 1346, & 1737.

All inspectors were certified by an EPA accredited training center under the Asbestos Hazard Emergency Response Act (AHERA), as Building Inspectors. All supervisors and inspectors were employees of Environmental Detachment Charleston. Copies of individual certificates are in the **TRAINING** section of this report.

Suspect ACM was identified and sampled in accordance with AHERA guidelines. Some materials suspected of being ACM were assumed to be ACM and not sampled. Assumed materials included floor tile, sheet flooring, gaskets and ventilation transition boots. Some materials weren't identified as ACM because they were portable and removable (e.g. blackboards, fire hoses, stage curtains), were not safe to sample (e.g. electrical insulation), or sampling would have damaged the material and impaired the normal system operation/integrity (e.g. heating/ventilation/AC systems, furnace, boiler door and pipe gaskets).

Bulk samples were analyzed by the Environmental Detachment, Laboratory Division. The Laboratory participates in the Navy's Asbestos Identification Proficiency Testing Program. The Industrial Hygiene Division of Naval Hospital Charleston analyzed Quality Assurance samples. The QA results were used to verify the accuracy of Environmental Detachment lab analyses. Polarized Light Microscopy (PLM) was used to analyze samples. Materials identified as ACM and either sampled or assumed were designated a homogeneous area by similarity of color, texture and date of application.

Each homogeneous area was assessed in accordance with the "ASBESTOS FACILITY INVENTORY/ASSESSMENT PROTOCOL," NEESA 70.2-010, developed by the NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC). The NFESC protocol establishes an algorithm rating for each homogeneous area based on condition, quantity, friability, exposure potential, number of persons exposed, building significance and percentage of asbestos present in the material. The **BUILDING SUMMARY TABLES** list the ratings for each homogeneous area. The rating is heavily weighted by condition, friability, exposure potential and building significance. If the rating system is used to prioritize buildings for abatement, note that buildings occupied at the time of the inspection have homogeneous areas with significantly higher ratings than unoccupied buildings. Ratings are probably more useful to prioritize abatement of homogeneous areas within a building.

## 2. FINDINGS SUMMARY

Of the ten buildings inspected, all contained confirmed asbestos of which three contained friable asbestos (Buildings 180, 1346, & 1737). Buildings X-54, NS-84, 180, 1177 and 1737 contained damaged ACM. See individual **Building Summaries** for specific locations, quantities and conditions. Buildings containing asbestos are required to be included in an Operations and Maintenance (O&M) Program. Any identified asbestos containing material not removed must be maintained following the guidelines of an O&M Plan.

## 3. RENOVATION/DEMOLITION

The National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 requires written notification to the Environmental Protection Agency/local Air Quality Management District at least ten working days prior to demolition or renovation of ACM in quantities of 260 linear feet, 160 square feet, 35 cubic feet, or greater, except in cases of emergencies. Contractors are advised to verify most current regulations prior to start of work.

#### 4. **REPORT ORGANIZATION**

Specific, detailed information on each inspected building is noted in *Section II, BUILDING SUMMARIES*, of this report and includes the following:

- Narrative description of the building
- Building Summary Table
- Laboratory Test Results Table
- Operations & Maintenance Table
- Building drawings indicating ACM locations
- Asbestos Abatement & Demolition Estimates

Following the *BUILDING SUMMARIES*, are tabbed sections for *LABORATORY RESULTS, CHAIN OF CUSTODY records and TRAINING documentation*.

Copies of individual Inspector's certificates, and QA sample results are included in the appropriate sections.

#### 5. **ABATEMENT COSTS**

Environmental Detachment Charleston inspectors found friable and/or damaged and accessible ACM in Buildings X-54, NS-84, 180, 1177, 1346 and 1737.

Confirmed non-friable and non-damaged ACM was found in the remaining buildings. We recommend that the facilities' Asbestos Program Manager initially focus his resources on all ACM assessed as friable. Cost estimates for asbestos removal and/or repair and demolition estimates are included with this report. These estimates are based on current man-hour and disposal rates and may need to be negotiated prior to actual start of work. Individual estimates are located in the *BUILDING SUMMARY* Section for each building.

#### 6. **DISCLAIMER**

A comprehensive and thorough asbestos survey was conducted on these facilities by certified and experienced Environmental Detachment Charleston inspectors. Every effort was made to identify all asbestos containing material (ACM) in the facility, but due to random sampling techniques mandated by EPA regulations, the possibility always exists that some ACM remains undetected.

---

## II. BUILDING SUMMARIES

The following pages report observations noted and suggest actions required as a result of an Asbestos survey conducted by Environmental Detachment Charleston personnel between May and June 1998. Ten buildings at Charleston Naval Complex were inspected for possible presence of suspect/assumed asbestos. This section provides *Description, Findings, Observations, Recommended Abatement Action, and Recommendations for Operations and Maintenance* for each building inspected.

Materials identified as ACM and either sampled or assumed were designated as homogeneous areas by similarity of color, texture and date of application. Assessment of each homogeneous area was done in accordance with the *ASBESTOS FACILITY INVENTORY/ASSESSMENT PROTOCOL*, NEESA 70.2-010, developed by the NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC). The NFESC protocol establishes an algorithm rating for each homogeneous area based on condition, quantity, friability, exposure and potential number of persons exposed, building significance and percentage of asbestos present in the material. The rating is heavily weighted by condition, friability, exposure potential and building significance. If the rating system is used to prioritize buildings for abatement, it should be noted that buildings occupied at the time of the inspection have homogeneous areas with significantly higher ratings than unoccupied buildings. Ratings are probably more useful in setting priorities for abatement of all homogeneous areas within a single building than in ranking the order of abatement of multiple buildings.

The room numbers shown on the CAD drawings and referenced in the report were assigned by the inspectors at the time of inspection. The Room numbering system is as follows:

Basement, B series; Crawlspace, C series; Attic, A series; Entry/exit points, E series; Stairwells, S series; Hallways, H series; 1st floor, 100 series; 2nd floor, 200 series; 3rd floor, 300 series; 4th floor, 400 series, etc.

## **BUILDING NS-27: US NAVY INSHORE BOAT**

### **1. DESCRIPTION:**

Building NS-27 is a 1,374 square-foot building. It is a single story, concrete block structure with red brick exterior, metal windows and a built-up roof. The year built was 1958. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Sixteen homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Sixteen of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Two of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Fourteen of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Sixteen homogeneous areas with suspected ACM were identified. Thirty-two samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-1: MISC, FLOOR TILE, 12" x 12", Beige w/brown & white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-15: MISC, SEALER, Black, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-2: MISC, SHEETROCK, PLAIN, 4' x 8', White w/vinyl wall-cover
- ◆ H-3: MISC, CEILING TILE, 2' x 4', White w/long grooves
- ◆ H-4: MISC, CEILING TILE, 2' x 4', White w/tiny grooves
- ◆ H-5: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- ◆ H-6: MISC, GROUT, CERAMIC TILE, 1" x 1", Grey
- ◆ H-7: MISC, COVING MASTIC, Yellow
- ◆ H-8: MISC, COVING MASTIC, Brown
- ◆ H-9: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-10: MISC, GROUT, CERAMIC TILE, 2" x 2", Grey
- ◆ H-11: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- ◆ H-12: MISC, MORTAR, BRICK, 2" x 4" x 8", Grey

- ◆ H-13: MISC, ROOFING, TAR AND GRAVEL, Black w/felt
- ◆ H-14: MISC, ROOFING, COMPOSITION SHEET, Grey & white rubber patch material
- ◆ H-16: MISC, SEALER, Black & grey w/felt

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### 3. OBSERVATIONS:

Other suspect ACM noted, but not sampled, includes valve packing, various piping systems / components gasket material and drain piping joint compound.

### 4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- ◆ H-1: MISC, FLOOR TILE, Beige w/brown & white marble & mastic: O&M
- ◆ H-15: MISC, SEALER, Black: O&M

### 5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-1 (FLOOR TILE, Beige w/brown & white marble & mastic) is located in Rooms 100, 101, 102, 105, 106, 107, 108, 109, H-100.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-15 (SEALER, Black) is located on the Roof.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. NS-27

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,430 SF	0						
		Rooms ROOF								
14	N	Misc, ROOFING, COMPOSITION SHEET, Grey & white rubber patch material	100 SF	0						
		Rooms ROOF								
15	Y	Misc, SEALER, Black	10 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								
16	N	Misc, SEALER, Black & grey w/felt	16 SF	0						
		Rooms ROOF								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. NS-27**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	YES	NS27-001	100	Misc, FLOOR TILE, Beige w/brown & white marble & masti	04/28/98	04/30/98	Chrysotile	5%
1	YES	NS27-002	102	Misc, FLOOR TILE, Beige w/brown & white marble & masti	04/28/98	04/30/98	Chrysotile	2%
2	NO	NS27-003	101	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	04/28/98	04/30/98	No Asbestos Detected	0%
2	NO	NS27-004	102	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	04/28/98	04/30/98	No Asbestos Detected	0%
3	NO	NS27-005	105	Misc, CEILING TILE, 2' x 4', White w/long grooves	04/28/98	04/30/98	No Asbestos Detected	0%
3	NO	NS27-006	106	Misc, CEILING TILE, 2' x 4', White w/long grooves	04/28/98	04/30/98	No Asbestos Detected	0%
4	NO	NS27-007	100	Misc, CEILING TILE, 2' x 4', White w/tiny grooves	04/28/98	04/30/98	No Asbestos Detected	0%
4	NO	NS27-008	101	Misc, CEILING TILE, 2' x 4', White w/tiny grooves	04/28/98	04/30/98	No Asbestos Detected	0%
5	NO	NS27-009	105	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
5	NO	NS27-010	109	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
6	NO	NS27-011	103	Misc, GROUT, 1" x 1", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
6	NO	NS27-012	103	Misc, GROUT, 1" x 1", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
7	NO	NS27-013	103	Misc, COVING MASTIC, Yellow	04/28/98	04/30/98	No Asbestos Detected	0%
7	NO	NS27-014	103	Misc, COVING MASTIC, Yellow	04/28/98	04/30/98	No Asbestos Detected	0%
8	NO	NS27-015	103	Misc, COVING MASTIC, Brown	04/28/98	04/30/98	No Asbestos Detected	0%
8	NO	NS27-016	108	Misc, COVING MASTIC, Brown	04/28/98	04/30/98	No Asbestos Detected	0%
9	NO	NS27-017	108	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/28/98	04/30/98	No Asbestos Detected	0%
9	NO	NS27-018	107	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/28/98	04/30/98	No Asbestos Detected	0%
10	NO	NS27-019	110	Misc, GROUT, 2" x 2", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
10	NO	NS27-020	110	Misc, GROUT, 2" x 2", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
11	NO	NS27-021	110	Misc, GROUT, 4" x 4", White	04/28/98	04/30/98	No Asbestos Detected	0%
11	NO	NS27-022	110	Misc, GROUT, 4" x 4", White	04/28/98	04/30/98	No Asbestos Detected	0%
12	NO	NS27-023	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
12	NO	NS27-024	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	04/28/98	04/30/98	No Asbestos Detected	0%
13	NO	NS27-025	ROOF	Misc, ROOFING, Black w/felt	04/28/98	04/30/98	No Asbestos Detected	0%
13	NO	NS27-026	ROOF	Misc, ROOFING, Black w/felt	04/28/98	04/30/98	No Asbestos Detected	0%
14	NO	NS27-027	ROOF	Misc, ROOFING, Grey & white rubber patch material	04/28/98	04/30/98	No Asbestos Detected	0%
14	NO	NS27-028	ROOF	Misc, ROOFING, Grey & white rubber patch material	04/28/98	04/30/98	No Asbestos Detected	0%
15	YES	NS27-029	ROOF	Misc, SEALER, Black	04/28/98	04/30/98	Chrysotile	2%
15	YES	NS27-030	ROOF	Misc, SEALER, Black	04/28/98	04/30/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. NS-27**

<b>Homo. Area No.</b>	<b>ASB Y/N</b>	<b>Sample Number</b>	<b>Room Number</b>	<b>Material Description:</b>	<b>Date Sampled</b>	<b>Date Analyzed</b>	<b>Sample Results</b>	<b>Percent Asbestos</b>
16	NO	NS27-031	ROOF	Misc, SEALER, Black & grey w/felt	04/28/98	04/30/98	No Asbestos Detected	0%
16	NO	NS27-032	ROOF	Misc, SEALER, Black & grey w/felt	04/28/98	04/30/98	No Asbestos Detected	0%

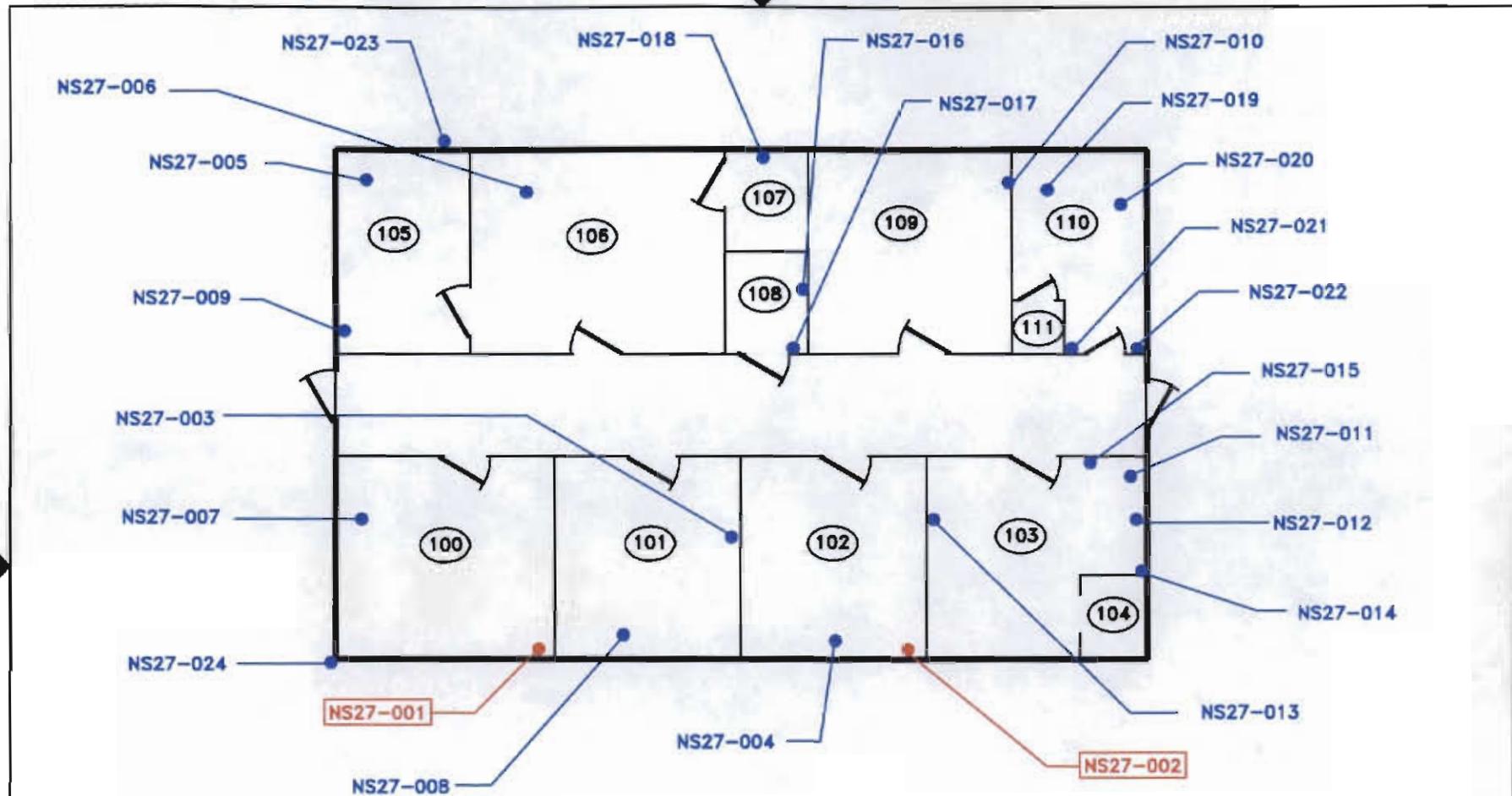
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
NS-27	1	Misc, FLOOR TILE, 12" x 12", Beige w/brown & white marble & mastic	1,087 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 100, 101, 102, 105, 106, 107, 108, 109, H-100								
NS-27	15	Misc, SEALER, Black	10 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



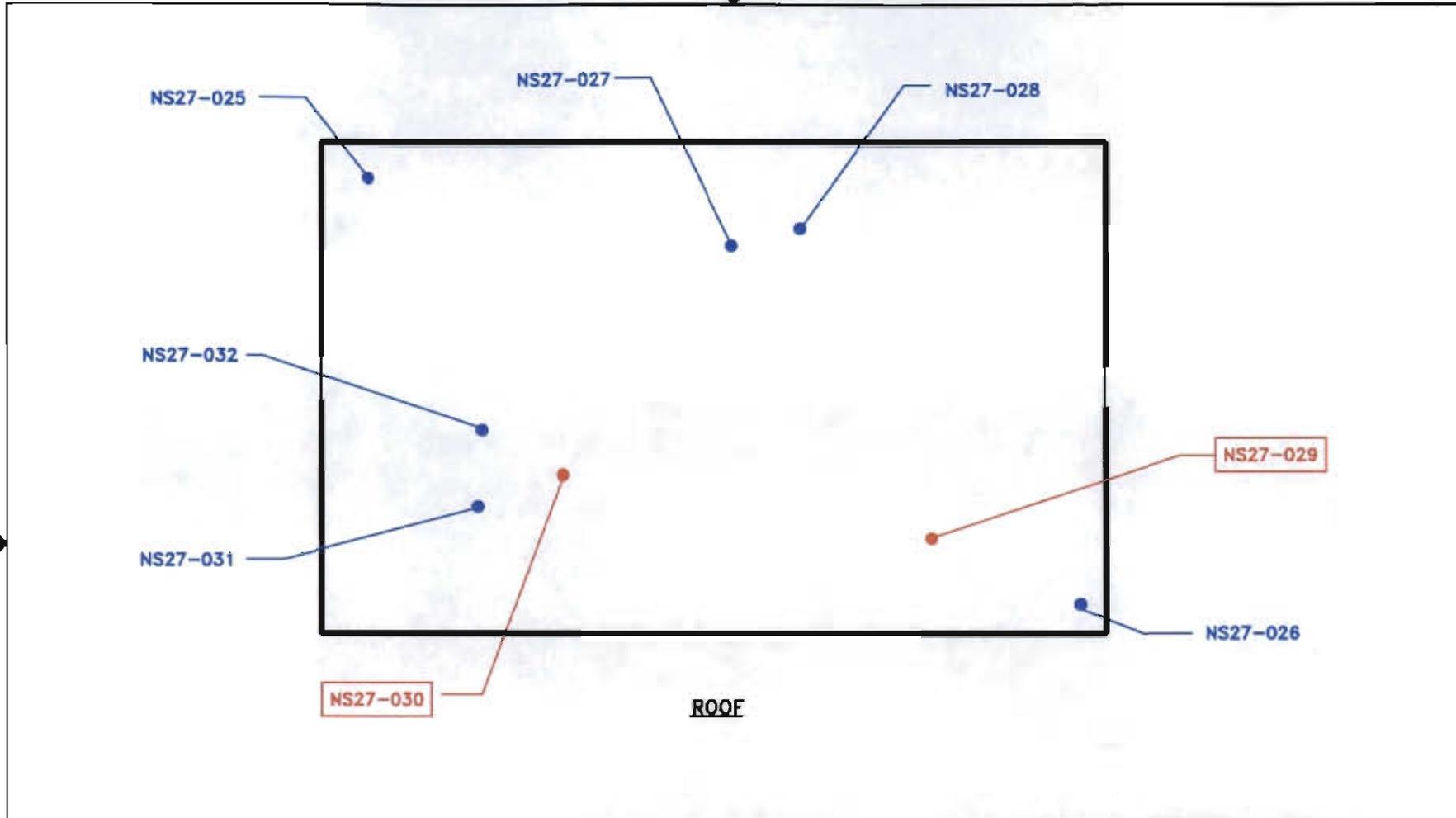
**LEGEND**

(xxx) — Indicates unique room number assigned by Inspector

xxxx-xxx — Indicates sample locations which tested positive for asbestos



<b>ENVIRONMENTAL DETACHMENT CHARLESTON</b> 1899 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> <b>BUILDING NS 27</b> <b>CHARLESTON NAVAL BASE, CHARLESTON, SC</b>		
DATE	PREPARED BY:	REV
6-16-98	B.D. MURRAY	ORIG
SCALE: NONE	SHEET 1 of 2	



LEGEND

XXXX-XXX

— Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1899 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> <b>BUILDING NS 27</b> <b>CHARLESTON NAVAL BASE, CHARLESTON, SC</b>		
DATE 6-15-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE		SHEET 2 of 2

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building NS-27**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$5,827	-	NA	-	\$4,707
Material/equipment costs	\$2,340	-	NA	-	\$2,441
Disposal costs	<u>\$1,165</u>	-	<u>NA</u>	-	<u>\$2,371</u>
<b>Total cost</b>	<b>\$9,332</b>	-	<b>NA</b>	-	<b>\$9,519</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$9,332 and the cost for demolition after asbestos removal is \$9,519.

## **BUILDING X-54: Correctional Custody Unit**

### **1. DESCRIPTION:**

Building X-54 is a 3,162 square-foot building. It is a single story, concrete structure with a crawl space and a pitched, asphalt shingle roof. The year built was 1941. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Twenty-four homogeneous areas were identified during the initial survey.
- ◆ One homogeneous area was assumed to contain asbestos.
- ◆ Twenty-three of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Five of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Eighteen of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Twenty-three homogeneous areas with suspected ACM were identified. Fifty-four samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-7: MISC, TRANSITE, PANEL, Grey, was Non-friable and Damaged.
- ◆ H-9: MISC, MASTIC, Black vent duct, was Non-friable and Not Damaged.
- ◆ H-11: MISC, FLOOR TILE, 12" x 12", Brown w/mastic, was Non-friable and Not Damaged.
- ◆ H-12: MISC, FLOOR TILE, 12" x 12", Grey w/white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-15: TSI, FITTING, CLOTH WRAPPED, White, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, FLOOR TILE, 12" x 12", Blue w/streaks & mastic
- ◆ H-2: MISC, COVING MASTIC, Black
- ◆ H-3: MISC, SHEETROCK, PLAIN, 4' x 8', White w/vinyl wall-cover
- ◆ H-4: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape

- ◆ H-5: MISC, CEILING TILE, 2' x 4', White w/long grooves
- ◆ H-6: MISC, CEILING TILE, 2' x 4', White w/bird feet
- ◆ H-8: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-10: MISC, COVING MASTIC, Tan
- ◆ H-13: MISC, CAULKING, White
- ◆ H-14: MISC, FLOOR TILE, 12" x 12", Cream w/mastic
- ◆ H-16: MISC, MASTIC, Grey vent duct tape
- ◆ H-18: MISC, GROUT, CERAMIC TILE, 2" x 2", Grey
- ◆ H-19: MISC, GROUT, CERAMIC TILE, 6" x 6", Grey
- ◆ H-20: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- ◆ H-21: MISC, ROOFING, TAR AND GRAVEL, Black w/felt
- ◆ H-22: MISC, ROOFING, COMPOSITION SHINGLE, Grey & black w/felt
- ◆ H-23: SURFACING, NONSKID, Grey
- ◆ H-24: MISC, MORTAR, BRICK, 3" x 3" x 8", Grey

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ H-17: MISC, VIBRATION JOINT, Black, was Non-friable and Not Damaged.

### 3. OBSERVATIONS:

Other suspect ACM noted, but not sampled, includes valve packing and various piping systems/components gasket material.

### 4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- ◆ H-7: MISC, TRANSITE, Grey: Repair/O&M
- ◆ H-9: MISC, MASTIC, Black vent duct: O&M
- ◆ H-11: MISC, FLOOR TILE, Brown w/mastic: O&M
- ◆ H-12: MISC, FLOOR TILE, Grey w/white marble & mastic: O&M
- ◆ H-15: TSI, FITTING, White: O&M
- ◆ H-17: MISC, VIBRATION JOINT, Black: O&M

### 5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

TSI FITTING is Confirmed, Non-friable ACM.

- ◆ H-15 (FITTING, White) is located in Rooms 107, 110, 111.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-12 (FLOOR TILE, Grey w/white marble & mastic) is located in Room 103.
- ◆ H-11 (FLOOR TILE, Brown w/mastic) is located in Rooms 102, 105, 107, 108.

MISC MASTIC is Confirmed, Non-friable ACM.

- ◆ H-9 (MASTIC, Black vent duct) is located in Room 101.

MISC TRANSITE is Confirmed, Non-friable ACM.

- ◆ H-7 (TRANSITE, Grey) is located in Rooms 100, 101, 102, 103, 104, 110, EXT, H-100.

MISC VIBRATION JOINT is Assumed, Non-friable ACM.

- ◆ H-17 (VIBRATION JOINT, Black) is located in Room 110.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. X-54

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, FLOOR TILE, 12" x 12", Blue w/streaks & mastic	2,000 SF	0						
		Rooms 100, 101, 104, 106, H-100, H-101								
2	N	Misc, COVING MASTIC, Black	312 LF	0						
		Rooms 100, 101, 104, 106, H-100, H-101								
3	N	Misc, SHEETROCK, PLAIN, 4' x 8', White w/vinyl wall-cover	490 SF	0						
		Rooms 100, 105, 108								
4	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	1,776 SF	0						
		Rooms 100, 102, 103, 104, 109, 111, H-100, H-101								
5	N	Misc, CEILING TILE, 2' x 4', White w/long grooves	1,382 SF	0						
		Rooms 100, 101, 102, 103, 105, 106, 107, H-100, H-101								
6	N	Misc, CEILING TILE, 2' x 4', White w/bird feet	908 SF	0						
		Rooms 100, 101, 106, 111, H-100, H-101								
7	Y	Misc, TRANSITE, PANEL, Grey	2,860 SF	4	Non	D	0.9	Repair/O&M		
		Rooms 100, 101, 102, 103, 104, 110, EXT, H-100								
8	N	Misc, MORTAR, 8" x 8" x 16", Grey	2,050 SF	0						
		Rooms 101, 104, 106, 107, 108, 110, 111, 112, EXT, H-100, H-101								
9	Y	Misc, MASTIC, Black vent duct	220 LF	3	Non	PD	0.0	O&M		
		Rooms 101								
10	N	Misc, COVING MASTIC, Tan	164 LF	0						
		Rooms 102, 103, 105, 107, 108, 109								
11	Y	Misc, FLOOR TILE, 12" x 12", Brown w/mastic	196 SF	3	Non	PD	0.0	O&M		
		Rooms 102, 105, 107, 108								
12	Y	Misc, FLOOR TILE, 12" x 12", Grey w/white marble & mastic	96 SF	3	Non	PD	0.0	O&M		
		Rooms 103								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. X-54

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Friability	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, CAULKING, White	82 LF	0						
		Rooms 106, 111, EXT								
14	N	Misc, FLOOR TILE, 12" x 12", Cream w/mastic	42 SF	0						
		Rooms 109								
15	Y	TSI, FITTING, CLOTH WRAPPED, White	27 LF	3	Non	PD	0.0	O&M		
		Rooms 107, 110, 111								
16	N	Misc, MASTIC, Grey vent duct tape	60 LF	0						
		Rooms 110								
17	A	Misc, VIBRATION JOINT, Black	4 LF	3	Non	PD	0.0	O&M		
		Rooms 110								
18	N	Misc, GROUT, CERAMIC TILE, 2" x 2", Grey	256 SF	0						
		Rooms 111								
19	N	Misc, GROUT, CERAMIC TILE, 6" x 6", Grey	40 SF	0						
		Rooms 111								
20	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	200 SF	0						
		Rooms 111								
21	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	98 SF	0						
		Rooms R-100								
22	N	Misc, ROOFING, COMPOSITION SHINGLE, Grey & black w/felt	4,340 SF	0						
		Rooms R-101								
23	N	Surfacing, NONSKID, Grey	156 SF	0						
		Rooms EXT								
24	N	Misc, MORTAR, BRICK, 3" x 3" x 8", Grey	156 SF	0						
		Rooms EXT								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE****CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY****Building No. X-54**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
------	--------------	----------------------	----------	--------	-----------------	------	--------	-----------------------	------------------	----------

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. X-54**

Hom. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	X54-001	100	Misc, FLOOR TILE, Blue w/streaks & mastic	05/13/98	05/19/98	No Asbestos Detected	0%
1	NO	X54-002	101	Misc, FLOOR TILE, Blue w/streaks & mastic	05/13/98	05/19/98	No Asbestos Detected	0%
2	NO	X54-003	100	Misc, COVING MASTIC, Black	05/13/98	05/19/98	No Asbestos Detected	0%
2	NO	X54-004	H-100	Misc, COVING MASTIC, Black	05/13/98	05/19/98	No Asbestos Detected	0%
3	NO	X54-005	100	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	05/13/98	05/19/98	No Asbestos Detected	0%
3	NO	X54-006	105	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	05/13/98	05/19/98	No Asbestos Detected	0%
3	NO	X54-007	108	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	05/13/98	05/19/98	No Asbestos Detected	0%
4	NO	X54-008	111	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/13/98	05/19/98	No Asbestos Detected	0%
4	NO	X54-009	104	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/13/98	05/19/98	No Asbestos Detected	0%
4	NO	X54-010	109	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/13/98	05/19/98	No Asbestos Detected	0%
5	NO	X54-011	100	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/13/98	05/19/98	No Asbestos Detected	0%
5	NO	X54-012	H-101	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/13/98	05/19/98	No Asbestos Detected	0%
6	NO	X54-013	100	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/13/98	05/19/98	No Asbestos Detected	0%
6	NO	X54-014	H-101	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/13/98	05/19/98	No Asbestos Detected	0%
7	YES	X54-015	110	Misc, TRANSITE, Grey	05/13/98	05/19/98	Chrysotile	80%
7	YES	X54-016	EXT	Misc, TRANSITE, Grey	05/13/98	05/19/98	Chrysotile	80%
8	NO	X54-017	101	Misc, MORTAR, 8" x 8" x 16", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
8	NO	X54-018	H-101	Misc, MORTAR, 8" x 8" x 16", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
9	YES	X54-019	101	Misc, MASTIC, Black vent duct	05/13/98	05/19/98	Chrysotile	3%
9	YES	X54-020	101	Misc, MASTIC, Black vent duct	05/13/98	05/19/98	Chrysotile	3%
10	NO	X54-021	102	Misc, COVING MASTIC, Tan	05/13/98	05/19/98	No Asbestos Detected	0%
10	NO	X54-022	103	Misc, COVING MASTIC, Tan	05/13/98	05/19/98	No Asbestos Detected	0%
11	YES	X54-023	102	Misc, FLOOR TILE, Brown w/mastic	05/13/98	05/19/98	Chrysotile	6%
11	YES	X54-024	107	Misc, FLOOR TILE, Brown w/mastic	05/13/98	05/19/98	Chrysotile	6%
12	YES	X54-025	103	Misc, FLOOR TILE, Grey w/white marble & mastic	05/13/98	05/19/98	Chrysotile	2%
12	YES	X54-026	103	Misc, FLOOR TILE, Grey w/white marble & mastic	05/13/98	05/19/98	Chrysotile	2%
13	NO	X54-027	111	Misc, CAULKING, White	05/13/98	05/19/98	No Asbestos Detected	0%
13	NO	X54-028	111	Misc, CAULKING, White	05/13/98	05/19/98	No Asbestos Detected	0%
14	NO	X54-029	109	Misc, FLOOR TILE, Cream w/mastic	05/13/98	05/19/98	No Asbestos Detected	0%
14	NO	X54-030	109	Misc, FLOOR TILE, Cream w/mastic	05/13/98	05/19/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. X-54**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
15	YES	X54-031	107	TSI, FITTING, White	05/13/98	05/19/98	Chrysotile	10%
15	NO	X54-032	110	TSI, FITTING, White	05/13/98	05/19/98	No Asbestos Detected	0%
15	NO	X54-033	110	TSI, FITTING, White	05/13/98	05/19/98	No Asbestos Detected	0%
16	NO	X54-034	110	Misc, MASTIC, Grey vent duct tape	05/13/98	05/19/98	No Asbestos Detected	0%
16	NO	X54-035	110	Misc, MASTIC, Grey vent duct tape	05/13/98	05/19/98	No Asbestos Detected	0%
18	NO	X54-036	111	Misc, GROUT, 2" x 2", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
18	NO	X54-037	111	Misc, GROUT, 2" x 2", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
19	NO	X54-038	111	Misc, GROUT, 6" x 6", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
19	NO	X54-039	111	Misc, GROUT, 6" x 6", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
20	NO	X54-040	111	Misc, GROUT, 4" x 4", White	05/13/98	05/19/98	No Asbestos Detected	0%
20	NO	X54-041	111	Misc, GROUT, 4" x 4", White	05/13/98	05/19/98	No Asbestos Detected	0%
21	NO	X54-042	R-100	Misc, ROOFING, Black w/felt	05/13/98	05/19/98	No Asbestos Detected	0%
21	NO	X54-043	R-100	Misc, ROOFING, Black w/felt	05/13/98	05/19/98	No Asbestos Detected	0%
22	NO	X54-044	R-101	Misc, ROOFING, Grey & black w/felt	05/13/98	05/19/98	No Asbestos Detected	0%
22	NO	X54-045	R-101	Misc, ROOFING, Grey & black w/felt	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-046	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-047	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-048	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-049	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-050	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-051	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
23	NO	X54-052	EXT	Surfacing, NONSKID, Grey	05/13/98	05/19/98	No Asbestos Detected	0%
24	NO	X54-053	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	05/13/98	05/19/98	No Asbestos Detected	0%
24	NO	X54-054	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	05/13/98	05/19/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

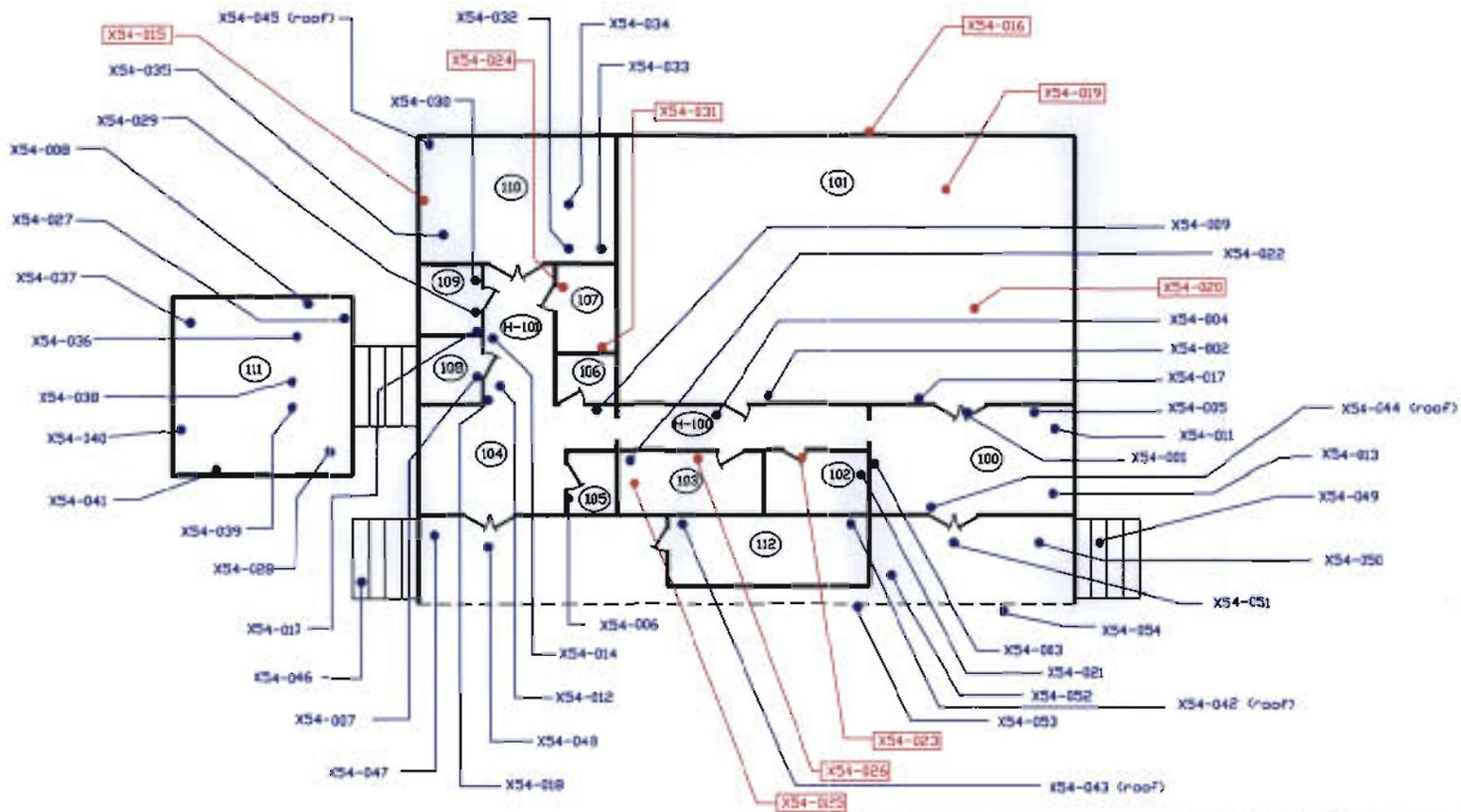
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
X-54	7	Misc, TRANSITE, PANEL, Grey	2,860 SF	4	Non	Damaged	0.90	Repair/O&M
Locations: Rooms 100, 101, 102, 103, 104, 110, EXT, H-100								
X-54	9	Misc, MASTIC, Black vent duct	220 LF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 101								
X-54	11	Misc, FLOOR TILE, 12" x 12", Brown w/mastic	196 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 105, 107, 108								
X-54	12	Misc, FLOOR TILE, 12" x 12", Grey w/white marble & mastic	96 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 103								
X-54	15	TSI, FITTING, CLOTH WRAPPED, White	27 LF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 107, 110, 111								
X-54	17	Misc, VIBRATION JOINT, Black	4 LF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 110								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

⊙ - Indicates unique room number assigned by inspector

ⓧ - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE - BUILDING 30  
NORTH CHARLESTON, SOUTH CAROLINA 29405-2104

**SAMPLE LOCATIONS**  
**BLDG X54**  
**CHARLESTON NAVAL BASE, CHARLESTON SC**

DATE 6-23-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE	SHEET 1 OF 1	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building X-54**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$10,983	-	\$150	-	\$10,044
Material/equipment costs	\$4,145	-	\$175	-	\$5,564
Disposal costs	<u>\$1,647</u>	-	<u>\$45</u>	-	<u>\$6,148</u>
<b>Total cost</b>	<b>\$16,775</b>	<b>-</b>	<b>\$370</b>	<b>-</b>	<b>\$21,756</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$16,775, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$370 and the cost for demolition after asbestos removal is \$21,756.

## **BUILDING NS-84: NAVAL SECURITY GROUP ACTIVITY**

### **1. DESCRIPTION:**

Building NS-84 is a 6,553 square-foot building. It is a single story, concrete block structure with red brick exterior and a built-up roof. The year built was 1961. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Thirty-three homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Thirty-three of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Ten of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Twenty-three of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Thirty-three homogeneous areas with suspected ACM were identified. Sixty-seven samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-3: MISC, FLOOR TILE, 12" x 12", Pea Green w/yellow marble & mastic, was Non-friable and Not Damaged.
- ◆ H-11: MISC, FLOOR TILE, 12" x 12", Chocolate w/white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-12: MISC, FLOOR TILE, 9" x 9", Tan w/brown & white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-15: MISC, FLOOR TILE, 12" x 12", Tan w/brown marble & mastic, was Non-friable and Not Damaged.
- ◆ H-21: MISC, FLOOR TILE, 9" x 9", Grey w/mastic, was Non-friable and Not Damaged.
- ◆ H-22: MISC, FLOOR TILE, 12" x 12", Beige w/brown & white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-25: MISC, CAULKING, White, was Non-friable and Damaged.
- ◆ H-26: MISC, CAULKING, Grey, was Non-friable and Damaged.
- ◆ H-31: MISC, SEALER, Silver, was Non-friable and Not Damaged.

- ◆ H-32: MISC, SEALER, Black & grey, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, FLOOR TILE, 12" x 12", Cream w/grey marble & mastic
- ◆ H-2: MISC, FLOOR TILE, 12" x 12", Wood Grain / peel & stick
- ◆ H-4: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-5: MISC, CEILING TILE, 2' x 4', White w/small holes
- ◆ H-6: MISC, MASTIC, Silver vent duct tape
- ◆ H-7: MISC, CEILING TILE, 2' x 4', White w/short grooves
- ◆ H-8: MISC, CEILING TILE, 2' x 4', White w/large holes
- ◆ H-9: MISC, CEILING TILE, 2' x 4', White w/long grooves
- ◆ H-10: MISC, CEILING TILE, 2' x 4', White w/bird feet
- ◆ H-13: MISC, COVING MASTIC, Yellow
- ◆ H-14: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-16: MISC, WALLBOARD, 3' x 8', Beige
- ◆ H-17: MISC, GROUT, CERAMIC TILE, 1" x 1" / 2" x 2" / 1" x 2", Grey
- ◆ H-18: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- ◆ H-19: MISC, COVING MASTIC, Black
- ◆ H-20: MISC, MORTAR, BRICK, 3" x 3" x 8", Grey
- ◆ H-23: MISC, VIBRATION JOINT, Black
- ◆ H-24: MISC, ACOUSTICAL TILE, WITHOUT MASTIC, 12" x 12", White
- ◆ H-27: MISC, MORTAR, 3' x 6', Grey
- ◆ H-28: MISC, CAULKING, Yellow
- ◆ H-29: MISC, TAR PAPER, Black
- ◆ H-30: MISC, SEALER, Black w/felt
- ◆ H-33: MISC, ROOFING, TAR AND GRAVEL, Black w/felt

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### **3. OBSERVATIONS:**

Other suspect ACM noted, but not sampled, includes valve packing and various piping systems/components gasket material.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-3: MISC, FLOOR TILE, Pea Green w/yellow marble & mastic: O&M
- ◆ H-11: MISC, FLOOR TILE, Chocolate w/white marble & mastic: O&M

- ◆ H-12: MISC, FLOOR TILE, Tan w/brown & white marble & mastic: O&M
- ◆ H-15: MISC, FLOOR TILE, Tan w/brown marble & mastic: O&M
- ◆ H-21: MISC, FLOOR TILE, Grey w/mastic: O&M
- ◆ H-22: MISC, FLOOR TILE, Beige w/brown & white marble & mastic: O&M
- ◆ H-25: MISC, CAULKING, White: Repair/O&M
- ◆ H-26: MISC, CAULKING, Grey: Repair/O&M
- ◆ H-31: MISC, SEALER, Silver: O&M
- ◆ H-32: MISC, SEALER, Black & grey: O&M

## **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CAULKING is Confirmed, Non-friable ACM.

- ◆ H-26 (CAULKING, Grey) is located on the Exterior.
- ◆ H-25 (CAULKING, White) is located on the Exterior.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-3 (FLOOR TILE, Pea Green w/yellow marble & mastic) is located in Rooms 102, 105, 106, 109, 113, E-001, H-100.
- ◆ H-15 (FLOOR TILE, Tan w/brown marble & mastic) is located in Rooms 103, 104.
- ◆ H-21 (FLOOR TILE, Grey w/mastic) is located in Room 115.
- ◆ H-22 (FLOOR TILE, Beige w/brown & white marble & mastic) is located in Room 115.
- ◆ H-11 (FLOOR TILE, Chocolate w/white marble & mastic) is located in Rooms 102, 109, 110, 111, 113, 114.
- ◆ H-12 (FLOOR TILE, Tan w/brown & white marble & mastic) is located in Room 102.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-31 (SEALER, Silver) is located on R-100, R-101, R-102.
- ◆ H-32 (SEALER, Black & grey) is located on R-100, R-101, R-102.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. NS-84

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, FLOOR TILE, 12" x 12", Cream w/grey marble & mastic Rooms 106, E-001	180 SF	0						
2	N	Misc, FLOOR TILE, 12" x 12", Wood Grain / peel & stick Rooms 102, E-001, H-100	202 SF	0						
3	Y	Misc, FLOOR TILE, 12" x 12", Pea Green w/yellow marble & mastic Rooms 102, 105, 106, 109, 113, E-001, H-100	1,716 SF	10	Non	PD	0.0	O&M		
4	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape Rooms 102, 105, 106, 107, 108, 110, 113, 115, E-001, H-100	3,915 SF	0						
5	N	Misc, CEILING TILE, 2' x 4', White w/small holes Rooms E-001	146 SF	0						
6	N	Misc, MASTIC, Silver vent duct tape Rooms 100, 101, 102, 103, 104, 113, 114, E-001	290 LF	0						
7	N	Misc, CEILING TILE, 2' x 4', White w/short grooves Rooms 100, 101, 102, 104, 109, 111, 112, 113, 114, 115, 116, 117, 118, H-100	2,968 SF	0						
8	N	Misc, CEILING TILE, 2' x 4', White w/large holes Rooms 100, 102, 112, 113, 115, 116, 117, 118, E-002, H-101	1,386 SF	0						
9	N	Misc, CEILING TILE, 2' x 4', White w/long grooves Rooms 100, 101, 102, 103, 104, 112, 113, 114, 115, 116, 117, 118, H-100	1,184 SF	0						
10	N	Misc, CEILING TILE, 2' x 4', White w/bird feet Rooms 101, 102, 103, 104, 114	100 SF	0						
11	Y	Misc, FLOOR TILE, 12" x 12", Chocolate w/white marble & mastic Rooms 102, 109, 110, 111, 113, 114	384 SF	10	Non	PD	0.0	O&M		
12	Y	Misc, FLOOR TILE, 9" x 9", Tan w/brown & white marble & mastic Rooms 102	10 SF	10	Non	PD	0.0	O&M		

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. NS-84

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, COVING MASTIC, Yellow	347 LF	0						
		Rooms 102, 105, 106, 110, 113, 115, H-100								
14	N	Misc, MORTAR, 8" x 8" x 16", Grey	3,825 SF	0						
		Rooms 102, 106, 109, 111, 112, 113, 119, 120, H-100								
15	Y	Misc, FLOOR TILE, 12" x 12", Tan w/brown marble & mastic	260 SF	10	Non	PD	0.0	O&M		
		Rooms 103, 104								
16	N	Misc, WALLBOARD, 3' x 8', Beige	90 SF	0						
		Rooms 106								
17	N	Misc, GROUT, CERAMIC TILE, 1" x 1" / 2" x 2" / 1" x 2", Grey	378 SF	0						
		Rooms 107, 108								
18	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	460 SF	0						
		Rooms 107, 108								
19	N	Misc, COVING MASTIC, Black	522 LF	0						
		Rooms 109, 111, 112, 116, 117, 118, E-002, H-101								
20	N	Misc, MORTAR, BRICK, 3" x 3" x 8", Grey	7,746 SF	0						
		Rooms 109, 112, 119, EXT								
21	Y	Misc, FLOOR TILE, 9" x 9", Grey w/mastic	1,856 SF	10	Non	PD	0.0	O&M		
		Rooms 115								
22	Y	Misc, FLOOR TILE, 12" x 12", Beige w/brown & white marble & mastic	24 SF	10	Non	PD	0.0	O&M		
		Rooms 115								
23	N	Misc, VIBRATION JOINT, Black	74 LF	0						
		Rooms 115, 120								
24	N	Misc, ACOUSTICAL TILE, WITHOUT MASTIC, 12" x 12", White	290 SF	0						
		Rooms 117, 118								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. NS-84**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
25	Y	Misc, CAULKING, White	800 LF	15	Non	D	40.0	Repair/O&M		
		Rooms EXT								
26	Y	Misc, CAULKING, Grey	30 LF	15	Non	D	10.0	Repair/O&M		
		Rooms EXT								
27	N	Misc, MORTAR, 3' x 6', Grey	160 SF	0						
		Rooms EXT								
28	N	Misc, CAULKING, Yellow	30 LF	0						
		Rooms EXT								
29	N	Misc, TAR PAPER, Black	80 SF	0						
		Rooms EXT								
30	N	Misc, SEALER, Black w/felt	142 SF	0						
		Rooms R-100, R-101, R-102								
31	Y	Misc, SEALER, Silver	142 SF	10	Non	PD	0.0	O&M		
		Rooms R-100, R-101, R-102								
32	Y	Misc, SEALER, Black & grey	120 SF	10	Non	PD	0.0	O&M		
		Rooms R-100, R-101, R-102								
33	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	7,504 SF	0						
		Rooms R-100, R-101, R-102								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. NS-84**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	NS84-001	E-001	Misc, FLOOR TILE, Cream w/grey marble & mastic	05/14/98	05/25/98	No Asbestos Detected	0%
1	NO	NS84-002	106	Misc, FLOOR TILE, Cream w/grey marble & mastic	05/14/98	05/25/98	No Asbestos Detected	0%
2	NO	NS84-003	E-001	Misc, FLOOR TILE, Wood Grain / peel & stick	05/14/98	05/25/98	No Asbestos Detected	0%
2	NO	NS84-004	102	Misc, FLOOR TILE, Wood Grain / peel & stick	05/14/98	05/25/98	No Asbestos Detected	0%
3	YES	NS84-005	E-001	Misc, FLOOR TILE, Pea Green w/yellow marble & mastic	05/14/98	05/25/98	Chrysotile	2%
3	YES	NS84-006	105	Misc, FLOOR TILE, Pea Green w/yellow marble & mastic	05/14/98	05/25/98	Chrysotile	2%
4	NO	NS84-007	102	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/14/98	05/25/98	No Asbestos Detected	0%
4	NO	NS84-008	105	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/14/98	05/25/98	No Asbestos Detected	0%
4	NO	NS84-009	102	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/14/98	05/25/98	No Asbestos Detected	0%
5	NO	NS84-010	E-001	Misc, CEILING TILE, 2' x 4', White w/small holes	05/14/98	05/25/98	No Asbestos Detected	0%
5	NO	NS84-011	E-001	Misc, CEILING TILE, 2' x 4', White w/small holes	05/14/98	05/25/98	No Asbestos Detected	0%
6	NO	NS84-012	100	Misc, MASTIC, Silver vent duct tape	05/14/98	05/25/98	No Asbestos Detected	0%
6	NO	NS84-013	100	Misc, MASTIC, Silver vent duct tape	05/14/98	05/25/98	No Asbestos Detected	0%
7	NO	NS84-014	112	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/14/98	05/25/98	No Asbestos Detected	0%
7	NO	NS84-015	112	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/14/98	05/25/98	No Asbestos Detected	0%
8	NO	NS84-016	102	Misc, CEILING TILE, 2' x 4', White w/large holes	05/14/98	05/25/98	No Asbestos Detected	0%
8	NO	NS84-017	112	Misc, CEILING TILE, 2' x 4', White w/large holes	05/14/98	05/25/98	No Asbestos Detected	0%
9	NO	NS84-018	102	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/14/98	05/25/98	No Asbestos Detected	0%
9	NO	NS84-019	102	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/14/98	05/25/98	No Asbestos Detected	0%
10	NO	NS84-020	102	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/14/98	05/25/98	No Asbestos Detected	0%
10	NO	NS84-021	114	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/14/98	05/25/98	No Asbestos Detected	0%
11	YES	NS84-022	102	Misc, FLOOR TILE, Chocolate w/white marble & mastic	05/14/98	05/25/98	Chrysotile	2%
11	YES	NS84-023	111	Misc, FLOOR TILE, Chocolate w/white marble & mastic	05/14/98	05/25/98	Chrysotile	2%
12	YES	NS84-024	102	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/14/98	05/25/98	Chrysotile	48%
12	YES	NS84-025	102	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/14/98	05/25/98	Chrysotile	48%
13	NO	NS84-026	102	Misc, COVING MASTIC, Yellow	05/14/98	05/25/98	No Asbestos Detected	0%
13	NO	NS84-027	102	Misc, COVING MASTIC, Yellow	05/14/98	05/25/98	No Asbestos Detected	0%
14	NO	NS84-028	111	Misc, MORTAR, 8" x 8" x 16", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
14	NO	NS84-029	106	Misc, MORTAR, 8" x 8" x 16", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
15	YES	NS84-030	103	Misc, FLOOR TILE, Tan w/brown marble & mastic	05/14/98	05/25/98	Chrysotile	45%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. NS-84**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
15	YES	NS84-031	104	Misc, FLOOR TILE, Tan w/brown marble & mastic	05/14/98	05/25/98	Chrysotile	45%
16	NO	NS84-032	106	Misc, WALLBOARD, 3' x 8', Beige	05/14/98	05/25/98	No Asbestos Detected	0%
16	NO	NS84-033	106	Misc, WALLBOARD, 3' x 8', Beige	05/14/98	05/25/98	No Asbestos Detected	0%
17	NO	NS84-034	107	Misc, GROUT, 1" x 1" / 2" x 2" / 1" x 2", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
17	NO	NS84-035	107	Misc, GROUT, 1" x 1" / 2" x 2" / 1" x 2", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
18	NO	NS84-036	107	Misc, GROUT, 4" x 4", White	05/14/98	05/25/98	No Asbestos Detected	0%
18	NO	NS84-037	107	Misc, GROUT, 4" x 4", White	05/14/98	05/25/98	No Asbestos Detected	0%
19	NO	NS84-038	E-002	Misc, COVING MASTIC, Black	05/14/98	05/25/98	No Asbestos Detected	0%
19	NO	NS84-039	116	Misc, COVING MASTIC, Black	05/14/98	05/25/98	No Asbestos Detected	0%
20	NO	NS84-040	112	Misc, MORTAR, 3" x 3" x 8", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
20	NO	NS84-041	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	05/14/98	05/25/98	No Asbestos Detected	0%
21	YES	NS84-042	115	Misc, FLOOR TILE, Grey w/mastic	05/14/98	05/25/98	Chrysotile	3%
21	YES	NS84-043	115	Misc, FLOOR TILE, Grey w/mastic	05/14/98	05/25/98	Chrysotile	3%
22	YES	NS84-044	115	Misc, FLOOR TILE, Beige w/brown & white marble & mastic	05/14/98	05/25/98	Chrysotile	2%
22	YES	NS84-045	115	Misc, FLOOR TILE, Beige w/brown & white marble & mastic	05/14/98	05/25/98	Chrysotile	2%
23	NO	NS84-046	115	Misc, VIBRATION JOINT, Black	05/14/98	05/25/98	No Asbestos Detected	0%
23	NO	NS84-047	115	Misc, VIBRATION JOINT, Black	05/14/98	05/25/98	No Asbestos Detected	0%
24	NO	NS84-048	117	Misc, ACOUSTICAL TILE, 12" x 12", White	05/14/98	05/25/98	No Asbestos Detected	0%
24	NO	NS84-049	117	Misc, ACOUSTICAL TILE, 12" x 12", White	05/14/98	05/25/98	No Asbestos Detected	0%
25	YES	NS84-050	EXT	Misc, CAULKING, White	05/14/98	05/25/98	Chrysotile	2%
25	YES	NS84-051	EXT	Misc, CAULKING, White	05/14/98	05/25/98	Chrysotile	2%
26	YES	NS84-052	EXT	Misc, CAULKING, Grey	05/14/98	05/25/98	Chrysotile	2%
26	YES	NS84-053	EXT	Misc, CAULKING, Grey	05/14/98	05/25/98	Chrysotile	2%
27	NO	NS84-054	EXT	Misc, MORTAR, 3' x 6', Grey	05/14/98	05/25/98	No Asbestos Detected	0%
27	NO	NS84-055	EXT	Misc, MORTAR, 3' x 6', Grey	05/14/98	05/25/98	No Asbestos Detected	0%
28	NO	NS84-056	EXT	Misc, CAULKING, Yellow	05/14/98	05/25/98	No Asbestos Detected	0%
28	NO	NS84-057	EXT	Misc, CAULKING, Yellow	05/14/98	05/25/98	No Asbestos Detected	0%
29	NO	NS84-058	EXT	Misc, TAR PAPER, Black	05/14/98	05/25/98	No Asbestos Detected	0%
29	NO	NS84-059	EXT	Misc, TAR PAPER, Black	05/14/98	05/25/98	No Asbestos Detected	0%
30	NO	NS84-060	R-100	Misc, SEALER, Black w/felt	05/14/98	05/25/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. NS-84**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
30	NO	NS84-061	R-102	Misc, SEALER, Black w/felt	05/14/98	05/25/98	No Asbestos Detected	0%
31	YES	NS84-062	R-100	Misc, SEALER, Silver	05/14/98	05/25/98	Chrysotile	2%
31	YES	NS84-063	R-101	Misc, SEALER, Silver	05/14/98	05/25/98	Chrysotile	2%
32	YES	NS84-064	R-100	Misc, SEALER, Black & grey	05/14/98	05/25/98	Chrysotile	3%
32	YES	NS84-065	R-102	Misc, SEALER, Black & grey	05/14/98	05/25/98	Chrysotile	3%
33	NO	NS84-066	R-100	Misc, ROOFING, Black w/felt	05/14/98	05/25/98	No Asbestos Detected	0%
33	NO	NS84-067	R-101	Misc, ROOFING, Black w/felt	05/14/98	05/25/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

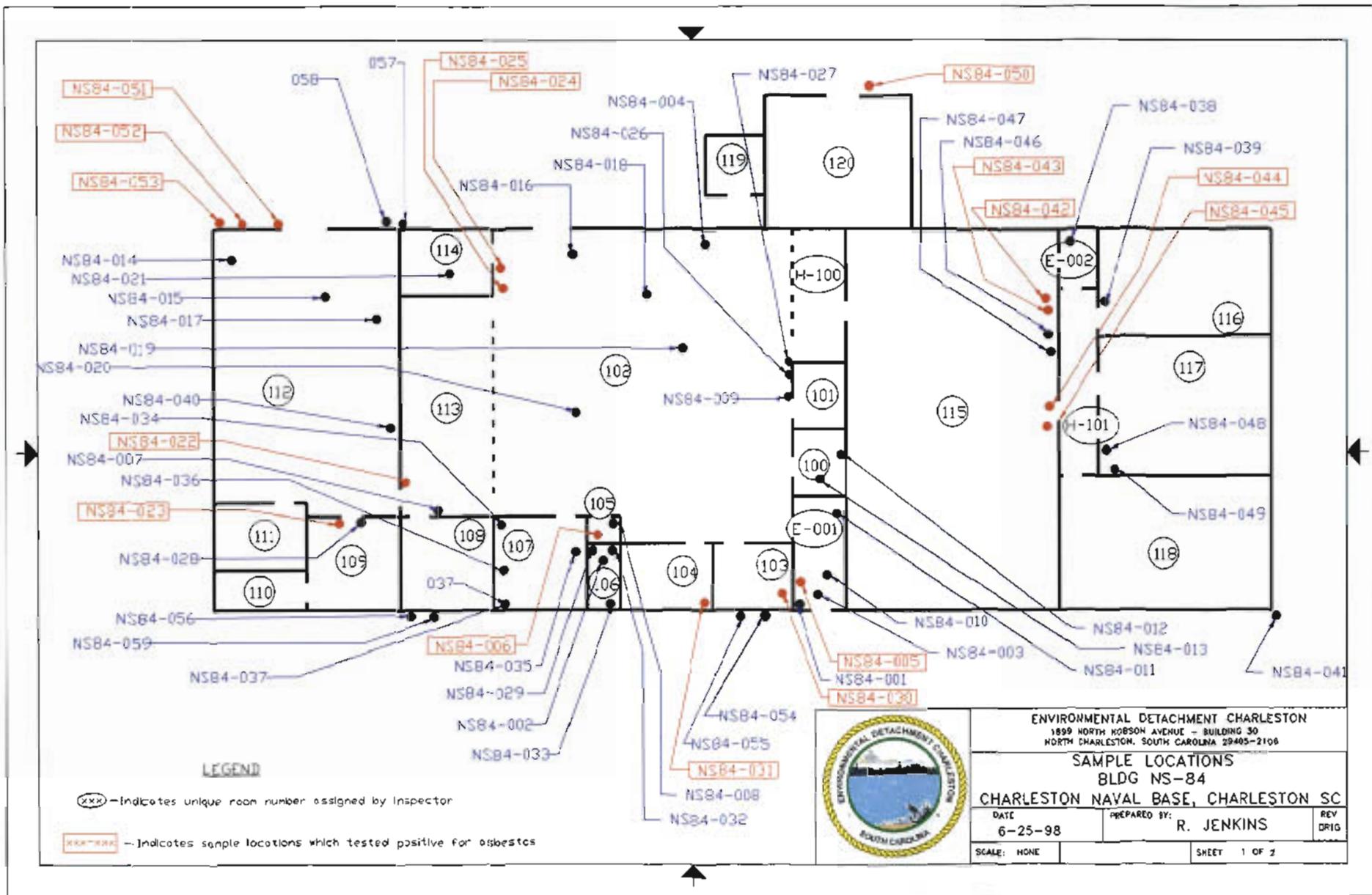
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
NS-84	3	Misc, FLOOR TILE, 12" x 12", Pea Green w/yellow marble & mastic	1,716 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 105, 106, 109, 113, E-001, H-100								
NS-84	11	Misc, FLOOR TILE, 12" x 12", Chocolate w/white marble & mastic	384 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 109, 110, 111, 113, 114								
NS-84	12	Misc, FLOOR TILE, 9" x 9", Tan w/brown & white marble & mastic	10 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 102								
NS-84	15	Misc, FLOOR TILE, 12" x 12", Tan w/brown marble & mastic	260 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 103, 104								
NS-84	21	Misc, FLOOR TILE, 9" x 9", Grey w/mastic	1,856 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 115								
NS-84	22	Misc, FLOOR TILE, 12" x 12", Beige w/brown & white marble & mastic	24 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 115								
NS-84	25	Misc, CAULKING, White	800 LF	15	Non	Damaged	40.00	Repair/O&M
Locations: Rooms EXT								
NS-84	26	Misc, CAULKING, Grey	30 LF	15	Non	Damaged	10.00	Repair/O&M
Locations: Rooms EXT								
NS-84	31	Misc, SEALER, Silver	142 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms R-100, R-101, R-102								
NS-84	32	Misc, SEALER, Black & grey	120 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms R-100, R-101, R-102								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.

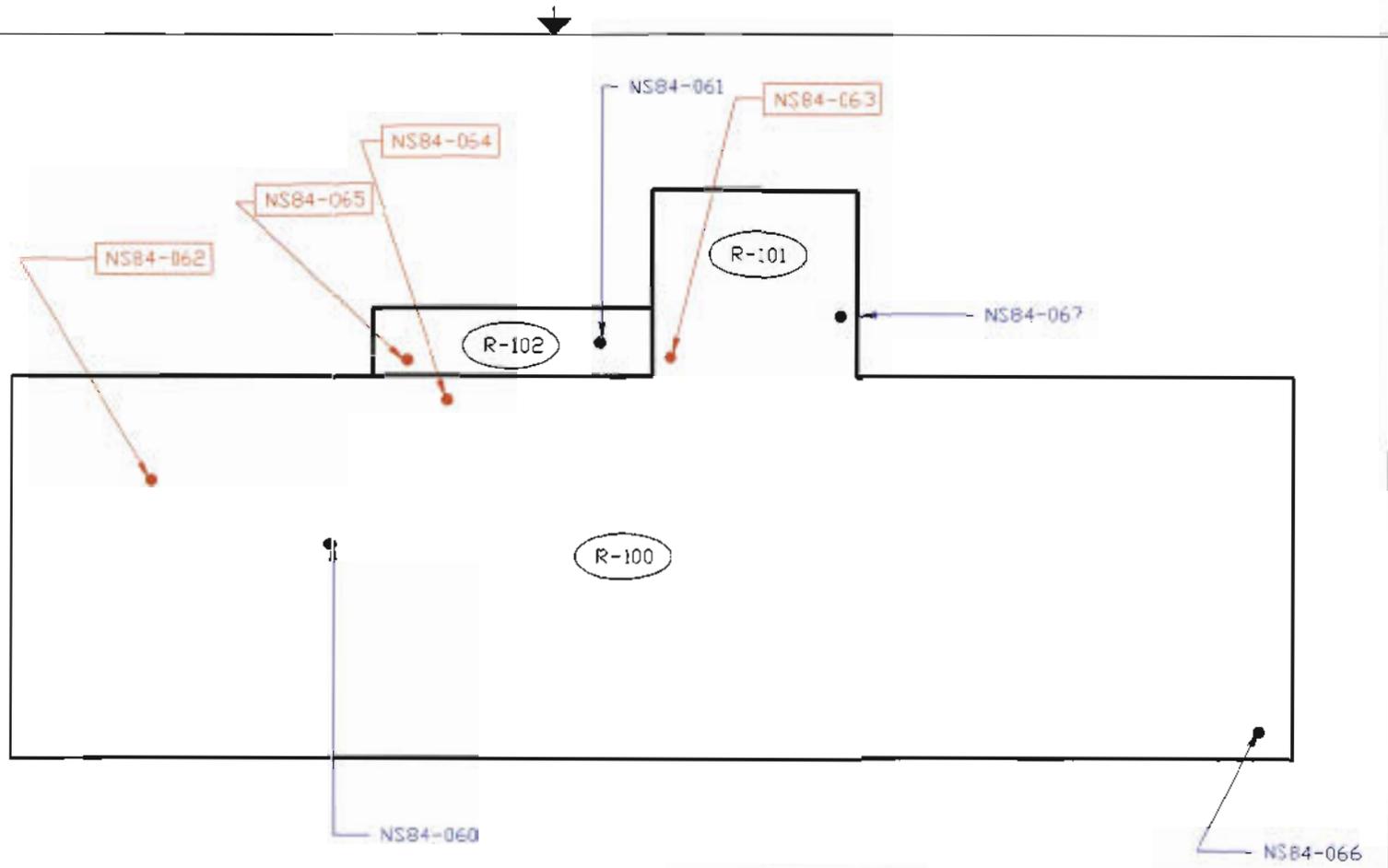


**LEGEND**

- (xxx) - Indicates unique room number assigned by Inspector
- xxx-xxx - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1899 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> BLDG NS-84		
<b>CHARLESTON NAVAL BASE, CHARLESTON SC</b>		
DATE 6-25-98	PREPARED BY: R. JENKINS	REV ORIG
SCALE: NONE	SHEET 1 OF 2	



LEGEND

(xxx) - Indicates unique room number assigned by inspector

NS84-061 - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1899 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2106		
SAMPLE LOCATIONS BLDG NS-84 (ROOF) CHARLESTON NAVAL BASE, CHARLESTON SC		
DATE 6-26-98	PREPARED BY: R. JENKINS	REV DR16
SCALE: NONE	SHEET 2 OF 2	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building NS-84**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$24,759	-	\$646	-	\$20,154
Material/equipment costs	\$8,965	-	\$424	-	\$11,481
Disposal costs	<u>\$3,714</u>	-	<u>\$193</u>	-	<u>\$10,968</u>
<b>Total cost</b>	<b>\$37,438</b>	-	<b>\$1,263</b>	-	<b>\$42,603</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$37,438, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$1,263 and the cost for demolition after asbestos removal is \$42,603.

## **BUILDING 180: Recreation Building (Sterett Hall)**

### **1. DESCRIPTION:**

Building 180 is a 37,206 square-foot building. It is a two story, concrete block structure with metal windows and a crawl space. The roof is composed of three different types of construction, that include, asphalt shingles, rolled rubberized sheeting and a built-up roof of tar and gravel. The year built was 1959. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Forty-three homogeneous areas were identified during the initial survey.
- ◆ One homogeneous area was assumed to contain asbestos.
- ◆ Forty-two of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Eight of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Thirty-four of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Forty-two homogeneous areas with suspected ACM were identified. Eighty-four samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in two of the homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-5: MISC, CAULKING, Yellow/brown, was Non-friable and Not Damaged.
- ◆ H-7: MISC, FLOOR TILE, 9" x 9", Dark brown w/mastic, was Non-friable and Not Damaged.
- ◆ H-9: TSI, PIPE, CLOTH WRAPPED, White, was Low-friable and Not Damaged.
- ◆ H-29: MISC, FLOOR TILE, 9" x 9", Light brown w/white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-31: MISC, FLOOR TILE, 12" x 12", White w/black marble & mastic, was Non-friable and Not Damaged.
- ◆ H-32: MISC, GLAZING, WINDOW EXTERIOR, Grey, was Non-friable and Damaged.
- ◆ H-34: MISC, SEALER, Black, was Non-friable and Not Damaged.
- ◆ H-40: TSI, DEBRIS, Grey, was Low-friable and Significantly Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-2: SURFACING, PLASTER, Grey
- ◆ H-3: MISC, FLOOR TILE, 12" x 12", Beige w/white marble & mastic
- ◆ H-4: MISC, COVING MASTIC, Brown
- ◆ H-6: MISC, CAULKING, White
- ◆ H-8: MISC, COVING MASTIC, Black
- ◆ H-10: MISC, MORTAR, 8" x 8" x 8", Grey
- ◆ H-11: MISC, Grey terrazzo
- ◆ H-12: MISC, CEILING TILE, 2' x 2', White w/long grooves
- ◆ H-13: MISC, GROUT, CERAMIC TILE, 1" x 1" / 1" x 2" / 2" x 2", Grey
- ◆ H-14: MISC, GROUT, CERAMIC TILE, 8" x 15", White
- ◆ H-15: TSI, FITTING, CLOTH WRAPPED, White
- ◆ H-16: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-17: MISC, GROUT, CERAMIC TILE, 6" x 6", Grey
- ◆ H-18: MISC, FLOOR TILE, 12" x 12", Cream w/brown & white marble & mastic
- ◆ H-19: MISC, MASTIC, Grey on red rubber mat
- ◆ H-20: MISC, MASTIC, Grey on black rubber mat
- ◆ H-21: MISC, VIBRATION JOINT, Black
- ◆ H-22: MISC, MASTIC, White vent duct
- ◆ H-23: MISC, MASTIC, Green/black vent duct
- ◆ H-24: MISC, CEILING TILE, 12" x 12", Grey
- ◆ H-25: MISC, FLOOR TILE, 12" x 12", White w/grey marble & mastic
- ◆ H-26: MISC, GROUT, CERAMIC TILE, 8" x 15", Grey
- ◆ H-27: MISC, CEILING TILE, 2' x 2', White w/short grooves
- ◆ H-28: MISC, SHEETROCK, PLAIN, 4' x 8', White w/vinyl wall-cover
- ◆ H-30: MISC, MASTIC, Black stair tread
- ◆ H-33: MISC, MORTAR, Grey wall patch
- ◆ H-35: MISC, ROOFING, TAR AND GRAVEL, Black w/felt
- ◆ H-36: MISC, ROOFING, COMPOSITION SHINGLE, Light brown w/felt
- ◆ H-37: TSI, FITTING, CLOTH WRAPPED, Grey
- ◆ H-38: MISC, MASTIC, Black pipe insulation
- ◆ H-39: MISC, SOIL, Light brown
- ◆ H-41: MISC, MASTIC, Yellow on grey rubber mat
- ◆ H-42: MISC, VIBRATION JOINT, White

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ H-43: MISC, EXPANSION JOINT, Black, was Non-friable and Not Damaged.

### **3. OBSERVATIONS:**

An asbestos spill was revealed in the gymnasium. SOUTHDIV was notified and the area was abated by Environmental Detachment Charleston personnel. Other suspect ACM noted, but not sampled, includes valve packing, various piping systems/components gasket material and drain piping joint compound.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-5: MISC, CAULKING, Yellow/brown: O&M
- ◆ H-7: MISC, FLOOR TILE, Dark brown w/mastic: O&M
- ◆ H-9: TSI, PIPE, White: Repair/O&M
- ◆ H-29: MISC, FLOOR TILE, Light brown w/white marble & mastic: O&M
- ◆ H-31: MISC, FLOOR TILE, White w/black marble & mastic: O&M
- ◆ H-32: MISC, GLAZING, Grey: Repair/O&M
- ◆ H-34: MISC, SEALER, Black: O&M
- ◆ H-40: TSI, DEBRIS, Grey: Remove/O&M
- ◆ H-43: MISC, EXPANSION JOINT, Black: O&M

### **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CAULKING is Confirmed, Non-friable ACM.

- ◆ H-5 (CAULKING, Yellow/brown) is located in Rooms 102, 103, 105, 106, 108, 112, 119, 120, 121, 125, 204, 213, 218, H-100, H-101, H-202, H-204, M-100, M-101.

TSI DEBRIS is Confirmed, Low-friable ACM.

- ◆ H-40 (DEBRIS, Grey) is located in C-100.

MISC EXPANSION JOINT is Assumed, Non-friable ACM.

- ◆ H-43 (EXPANSION JOINT, Black) is located on the Roof.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-7 (FLOOR TILE, Dark brown w/mastic) is located in Rooms 106, 200, 202, 204, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, H-100, H-101, H-200, H-201, H-202, H-203, H-204, H-205, H-206.
- ◆ H-31 (FLOOR TILE, White w/black marble & mastic) is located in S-002.
- ◆ H-29 (FLOOR TILE, Light brown w/white marble & mastic) is located in Room 218.

MISC GLAZING is Confirmed, Non-friable ACM.

- ◆ H-32 (GLAZING, Grey) is located on the Exterior.

TSI PIPE is Confirmed, Low-friable ACM.

- ◆ H-9 (PIPE, White) is located in Rooms 103, 106, 126, M-101, M-102.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-34 (SEALER, Black) is located on the Roof.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 180

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, MORTAR, 8" x 8" x 16", Grey	65,247 SF	0						Rooms 100, 101, 102, 103, 104, 105, 106, 107, 108, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 123, 124, 125, 126, 200, 201, 202, 203, 204, 205, 206, 208, 212, 213, 214, 215, 218, 219, EXT, H-100, H-101, H-202, H-203, H-204, M-100, M-101, M-102, S-002
2	N	Surfacing, PLASTER, Grey	428 LF	0						Rooms 100, 207, 208
3	N	Misc, FLOOR TILE, 12" x 12", Beige w/white marble & mastic	4,535 SF	0						Rooms 101, 104, 106, 109
4	N	Misc, COVING MASTIC, Brown	542 LF	0						Rooms 101, 104, 202, 206, 209, 212, 213, 214, 215, 216, 217, H-206
5	Y	Misc, CAULKING, Yellow/brown	1,270 LF	11	Non	PD	0.0	Repair/O&M		Rooms 102, 103, 105, 106, 108, 112, 119, 120, 121, 125, 204, 213, 218, H-100, H-101, H-202, H-204, M-100, M-101
6	N	Misc, CAULKING, White	1,620 LF	0						Rooms 102, 105, 108, EXT, M-100, M-101
7	Y	Misc, FLOOR TILE, 9" x 9", Dark brown w/mastic	7,886 SF	11	Non	PD	0.0	O&M		Rooms 106, 200, 202, 204, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, H-100, H-101, H-200, H-201, H-202, H-203, H-204, H-205, H-206
8	N	Misc, COVING MASTIC, Black	1,260 LF	0						Rooms 106, 109, 200, 204, 207, 208, 213, 218, H-100, H-101, H-200, H-201, H-202, H-203, H-204, S-002
9	Y	TSI, PIPE, CLOTH WRAPPED, White	323 LF	21	Mod	D	1.2	Repair/O&M		Rooms 103, 106, 126, M-101, M-102
10	N	Misc, MORTAR, 8" x 8" x 8", Grey	560 SF	0						Rooms 106
11	N	Misc, Grey terrazzo	1,920 SF	0						Rooms 108
12	N	Misc, CEILING TILE, 2' x 2', White w/long grooves	1,920 SF	0						Rooms 108

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 180

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, GROUT, CERAMIC TILE, 1" x 1" / 1" x 2" / 2" x 2", Grey	1,404 SF	0						
		Rooms 110, 111, 116, 122, 124, 201, 205								
14	N	Misc, GROUT, CERAMIC TILE, 8" x 15", White	2,100 SF	0						
		Rooms 110, 111, 116, 122, 124, 205								
15	N	TSI, FITTING, CLOTH WRAPPED, White	130 LF	0						
		Rooms 103, 106, 112, 126, M-101, M-102								
16	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	1,690 SF	0						
		Rooms 113, 118, 209, 210, 218, H-205								
17	N	Misc, GROUT, CERAMIC TILE, 6" x 6", Grey	747 SF	0						
		Rooms 115, 121								
18	N	Misc, FLOOR TILE, 12" x 12", Cream w/brown & white marble & mastic	208 SF	0						
		Rooms 119								
19	N	Misc, MASTIC, Grey on red rubber mat	423 SF	0						
		Rooms 110, 119, 125								
20	N	Misc, MASTIC, Grey on black rubber mat	1,625 SF	0						
		Rooms 125								
21	N	Misc, VIBRATION JOINT, Black	94 LF	0						
		Rooms 203, 209, 219, M-102								
22	N	Misc, MASTIC, White vent duct	130 LF	0						
		Rooms 219, M-102								
23	N	Misc, MASTIC, Green/black vent duct	12 LF	0						
		Rooms M-102								
24	N	Misc, CEILING TILE, 12" x 12", Grey	580 SF	0						
		Rooms 202, 204, S-001								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 180

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
25	N	Misc, FLOOR TILE, 12" x 12", White w/grey marble & mastic	1,881 SF	0						
		Rooms 204, 207, 208, H-200, H-201, H-202, H-203, H-204, S-002								
26	N	Misc, GROUT, CERAMIC TILE, 8" x 15", Grey	240 SF	0						
		Rooms 201								
27	N	Misc, CEILING TILE, 2' x 2', White w/short grooves	338 SF	0						
		Rooms 207, 208								
28	N	Misc, SHEETROCK, PLAIN, 4' x 8', White w/vinyl wall-cover	1,320 SF	0						
		Rooms 207, 209, 211								
29	Y	Misc, FLOOR TILE, 9" x 9", Light brown w/white marble & mastic	20 SF	11	Non	PD	0.0	O&M		
		Rooms 218								
30	N	Misc, MASTIC, Black stair tread	65 LF	0						
		Rooms S-002								
31	Y	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	200 SF	11	Non	PD	0.0	O&M		
		Rooms S-002								
32	Y	Misc, GLAZING, WINDOW EXTERIOR, Grey	3,160 LF	16	Non	D	10.0	Repair/O&M		
		Rooms EXT								
33	N	Misc, MORTAR, Grey wall patch	1 SF	0						
		Rooms EXT								
34	Y	Misc, SEALER, Black	300 LF	11	Non	PD	0.0	O&M		
		Rooms ROOF								
35	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,200 SF	0						
		Rooms ROOF								
36	N	Misc, ROOFING, COMPOSITION SHINGLE, Light brown w/felt	200 SF	0						
		Rooms ROOF								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 180**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Friability	Cond	% D	Recommended Action	Cost Estimate	Comments
37	N	TSI, FITTING, CLOTH WRAPPED, Grey Rooms C-100	600 LF	0						
38	N	Misc, MASTIC, Black pipe insulation Rooms C-100	600 LF	0						
39	N	Misc, SOIL, Light brown Rooms C-100	8,250 SF	0						
40	Y	TSI, DEBRIS, Grey Rooms C-100	500 SF	43	Low	SD	50.0	Remove/O&M		
41	N	Misc, MASTIC, Yellow on grey rubber mat Rooms 112	240 SF	0						
42	N	Misc, VIBRATION JOINT, White Rooms 112	36 LF	0						
43	A	Misc, EXPANSION JOINT, Black Rooms ROOF	125 LF	11	Non	PD	0.0	O&M		

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 180**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	180-001	S-002	Misc, MORTAR, 8" x 8" x 16", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
1	NO	180-002	106	Misc, MORTAR, 8" x 8" x 16", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
2	NO	180-003	207	Surfacing, PLASTER, Grey	04/30/98	05/07/98	No Asbestos Detected	0%
2	NO	180-004	208	Surfacing, PLASTER, Grey	04/30/98	05/07/98	No Asbestos Detected	0%
3	NO	180-005	106	Misc, FLOOR TILE, Beige w/white marble & mastic	04/30/98	05/07/98	No Asbestos Detected	0%
3	NO	180-006	106	Misc, FLOOR TILE, Beige w/white marble & mastic	04/30/98	05/07/98	No Asbestos Detected	0%
4	NO	180-007	213	Misc, COVING MASTIC, Brown	04/30/98	05/07/98	No Asbestos Detected	0%
4	NO	180-008	215	Misc, COVING MASTIC, Brown	04/30/98	05/07/98	No Asbestos Detected	0%
5	YES	180-009	103	Misc, CAULKING, Yellow/brown	04/30/98	05/07/98	Actinolite	2%
5	YES	180-010	112	Misc, CAULKING, Yellow/brown	04/30/98	05/07/98	Actinolite	2%
6	NO	180-011	EXT	Misc, CAULKING, White	04/30/98	05/07/98	No Asbestos Detected	0%
6	NO	180-012	EXT	Misc, CAULKING, White	04/30/98	05/07/98	No Asbestos Detected	0%
7	YES	180-013	H-101	Misc, FLOOR TILE, Dark brown w/mastic	04/30/98	05/07/98	Chrysotile	27%
7	YES	180-014	218	Misc, FLOOR TILE, Dark brown w/mastic	04/30/98	05/07/98	Chrysotile	27%
8	NO	180-015	106	Misc, COVING MASTIC, Black	04/30/98	05/07/98	No Asbestos Detected	0%
8	NO	180-016	106	Misc, COVING MASTIC, Black	04/30/98	05/07/98	No Asbestos Detected	0%
9	YES	180-017	106	TSI, PIPE, White	04/30/98	05/07/98	Amosite	40%
9	YES	180-017	106	TSI, PIPE, White	04/30/98	05/07/98	Chrysotile	10%
9	YES	180-018	106	TSI, PIPE, White	04/30/98	05/07/98	Amosite	40%
9	YES	180-018	106	TSI, PIPE, White	04/30/98	05/07/98	Chrysotile	10%
10	NO	180-019	106	Misc, MORTAR, 8" x 8" x 8", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
10	NO	180-020	106	Misc, MORTAR, 8" x 8" x 8", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
11	NO	180-021	108	Misc, Grey terrazzo	04/30/98	05/07/98	No Asbestos Detected	0%
11	NO	180-022	108	Misc, Grey terrazzo	04/30/98	05/07/98	No Asbestos Detected	0%
12	NO	180-023	108	Misc, CEILING TILE, 2' x 2', White w/long grooves	04/30/98	05/07/98	No Asbestos Detected	0%
12	NO	180-024	108	Misc, CEILING TILE, 2' x 2', White w/long grooves	04/30/98	05/07/98	No Asbestos Detected	0%
13	NO	180-025	111	Misc, GROUT, 1" x 1" / 1" x 2" / 2" x 2", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
13	NO	180-026	201	Misc, GROUT, 1" x 1" / 1" x 2" / 2" x 2", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
14	NO	180-027	110	Misc, GROUT, 8" x 15", White	04/30/98	05/07/98	No Asbestos Detected	0%
14	NO	180-028	205	Misc, GROUT, 8" x 15", White	04/30/98	05/07/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 180**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
15	NO	180-029	103	TSI, FITTING, White	04/30/98	05/07/98	No Asbestos Detected	0%
15	NO	180-030	106	TSI, FITTING, White	04/30/98	05/07/98	No Asbestos Detected	0%
16	NO	180-031	113	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/30/98	05/07/98	No Asbestos Detected	0%
16	NO	180-032	218	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/30/98	05/07/98	No Asbestos Detected	0%
17	NO	180-033	115	Misc, GROUT, 6" x 6", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
17	NO	180-034	121	Misc, GROUT, 6" x 6", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
18	NO	180-035	119	Misc, FLOOR TILE, Cream w/brown & white marble & mas	04/30/98	05/07/98	No Asbestos Detected	0%
18	NO	180-036	119	Misc, FLOOR TILE, Cream w/brown & white marble & mas	04/30/98	05/07/98	No Asbestos Detected	0%
19	NO	180-037	119	Misc, MASTIC, Grey on red rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
19	NO	180-038	119	Misc, MASTIC, Grey on red rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
20	NO	180-039	125	Misc, MASTIC, Grey on black rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
20	NO	180-040	125	Misc, MASTIC, Grey on black rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
21	NO	180-041	M-102	Misc, VIBRATION JOINT, Black	04/30/98	05/07/98	No Asbestos Detected	0%
21	NO	180-042	M-102	Misc, VIBRATION JOINT, Black	04/30/98	05/07/98	No Asbestos Detected	0%
22	NO	180-043	219	Misc, MASTIC, White vent duct	04/30/98	05/07/98	No Asbestos Detected	0%
22	NO	180-044	M-102	Misc, MASTIC, White vent duct	04/30/98	05/07/98	No Asbestos Detected	0%
23	NO	180-045	M-102	Misc, MASTIC, Green/black vent duct	04/30/98	05/07/98	No Asbestos Detected	0%
23	NO	180-046	M-102	Misc, MASTIC, Green/black vent duct	04/30/98	05/07/98	No Asbestos Detected	0%
24	NO	180-047	202	Misc, CEILING TILE, 12" x 12", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
24	NO	180-048	204	Misc, CEILING TILE, 12" x 12", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
25	NO	180-049	H-201	Misc, FLOOR TILE, White w/grey marble & mastic	04/30/98	05/07/98	No Asbestos Detected	0%
25	NO	180-050	H-202	Misc, FLOOR TILE, White w/grey marble & mastic	04/30/98	05/07/98	No Asbestos Detected	0%
26	NO	180-051	201	Misc, GROUT, 8" x 15", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
26	NO	180-052	201	Misc, GROUT, 8" x 15", Grey	04/30/98	05/07/98	No Asbestos Detected	0%
27	NO	180-053	207	Misc, CEILING TILE, 2' x 2', White w/short grooves	04/30/98	05/07/98	No Asbestos Detected	0%
27	NO	180-054	208	Misc, CEILING TILE, 2' x 2', White w/short grooves	04/30/98	05/07/98	No Asbestos Detected	0%
28	NO	180-055	209	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	04/30/98	05/07/98	No Asbestos Detected	0%
28	NO	180-056	211	Misc, SHEETROCK, 4' x 8', White w/vinyl wall-cover	04/30/98	05/07/98	No Asbestos Detected	0%
29	YES	180-057	218	Misc, FLOOR TILE, Light brown w/white marble & mastic	04/30/98	05/07/98	Chrysotile	2%
29	YES	180-058	218	Misc, FLOOR TILE, Light brown w/white marble & mastic	04/30/98	05/07/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 180**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
30	NO	180-059	S-002	Misc, MASTIC, Black stair tread	04/30/98	05/07/98	No Asbestos Detected	0%
30	NO	180-060	S-002	Misc, MASTIC, Black stair tread	04/30/98	05/07/98	No Asbestos Detected	0%
31	YES	180-061	S-002	Misc, FLOOR TILE, White w/black marble & mastic	04/30/98	05/07/98	Chrysotile	5%
31	YES	180-062	S-002	Misc, FLOOR TILE, White w/black marble & mastic	04/30/98	05/07/98	Chrysotile	5%
32	YES	180-063	EXT	Misc, GLAZING, Grey	04/30/98	05/07/98	Chrysotile	2%
32	YES	180-064	EXT	Misc, GLAZING, Grey	04/30/98	05/07/98	Chrysotile	2%
33	NO	180-065	EXT	Misc, MORTAR, Grey wall patch	04/30/98	05/07/98	No Asbestos Detected	0%
33	NO	180-066	EXT	Misc, MORTAR, Grey wall patch	04/30/98	05/07/98	No Asbestos Detected	0%
34	YES	180-067	ROOF	Misc, SEALER, Black	04/30/98	05/07/98	Chrysotile	3%
34	YES	180-068	ROOF	Misc, SEALER, Black	04/30/98	05/07/98	Chrysotile	3%
35	NO	180-069	ROOF	Misc, ROOFING, Black w/felt	04/30/98	05/07/98	No Asbestos Detected	0%
35	NO	180-070	ROOF	Misc, ROOFING, Black w/felt	04/30/98	05/07/98	No Asbestos Detected	0%
36	NO	180-071	ROOF	Misc, ROOFING, Light brown w/felt	04/30/98	05/07/98	No Asbestos Detected	0%
36	NO	180-072	ROOF	Misc, ROOFING, Light brown w/felt	04/30/98	05/07/98	No Asbestos Detected	0%
37	NO	180-073	C-100	TSI, FITTING, Grey	04/30/98	05/07/98	No Asbestos Detected	0%
37	NO	180-074	C-100	TSI, FITTING, Grey	04/30/98	05/07/98	No Asbestos Detected	0%
38	NO	180-075	C-100	Misc, MASTIC, Black pipe insulation	04/30/98	05/07/98	No Asbestos Detected	0%
38	NO	180-076	C-100	Misc, MASTIC, Black pipe insulation	04/30/98	05/07/98	No Asbestos Detected	0%
39	NO	180-077	C-100	Misc, SOIL, Light brown	04/30/98	05/07/98	No Asbestos Detected	0%
39	NO	180-078	C-100	Misc, SOIL, Light brown	04/30/98	05/07/98	No Asbestos Detected	0%
40	YES	180-079	C-100	TSI, DEBRIS, Grey	04/30/98	05/07/98	Chrysotile	2%
40	NO	180-080	C-100	TSI, DEBRIS, Grey	04/30/98	05/07/98	No Asbestos Detected	0%
41	NO	180-081	112	Misc, MASTIC, Yellow on grey rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
41	NO	180-082	112	Misc, MASTIC, Yellow on grey rubber mat	04/30/98	05/07/98	No Asbestos Detected	0%
42	NO	180-083	112	Misc, VIBRATION JOINT, White	04/30/98	05/07/98	No Asbestos Detected	0%
42	NO	180-084	112	Misc, VIBRATION JOINT, White	04/30/98	05/07/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**OPERATIONS AND  
MAINTENANCE TABLE**

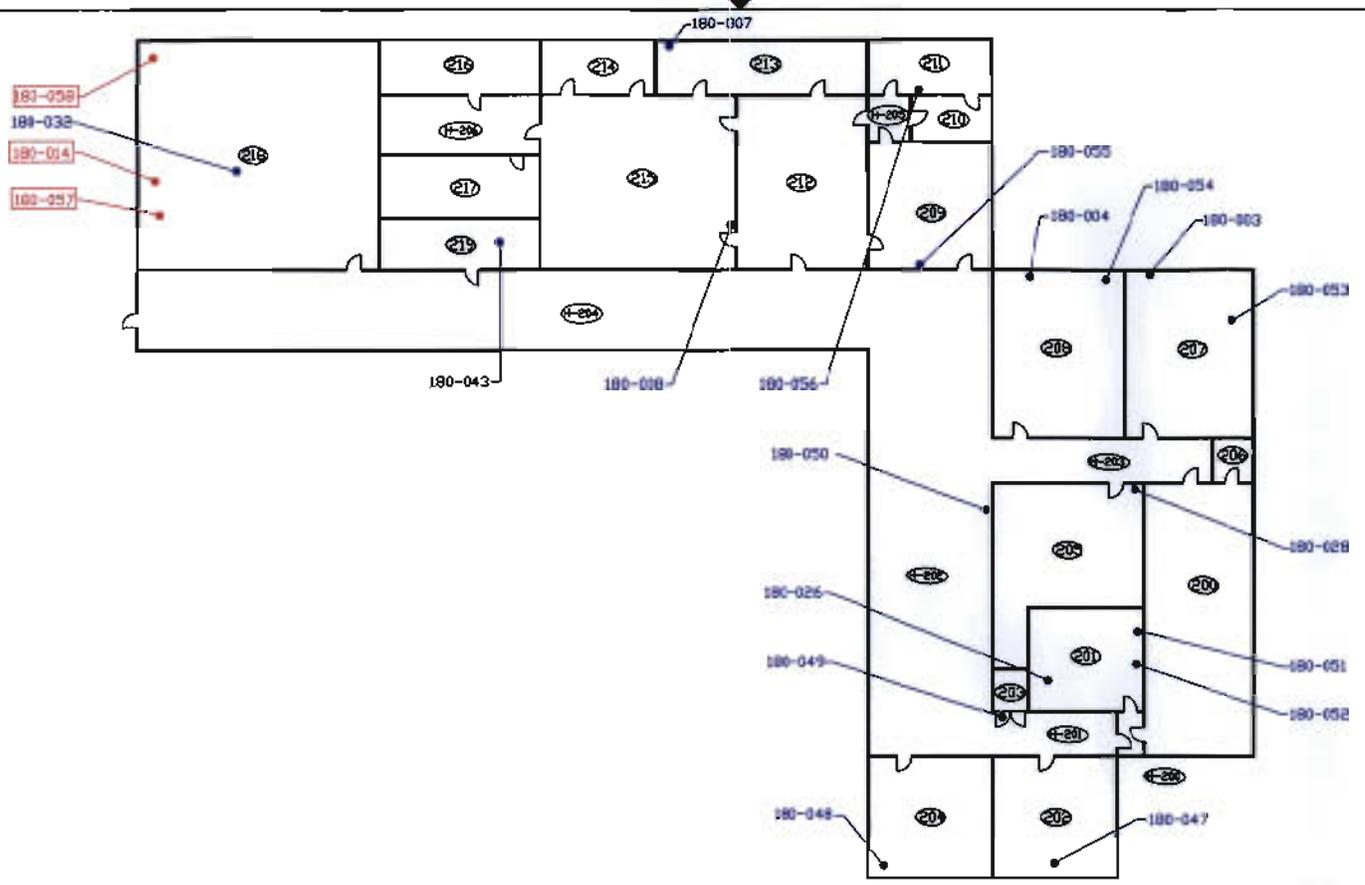
**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
180	5	Misc, CAULKING, Yellow/brown	1,270 LF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 103, 105, 106, 108, 112, 119, 120, 121, 125, 204, 213, 218, H-100, H-101, H-202, H-204, M-100, M-101								
180	7	Misc, FLOOR TILE, 9" x 9", Dark brown w/mastic	7,886 SF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms 106, 200, 202, 204, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, H-100, H-101, H-200, H-201, H-202, H-203, H-204, H-205, H-206								
180	9	TSI, PIPE, CLOTH WRAPPED, White	323 LF	21	Mod	Damaged	1.24	Repair/O&M
Locations: Rooms 103, 106, 126, M-101, M-102								
180	29	Misc, FLOOR TILE, 9" x 9", Light brown w/white marble & mastic	20 SF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms 218								
180	31	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	200 SF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms S-002								
180	32	Misc, GLAZING, WINDOW EXTERIOR, Grey	3,160 LF	16	Non	Damaged	10.00	Repair/O&M
Locations: Rooms EXT								
180	34	Misc, SEALER, Black	300 LF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
180	40	TSI, DEBRIS, Grey	500 SF	43	Low	Significantly Damaged	50.00	Remove/O&M
Locations: Rooms C-100								
180	43	Misc, EXPANSION JOINT, Black	125 LF	11	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.





**LEGEND**

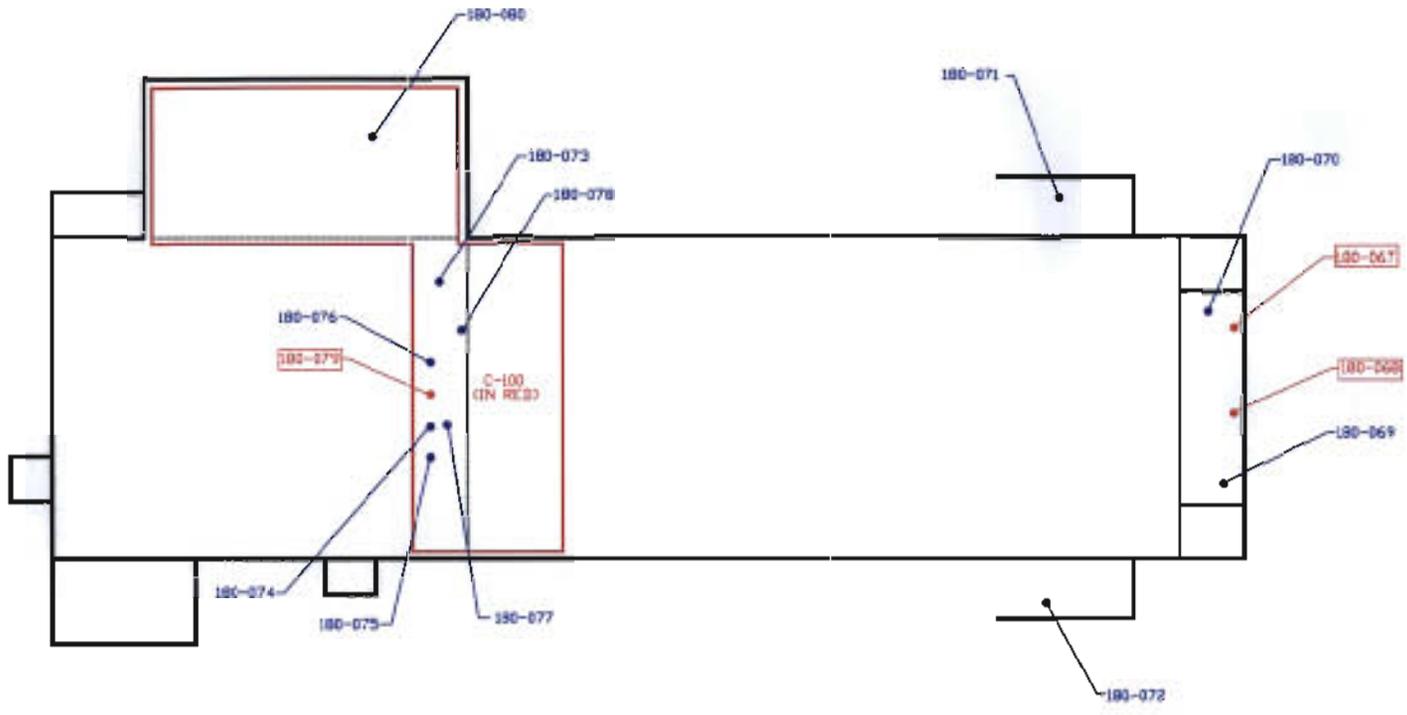
- 200 Indicates unique room number assigned by inspector
- 180-038 Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
 1899 NORTH HOBSON AVENUE - BUILDING 30  
 NORTH CHARLESTON, SOUTH CAROLINA 29408-2108

**SAMPLE LOCATIONS  
 BLDG 180 SECOND FLOOR  
 CHARLESTON NAVAL COMPLEX, SC**

SIZE	DATE	PREPARED BY:	REV
	6-22-98	T. L. GUNTER	—
SCALE NONE	SHEET		2 OF 3



LEGEND

- ⓪ Indicates unique room number assigned by Inspector
- ☐ Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
 1889 NORTH HOBSON AVENUE - BUILDING 30  
 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108

SAMPLE LOCATIONS  
 BLDG 180 (ROOF)  
 CHARLESTON NAVAL COMPLEX, SC

SIZE	DATE	PREPARED BY:	REV
	6-22-98	T.L. GUNTER	—
SCALE NONE	SHEET 3 OF 3		

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 180**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$56,228	-	\$5,070	-	\$111,549
Material/equipment costs	\$22,491	-	\$2,635	-	\$32,126
Disposal costs	<u>\$5,923</u>	-	<u>\$1,521</u>	-	<u>\$64,501</u>
<b>Total cost</b>	<b>\$84,642</b>	-	<b>\$9,226</b>	-	<b>\$208,176</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$84,642, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$9,226 and the cost for demolition after asbestos removal is \$208,176.

## **BUILDING 290: Electrical Switch House**

### **1. DESCRIPTION:**

Building 290 is a 1,209 square-foot building. It is a single story, concrete block structure with red brick exterior and a built-up roof. The year built was 1983. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Ten homogeneous areas were identified during the initial survey.
- ◆ One homogeneous area was assumed to contain asbestos.
- ◆ Nine of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Five of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Four of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Nine homogeneous areas with suspected ACM were identified. Eighteen samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-6: MISC, SEALER, Grey, was Non-friable and Not Damaged.
- ◆ H-7: MISC, CAULKING, White, was Non-friable and Not Damaged.
- ◆ H-8: MISC, SEALER, Black w/felt, was Non-friable and Not Damaged.
- ◆ H-9: MISC, ROOFING, TAR AND GRAVEL, Black w/felt, was Non-friable and Not Damaged.
- ◆ H-10: MISC, SEALER, Black, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-3: MISC, CAULKING, White
- ◆ H-4: MISC, MORTAR, BRICK, 2" x 4" x 8", Grey
- ◆ H-5: MISC, CAULKING, Grey

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ H-2: MISC, VIBRATION JOINT, Black, was Non-friable and Not Damaged.

### **3. OBSERVATIONS:**

No observations.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-2: MISC, VIBRATION JOINT, Black: O&M
- ◆ H-6: MISC, SEALER, Grey: O&M
- ◆ H-7: MISC, CAULKING, White: O&M
- ◆ H-8: MISC, SEALER, Black w/felt: O&M
- ◆ H-9: MISC, ROOFING, Black w/felt: O&M
- ◆ H-10: MISC, SEALER, Black: O&M

### **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CAULKING is Confirmed, Non-friable ACM.

- ◆ H-7 (CAULKING, White) is located on the Roof.

MISC ROOFING is Confirmed, Non-friable ACM.

- ◆ H-9 (ROOFING, Black w/felt) is located on the Roof.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-8 (SEALER, Black w/felt) is located on the Roof.
- ◆ H-10 (SEALER, Black) is located in C-100.
- ◆ H-6 (SEALER, Grey) is located on the Roof.

MISC VIBRATION JOINT is Assumed, Non-friable ACM.

- ◆ H-2 (VIBRATION JOINT, Black) is located in Room 100.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 290

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, MORTAR, 8" x 8" x 16", Grey	2,820 SF	0						
		Rooms 100, 101								
2	A	Misc, VIBRATION JOINT, Black	16 LF	6	Non	PD	0.0	O&M		
		Rooms 100								
3	N	Misc, CAULKING, White	80 LF	0						
		Rooms 100, 101								
4	N	Misc, MORTAR, BRICK, 2" x 4" x 8", Grey	2,940 SF	0						
		Rooms EXT								
5	N	Misc, CAULKING, Grey	60 LF	0						
		Rooms EXT								
6	Y	Misc, SEALER, Grey	20 SF	6	Non	PD	0.0	O&M		
		Rooms ROOF								
7	Y	Misc, CAULKING, White	20 LF	6	Non	PD	0.0	O&M		
		Rooms ROOF								
8	Y	Misc, SEALER, Black w/felt	30 SF	6	Non	PD	0.0	O&M		
		Rooms ROOF								
9	Y	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,073 SF	6	Non	PD	0.0	O&M		
		Rooms ROOF								
10	Y	Misc, SEALER, Black	2,940 SF	6	Non	PD	0.0	O&M		
		Rooms C-100								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 290**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	290-001	100	Misc, MORTAR, 8" x 8" x 16", Grey	04/29/98	04/30/98	No Asbestos Detected	0%
1	NO	290-002	101	Misc, MORTAR, 8" x 8" x 16", Grey	04/29/98	04/30/98	No Asbestos Detected	0%
3	NO	290-003	100	Misc, CAULKING, White	04/29/98	04/30/98	No Asbestos Detected	0%
3	NO	290-004	101	Misc, CAULKING, White	04/29/98	04/30/98	No Asbestos Detected	0%
4	NO	290-005	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	04/29/98	04/30/98	No Asbestos Detected	0%
4	NO	290-006	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	04/29/98	04/30/98	No Asbestos Detected	0%
5	NO	290-007	EXT	Misc, CAULKING, Grey	04/29/98	04/30/98	No Asbestos Detected	0%
5	NO	290-008	EXT	Misc, CAULKING, Grey	04/29/98	04/30/98	No Asbestos Detected	0%
6	YES	290-009	ROOF	Misc, SEALER, Grey	04/29/98	04/30/98	Chrysotile	2%
6	YES	290-010	ROOF	Misc, SEALER, Grey	04/29/98	04/30/98	Chrysotile	2%
7	YES	290-011	ROOF	Misc, CAULKING, White	04/29/98	04/30/98	Chrysotile	20%
7	YES	290-012	ROOF	Misc, CAULKING, White	04/29/98	04/30/98	Chrysotile	20%
8	YES	290-013	ROOF	Misc, SEALER, Black w/felt	04/29/98	04/30/98	Chrysotile	20%
8	YES	290-014	ROOF	Misc, SEALER, Black w/felt	04/29/98	04/30/98	Chrysotile	20%
9	YES	290-015	ROOF	Misc, ROOFING, Black w/felt	04/29/98	04/30/98	Chrysotile	25%
9	YES	290-016	ROOF	Misc, ROOFING, Black w/felt	04/29/98	04/30/98	Chrysotile	25%
10	YES	290-017	C-100	Misc, SEALER, Black	04/29/98	04/29/98	Chrysotile	2%
10	YES	290-018	C-100	Misc, SEALER, Black	04/29/98	04/30/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

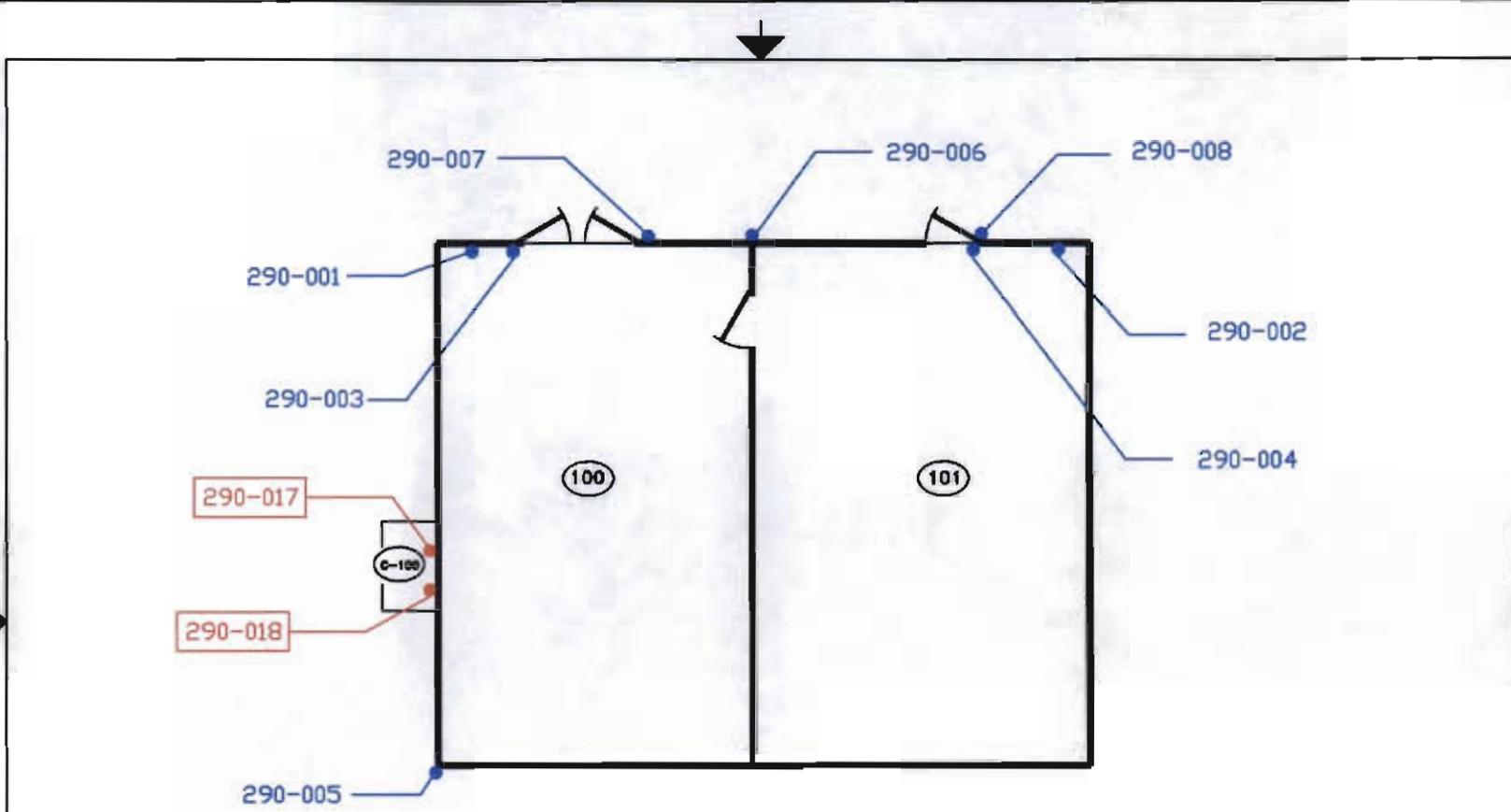
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
290	2	Misc, VIBRATION JOINT, Black	16 LF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms 100								
290	6	Misc, SEALER, Grey	20 SF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
290	7	Misc, CAULKING, White	20 LF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
290	8	Misc, SEALER, Black w/felt	30 SF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
290	9	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,073 SF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
290	10	Misc, SEALER, Black	2,940 SF	6	Non	Not Damaged	0.00	O&M
Locations: Rooms C-100								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



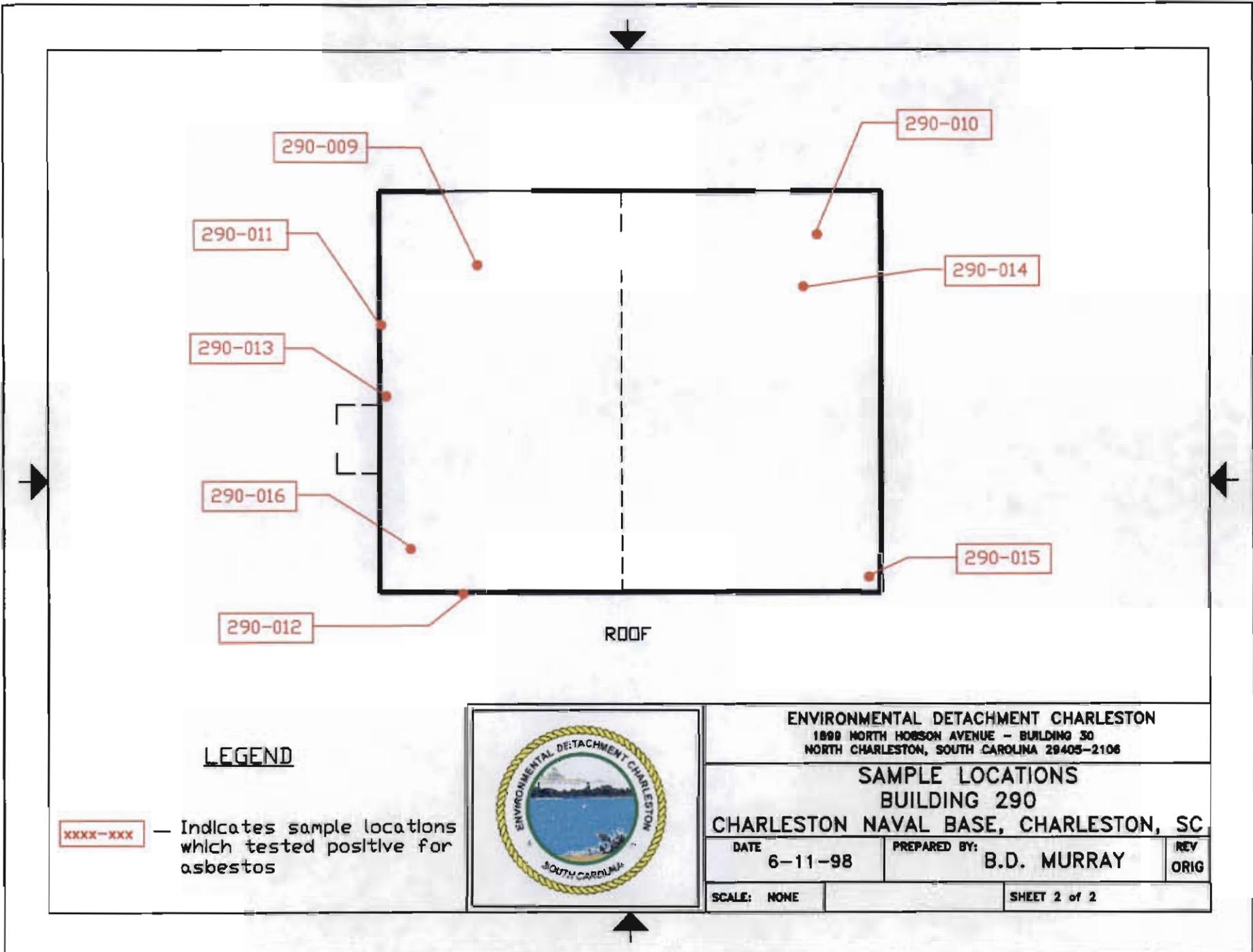
**LEGEND**

(xxx) — Indicates unique room number assigned by Inspector

xxxx-xxx — Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1838 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2106		
SAMPLE LOCATIONS BUILDING 290 CHARLESTON NAVAL BASE, CHARLESTON, SC		
DATE 6-11-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE	SHEET 1 of 1	



**LEGEND**

XXXX-XXX

— Indicates sample locations which tested positive for asbestos



<b>ENVIRONMENTAL DETACHMENT CHARLESTON</b> 1899 NORTH HOBBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> <b>BUILDING 290</b> <b>CHARLESTON NAVAL BASE, CHARLESTON, SC</b>		
DATE 6-11-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE		SHEET 2 of 2

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 290**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$6,736	-	NA	-	\$4,220
Material/equipment costs	\$2,695	-	NA	-	\$1,906
Disposal costs	<u>\$1,310</u>	-	NA	-	<u>\$2,090</u>
<b>Total cost</b>	<b>\$10,741</b>	<b>-</b>	<b>NA</b>	<b>-</b>	<b>\$8,216</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$10,741 and the cost for demolition after asbestos removal is \$8,216.

## **BUILDING 641: Warehouse/Administrative**

### **1. DESCRIPTION:**

Building 641 is an 8,000 square-foot building. It is a single story, concrete, brick and metal siding structure with metal windows and a pitched metal roof. The year built was 1978. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Twenty-four homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Twenty-four of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Two of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Twenty-two of the suspected homogeneous areas did not contain asbestos.

### **2. FINDINGS:**

Twenty-four homogeneous areas with suspected ACM were identified. Forty-eight samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-1: MISC, FLOOR TILE, 12" x 12", White w/black marble & mastic, was Non-friable and Not Damaged.
- ◆ H-24: MISC, SEALER, Silver, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-2: MISC, FLOOR TILE, 12" x 12", Cream w/brown marble & mastic
- ◆ H-3: MISC, COVING MASTIC, Black
- ◆ H-4: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-5: MISC, MASTIC, Black stair tread
- ◆ H-6: MISC, CEILING TILE, 2' x 4', White w/long grooves
- ◆ H-7: MISC, CEILING TILE, 2' x 4', White w/short grooves
- ◆ H-8: MISC, CEILING TILE, 2' x 4', White w/minute holes
- ◆ H-9: MISC, COVING MASTIC, Yellow
- ◆ H-10: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-11: MISC, GROUT, CERAMIC TILE, 2" x 2", White

- ◆ H-12: MISC, GROUT, CERAMIC TILE, 4" x 6", White
- ◆ H-13: MISC, CAULKING, White
- ◆ H-14: MISC, FLOOR TILE, 12" x 12", Blue w/mastic
- ◆ H-15: MISC, MORTAR, BRICK, 3" x 3" x 8", Grey
- ◆ H-16: TSI, FITTING, CLOTH WRAPPED, White
- ◆ H-17: TSI, PIPE, CLOTH WRAPPED, White
- ◆ H-18: MISC, MASTIC, Grey vent duct
- ◆ H-19: MISC, MASTIC, Brown vent duct
- ◆ H-20: MISC, MASTIC, White vent duct
- ◆ H-21: MISC, VIBRATION JOINT, Black
- ◆ H-22: MISC, MASTIC, Silver vent duct tape
- ◆ H-23: MISC, GLAZING, WINDOW EXTERIOR, Grey

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### **3. OBSERVATIONS:**

Other suspect ACM noted, but not sampled, includes valve packing and various piping systems/components gasket material.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-1: MISC, FLOOR TILE, White w/black marble & mastic: O&M
- ◆ H-24: MISC, SEALER, Silver: O&M

### **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-1 (FLOOR TILE, White w/black marble & mastic) is located in Rooms 100, 101, 102, 103, 104, 105, 106, 107, 113, H-100, H-101.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-24 (SEALER, Silver) is located on the Roof.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 641

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	Y	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	1,958 SF	10	Non	PD	0.0	O&M		
Rooms 100, 101, 102, 103, 104, 105, 106, 107, 113, H-100, H-101										
2	N	Misc, FLOOR TILE, 12" x 12", Cream w/brown marble & mastic	1,789 SF	0						
Rooms 109, 111, 112, 114, 115, 116, 117, 118, 119, 125, 126, H-100, H-102										
3	N	Misc, COVING MASTIC, Black	1,229 LF	0						
Rooms 100, 105, 106, 109, 111, 113, 114, 116, 117, 118, 119, 120, 125, 126, 127, H-100, H-102, H-103										
4	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	9,708 SF	0						
Rooms 101, 102, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 127, H-100, H-101, H-103										
5	N	Misc, MASTIC, Black stair tread	6 SF	0						
Rooms H-100										
6	N	Misc, CEILING TILE, 2' x 4', White w/long grooves	1,983 SF	0						
Rooms 100, 102, 103, 104, 105, 106, 107, 108, 109, 111, 115, 116, 117, 118, 119, 121, 123, 127, H-100, H-101, H-103										
7	N	Misc, CEILING TILE, 2' x 4', White w/short grooves	1,700 SF	0						
Rooms 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, 113, 114, 116, 117, 119, 123, H-100, H-101, H-102										
8	N	Misc, CEILING TILE, 2' x 4', White w/minute holes	1,348 SF	0						
Rooms 103, 105, 107, 111, 119, 121, 122, 123, 125, 126, 127, H-100, H-102, H-103										
9	N	Misc, COVING MASTIC, Yellow	136 LF	0						
Rooms 101, 102, 111, 112										
10	N	Misc, MORTAR, 8" x 8" x 16", Grey	2,010 SF	0						
Rooms 105, 106, 107, 110, 111, 112, 114, 115, 119, 120, 128										
11	N	Misc, GROUT, CERAMIC TILE, 2" x 2", White	180 SF	0						
Rooms 108										
12	N	Misc, GROUT, CERAMIC TILE, 4" x 6", White	228 SF	0						
Rooms 108										

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 641

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, CAULKING, White	240 LF	0						
		Rooms 108, EXT								
14	N	Misc, FLOOR TILE, 12" x 12", Blue w/mastic	1,214 SF	0						
		Rooms 121, 123, 124, 127, H-103								
15	N	Misc, MORTAR, BRICK, 3" x 3" x 8", Grey	1,300 SF	0						
		Rooms EXT								
16	N	TSI, FITTING, CLOTH WRAPPED, White	40 LF	0						
		Rooms 128								
17	N	TSI, PIPE, CLOTH WRAPPED, White	80 LF	0						
		Rooms 128								
18	N	Misc, MASTIC, Grey vent duct	100 LF	0						
		Rooms 128								
19	N	Misc, MASTIC, Brown vent duct	5 LF	0						
		Rooms 128								
20	N	Misc, MASTIC, White vent duct	200 LF	0						
		Rooms 128								
21	N	Misc, VIBRATION JOINT, Black	12 LF	0						
		Rooms 128								
22	N	Misc, MASTIC, Silver vent duct tape	500 SF	0						
		Rooms 128								
23	N	Misc, GLAZING, WINDOW EXTERIOR, Grey	260 LF	0						
		Rooms EXT								
24	Y	Misc, SEALER, Silver	25 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 641**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
------	--------------	----------------------	----------	--------	-----------------	------	--------	-----------------------	------------------	----------

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 641**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	YES	641-001	100	Misc, FLOOR TILE, White w/black marble & mastic	05/07/98	05/11/98	Chrysotile	2%
1	YES	641-002	H-100	Misc, FLOOR TILE, White w/black marble & mastic	05/07/98	05/11/98	Chrysotile	2%
2	NO	641-003	118	Misc, FLOOR TILE, Cream w/brown marble & mastic	05/07/98	05/11/98	No Asbestos Detected	0%
2	NO	641-004	H-100	Misc, FLOOR TILE, Cream w/brown marble & mastic	05/07/98	05/11/98	No Asbestos Detected	0%
3	NO	641-005	100	Misc, COVING MASTIC, Black	05/07/98	05/11/98	No Asbestos Detected	0%
3	NO	641-006	105	Misc, COVING MASTIC, Black	05/07/98	05/11/98	No Asbestos Detected	0%
4	NO	641-007	H-100	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/07/98	05/11/98	No Asbestos Detected	0%
4	NO	641-008	120	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/07/98	05/11/98	No Asbestos Detected	0%
5	NO	641-009	H-100	Misc, MASTIC, Black stair tread	05/07/98	05/11/98	No Asbestos Detected	0%
5	NO	641-010	H-100	Misc, MASTIC, Black stair tread	05/07/98	05/11/98	No Asbestos Detected	0%
6	NO	641-011	115	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/07/98	05/11/98	No Asbestos Detected	0%
6	NO	641-012	118	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/07/98	05/11/98	No Asbestos Detected	0%
7	NO	641-013	116	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/07/98	05/11/98	No Asbestos Detected	0%
7	NO	641-014	123	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/07/98	05/11/98	No Asbestos Detected	0%
8	NO	641-015	125	Misc, CEILING TILE, 2' x 4', White w/minute holes	05/07/98	05/11/98	No Asbestos Detected	0%
8	NO	641-016	127	Misc, CEILING TILE, 2' x 4', White w/minute holes	05/07/98	05/11/98	No Asbestos Detected	0%
9	NO	641-017	112	Misc, COVING MASTIC, Yellow	05/07/98	05/11/98	No Asbestos Detected	0%
9	NO	641-018	101	Misc, COVING MASTIC, Yellow	05/07/98	05/11/98	No Asbestos Detected	0%
10	NO	641-019	128	Misc, MORTAR, 8" x 8" x 16", Grey	05/07/98	05/11/98	No Asbestos Detected	0%
10	NO	641-020	120	Misc, MORTAR, 8" x 8" x 16", Grey	05/07/98	05/11/98	No Asbestos Detected	0%
11	NO	641-021	108	Misc, GROUT, 2" x 2", White	05/07/98	05/11/98	No Asbestos Detected	0%
11	NO	641-022	108	Misc, GROUT, 2" x 2", White	05/07/98	05/11/98	No Asbestos Detected	0%
12	NO	641-023	108	Misc, GROUT, 4" x 6", White	05/07/98	05/11/98	No Asbestos Detected	0%
12	NO	641-024	108	Misc, GROUT, 4" x 6", White	05/07/98	05/11/98	No Asbestos Detected	0%
13	NO	641-025	108	Misc, CAULKING, White	05/07/98	05/11/98	No Asbestos Detected	0%
13	NO	641-026	EXT	Misc, CAULKING, White	05/07/98	05/11/98	No Asbestos Detected	0%
14	NO	641-027	123	Misc, FLOOR TILE, Blue w/mastic	05/07/98	05/11/98	No Asbestos Detected	0%
14	NO	641-028	H-103	Misc, FLOOR TILE, Blue w/mastic	05/07/98	05/11/98	No Asbestos Detected	0%
15	NO	641-029	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	05/07/98	05/11/98	No Asbestos Detected	0%
15	NO	641-030	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	05/07/98	05/11/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116)      DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 641**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
16	NO	641-031	128	TSI, FITTING, White	05/07/98	05/11/98	No Asbestos Detected	0%
16	NO	641-032	128	TSI, FITTING, White	05/07/98	05/11/98	No Asbestos Detected	0%
17	NO	641-033	128	TSI, PIPE, White	05/07/98	05/11/98	No Asbestos Detected	0%
17	NO	641-034	128	TSI, PIPE, White	05/07/98	05/11/98	No Asbestos Detected	0%
18	NO	641-035	128	Misc, MASTIC, Grey vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
18	NO	641-036	128	Misc, MASTIC, Grey vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
19	NO	641-037	128	Misc, MASTIC, Brown vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
19	NO	641-038	128	Misc, MASTIC, Brown vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
20	NO	641-039	128	Misc, MASTIC, White vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
20	NO	641-040	128	Misc, MASTIC, White vent duct	05/07/98	05/11/98	No Asbestos Detected	0%
21	NO	641-041	128	Misc, VIBRATION JOINT, Black	05/07/98	05/11/98	No Asbestos Detected	0%
21	NO	641-042	128	Misc, VIBRATION JOINT, Black	05/07/98	05/11/98	No Asbestos Detected	0%
22	NO	641-043	128	Misc, MASTIC, Silver vent duct tape	05/07/98	05/11/98	No Asbestos Detected	0%
22	NO	641-044	128	Misc, MASTIC, Silver vent duct tape	05/07/98	05/11/98	No Asbestos Detected	0%
23	NO	641-045	EXT	Misc, GLAZING, Grey	05/07/98	05/11/98	No Asbestos Detected	0%
23	NO	641-046	EXT	Misc, GLAZING, Grey	05/07/98	05/11/98	No Asbestos Detected	0%
24	YES	641-047	ROOF	Misc, SEALER, Silver	05/07/98	05/11/98	Chrysotile	2%
24	YES	641-048	ROOF	Misc, SEALER, Silver	05/07/98	05/11/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

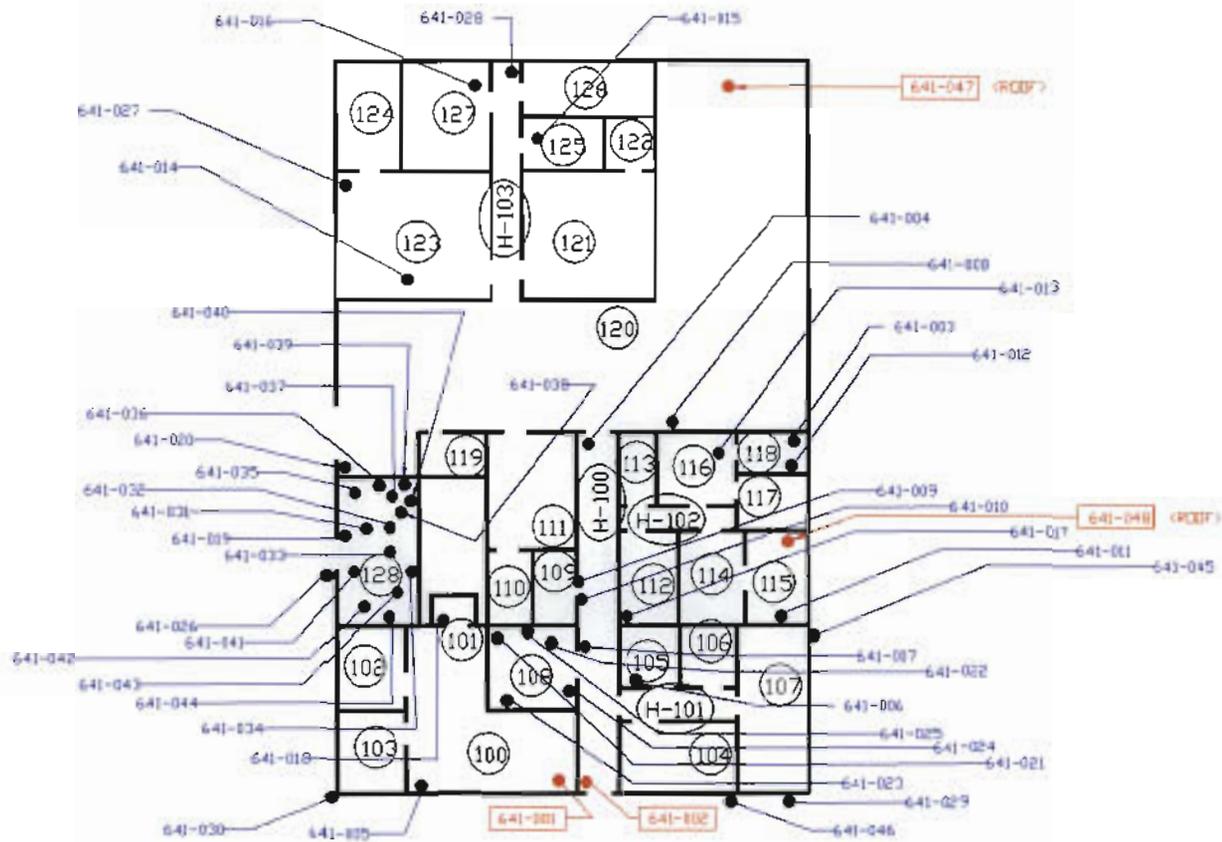
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
641	1	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	1,958 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 100, 101, 102, 103, 104, 105, 106, 107, 113, H-100, H-101								
641	24	Misc, SEALER, Silver	25 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

(xxx) - Indicates unique room number assigned by inspector

xxxxxx - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE - BUILDING 30  
NORTH CHARLESTON, SOUTH CAROLINA 29405-2108

SAMPLE LOCATIONS  
BLDG 641

CHARLESTON NAVAL BASE, CHARLESTON SC

DATE  
6-25-98

PREPARED BY:  
R. JENKINS

REV  
ORIG

SCALE: NONE

SHEET 1 OF 1

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 641**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$10,580	-	NA	-	\$24,469
Material/equipment costs	\$4,003	-	NA	-	\$7,094
Disposal costs	<u>\$1,587</u>	-	NA	-	<u>\$13,827</u>
<b>Total cost</b>	<b>\$16,170</b>	-	NA	-	<b>\$45,390</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$16,170 and the cost for demolition after asbestos removal is \$45,390.

## **BUILDING 674: Performance Monitoring Facility**

### **1. DESCRIPTION:**

Building 674 is a 4,380 square-foot building. It is a single story, concrete block structure with red brick exterior, metal windows and a built-up roof. The year built was 1985. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Sixteen homogeneous areas were identified during the initial survey.
- ◆ One homogeneous area was assumed to contain asbestos.
- ◆ Fifteen of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Four of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Eleven of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Fifteen homogeneous areas with suspected ACM were identified. Thirty samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-8: MISC, UNDERCOAT,SINK, White, was Non-friable and Not Damaged.
- ◆ H-11: MISC, MASTIC, White, was Non-friable and Not Damaged.
- ◆ H-15: MISC, ROOFING, TAR AND GRAVEL, Black w/felt, was Non-friable and Not Damaged.
- ◆ H-16: MISC, SEALER, Grey w/felt, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, COVING MASTIC, Black
- ◆ H-2: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-3: MISC, CEILING TILE, 2' x 4', White w/short grooves
- ◆ H-4: MISC, GROUT, CERAMIC TILE, 1" x 1", Grey
- ◆ H-5: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- ◆ H-6: MISC, FLOOR TILE, 12" x 12", Cream w/brown marble & mastic
- ◆ H-7: MISC, COVING MASTIC, Brown
- ◆ H-9: MISC, FLOOR TILE, 12" x 12", White w/brown marble & mastic
- ◆ H-10: MISC, FLOOR TILE, 12" x 12", Grey w/white marble & mastic

- ◆ H-13: MISC, MORTAR, BRICK, 2" x 4" x 8", Grey
- ◆ H-14: MISC, SEALER, Black

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ H-12: MISC, VIBRATION JOINT, Black, was Non-friable and Not Damaged.

### 3. OBSERVATIONS:

No observations.

### 4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- ◆ H-8: MISC, UNDERCOAT,SINK, White: O&M
- ◆ H-11: MISC, MASTIC, White: O&M
- ◆ H-12: MISC, VIBRATION JOINT, Black: O&M
- ◆ H-15: MISC, ROOFING, Black w/felt: O&M
- ◆ H-16: MISC, SEALER, Grey w/felt: O&M

### 5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC MASTIC is Confirmed, Non-friable ACM.

- ◆ H-11 (MASTIC, White) is located in Rooms 111, 112, 113, 114.

MISC ROOFING is Confirmed, Non-friable ACM.

- ◆ H-15 (ROOFING, Black w/felt) is located on the Roof.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-16 (SEALER, Grey w/felt) is located on the Roof.

MISC UNDERCOAT,SINK is Confirmed, Non-friable ACM.

- ◆ H-8 (UNDERCOAT,SINK, White) is located in Room 100.

MISC VIBRATION JOINT is Assumed, Non-friable ACM.

- ◆ H-12 (VIBRATION JOINT, Black) is located in Room 115.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 674

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, COVING MASTIC, Black	698 LF	0						
		Rooms 100, 101, 102, 108, 109, 110, 111, 112, 113, 114								
2	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	10,457 SF	0						
		Rooms 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115								
3	N	Misc, CEILING TILE, 2' x 4', White w/short grooves	3,172 SF	0						
		Rooms 100, 101, 102, 106, 107, 109, 110, 111, 112, 113, 114								
4	N	Misc, GROUT, CERAMIC TILE, 1" x 1", Grey	162 SF	0						
		Rooms 103, 104								
5	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	544 SF	0						
		Rooms 103, 104								
6	N	Misc, FLOOR TILE, 12" x 12", Cream w/brown marble & mastic	709 SF	0						
		Rooms 105, 106, 107, 108, 110								
7	N	Misc, COVING MASTIC, Brown	117 LF	0						
		Rooms 105, 106, 107								
8	Y	Misc, UNDERCOAT,SINK, White	10 SF	10	Non	PD	0.0	O&M		
		Rooms 100								
9	N	Misc, FLOOR TILE, 12" x 12", White w/brown marble & mastic	8 SF	0						
		Rooms 110								
10	N	Misc, FLOOR TILE, 12" x 12", Grey w/white marble & mastic	256 SF	0						
		Rooms 114								
11	Y	Misc, MASTIC, White	420 LF	10	Non	PD	0.0	O&M		
		Rooms 111, 112, 113, 114								
12	A	Misc, VIBRATION JOINT, Black	12 LF	10	Non	PD	0.0	O&M		
		Rooms 115								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 674**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, MORTAR, BRICK, 2" x 4" x 8", Grey	3,780 SF	0						
		Rooms EXT								
14	N	Misc, SEALER, Black	200 LF	0						
		Rooms ROOF								
15	Y	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,400 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								
16	Y	Misc, SEALER, Grey w/felt	450 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 674**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	674-001	100	Misc, COVING MASTIC, Black	05/08/98	05/12/98	No Asbestos Detected	0%
1	NO	674-002	101	Misc, COVING MASTIC, Black	05/08/98	05/12/98	No Asbestos Detected	0%
2	NO	674-003	101	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/08/98	05/12/98	No Asbestos Detected	0%
2	NO	674-004	102	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/08/98	05/12/98	No Asbestos Detected	0%
3	NO	674-005	111	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/08/98	05/12/98	No Asbestos Detected	0%
3	NO	674-006	112	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/08/98	05/11/98	No Asbestos Detected	0%
4	NO	674-007	103	Misc, GROUT, 1" x 1", Grey	05/08/98	05/12/98	No Asbestos Detected	0%
4	NO	674-008	104	Misc, GROUT, 1" x 1", Grey	05/08/98	05/12/98	No Asbestos Detected	0%
5	NO	674-009	103	Misc, GROUT, 4" x 4", White	05/08/98	05/12/98	No Asbestos Detected	0%
5	NO	674-010	104	Misc, GROUT, 4" x 4", White	05/08/98	05/12/98	No Asbestos Detected	0%
6	NO	674-011	105	Misc, FLOOR TILE, Cream w/brown marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
6	NO	674-012	108	Misc, FLOOR TILE, Cream w/brown marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
7	NO	674-013	106	Misc, COVING MASTIC, Brown	05/08/98	05/12/98	No Asbestos Detected	0%
7	NO	674-014	107	Misc, COVING MASTIC, Brown	05/08/98	05/12/98	No Asbestos Detected	0%
8	YES	674-015	100	Misc, UNDERCOAT, SINK, White	05/08/98	05/12/98	Chrysotile	3%
8	YES	674-016	100	Misc, UNDERCOAT, SINK, White	05/08/98	05/12/98	Chrysotile	3%
9	NO	674-017	110	Misc, FLOOR TILE, White w/brown marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
9	NO	674-018	110	Misc, FLOOR TILE, White w/brown marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
10	NO	674-019	114	Misc, FLOOR TILE, Grey w/white marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
10	NO	674-020	114	Misc, FLOOR TILE, Grey w/white marble & mastic	05/08/98	05/12/98	No Asbestos Detected	0%
11	YES	674-021	113	Misc, MASTIC, White	05/08/98	05/12/98	Chrysotile	2%
11	YES	674-022	114	Misc, MASTIC, White	05/08/98	05/12/98	Chrysotile	2%
13	NO	674-025	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	05/08/98	05/12/98	No Asbestos Detected	0%
13	NO	674-026	EXT	Misc, MORTAR, 2" x 4" x 8", Grey	05/08/98	05/12/98	No Asbestos Detected	0%
14	NO	674-027	ROOF	Misc, SEALER, Black	05/08/98	05/12/98	No Asbestos Detected	0%
14	NO	674-028	ROOF	Misc, SEALER, Black	05/08/98	05/12/98	No Asbestos Detected	0%
15	YES	674-029	ROOF	Misc, ROOFING, Black w/felt	05/08/98	05/12/98	Chrysotile	2%
15	YES	674-030	ROOF	Misc, ROOFING, Black w/felt	05/08/98	05/12/98	Chrysotile	2%
16	YES	674-031	ROOF	Misc, SEALER, Grey w/felt	05/08/98	05/12/98	Chrysotile	2%
16	YES	674-032	ROOF	Misc, SEALER, Grey w/felt	05/08/98	05/12/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

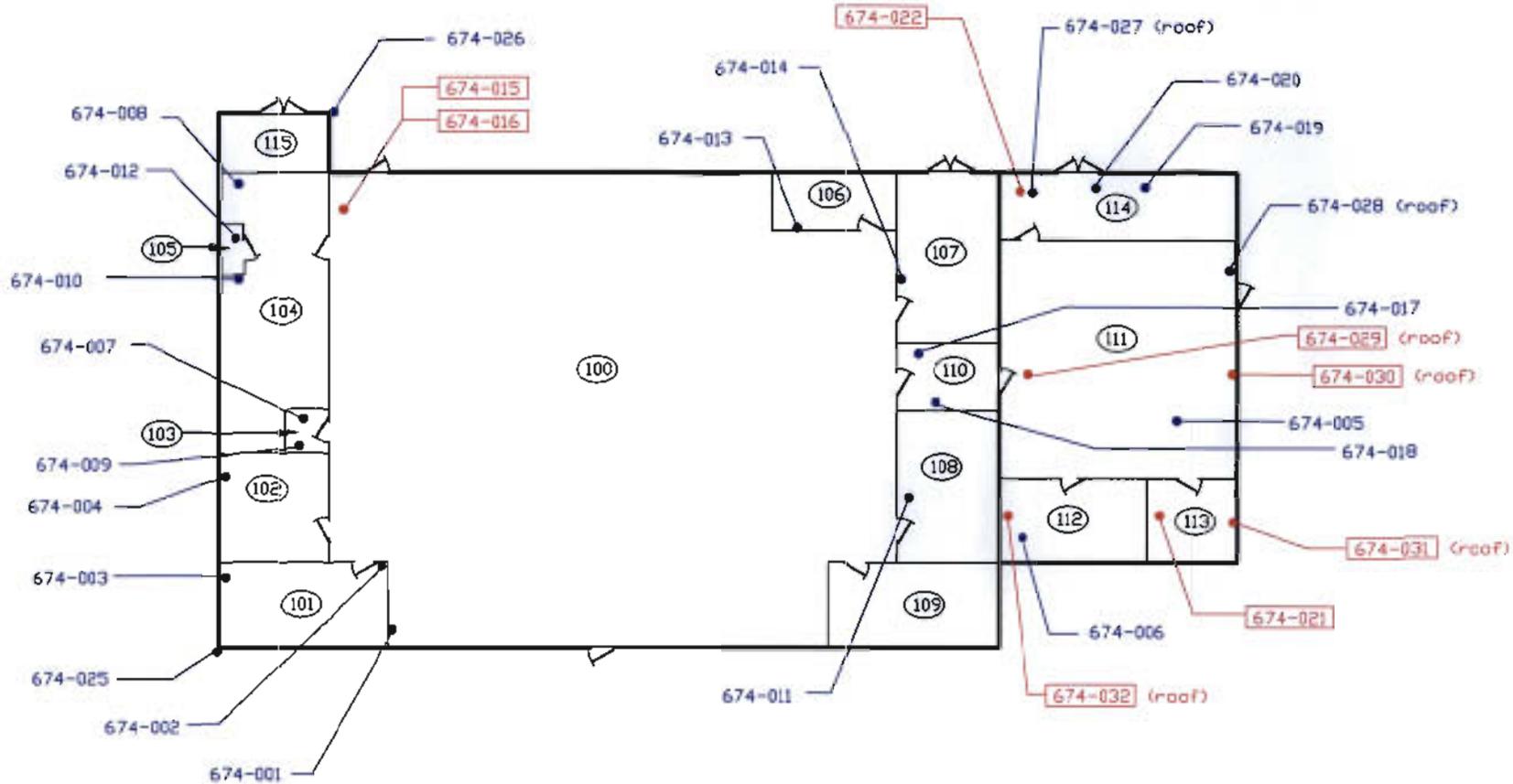
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
674	8	Misc, UNDERCOAT,SINK, White	10 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 100								
674	11	Misc, MASTIC, White	420 LF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 111, 112, 113, 114								
674	12	Misc, VIBRATION JOINT, Black	12 LF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 115								
674	15	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,400 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
674	16	Misc, SEALER, Grey w/felt	450 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

- ⊙ - Indicates unique room number assigned by Inspector
- ⓧ - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
 1899 NORTH HOBSON AVENUE - BUILDING 30  
 NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

**SAMPLE LOCATIONS**  
**BLDG 674**  
**CHARLESTON NAVAL BASE, CHARLESTON SC**

DATE 6-22-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE	SHEET 1 OF 1	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 674**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$19,967	-	NA	-	\$13,675
Material/equipment costs	\$7,288	-	NA	-	\$3,905
Disposal costs	<u>\$2,995</u>	-	NA	-	<u>\$7,570</u>
<b>Total cost</b>	<b>\$30,250</b>	-	NA	-	<b>\$25,150</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$30,250 and the cost for demolition after asbestos removal is \$25,150.

## **BUILDING 1177: Fire Station #3**

### **1. DESCRIPTION:**

Building 1177 is a 3,000 square-foot building. It is a single story, concrete block/cinder block structure with metal windows and a built-up roof. The year built was 1942. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Seventeen homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Seventeen of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Five of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Twelve of the suspected homogeneous areas did not contain asbestos.

### **2. FINDINGS:**

Seventeen homogeneous areas with suspected ACM were identified. Thirty-four samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-2: MISC, FLOOR TILE, 9" x 9", Dark green w/ white marble, was Non-friable and Not Damaged.
- ◆ H-4: MISC, FLOOR TILE, 12" x 12", Green w/ white marble, was Non-friable and Not Damaged.
- ◆ H-9: MISC, UNDERCOAT, SINK, Black, was Non-friable and Not Damaged.
- ◆ H-14: MISC, GLAZING, WINDOW EXTERIOR, White, was Non-friable and Damaged.
- ◆ H-16: MISC, SEALER, Black, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, FLOOR TILE, 12" x 12", White w/ black marble
- ◆ H-3: MISC, CEILING TILE, 2' x 4', White w/small holes
- ◆ H-5: SURFACING, PLASTER, White
- ◆ H-6: MISC, CAULKING, White
- ◆ H-7: MISC, CEILING TILE, White w/short grooves

- ◆ H-8: MISC, SHEETROCK, PAINTED, White
- ◆ H-10: MISC, VIBRATION JOINT, Tan
- ◆ H-11: MISC, MORTAR, BRICK, 3" x 3" x 10", Grey
- ◆ H-12: MISC, MORTAR, 8" x 8" x 16", Grey
- ◆ H-13: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- ◆ H-15: MISC, ROOFING, COMPOSITION SHEET, Pink & white canvas
- ◆ H-17: MISC, ROOFING, TAR AND GRAVEL, Black w/felt

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### **3. OBSERVATIONS:**

Strong, pungent odors of sewer gas can be detected throughout the building.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-2: MISC, FLOOR TILE, Dark green w/ white marble: O&M
- ◆ H-4: MISC, FLOOR TILE, Green w/ white marble: O&M
- ◆ H-9: MISC, UNDERCOAT,SINK, Black: O&M
- ◆ H-14: MISC, GLAZING, White: Repair/O&M
- ◆ H-16: MISC, SEALER, Black: O&M

### **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-2 (FLOOR TILE, Dark green w/ white marble) is located in Rooms 102, 103, 104, 106, 107, 108.
- ◆ H-4 (FLOOR TILE, Green w/ white marble) is located in Room 105.

MISC GLAZING is Confirmed, Non-friable ACM.

- ◆ H-14 (GLAZING, White) is located on the Exterior.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-16 (SEALER, Black) is located on the Roof.

MISC UNDERCOAT,SINK is Confirmed, Non-friable ACM.

- ◆ H-9 (UNDERCOAT,SINK, Black) is located in Room 108.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1177

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	1,090 SF	0						
		Rooms 102, 103, 104, 106, 107, 108								
2	Y	Misc, FLOOR TILE, 9" x 9", Dark green w/white marble & mastic	1,090 SF	3	Non	PD	0.0	O&M		
		Rooms 102, 103, 104, 106, 107, 108								
3	N	Misc, CEILING TILE, 2' x 4', White w/small holes	826 SF	0						
		Rooms 102, 103, 104, 107, 108								
4	Y	Misc, FLOOR TILE, 12" x 12", Green w/white marble & mastic	21 SF	3	Non	PD	0.0	O&M		
		Rooms 105								
5	N	Surfacing, PLASTER, White	260 SF	0						
		Rooms 105								
6	N	Misc, CAULKING, White	84 LF	0						
		Rooms 106, EXT								
7	N	Misc, CEILING TILE, 2' x 4', White w/short grooves	48 SF	0						
		Rooms 106								
8	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	10 SF	0						
		Rooms 107								
9	Y	Misc, UNDERCOAT,SINK, Black	10 SF	3	Non	PD	0.0	O&M		
		Rooms 108								
10	N	Misc, VIBRATION JOINT, Tan	40 LF	0						
		Rooms 109								
11	N	Misc, MORTAR, BRICK, 3" x 3" x 10", Grey	90 SF	0						
		Rooms 109								
12	N	Misc, MORTAR, 8" x 8" x 16", Grey	250 SF	0						
		Rooms EXT								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 1177**

H- No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	1,700 SF	0						
		Rooms EXT								
14	Y	Misc, GLAZING, WINDOW EXTERIOR, White	144 LF	4	Non	D	30.0	O&M		
		Rooms EXT								
15	N	Misc, ROOFING, COMPOSITION SHEET, Pink & white canvas	1,224 SF	0						
		Rooms ROOF								
16	Y	Misc, SEALER, Black	12 LF	3	Non	PD	0.0	O&M		
		Rooms ROOF								
17	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	2,730 SF	0						
		Rooms ROOF								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1177**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1177-001	104	Misc, FLOOR TILE, White w/black marble & mastic	04/27/98	04/29/98	No Asbestos Detected	0%
1	NO	1177-002	107	Misc, FLOOR TILE, White w/black marble & mastic	04/27/98	04/29/98	No Asbestos Detected	0%
2	YES	1177-003	104	Misc, FLOOR TILE, Dark green w/white marble & mastic	04/27/98	04/29/98	Chrysotile	39%
2	YES	1177-004	107	Misc, FLOOR TILE, Dark green w/white marble & mastic	04/27/98	04/29/98	Chrysotile	46%
3	NO	1177-005	102	Misc, CEILING TILE, 2' x 4', White w/small holes	04/27/98	04/29/98	No Asbestos Detected	0%
3	NO	1177-006	103	Misc, CEILING TILE, 2' x 4', White w/small holes	04/27/98	04/29/98	No Asbestos Detected	0%
4	YES	1177-007	105	Misc, FLOOR TILE, Green w/white marble & mastic	04/27/98	04/29/98	Chrysotile	6%
4	YES	1177-008	105	Misc, FLOOR TILE, Green w/white marble & mastic	04/27/98	04/29/98	Chrysotile	6%
5	NO	1177-009	105	Surfacing, PLASTER, White	04/27/98	04/29/98	No Asbestos Detected	0%
5	NO	1177-010	105	Surfacing, PLASTER, White	04/27/98	04/29/98	No Asbestos Detected	0%
6	NO	1177-011	106	Misc, CAULKING, White	04/27/98	04/29/98	No Asbestos Detected	0%
6	NO	1177-012	EXT	Misc, CAULKING, White	04/27/98	04/29/98	No Asbestos Detected	0%
7	NO	1177-013	106	Misc, CEILING TILE, 2' x 4', White w/short grooves	04/27/98	04/29/98	No Asbestos Detected	0%
7	NO	1177-014	106	Misc, CEILING TILE, 2' x 4', White w/short grooves	04/27/98	04/29/98	No Asbestos Detected	0%
8	NO	1177-015	107	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/27/98	04/29/98	No Asbestos Detected	0%
8	NO	1177-016	107	Misc, SHEETROCK, 4' x 8', White w/mud & tape	04/27/98	04/29/98	No Asbestos Detected	0%
9	YES	1177-017	108	Misc, UNDERCOAT,SINK, Black	04/27/98	04/29/98	Chrysotile	2%
9	YES	1177-018	108	Misc, UNDERCOAT,SINK, Black	04/27/98	04/29/98	Chrysotile	2%
10	NO	1177-019	109	Misc, VIBRATION JOINT, Tan	04/27/98	04/29/98	No Asbestos Detected	0%
10	NO	1177-020	109	Misc, VIBRATION JOINT, Tan	04/27/98	04/29/98	No Asbestos Detected	0%
11	NO	1177-021	109	Misc, MORTAR, 3" x 3" x 10", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
11	NO	1177-022	109	Misc, MORTAR, 3" x 3" x 10", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
12	NO	1177-023	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
12	NO	1177-024	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
13	NO	1177-025	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
13	NO	1177-026	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	04/27/98	04/29/98	No Asbestos Detected	0%
14	YES	1177-027	EXT	Misc, GLAZING, White	04/27/98	04/29/98	Chrysotile	2%
14	NO	1177-028	EXT	Misc, GLAZING, White	04/27/98	04/29/98	No Asbestos Detected	0%
15	NO	1177-029	ROOF	Misc, ROOFING, Pink & white canvas	04/27/98	04/29/98	No Asbestos Detected	0%
15	NO	1177-030	ROOF	Misc, ROOFING, Pink & white canvas	04/27/98	04/29/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1177**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
16	YES	1177-031	ROOF	Misc, SEALER, Black	04/27/98	04/29/98	Chrysotile	2%
16	YES	1177-032	ROOF	Misc, SEALER, Black	04/27/98	04/29/98	Chrysotile	2%
17	NO	1177-033	ROOF	Misc, ROOFING, Black w/felt	04/27/98	04/29/98	No Asbestos Detected	0%
17	NO	1177-034	ROOF	Misc, ROOFING, Black w/felt	04/27/98	04/29/98	No Asbestos Detected	0%

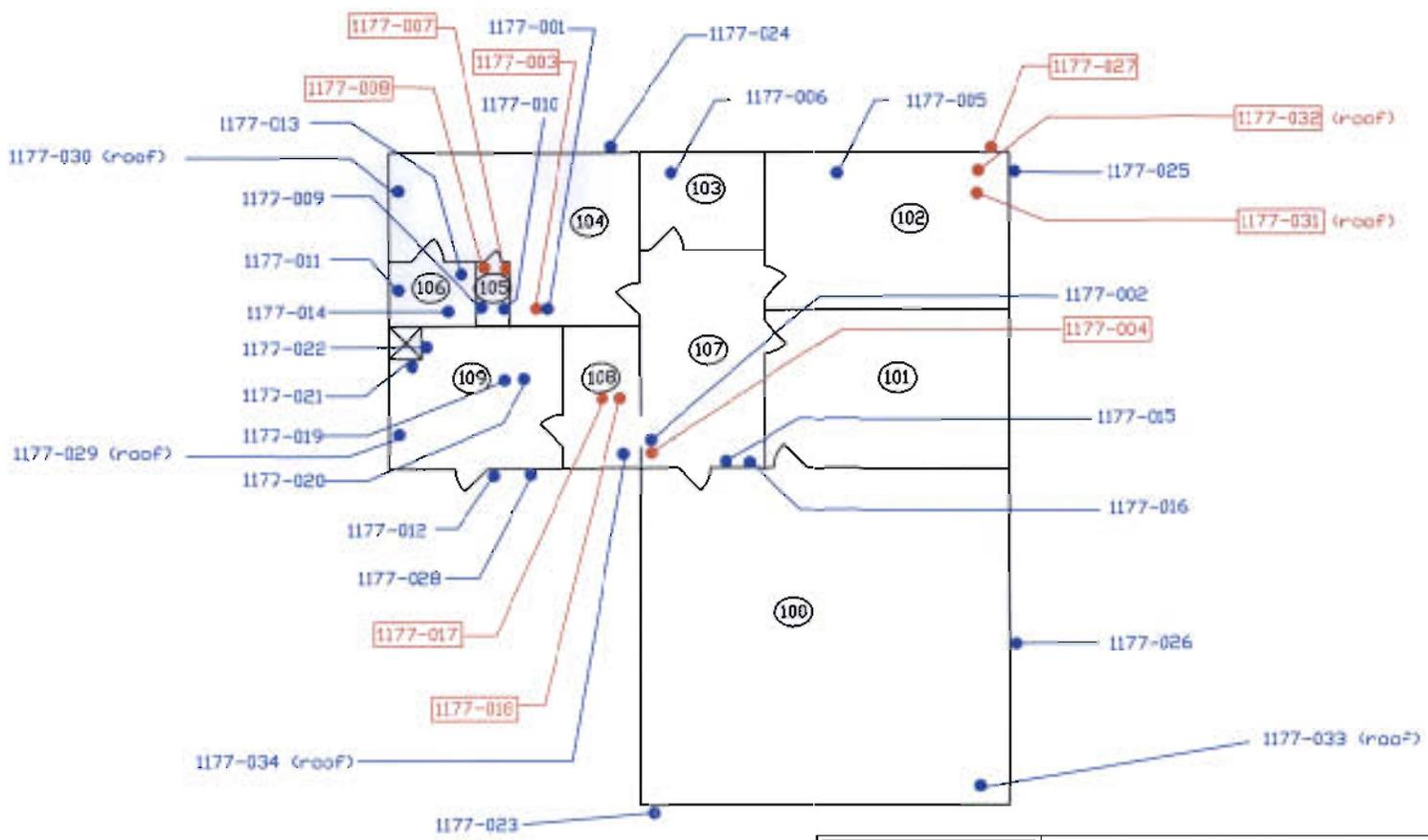
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
1177	2	Misc, FLOOR TILE, 9" x 9", Dark green w/white marble & mastic	1,090 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 103, 104, 106, 107, 108								
1177	4	Misc, FLOOR TILE, 12" x 12", Green w/white marble & mastic	21 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 105								
1177	9	Misc, UNDERCOAT,SINK, Black	10 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms 108								
1177	14	Misc, GLAZING, WINDOW EXTERIOR, White	144 LF	4	Non	Damaged	30.00	Repair/O&M
Locations: Rooms EXT								
1177	16	Misc, SEALER, Black	12 LF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

- (XXX) - Indicates unique room number assigned by Inspector
- [Red Box XXXX] - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1800 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> BLDG 1177		
<b>CHARLESTON NAVAL BASE, CHARLESTON, SC</b>		
DATE 6-8-98	PREPARED BY: B.D. MURRAY	REV DRIG
SCALE: NONE	SHEET 1 OF 1	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 1177**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$6,344	-	\$88	-	\$9,561
Material/equipment costs	\$2,520	-	\$145	-	\$2,689
Disposal costs	<u>\$1,269</u>	-	<u>\$35</u>	-	<u>\$5,185</u>
<b>Total cost</b>	<b>\$10,133</b>	-	<b>\$268</b>	-	<b>\$17,435</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$10,133, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$268 and the cost for demolition after asbestos removal is \$17,435.

## **BUILDING 1346: SERVICE STATION**

### **1. DESCRIPTION:**

Building 1346 is a 13,910 square-foot building. It is a single story, concrete, brick and metal siding structure with metal windows. The roof is composed of three different types of construction, that include, asphalt shingles, rolled asphalt sheeting and pitched metal. The year built was 1962. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Thirty-two homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Thirty-two of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Ten of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Twenty-two of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Thirty-two homogeneous areas with suspected ACM were identified. Sixty-eight samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in one of the homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-07: MISC, CAULKING, Grey, was Non-friable and Not Damaged.
- ◆ H-15: MISC, SHEET FLOORING, Tan w/brown marble & mastic, was Non-friable and Not Damaged.
- ◆ H-18: MISC, FLOOR TILE, 12" x 12", Tan w/brown & white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-19: MISC, FLOOR TILE, 12" x 12", Pea Green w/black & white marble & mastic, was Non-friable and Not Damaged.
- ◆ H-20: MISC, FLOOR TILE, 12" x 12", White w/grey streaks & mastic, was Non-friable and Not Damaged.
- ◆ H-21: TSI, FITTING, CLOTH WRAPPED, White, was Low-friable and Not Damaged.
- ◆ H-25: MISC, CAULKING, White, was Non-friable and Not Damaged.
- ◆ H-26: MISC, TRANSITE, PANELS, Grey, was Non-friable and Not Damaged.
- ◆ H-27: MISC, CAULKING, White, was Non-friable and Not Damaged.

- ◆ H-30: MISC, SEALER, Grey & black, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-01: MISC, FLOOR TILE, 12" x 12", White w/grey marble & mastic
- ◆ H-02: MISC, FLOOR TILE, 12" x 12", Maroon w/white marble & mastic
- ◆ H-03: MISC, COVING MASTIC, Yellow
- ◆ H-04: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- ◆ H-05: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- ◆ H-06: MISC, CAULKING, Yellow
- ◆ H-08: MISC, COVING MASTIC, Brown
- ◆ H-09: MISC, CEILING TILE, 2' x 4', White w/long grooves
- ◆ H-10: MISC, CEILING TILE, 2' x 4', White w/short grooves
- ◆ H-11: MISC, CEILING TILE, 2' x 4', White w/wings
- ◆ H-12: MISC, FLOOR TILE, 9" x 9", Tan w/brown & white marble & mastic
- ◆ H-13: MISC, COVING MASTIC, Brown
- ◆ H-14: MISC, Brown / carpet mastic
- ◆ H-16: MISC, GROUT, CERAMIC TILE, 1" x 1", Grey
- ◆ H-17: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- ◆ H-22: MISC, CEILING TILE, 2' x 4', White w/bird feet
- ◆ H-23: MISC, 3" x 3" x 8", Grey
- ◆ H-24: MISC, GLAZING, WINDOW EXTERIOR, Grey
- ◆ H-28: MISC, SEALER, Black
- ◆ H-29: MISC, SEALER, Silver
- ◆ H-31: MISC, ROOFING, COMPOSITION SHEET, Black w/tar & shingle
- ◆ H-32: MISC, ROOFING, COMPOSITION SHINGLE, Black w/felt

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### 3. OBSERVATIONS:

Other suspect ACM noted, but not sampled. includes valve packing, various piping systems/components gasket material and drain piping joint compound.

### 4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- ◆ H-07: MISC, CAULKING, Grey: O&M

- ◆ H-15: MISC, SHEET FLOORING, Tan w/brown marble & mastic: O&M
- ◆ H-18: MISC, FLOOR TILE, Tan w/brown & white marble & mastic: O&M
- ◆ H-19: MISC, FLOOR TILE, Pea Green w/black & white marble & mastic: O&M
- ◆ H-20: MISC, FLOOR TILE, White w/grey streaks & mastic: O&M
- ◆ H-21: TSI, FITTING, White: O&M
- ◆ H-25: MISC, CAULKING, White: Repair/O&M
- ◆ H-26: MISC, TRANSITE, Grey: O&M
- ◆ H-27: MISC, CAULKING, White: Repair/O&M
- ◆ H-30: MISC, SEALER, Grey & black: O&M

## **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CAULKING is Confirmed, Non-friable ACM.

- ◆ H-07 (CAULKING, Grey) is located in Rooms 100, 101.
- ◆ H-25 (CAULKING, White) is located on the Exterior.
- ◆ H-27 (CAULKING, White) is located on R-100, R-101, R-105, R-106.

TSI FITTING is Confirmed, Low-friable ACM.

- ◆ H-21 (FITTING, White) is located in Rooms 108, 109, 110, 111.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- ◆ H-18 (FLOOR TILE, Tan w/brown & white marble & mastic) is located in Rooms 106, 107, 115, 117, H-100.
- ◆ H-20 (FLOOR TILE, White w/grey streaks & mastic) is located in Rooms 108, 109.
- ◆ H-19 (FLOOR TILE, Pea Green w/black & white marble & mastic) is located in Rooms 106, 107, 118.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-30 (SEALER, Grey & black) is located on R-101, R-103.

MISC SHEET FLOORING is Confirmed, Non-friable ACM.

- ◆ H-15 (SHEET FLOORING, Tan w/brown marble & mastic) is located in Room 103.

MISC TRANSITE is Confirmed, Non-friable ACM.

- ◆ H-26 (TRANSITE, Grey) is located on the Exterior.

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1346

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
01	N	Misc, FLOOR TILE, 12" x 12", White w/grey marble & mastic Rooms 100, 101, 106, 108, 109	1,182 SF	0						
02	N	Misc, FLOOR TILE, 12" x 12", Maroon w/white marble & mastic Rooms 101, 106, 107, 108, 109, 115, 117, H-100	2,350 SF	0						
03	N	Misc, COVING MASTIC, Yellow Rooms 100, 101, 106, 107, 108, 109, 115, 117	555 LF	0						
04	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey Rooms 100, 103, 104, 105, 106, 107, 108, 109, 110, 111, 115, 116, H-100	3,625 SF	0						
05	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape Rooms 100, 101, 102, 103, 104, 105, 115, 116, 117	2,789 SF	0						
06	N	Misc, CAULKING, Yellow Rooms 100	20 LF	0						
07	Y	Misc, CAULKING, Grey Rooms 100, 101	24 LF	10	Non	PD	0.0	O&M		
08	N	Misc, COVING MASTIC, Brown Rooms 100	4 LF	0						
09	N	Misc, CEILING TILE, 2' x 4', White w/long grooves Rooms 100, 101, 102, 103, 106, 108, 109, 110, 115, 116, 117, 118, H-100	5,543 SF	0						
10	N	Misc, CEILING TILE, 2' x 4', White w/short grooves Rooms 100, 106, 107, 115, 116, 117	1,160 SF	0						
11	N	Misc, CEILING TILE, 2' x 4', White w/wings Rooms 100, 102, 106, 108, 115, 117	245 LF	0						
12	N	Misc, FLOOR TILE, 9" x 9", Tan w/brown & white marble & mastic Rooms 100, 101, 117	5,429 SF	0						

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

# BUILDING SUMMARY TABLE

# CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1346

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, COVING MASTIC, Brown	80 SF	0						
		Rooms 102, 103								
14	N	Misc, Brown / carpet mastic	99 SF	0						
		Rooms 102								
15	Y	Misc, SHEET FLOORING, Tan w/brown marble & mastic	100 SF	10	Non	PD	0.0	O&M		
		Rooms 103								
16	N	Misc, GROUT, CERAMIC TILE, 1" x 1", Grey	55 SF	0						
		Rooms 104, 105								
17	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	55 SF	0						
		Rooms 104, 105								
18	Y	Misc, FLOOR TILE, 12" x 12", Tan w/brown & white marble & mastic	706 SF	10	Non	PD	0.0	O&M		
		Rooms 106, 107, 115, 117, H-100								
19	Y	Misc, FLOOR TILE, 12" x 12", Pea Green w/black & white marble & mastic	350 SF	10	Non	PD	0.0	O&M		
		Rooms 106, 107, 118								
20	Y	Misc, FLOOR TILE, 12" x 12", White w/grey streaks & mastic	170 SF	10	Non	PD	0.0	O&M		
		Rooms 108, 109								
21	Y	TSI, FITTING, CLOTH WRAPPED, White	105 LF	20	Low	PD	0.0	O&M		
		Rooms 108, 109, 110, 111								
22	N	Misc, CEILING TILE, 2' x 4', White w/bird feet	154 SF	0						
		Rooms 112, 113								
23	N	Misc, 3" x 3" x 8", Grey	1,230 SF	0						
		Rooms EXT								
24	N	Misc, GLAZING, WINDOW EXTERIOR, Grey	280 LF	0						
		Rooms EXT								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 1346**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
25	Y	Misc, CAULKING, White	132 LF	10	Non	PD	0.0	Repair/O&M		
		Rooms EXT								
26	Y	Misc, TRANSITE, PANELS, Grey	104 SF	10	Non	PD	0.0	O&M		
		Rooms EXT								
27	Y	Misc, CAULKING, White	346 LF	10	Non	PD	0.0	Repair/O&M		Only the silver coating on the cauking contains asbestos
		Rooms R-100, R-101, R-105, R-106								
28	N	Misc, SEALER, Black	120 SF	0						
		Rooms R-101, R-102, R-103, R-107								
29	N	Misc, SEALER, Silver	20 LF	0						
		Rooms R-101								
30	Y	Misc, SEALER, Grey & black	50 SF	10	Non	PD	0.0	O&M		
		Rooms R-101, R-103								
31	N	Misc, ROOFING, COMPOSITION SHEET, Black w/tar & shingle	2,970 SF	0						
		Rooms R-102								
32	N	Misc, ROOFING, COMPOSITION SHINGLE, Black w/felt	180 SF	0						
		Rooms R-104								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1346**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1346-001	106	Misc, FLOOR TILE, White w/grey marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
1	NO	1346-002	100	Misc, FLOOR TILE, White w/grey marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
2	NO	1346-003	H-100	Misc, FLOOR TILE, Maroon w/white marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
2	NO	1346-004	117	Misc, FLOOR TILE, Maroon w/white marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
3	NO	1346-005	100	Misc, COVING MASTIC, Yellow	05/11/98	05/19/98	No Asbestos Detected	0%
3	NO	1346-006	106	Misc, COVING MASTIC, Yellow	05/11/98	05/19/98	No Asbestos Detected	0%
4	NO	1346-007	100	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
4	NO	1346-008	103	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
5	NO	1346-009	117	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/11/98	05/19/98	No Asbestos Detected	0%
5	NO	1346-010	103	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/11/98	05/19/98	No Asbestos Detected	0%
5	NO	1346-011	116	Misc, SHEETROCK, 4' x 8', White w/mud & tape	05/11/98	05/19/98	No Asbestos Detected	0%
6	NO	1346-012	100	Misc, CAULKING, Yellow	05/11/98	05/19/98	No Asbestos Detected	0%
6	NO	1346-013	100	Misc, CAULKING, Yellow	05/11/98	05/19/98	No Asbestos Detected	0%
7	YES	1346-014	100	Misc, CAULKING, Grey	05/11/98	05/19/98	Chrysotile	2%
7	YES	1346-015	100	Misc, CAULKING, Grey	05/11/98	05/19/98	Chrysotile	2%
8	NO	1346-016	100	Misc, COVING MASTIC, Brown	05/11/98	05/19/98	No Asbestos Detected	0%
8	NO	1346-017	100	Misc, COVING MASTIC, Brown	05/11/98	05/19/98	No Asbestos Detected	0%
9	NO	1346-018	103	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/11/98	05/19/98	No Asbestos Detected	0%
9	NO	1346-019	100	Misc, CEILING TILE, 2' x 4', White w/long grooves	05/11/98	05/19/98	No Asbestos Detected	0%
10	NO	1346-020	116	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/11/98	05/19/98	No Asbestos Detected	0%
10	NO	1346-021	116	Misc, CEILING TILE, 2' x 4', White w/short grooves	05/11/98	05/19/98	No Asbestos Detected	0%
11	NO	1346-022	106	Misc, CEILING TILE, 2' x 4', White w/wings	05/11/98	05/19/98	No Asbestos Detected	0%
11	NO	1346-023	106	Misc, CEILING TILE, 2' x 4', White w/wings	05/11/98	05/19/98	No Asbestos Detected	0%
12	NO	1346-024	100	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
12	NO	1346-025	117	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
13	NO	1346-026	103	Misc, COVING MASTIC, Brown	05/11/98	05/19/98	No Asbestos Detected	0%
13	NO	1346-027	102	Misc, COVING MASTIC, Brown	05/11/98	05/19/98	No Asbestos Detected	0%
14	NO	1346-028	102	Misc, Brown / carpet mastic	05/11/98	05/19/98	No Asbestos Detected	0%
14	NO	1346-029	102	Misc, Brown / carpet mastic	05/11/98	05/19/98	No Asbestos Detected	0%
15	YES	1346-030	103	Misc, SHEET FLOORING, Tan w/brown marble & mastic	05/11/98	05/19/98	Chrysotile	30%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1346**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
15	YES	1346-031	103	Misc, SHEET FLOORING, Tan w/brown marble & mastic	05/11/98	05/19/98	Chrysotile	30%
16	NO	1346-032	104	Misc, GROUT, 1" x 1", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
16	NO	1346-033	105	Misc, GROUT, 1" x 1", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
17	NO	1346-034	104	Misc, GROUT, 4" x 4", White	05/11/98	05/19/98	No Asbestos Detected	0%
17	NO	1346-035	105	Misc, GROUT, 4" x 4", White	05/11/98	05/19/98	No Asbestos Detected	0%
18	YES	1346-036	115	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/11/98	05/19/98	Chrysotile	32%
18	NO	1346-037	117	Misc, FLOOR TILE, Tan w/brown & white marble & mastic	05/11/98	05/19/98	No Asbestos Detected	0%
19	YES	1346-038	107	Misc, FLOOR TILE, Pea Green w/black & white marble & mastic	05/11/98	05/19/98	Chrysotile	55%
19	YES	1346-039	106	Misc, FLOOR TILE, Pea Green w/black & white marble & mastic	05/11/98	05/19/98	Chrysotile	68%
20	YES	1346-040	108	Misc, FLOOR TILE, White w/grey streaks & mastic	05/11/98	05/19/98	Chrysotile	48%
20	YES	1346-041	109	Misc, FLOOR TILE, White w/grey streaks & mastic	05/11/98	05/19/98	Chrysotile	26%
21	YES	1346-042	111	TSI, FITTING, White	05/11/98	05/19/98	Amosite	3%
21	YES	1346-042	111	TSI, FITTING, White	05/11/98	05/19/98	Chrysotile	2%
21	YES	1346-043	108	TSI, FITTING, White	05/11/98	05/19/98	Chrysotile	2%
21	YES	1346-043	108	TSI, FITTING, White	05/11/98	05/19/98	Amosite	3%
21	YES	1346-044	110	TSI, FITTING, White	05/11/98	05/19/98	Amosite	3%
21	YES	1346-044	110	TSI, FITTING, White	05/11/98	05/19/98	Chrysotile	2%
22	NO	1346-045	112	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/11/98	05/19/98	No Asbestos Detected	0%
22	NO	1346-046	113	Misc, CEILING TILE, 2' x 4', White w/bird feet	05/11/98	05/19/98	No Asbestos Detected	0%
23	NO	1346-047	EXT	Misc, 3" x 3" x 8", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
23	NO	1346-048	EXT	Misc, 3" x 3" x 8", Grey	05/11/98	05/19/98	No Asbestos Detected	0%
24	NO	1346-049	EXT	Misc, GLAZING, Grey	05/11/98	05/19/98	No Asbestos Detected	0%
24	NO	1346-050	EXT	Misc, GLAZING, Grey	05/11/98	05/19/98	No Asbestos Detected	0%
25	YES	1346-051	EXT	Misc, CAULKING, White	05/11/98	05/19/98	Chrysotile	2%
25	YES	1346-052	EXT	Misc, CAULKING, White	05/11/98	05/19/98	Chrysotile	2%
26	YES	1346-053	EXT	Misc, TRANSITE, Grey	05/11/98	05/19/98	Chrysotile	80%
26	YES	1346-054	EXT	Misc, TRANSITE, Grey	05/11/98	05/19/98	Chrysotile	80%
27	NO	1346-055	R-100	Misc, CAULKING, White	05/11/98	05/19/98	No Asbestos Detected	0%
27	NO	1346-056	R-101	Misc, CAULKING, White	05/11/98	05/19/98	No Asbestos Detected	0%
27	YES	1346-057	R-105	Misc, CAULKING, White	05/11/98	05/19/98	Chrysotile	5%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1346**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
28	NO	1346-058	R-102	Misc, SEALER, Black	05/11/98	05/19/98	No Asbestos Detected	0%
28	NO	1346-059	R-107	Misc, SEALER, Black	05/11/98	05/19/98	No Asbestos Detected	0%
29	NO	1346-060	R-101	Misc, SEALER, Silver	05/11/98	05/19/98	No Asbestos Detected	0%
29	NO	1346-061	R-101	Misc, SEALER, Silver	05/11/98	05/19/98	No Asbestos Detected	0%
30	YES	1346-062	R-101	Misc, SEALER, Grey & black	05/11/98	05/19/98	Chrysotile	10%
30	YES	1346-063	R-103	Misc, SEALER, Grey & black	05/11/98	05/19/98	Chrysotile	10%
30	YES	1346-064	R-103	Misc, SEALER, Grey & black	05/11/98	05/19/98	Chrysotile	10%
31	NO	1346-065	R-102	Misc, ROOFING, Black w/tar & shingle	05/11/98	05/19/98	No Asbestos Detected	0%
31	NO	1346-066	R-102	Misc, ROOFING, Black w/tar & shingle	05/11/98	05/19/98	No Asbestos Detected	0%
32	NO	1346-067	R-104	Misc, ROOFING, Black w/felt	05/11/98	05/19/98	No Asbestos Detected	0%
32	NO	1346-068	R-104	Misc, ROOFING, Black w/felt	05/11/98	05/19/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

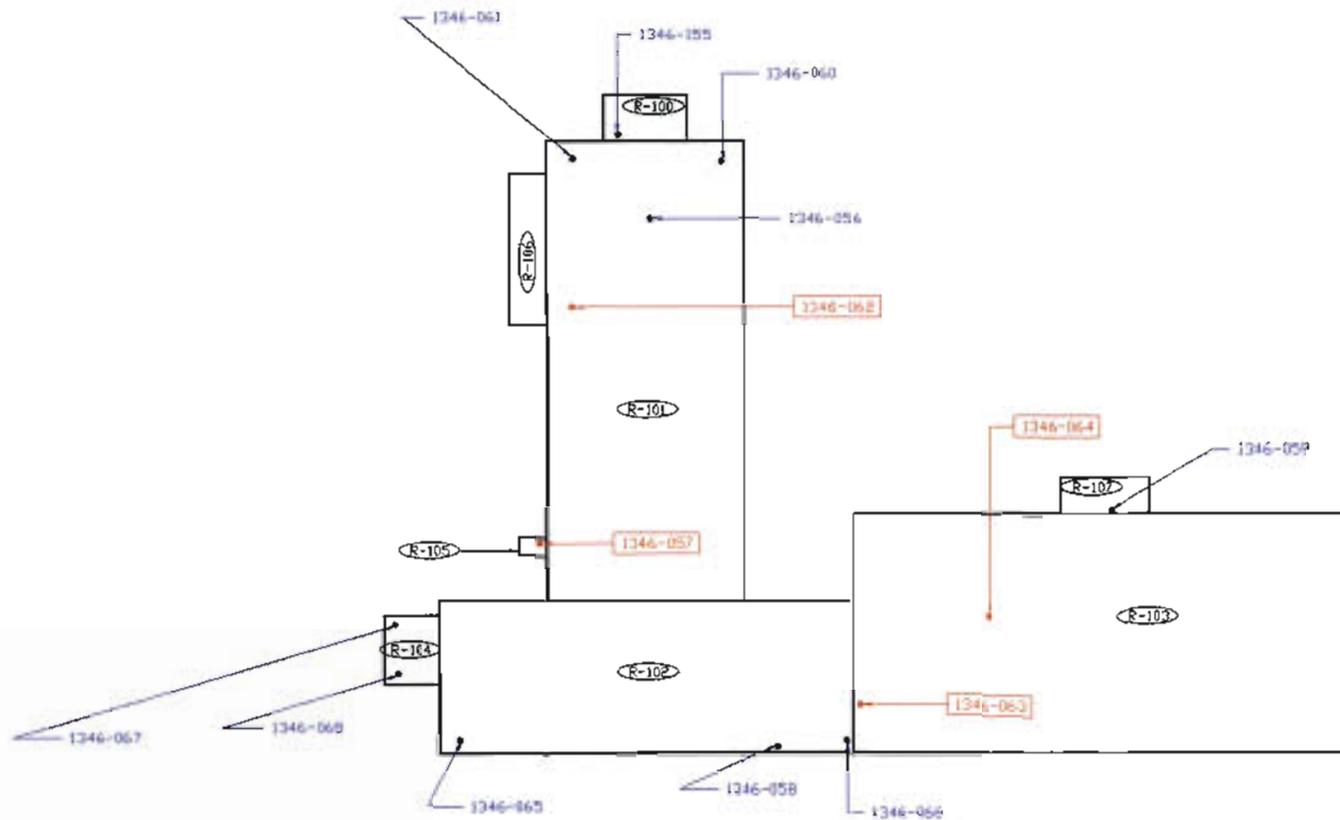
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rat-Ing	Fria-bility	Conditon	% D	Recommended Action
1346	07	Misc, CAULKING, Grey	24 LF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 100, 101								
1346	15	Misc, SHEET FLOORING, Tan w/brown marble & mastic	100 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 103								
1346	18	Misc, FLOOR TILE, 12" x 12", Tan w/brown & white marble & mastic	706 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 106, 107, 115, 117, H-100								
1346	19	Misc, FLOOR TILE, 12" x 12", Pea Green w/black & white marble & mastic	350 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 106, 107, 118								
1346	20	Misc, FLOOR TILE, 12" x 12", White w/grey streaks & mastic	170 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 108, 109								
1346	21	TSI, FITTING, CLOTH WRAPPED, White	105 LF	20	Low	Not Damaged	0.00	O&M
Locations: Rooms 108, 109, 110, 111								
1346	25	Misc, CAULKING, White	132 LF	10	Non	Not Damaged	0.00	Repair/O&M
Locations: Rooms EXT								
1346	26	Misc, TRANSITE, PANELS, Grey	104 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms EXT								
1346	27	Misc, CAULKING, White	346 LF	10	Non	Not Damaged	0.00	Repair/O&M
Locations: Rooms R-100, R-101, R-105, R-106								
1346	30	Misc, SEALER, Grey & black	50 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms R-101, R-103								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

(XX) - Indicates unique room number assigned by inspector

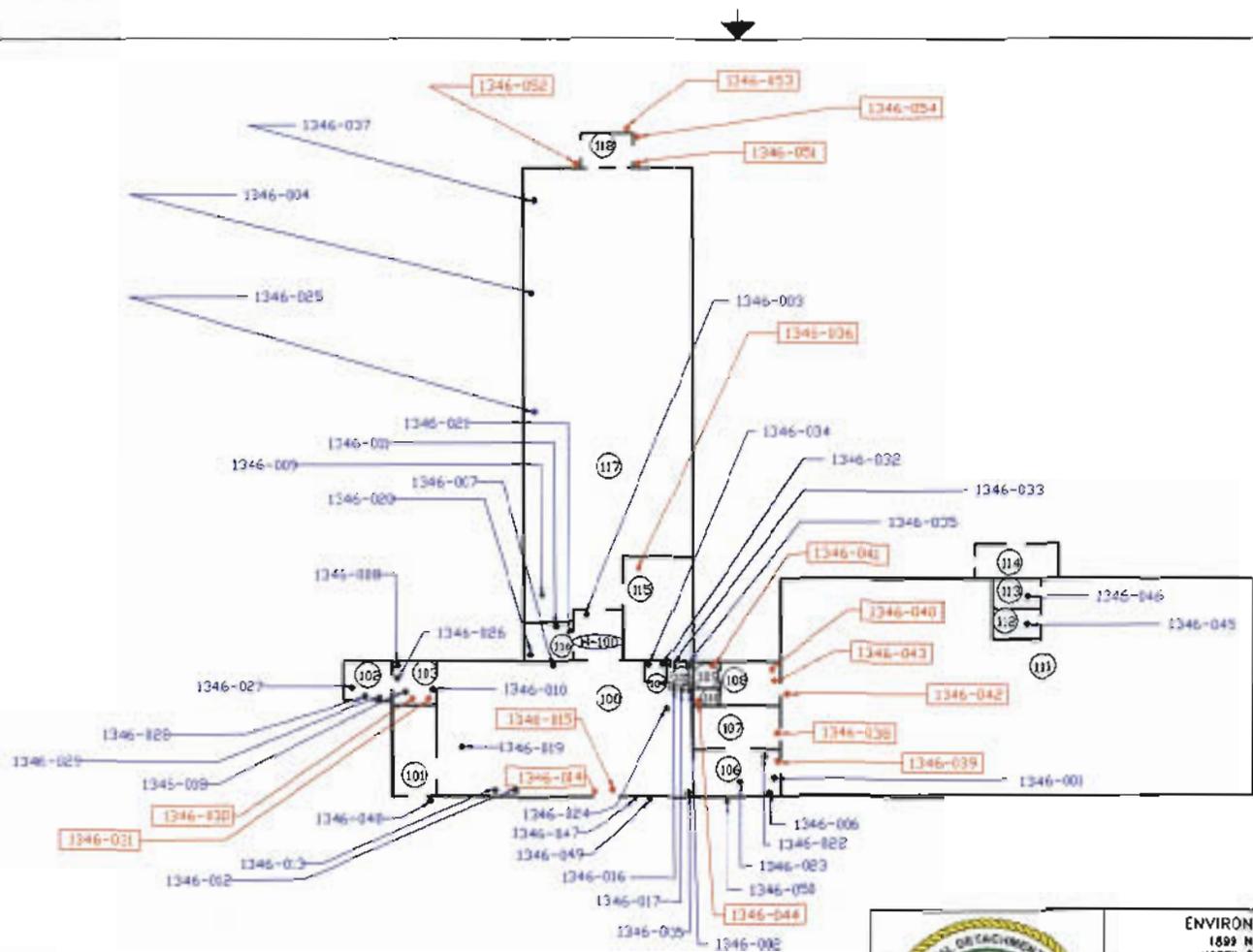
[Red Box] - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
 1899 NORTH HOBSON AVENUE - BUILDING 30  
 NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

**SAMPLE LOCATIONS**  
 BLDG 1346 (ROOF)  
 CHARLESTON NAVAL BASE, CHARLESTON SC

DATE 6-26-98	PREPARED BY R. JENKINS	REV ORIG
SCALE: NONE	SHEET 2 OF 2	



**LEGEND**

- (XXX) - Indicates unique room number assigned by inspector
- [Orange Box] - Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON 1899 NORTH HOBSON AVENUE - BUILDING 30 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108		
<b>SAMPLE LOCATIONS</b> BLDG 1346		
<b>CHARLESTON NAVAL BASE, CHARLESTON SC</b>		
DATE 6-26-98	PREPARED BY: R. JENKINS	REV DR/G
SCALE: NONE	SHEET 1 OF 2	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

**Building 1346**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$9,008	-	\$630	-	\$42,090
Material/equipment costs	\$3,603	-	\$415	-	\$12,300
Disposal costs	<u>\$1,201</u>	-	<u>\$252</u>	-	<u>\$24,042</u>
<b>Total cost</b>	<b>\$13,812</b>	<b>-</b>	<b>\$1,297</b>	<b>-</b>	<b>\$78,432</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$13,812, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$1,297 and the cost for demolition after asbestos removal is \$78,432.

## **BUILDING 1737: Restroom**

### **1. DESCRIPTION:**

Building 1737 is a 2,100 square-foot building. It is a single story, concrete block structure with red brick exterior and a built-up roof. The year built was 1970. The following information was identified during the survey and from the analysis of the samples taken:

- ◆ Ten homogeneous areas were identified during the initial survey.
- ◆ Zero homogeneous areas were assumed to contain asbestos.
- ◆ Ten of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- ◆ Five of the suspected homogeneous areas were confirmed to contain asbestos.
- ◆ Five of the suspected homogenous areas did not contain asbestos.

### **2. FINDINGS:**

Ten homogeneous areas with suspected ACM were identified. Twenty samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in two of the homogeneous areas.

**Confirmed ACM.** The following homogeneous areas sampled were confirmed to contain asbestos:

- ◆ H-3: TSI, FITTING, CLOTH WRAPPED, White, was Low-friable and Not Damaged.
- ◆ H-5: TSI, TANK, White, was Low-friable and Not Damaged.
- ◆ H-7: MISC, CAULKING, Grey, was Non-friable and Damaged.
- ◆ H-9: MISC, SEALER, Black w/green asphalt shingle, was Non-friable and Not Damaged.
- ◆ H-10: MISC, ROOFING, TAR AND GRAVEL, Black w/felt, was Non-friable and Not Damaged.

**Asbestos Free.** Asbestos was not detected in the following homogeneous areas:

- ◆ H-1: MISC, GROUT, CERAMIC TILE, 1" x 1", Grey
- ◆ H-2: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- ◆ H-4: TSI, PIPE, CLOTH WRAPPED, White
- ◆ H-6: MISC, MORTAR, BRICK, 3" x 3" x 11", Grey
- ◆ H-8: MISC, CAULKING, White

**Assumed ACM.** The following homogeneous areas were assumed to contain asbestos:

- ◆ None.

### **3. OBSERVATIONS:**

Other suspect ACM noted, but not sampled, includes valve packing and various piping systems/components gasket material.

### **4. RECOMMENDED ABATEMENT ACTIONS:**

Recommended actions for the following homogeneous areas:

- ◆ H-3: TSI, FITTING, White: O&M
- ◆ H-5: TSI, TANK, White: O&M
- ◆ H-7: MISC, CAULKING, Grey: Repair/O&M
- ◆ H-9: MISC, SEALER, Black w/green asphalt shingle: O&M
- ◆ H-10: MISC, ROOFING, Black w/felt: O&M

### **5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:**

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CAULKING is Confirmed, Non-friable ACM.

- ◆ H-7 (CAULKING, Grey) is located on the Exterior.

TSI FITTING is Confirmed, Low-friable ACM.

- ◆ H-3 (FITTING, White) is located in Rooms 100, 101, 102, 103.

MISC ROOFING is Confirmed, Non-friable ACM.

- ◆ H-10 (ROOFING, Black w/felt) is located on the Roof.

MISC SEALER is Confirmed, Non-friable ACM.

- ◆ H-9 (SEALER, Black w/green asphalt shingle) is located on the Roof.

TSI TANK is Confirmed, Low-friable ACM.

- ◆ H-5 (TANK, White) is located in Room 103.

**BUILDING SUMMARY TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**Building No. 1737**

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria- bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, GROUT, CERAMIC TILE, 1" x 1", Grey	1,822 SF	0						
		Rooms 100, 102								
2	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	4,320 SF	0						
		Rooms 100, 101, 102, 103								
3	Y	TSI, FITTING, CLOTH WRAPPED, White	429 LF	6	Low	PD	0.0	O&M		
		Rooms 100, 101, 102, 103								
4	N	TSI, PIPE, CLOTH WRAPPED, White	60 LF	0						
		Rooms 100, 101, 102								
5	Y	TSI, TANK, White	120 SF	6	Low	PD	0.0	O&M		
		Rooms 103								
6	N	Misc, MORTAR, BRICK, 3" x 3" x 11", Grey	1,818 SF	0						
		Rooms EXT								
7	Y	Misc, CAULKING, Grey	40 LF	4	Non	D	30.0	Repair/O&M		
		Rooms EXT								
8	N	Misc, CAULKING, White	40 LF	0						
		Rooms EXT								
9	Y	Misc, SEALER, Black w/green asphalt shingle	120 SF	3	Non	PD	0.0	O&M		
		Rooms ROOF								
10	Y	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,970 SF	3	Non	PD	0.0	O&M		
		Rooms ROOF								

Note: Cost estimates are found in the Building Summary section of each building.

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

**LABORATORY TEST  
RESULTS TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY  
INDUSTRIAL LABORATORY TEST REPORT**

**Building No. 1737**

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1737-001	100	Misc, GROUT, 1" x 1", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
1	NO	1737-002	102	Misc, GROUT, 1" x 1", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
2	NO	1737-003	100	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
2	NO	1737-004	101	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
3	YES	1737-005	100	TSI, FITTING, White	05/06/98	05/11/98	Amosite	2%
3	YES	1737-006	102	TSI, FITTING, White	05/06/98	05/11/98	Amosite	2%
4	NO	1737-007	100	TSI, PIPE, White	05/06/98	05/11/98	No Asbestos Detected	0%
4	NO	1737-008	102	TSI, PIPE, White	05/06/98	05/11/98	No Asbestos Detected	0%
5	NO	1737-009	103	TSI, TANK, White	05/06/98	05/11/98	No Asbestos Detected	0%
5	YES	1737-010	103	TSI, TANK, White	05/06/98	05/11/98	Amosite	15%
6	NO	1737-011	EXT	Misc, MORTAR, 3" x 3" x 11", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
6	NO	1737-012	EXT	Misc, MORTAR, 3" x 3" x 11", Grey	05/06/98	05/11/98	No Asbestos Detected	0%
7	YES	1737-013	EXT	Misc, CAULKING, Grey	05/06/98	05/11/98	Chrysotile	2%
7	YES	1737-014	EXT	Misc, CAULKING, Grey	05/06/98	05/11/98	Chrysotile	2%
8	NO	1737-015	EXT	Misc, CAULKING, White	05/06/98	05/11/98	No Asbestos Detected	0%
8	NO	1737-016	EXT	Misc, CAULKING, White	05/06/98	05/11/98	No Asbestos Detected	0%
9	YES	1737-017	ROOF	Misc, SEALER, Black w/green asphalt shingle	05/06/98	05/11/98	Chrysotile	25%
9	YES	1737-018	ROOF	Misc, SEALER, Black w/green asphalt shingle	05/06/98	05/11/98	Chrysotile	25%
10	YES	1737-019	ROOF	Misc, ROOFING, Black w/felt	05/06/98	05/11/98	Chrysotile	2%
10	YES	1737-020	ROOF	Misc, ROOFING, Black w/felt	05/06/98	05/11/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

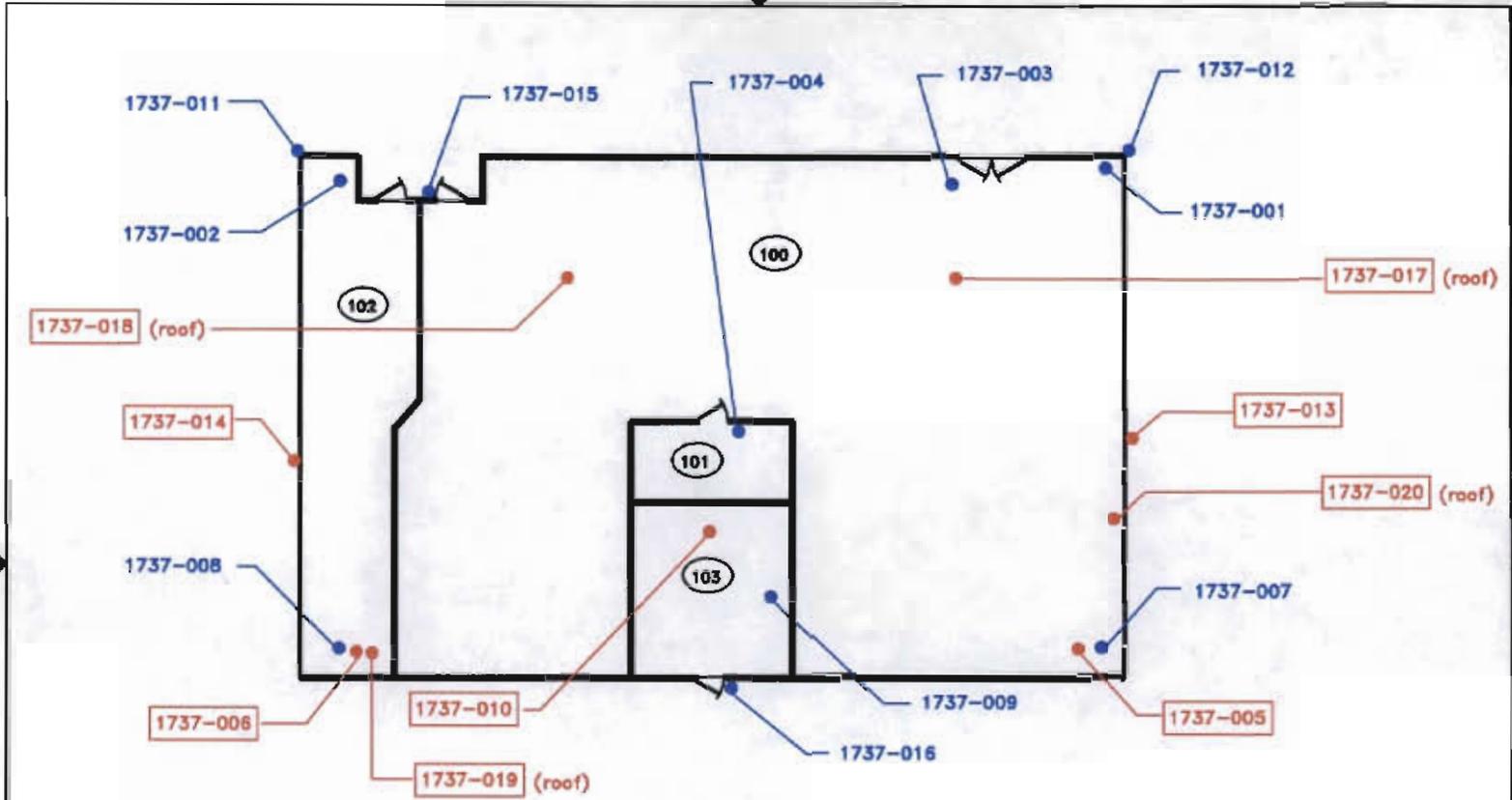
**OPERATIONS AND  
MAINTENANCE TABLE**

**CHARLESTON NAVAL COMPLEX  
ASBESTOS BUILDING SURVEY**

**O&M**

Bldg. No.	Homo No.	Material Description	Quantity	Rating	Friability	Condition	% D	Recommended Action
1737	3	TSI, FITTING, CLOTH WRAPPED, White	429 LF	6	Low	Not Damaged	0.00	O&M
Locations: Rooms 100, 101, 102, 103								
1737	5	TSI, TANK, White	120 SF	6	Low	Not Damaged	0.00	O&M
Locations: Rooms 103								
1737	7	Misc, CAULKING, Grey	40 LF	4	Non	Damaged	30.00	Repair/O&M
Locations: Rooms EXT								
1737	9	Misc, SEALER, Black w/green asphalt shingle	120 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
1737	10	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,970 SF	3	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures.



**LEGEND**

⊙ — Indicates unique room number assigned by inspector

ⓧ — Indicates sample locations which tested positive for asbestos



ENVIRONMENTAL DETACHMENT CHARLESTON  
 1899 NORTH HOBSON AVENUE - BUILDING 30  
 NORTH CHARLESTON, SOUTH CAROLINA 29405-2108

**SAMPLE LOCATIONS**  
**BUILDING 1737**  
**CHARLESTON NAVAL BASE, CHARLESTON, SC**

DATE 6-8-98	PREPARED BY: B.D. MURRAY	REV ORIG
SCALE: NONE	SHEET 1 of 1	

Charleston Naval Complex  
Asbestos Abatement & Demolition Estimates

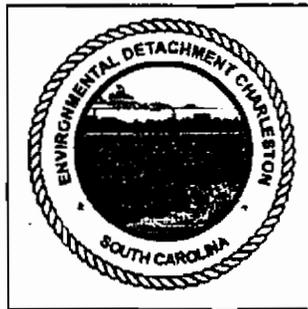
**Building 1737**

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	<u>Total Removal</u>		<u>Repair</u>		<u>Demolition</u>
Labor costs	\$24,310	-	\$3,354	-	\$6,877
Material/equipment costs	\$8,809	-	\$1,777	-	\$1,896
Disposal costs	<u>\$3,646</u>	-	<u>\$1,342</u>	-	<u>\$3,630</u>
<b>Total cost</b>	<b>\$36,765</b>	-	<b>\$6,473</b>	-	<b>\$12,403</b>

The total cost for removal of all asbestos listed in the Building Summary Table is \$36,765, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is \$6,473 and the cost for demolition after asbestos removal is \$12,403.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-27 DATE: 4/28/98

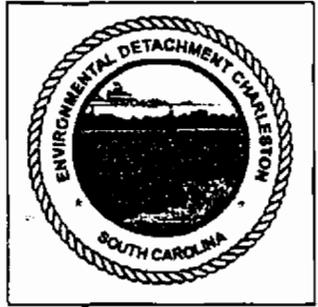
INSPECTORS NAMES: BUTLER / ~~CHAFFIN~~ RB  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS 27 - 001	1	Rm-100	Floor Tile * (2 mastics)	TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-NS 27 - 002	1	Rm-102	FLOOR TILE	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS 27 - 003	2	Rm-101	Sheetrock w/ mud & tape vinyl wallcover	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 004	2	Rm-102	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 005	3	Rm-105	ceiling Tile	NONE.
Environmental Detachment Charleston, SC CNC-NS 27 - 006	3	Rm-106	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 007	4	Rm-100 <del>11-100</del> RB	ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 008	4	Rm-101	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 009	5	Rm-105	Cinder Block Mortar	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 010	5	Rm-109	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 011	6	Rm-103	Car. Tile Grout 1" x 1"	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 012	6	Rm-103	↓	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS SHEET 1 OF 3 FREE ON THE BASIS OF PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

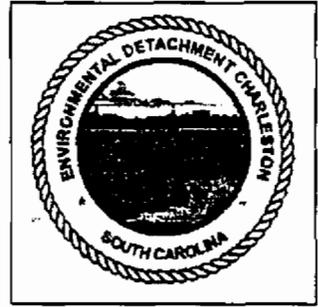
BUILDING #: NS-27 DATE: 4/28/98

INSPECTORS NAMES: BUTLER / ~~SHARPE~~ RB  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS 27 - 013	7	Rm-103	Brn. Ceiling Mastic	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 014	7	Rm-103	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 015	8	Rm-103	Black Ceiling Mastic	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 016	8	Rm-108	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 017	9	Rm-108	Sheetrock w/ mud tape	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 018	9	Rm-107	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 019	10	Rm-110	Car. Tile Grout 2"x2"	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 020	10	Rm-110	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 021	11	Rm-110	Car. Tile Grout 4"x4"	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 022	11	Rm-110	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 023	12	EXT	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 024	12	EXT	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

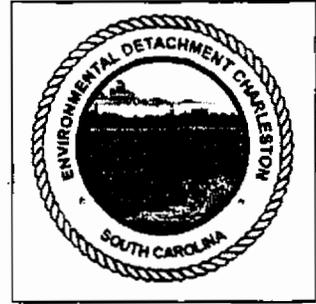
BUILDING #: NS-27 DATE: 4/28/98

INSPECTORS NAMES: BUTLER / ~~SHAPLIN~~ RB  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS 27 - 025	13	ROOF	Tar & Felt	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 026	13	ROOF	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 027	14	ROOF	Roof Patch	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 028	14	ROOF	↓	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 029	15	ROOF	Black Cat Sealer	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS 27 - 030	15	ROOF	Black Cat	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS 27 - 031	16	ROOF	Felt & Mastic	NONE
Environmental Detachment Charleston, SC CNC-NS 27 - 032	16	ROOF	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: X-5A DATE: 5/14/98

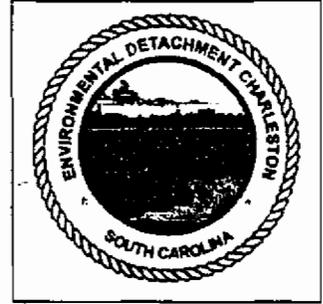
INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-X54 - 001	1	Room 100	Blue 12"x12" Floor Tile w/mastic	* TILE NOT DETERMINED → NONE
Environmental Detachment Charleston, SC CNC-X54 - 002	1	Rm 101 <del>Rm 102</del>	↓ MASTIC	* TILE NOT DETERMINED → NONE
Environmental Detachment Charleston, SC CNC-X54 - 003	2	Rm 100	Black Ceiling w/ yellow mastic	NONE
Environmental Detachment Charleston, SC CNC-X54 - 004	2	Rm H-100	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 005	3	Rm-100	Sheetrock w/ wall covering	NONE
Environmental Detachment Charleston, SC CNC-X54 - 006	3	Rm-105	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 007	3	Rm-108	Sheetrock w/ wall covering	NONE
Environmental Detachment Charleston, SC CNC-X54 - 008	4	Rm-111	Sheetrock w/ med tape	NONE
Environmental Detachment Charleston, SC CNC-X54 - 009	4	Rm-10A	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 010	4	Rm-109	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 011	5	Rm - 100	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-X54 - 012	5	Rm- H-101	↓	NONE

\* FLOOR TILE CANNOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM, SHEET 1 OF 5

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: X-5A DATE: 5/14/98

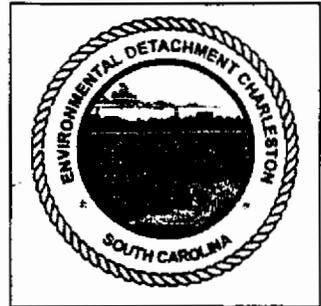
INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-X54 - 013	6	Rm-100	ceiling tile	NONE
Environmental Detachment Charleston, SC CNC-X54 - 014	6	Rm H-101	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 015	7	Rm-110	Transite Panel	80% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 016	7	EXT.	TRANSITE PANEL	80% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 017	8	Rm 101	conc. Block Mortar	NONE
Environmental Detachment Charleston, SC CNC-X54 - 018	8	Rm H101	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 019	9	Rm-101	vent duct Black Mastic	3% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 020	9	Rm 101	BLACK mastic ↓	3% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 021	10	Rm 102	Brown Ceiling w/ tan Mastic	NONE
Environmental Detachment Charleston, SC CNC-X54 - 022	10	Rm 103	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 023	11	Rm-102	Brown 12"x12" Floor Tile w/ mastic	* TILE NOT DETERMINED → NONE
Environmental Detachment Charleston, SC CNC-X54 - 024	11	Rm-107	↓ MASTIC	* TILE NOT DETERMINED → NONE

\* FLOOR TILE CANNOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM. SHEET 2 OF 5

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: X-54 DATE: 5/14/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-X54 - 025	12	Rm-103	Gray 12"x12" Floor Tile w/mastic	>1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 026	12	Rm-103	FLOOR TILE w/mastic	>1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 027	13	Rm-111	white Caulking	NONE
Environmental Detachment Charleston, SC CNC-X54 - 028	13	Rm-111	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 029	14	Rm-109	Cream 12"x12" Floor Tile w/mastic	* TILE NOT DETERMINED → NONE
Environmental Detachment Charleston, SC CNC-X54 - 030	14	Rm-109	↓	* TILE NOT DETERMINED
Environmental Detachment Charleston, SC CNC-X54 - 031	15	Rm-107	TST	10% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-X54 - 032	15	Rm-110	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 033	15	Rm-110	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 034	16	Rm-110	Vent Duct Tape	NONE
Environmental Detachment Charleston, SC CNC-X54 - 035	16	Rm-110	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 036	18	Rm-111	Grout 2"x2" Cor. Tile	NONE

\* FLOOR TILE CANNOT Be DETERMINED To Be ASBESTOS FREE  
ON The BASIS OF PLM. SHEET 3 OF 5

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: X-54 DATE: 5/14/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-X54 - 037	18	Rm-111	Grout 2"x2" Cer. Tile	NONE
Environmental Detachment Charleston, SC CNC-X54 - 038	19	Rm-111	Grout 6"x6" Quarry Tile	NONE
Environmental Detachment Charleston, SC CNC-X54 - 039	19	Rm-111	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 040	20	Rm-111	Grout 4"x4" Cer. Tile	NONE
Environmental Detachment Charleston, SC CNC-X54 - 041	20	Rm-111	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 042	21	<del>EXT</del> R-100	Tar & Felt	NONE
Environmental Detachment Charleston, SC CNC-X54 - 043	21	<del>EXT</del> R-100	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 044	22	<del>EXT</del> R-101	Shingle & Felt	NONE
Environmental Detachment Charleston, SC CNC-X54 - 045	22	<del>EXT</del> R-101	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 046	23	EXT	Non-skid	NONE
Environmental Detachment Charleston, SC CNC-X54 - 047	23	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-X54 - 048	<del>23</del> 24	EXT	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

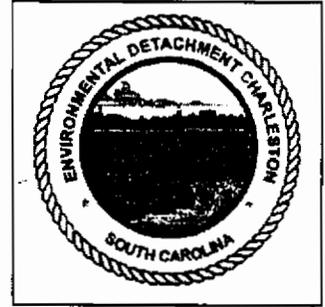
BUILDING #: X-5A DATE: 5/14/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-X54 - 049	23 <del>24</del>	EXT	non-skid	None
Environmental Detachment Charleston, SC CNC-X54 - 050	23	EXT	↓	None
Environmental Detachment Charleston, SC CNC-X54 - 051	23	EXT		None
Environmental Detachment Charleston, SC CNC-X54 - 052	23	EXT		None
Environmental Detachment Charleston, SC CNC-X54 - 053	24	EXT		Red Brick Mortar
Environmental Detachment Charleston, SC CNC-X54 - 054	24	EXT	↓	None

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-84 DATE: 5/15/98

INSPECTORS NAMES: BUTLER/ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 001	1	E-001	Floor Tile 12"x12" Cream w/ mastic	*TILE NOT DeTERMINED
Environmental Detachment Charleston, SC CNC-NS84 - 002	1	Rm-106	↓	*TILE NOT DeTERMINED
Environmental Detachment Charleston, SC CNC-NS84 - 003	2	E-001	Floor Tile 12"x12" wood Grain Peel & Stick	*TILE NOT DeTERMINED
Environmental Detachment Charleston, SC CNC-NS84 - 004	2	Rm-102	↓	*TILE NOT DeTERMINED
Environmental Detachment Charleston, SC CNC-NS84 - 005	3	E-001	Floor Tile 12"x12" Peel Grain w/ <u>mastic</u>	*TILE: NOT deTERMINED > 1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-NS84 - 006	3	Rm-105	↓ <u>MASTIC</u>	*TILE: NOT deTERMINED > 1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-NS84 - 007	4	Rm 102 <del>E-001</del>	Sheetrock w/ mud & tape	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 008	4	Rm 105	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 009	4	Rm 102	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 010	5	E-001	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 011	5	E-001	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 012	6	Rm-100	Vent Duct Silver Tape Mastic	NONE

\* FLOOR TILE CANNOT BE DETERMINED TO BE ASBESTOS FREE  
ON THE BASIS OF PLM. SHEET 1 OF 6

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-8A DATE: 5/15/98

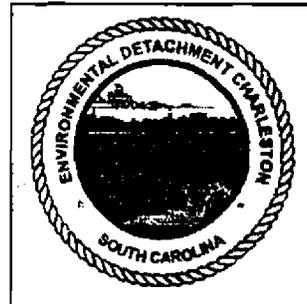
INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 013	6	Rm-100	Vent Duct Silver Tape Mastic	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 014	7	Rm 112	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 015	7	Rm 112		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 016	8	Rm-102		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 017	8	Rm 112		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 018	9	Rm-102		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 019	9	Rm-102		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 020	10	Rm 102		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 021	10	Rm 114		NONE
Environmental Detachment Charleston, SC CNC-NS84 - 022	11	Rm-102	Floor Tile 12"x12" Chocolate w/ Mastic	* TILE NOT DETERMINED > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 023	11	Rm-111		* TILE NOT DETERMINED > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 024	12	Rm-102	Floor Tile 9"x9" Tan w/ Mastic	* TILE: NOT DETERMINED > 1% CHRYSOTILE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM. SHEET 2 OF 6

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-8A DATE: 5/15/98

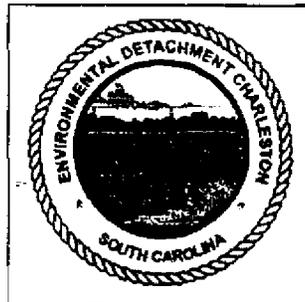
INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 025	12	Rm-102	Floor Tile 9"x9" Tile w/ <u>mastic</u>	* TILE: NOT DETERMINED > 1% CHRYSO. TILE
Environmental Detachment Charleston, SC CNC-NS84 - 026	13	Rm 102	Brn. Ceiling w/ yellow mastic	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 027	13	Rm 102	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 028	14	Rm-111 <del>Rm 106</del>	Concr. Block Mortar	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 029	14	<del>EXT. RM</del> <del>Rm 102</del> 106	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 030	15	Rm-103	Floor Tile 12"x12" Tile w/ <u>mastic</u> ( <u>mastic on concrete</u> )	* TILE NOT DETERMINED CHRYSO. > 1%
Environmental Detachment Charleston, SC CNC-NS84 - 031	15	Rm-104	↓ <u>MASTIC ON CONCRETE</u>	* TILE NOT DETERMINED CHRYSO. TILE > 1%
Environmental Detachment Charleston, SC CNC-NS84 - 032	16	Rm-106	wallboard	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 033	16	Rm-106	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 034	17	Rm 107	1"x1", 1"x2", 2"x2" Cer. Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 035	17	Rm 107	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 036	18	Rm-107	4"x4" Cer. Tile Grout	NONE

\* FLOOR TILE CANNOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM, SHEET 3 OF 6

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-84 DATE: 5/15/98

INSPECTORS NAMES: BUTLER/ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 037	18	Rm 107	4' x 4' Cer. Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 038	19	E-002	Blk. Ceiling w/ yellow mastic	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 039	19	Rm-116	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 040	20	Rm-112	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 041	20	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 042	21	Rm 115	Floor-Tile 9"x9" Gray w/ <u>mastic</u>	*TILE: NOT determined 3% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 043	21	Rm 115	↓ <u>mastic</u>	*TILE: NOT determined 3% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 044	22	Rm 115	Floor-Tile 12"x12" Beige w/ <u>mastic</u>	*TILE: NOT determined >1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 045	22	Rm 115	↓ <u>mastic</u>	*TILE: NOT determined >1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 046	23	Rm-115	Vibration Joint	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 047	23	Rm-115	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 048	24	Rm 117	Sound Dampening	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM SHEET 4 OF 6

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

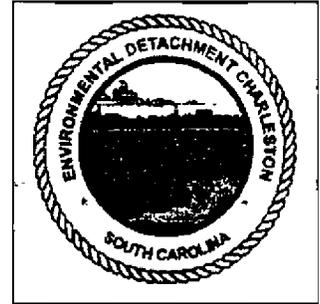
BUILDING #: NS-8A DATE: 5/15/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 049	2A	Rm 117	Sound Dampening	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 050	25	EXT.	White Caulking	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 051	25	EXT.	CAULKING WHITE	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 052	26	EXT.	Grey Caulking	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 053	26	EXT.	CAULKING GREY	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NS84 - 054	27	EXT.	Yellowish Mortar Caulking	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 055	27	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 056	28	EXT.	Yellowish Caulking	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 057	28	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 058	29	EXT.	Black Felt	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 059	29	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 060	30	R-100	Black Felt & Black Lat Sealant	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: NS-84 DATE: 5/15/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NS84 - 061	30	R-102	Black Felt & Black Cut Sealer	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 062	31	R-100	Silver Sealer	>1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-NS84 - 063	31	R-101	SILVER SEALER	>1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-NS84 - 064	32	R-100	Black & Gray Sealer	3% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-NS84 - 065	32	R-102	Black & Gray Sealer	3% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-NS84 - 066	33	R-100	Black Tar-a-Felt	NONE
Environmental Detachment Charleston, SC CNC-NS84 - 067	33	R-101	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 180 DATE: 4/6/98

INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 001	1	EXT.	Conc. Blk. Mortar	NONE
Environmental Detachment Charleston, SC CNC-180 - 002	1	Rm-106	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 003	2	Rm-207	Plaster	NONE
Environmental Detachment Charleston, SC CNC-180 - 004	2	Rm-208	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 005	3	Rm-106	Beige 12"x12" Floor Tile w/ mastic	* TILE NOT DETERMINED NONE
Environmental Detachment Charleston, SC CNC-180 - 006	3	↓	↓ MASTIC	* TILE NOT DETERMINED NONE
Environmental Detachment Charleston, SC CNC-180 - 007	4	Rm-213	Brown Coving Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 008	4	Rm-215	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 009	5	Rm-103	Yellow/Brn Caulking	> 1% ACTINOLITE CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 010	5	Rm-112	CAULKING	> 1% ACTINOLITE
Environmental Detachment Charleston, SC CNC-180 - 011	6	EXT.	white Caulking	NONE
Environmental Detachment Charleston, SC CNC-180 - 012	6	↓	↓	NONE

\* FLOOR TILE CANNOT be Determined to Be asbestos-free ON THE BASIS OF PLM. SHEET 1 OF 7

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 180 DATE: 4/6/98

INSPECTORS NAMES: BUTLER / MAY

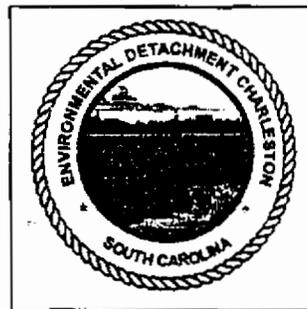
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 013	7	H-101	Dark Brown 9"x9" Floor Tile w/ mastic	>1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-180 - 014	7	Rm-218	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 015	8	Rm-106	Black Coving Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 016	8	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 017	9	↓	(TSI) PIPING	Amosite 40% Chrysotile 10%
Environmental Detachment Charleston, SC CNC-180 - 018	9	↓	(TSI) ↓	Amosite 40% Chrysotile 10%
Environmental Detachment Charleston, SC CNC-180 - 019	10	↓	Cone. Blk. Mortar	NONE
Environmental Detachment Charleston, SC CNC-180 - 020	10	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 021	11	Rm-108	Terrazzo	NONE
Environmental Detachment Charleston, SC CNC-180 - 022	11	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 023	12	↓	Ceiling Tile 2'x2'	NONE
Environmental Detachment Charleston, SC CNC-180 - 024	12	↓	↓	NONE

FLOR  
\* TILE CAN NOT BE DETERMINED  
TO BE ASBESTOS FREE ON SHEET 2 OF 7  
THE BASIS OF PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 180 DATE: 4/6/98

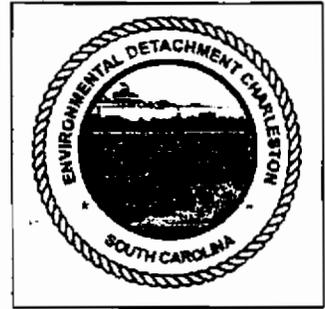
INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: S. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 025	13	Rm-111	Grey Cer. Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-180 - 026	13	Rm-201	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 027	1A	Rm-110	Cream Cer. Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-180 - 028	1A	Rm-205	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 029	15	Rm-103	TSI Fittings	NONE.
Environmental Detachment Charleston, SC CNC-180 - 030	15	Rm-104	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 031	16	Rm-113	Sheetrock w/mudtape	NONE
Environmental Detachment Charleston, SC CNC-180 - 032	16	Rm-218	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 033	17	Rm-115	Quarry Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-180 - 034	17	Rm-121	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 035	18	Rm-119	Cream 12"x12" Floor Tile w/mastic	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 036	18	↓	↓	* TILE: NOT DETERMINED

\* Floor Tile can not be determined to be asbestos free on the basis of PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 180 DATE: 2/6/98

INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 037	19	Rm-119	Red Rubber Mat Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 038	19	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 039	20	Rm-125	Black Rubber Mat Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 040	20	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 041	21	M-102	Vib. joint	NONE.
Environmental Detachment Charleston, SC CNC-180 - 042	21	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 043	22	Rm-219	Vent Duct Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 044	22	M-102 <del>M-102</del>	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 045	23	M-102	Green / Black Vent Duct Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 046	23	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 047	2A	Rm-202	12" x 12" Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-180 - 048	2A	Rm-20A	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 180 DATE: 4/6/98

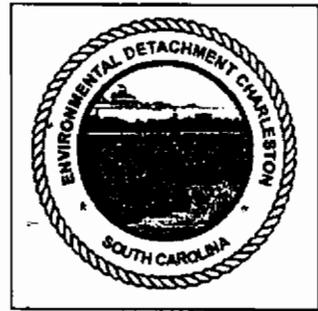
INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 049	25	H-201	white 12"x12" Floor Tile w/mastic	TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 050	25	H-202	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 051	26	Rm-201	Blue Cer Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-180 - 052	26	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 053	27	Rm-207	2'x2' Ceiling Tile	NONE.
Environmental Detachment Charleston, SC CNC-180 - 054	27	Rm-208	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 055	28	Rm-209	Sheetrock w/vinyl wall covering	NONE
Environmental Detachment Charleston, SC CNC-180 - 056	28	Rm-211	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 057	29	Rm-218	lt. brown 9"x9" Floor Tile w/mastic	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 058	29	↓	FLOOR TILE	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 059	30	S-002	Stairway Tread Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 060	30	↓	↓	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

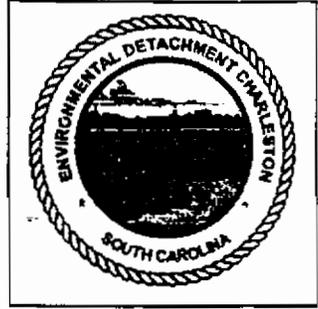
BUILDING #: 180 DATE: 4/6/98

INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 061	31	S-002	white 12"x12" Floor Tile w/ mastic	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 062	31	↓	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-180 - 063	32	EXT.	Window Glazing	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 064	32	↓	↓ Glazing	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 065	33	↓	Wall Patch	NONE
Environmental Detachment Charleston, SC CNC-180 - 066	33	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 067	3A	ROOF	Sealer	3% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 068	3A	↓	↓ Sealer	3% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-180 - 069	35	↓	Tar & Felt	NONE
Environmental Detachment Charleston, SC CNC-180 - 070	35	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 071	36	↓	Shingle & Felt	NONE
Environmental Detachment Charleston, SC CNC-180 - 072	36	↓	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

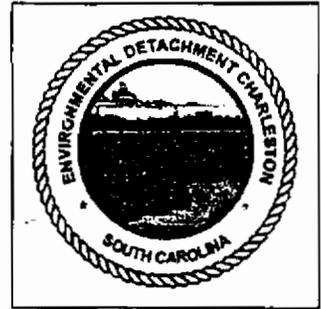
BUILDING #: 180 DATE: 4/6/98

INSPECTORS NAMES: BUTLER / MAY  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-180 - 073	37	C-100	TSI Fitting	NONE
Environmental Detachment Charleston, SC CNC-180 - 074	37		↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 075	38		Black Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 076	38		↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 077	39		Soil	NONE
Environmental Detachment Charleston, SC CNC-180 - 078	39		↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 079	40		Debris	>1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-180 - 080	40	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 081	41	Rm-112	Foam Mastic	NONE
Environmental Detachment Charleston, SC CNC-180 - 082	41	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-180 - 083	42	Rm-112	Vib. Jt.	NONE
Environmental Detachment Charleston, SC CNC-180 - 084	42	↓	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

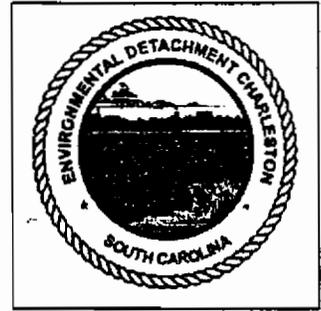
BUILDING #: 290 DATE: 4/29/98

INSPECTORS NAMES: BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-290 - 001	1	Rm-100	Conc. Block Mortar	NONE
Environmental Detachment Charleston, SC CNC-290 - 002	1	Rm-101	↓	NONE
Environmental Detachment Charleston, SC CNC-290 - 003	3	Rm-100	Interior Door Caulking	NONE
Environmental Detachment Charleston, SC CNC-290 - 004	3	Rm-101	↓	NONE
Environmental Detachment Charleston, SC CNC-290 - 005	4	EXT.	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-290 - 006	4	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-290 - 007	5	EXT.	Exterior Door Caulking	NONE
Environmental Detachment Charleston, SC CNC-290 - 008	5	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-290 - 009	6	ROOF	BLACK MASTIC Gray Sealer	> 1% CHRYSOITILE
Environmental Detachment Charleston, SC CNC-290 - 010	6	ROOF	BLACK MASTIC	> 1% CHRYSOITILE
Environmental Detachment Charleston, SC CNC-290 - 011	7	ROOF	BLACK Roof Caulking	20% CHRYSOITILE
Environmental Detachment Charleston, SC CNC-290 - 012	7	ROOF	BLACK CAULKING	20% CHRYSOITILE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

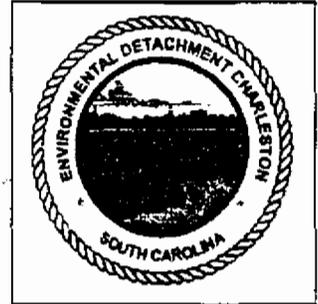
BUILDING #: 290 DATE: 4/29/98

INSPECTORS NAMES: BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-290 - 013	8	ROOF	Black Cat & Felt	20% CHRYSO TIL E
Environmental Detachment Charleston, SC CNC-290 - 014	8	ROOF	BLACK CAT	20% CHRYSO TIL E
Environmental Detachment Charleston, SC CNC-290 - 015	9	ROOF	Tar & Felt	25% CHRYSO TIL E
Environmental Detachment Charleston, SC CNC-290 - 016	9	ROOF	TAR	25% CHRYSO TIL E
Environmental Detachment Charleston, SC CNC-290 - 017	10	C-100	conc. Black Sealer BLACK	>1% CHRYSO TIL E
Environmental Detachment Charleston, SC CNC-290 - 018	10	C-100	SEALER BLACK	>1% CHRYSO TIL E

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 641 DATE: 5/7/98

INSPECTORS NAMES: BUTLER/NEELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-641 - 001	1	Rm-100	white 12"x12" Floor Tile (Mastic)	* TILE: NOT DETERMINED >1% CHRYSO TIL
Environmental Detachment Charleston, SC CNC-641 - 002	1	H-100	↓ (Mastic)	* TILE: NOT DETERMINED >1% CHRYSO TIL
Environmental Detachment Charleston, SC CNC-641 - 003	2	Rm-118	Cream 12"x12" Floor Tile	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-641 - 004	2	H-100	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-641 - 005	3	Rm-100	Black Ceiling Mastic	NONE
Environmental Detachment Charleston, SC CNC-641 - 006	3	Rm-105	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 007	4	H-100	Sheetrock w/ mud tape	NONE
Environmental Detachment Charleston, SC CNC-641 - 008	4	Rm-120	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 009	5	H-100	stairtread Mastic	NONE
Environmental Detachment Charleston, SC CNC-641 - 010	5	H-100	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 011	6	Rm-115	Ceiling Tile Long Groove	NONE
Environmental Detachment Charleston, SC CNC-641 - 012	6	Rm-118	↓	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS. SHEET 1 OF 4  
FREE ON THE BASIS OF  
DLM

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 6A1 DATE: 5/7/98

INSPECTORS NAMES: BUTLER / NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-641 - 013	7	Rm-116	Ceiling Tile short Groove	NONE
Environmental Detachment Charleston, SC CNC-641 - 014	7	Rm-123	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 015	8	Rm-125	Ceiling Tile Minute	NONE
Environmental Detachment Charleston, SC CNC-641 - 016	8	Rm-127	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 017	9	Rm-112	Brn. Ceiling Mastic	NONE
Environmental Detachment Charleston, SC CNC-641 - 018	9	Rm-101	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 019	10	Rm-128	Conc. Blk. Mortar	NONE
Environmental Detachment Charleston, SC CNC-641 - 020	10	Rm-120	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 021	11	Rm-108	Cer. Tile 2" x 2" Grout	NONE
Environmental Detachment Charleston, SC CNC-641 - 022	11	Rm-108	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 023	12	Rm-108	Cer. Tile 4" x 6" Grout	NONE
Environmental Detachment Charleston, SC CNC-641 - 024	12	Rm-108	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 641 DATE: 5/7/98

INSPECTORS NAMES: BUTLER/NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-641 - 025	13	Rm-108	Caulking	NONE
Environmental Detachment Charleston, SC CNC-641 - 026	13	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 027	14	Rm-123	Blue 12"x12" Floor Tile	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-641 - 028	14	H-103	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-641 - 029	15	EXT	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-641 - 030	15	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 031	16	Rm-128	TSE fitting	NONE
Environmental Detachment Charleston, SC CNC-641 - 032	16	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 033	17	Rm-128	TSE piping	NONE
Environmental Detachment Charleston, SC CNC-641 - 034	17	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 035	18	Rm-128	Gray Joint Duct Mastix	NONE
Environmental Detachment Charleston, SC CNC-641 - 036	18	Rm-128	↓	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS-FREE ON THE BASIS OF FILM. SHEET 3 OF A

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 641 DATE: 5/7/98

INSPECTORS NAMES: BUTLER / NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-641 - 037	19	Rm-128	Brown Vent Duct Mastic	NONE
Environmental Detachment Charleston, SC CNC-641 - 038	19	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 039	20	Rm-128	white Vent Duct Mastic	NONE
Environmental Detachment Charleston, SC CNC-641 - 040	20	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 041	21	Rm-128	Vib. Joint	NONE
Environmental Detachment Charleston, SC CNC-641 - 042	21	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 043	22	Rm-128	Vent Duct Silver Tape	NONE
Environmental Detachment Charleston, SC CNC-641 - 044	22	Rm-128	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 045	23	EXT.	Window Glazing	NONE
Environmental Detachment Charleston, SC CNC-641 - 046	23	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-641 - 047	2A	Roof	Silver Sealer	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-641 - 048	2A	Roof	SILVER Sealer	>1% CHRYSOTILE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 67A DATE: 5/8/98

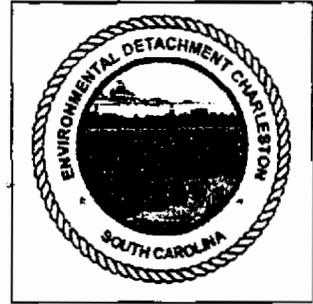
INSPECTORS NAMES: BUTLER/NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-674 - 001	1	Rm - 100	Black Coving Mastic	NONE
Environmental Detachment Charleston, SC CNC-674 - 002	1	Rm - 101	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 003	2	Rm - 101	Sheetrock w/mudtape	NONE
Environmental Detachment Charleston, SC CNC-674 - 004	2	Rm - 102	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 005	3	Rm - 111	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-674 - 006	3	Rm - 112	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 007	4	Rm - 103	Car. Tile Grout 1"x1"	NONE
Environmental Detachment Charleston, SC CNC-674 - 008	4	Rm - 104	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 009	5	Rm - 103	Car. Tile Grout 4"x4"	NONE
Environmental Detachment Charleston, SC CNC-674 - 010	5	Rm - <del>103</del> 10A 100RB	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 011	6	Rm - 105	Green 12"x12" Floor Tile	TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-674 - 012	6	Rm - 108	↓	* TILE: NOT DETERMINED

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF SLM

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 67A DATE: 5/8/98

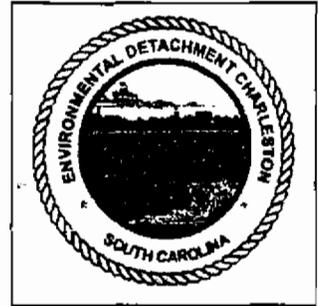
INSPECTORS NAMES: BUTLER/NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
CNC-674 - 013	7	Rm-106	Brown Ceiling Mastic	NONE
CNC-674 - 014	7	Rm-107	↓	NONE
CNC-674 - 015	8	Rm-100	PINKISH SINK WHITE undercoating	3% CHRYSO TILE
CNC-674 - 016	8	Rm-100	FINISH WHITE	3% CHRYSO TILE
CNC-674 - 017	9	Rm-110	white 12"x12" Floor Tile *	TILE: NOT DETERMINED
CNC-674 - 018	9	Rm-110	↓ *	TILE: NOT DETERMINED
CNC-674 - 019	10	Rm-114	Gray 12"x12" Floor Tile *	TILE: NOT DETERMINED
CNC-674 - 020	10	Rm-114	↓ *	TILE: NOT DETERMINED
CNC-674 - 021	11	Rm-113	Vent Duct WHITE Mastic	> 1% CHRYSO TILE
CNC-674 - 022	11	Rm-114	WHITE Mastic	> 1% CHRYSO TILE
CNC-674 - 023	12	Rm-115	Vib. Joint	ASSUMED! NO SAMPLES
CNC-674 - 024	12	Rm-115	↓	TAKEN R. Butler 5/8/98

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF DIM

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

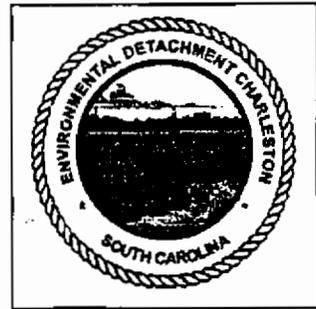
BUILDING #: 67A DATE: 5/8/98

INSPECTORS NAMES: BUTLER/NELSON  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: [Signature] 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-674 - 025	13	EXT.	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-674 - 026	13	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 027	1A	ROOF	Black Cat Sealer	NONE
Environmental Detachment Charleston, SC CNC-674 - 028	1A	ROOF	↓	NONE
Environmental Detachment Charleston, SC CNC-674 - 029	15	ROOF	Tar & Felt	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-674 - 030	15	ROOF	TAR ↓	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-674 - 031	16	ROOF	Gray Sealer & Felt	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-674 - 032	16	ROOF	Gray SEALER	>1% CHRYSOTILE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1177 DATE: 4/27/98

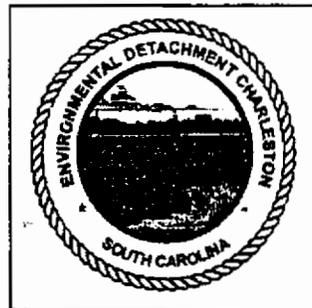
INSPECTORS NAMES: NELSON / BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1177 - 001	1	Rm-10A	Floor Tile w/ mastic white	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-1177 - 002	1	Rm-107	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-1177 - 003	2	Rm-10A	Floor Tile w/ mastic Green	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-1177 - 004	2	Rm-107	↓	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-1177 - 005	3	Rm-102	Ceiling Tile	NONE.
Environmental Detachment Charleston, SC CNC-1177 - 006	3	Rm-103	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 007	A	Rm-105	Floor Tile w/ mastic Green	* TILE: NOT DETERMINED > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1177 - 008	A	Rm-105	↓ Mastic	* TILE: NOT DETERMINED > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1177 - 009	5	Rm-105	Plaster	NONE
Environmental Detachment Charleston, SC CNC-1177 - 010	5	Rm-105	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 011	6	Rm-106	Caulking	NONE
Environmental Detachment Charleston, SC CNC-1177 - 012	6	EXT	↓	NONE

\* FLOOR TILE CAN NOT BE  
DETERMINED TO BE ASBESTOS. SHEET 1 OF 3  
FREE ON THE BASIS OF  
PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

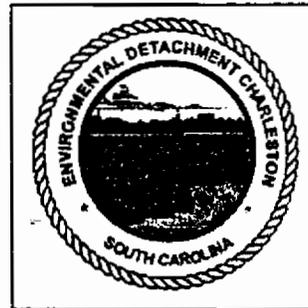
BUILDING #: 1177 DATE: 4/27/98

INSPECTORS NAMES: NELSON / BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1177 - 013	7	Rm-106	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-1177 - 014	7	Rm-106	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 015	8	Rm-107	Sheetrock w/ mud & tape	NONE
Environmental Detachment Charleston, SC CNC-1177 - 016	8	Rm-107	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 017	9	Rm-108	<u>MASTIC MATERIAL</u> Sink undercoating	>1% CHRYSO TILITE
Environmental Detachment Charleston, SC CNC-1177 - 018	9	Rm-108	<u>MASTIC MATERIAL</u>	>1% CHRYSO TILITE
Environmental Detachment Charleston, SC CNC-1177 - 019	10	Rm-109	Vibration Joint	NONE
Environmental Detachment Charleston, SC CNC-1177 - 020	10	Rm-109	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 021	11	Rm-109	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-1177 - 022	11	Rm-109	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 023	12	EXT	Conc. Blk. Mortar	NONE
Environmental Detachment Charleston, SC CNC-1177 - 024	12	EXT	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1177 DATE: 4/27/98

INSPECTORS NAMES: NELSON / BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1177 - 025	13	EXT	Cinder Blk. Mortar	NONE
Environmental Detachment Charleston, SC CNC-1177 - 026	13	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 027	14	EXT	Window Glazing	> 1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1177 - 028	14	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 029	15	ROOF	Roofing Canvas	NONE.
Environmental Detachment Charleston, SC CNC-1177 - 030	15	ROOF	↓	NONE
Environmental Detachment Charleston, SC CNC-1177 - 031	16	ROOF	Black Cat Sealer	> 1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1177 - 032	16	ROOF	BLACK CAT SEALER	> 1% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1177 - 033	17	ROOF	Tar & Felt	NONE
Environmental Detachment Charleston, SC CNC-1177 - 034	17	ROOF	↓	NONE



# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1346      DATE: 5/12/98

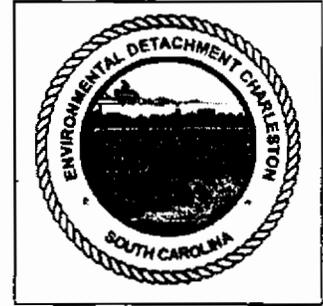
INSPECTORS NAMES: BUTLER/ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC <b>CNC-1346 - 001</b>	1	Rm-106	white 12"x12" Floor Tile w/ mastic	* Tile: Not determined
Environmental Detachment Charleston, SC <b>CNC-1346 - 002</b>	1	Rm-100	↓	* Tile: Not determined
Environmental Detachment Charleston, SC <b>CNC-1346 - 003</b>	2	Rm H-100	Maroon 12"x12" Floor Tile w/ Mastic	* Tile: Not determined
Environmental Detachment Charleston, SC <b>CNC-1346 - 004</b>	2	Rm-117	↓	* Tile: Not determined
Environmental Detachment Charleston, SC <b>CNC-1346 - 005</b>	3	Rm-100 <del>Rm-100</del>	4" Maroon Ceiling Yellow Mastic	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 006</b>	3	Rm-106	↓	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 007</b>	4	Rm 100	Conc. Blk. Mortar	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 008</b>	4	Rm-103	↓	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 009</b>	5	Rm 117	Sheetrock w/ mud & tape	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 010</b>	5	Rm 103	↓	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 011</b>	5	Rm-116	↓	NONE
Environmental Detachment Charleston, SC <b>CNC-1346 - 012</b>	6	Rm-100	Caulking Yellow	NONE

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1346 DATE: 5/12/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1346 - 013	6	Rm-100	Caulking Yellow	NONE
Environmental Detachment Charleston, SC CNC-1346 - 014	7	Rm-100	Caulking Grey	> 1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-1346 - 015	7	Rm-100	GREY CAULKING	> 1% CHRYSO TILE
Environmental Detachment Charleston, SC CNC-1346 - 016	8	Rm-100	4' Black Ceiling Brown Mastic	NONE
Environmental Detachment Charleston, SC CNC-1346 - 017	8	Rm-100	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 018	9	Rm - 103	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-1346 - 019	9	Rm 103	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 020	10	Rm-116	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 021	10	Rm-116	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 022	11	Rm-H2 106	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 023	11	Rm H3 106	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 024	12	Rm-100	Tan 9"x9" Floor Tile w/mastic	* TILE: NOT DETERMINED

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM SHEET 2 OF 6

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1346 DATE: 5/12/98

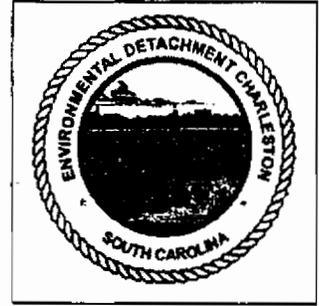
INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1346 - 025	12	Rm-117	Tan 9"x9" Floor Tile w/Mastic	* TILE: NOT DETERMINED
Environmental Detachment Charleston, SC CNC-1346 - 026	13	Rm-103	4" Brown Ceiling Brown Mastic	NONE
Environmental Detachment Charleston, SC CNC-1346 - 027	13	Rm-102	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 028	14	Rm-102	Brown Carpet Mastic	NONE
Environmental Detachment Charleston, SC CNC-1346 - 029	14	Rm-102	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 030	15	Rm-103	BACK SHEET Flooring w/Mastic	30% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 031	15	Rm-103	BACK SHEET Flooring	30% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 032	16	Rm-104	Grout 1"x1" Cur. Tile	NONE
Environmental Detachment Charleston, SC CNC-1346 - 033	16	Rm-105	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 034	17	Rm-104	Grout 4"x4" Cur. Tile	NONE
Environmental Detachment Charleston, SC CNC-1346 - 035	17	Rm-105	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 036	18	Rm 115	Tan 12"x12" Floor Tile w/Mastic	* TILE: NOT DETERMINED

\* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM.

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1344 DATE: 5/12/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22A15

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1346 - 037	18	Rm - 117	Tan 12" x 12" * Floor Tile w/ Mastic	TILE: NOT determined
Environmental Detachment Charleston, SC CNC-1346 - 038	19	Rm - 107	Pea Green 12" x 12" Floor Tile w/ Mastic	TILE: NOT determined > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 039	19	Rm - 106	Mastic *	TILE: NOT determined > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 040	20	Rm - 108	white 12" x 12" * Floor Tile w/ Mastic	TILE: NOT determined > 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 041	20	Rm - 109	Mastic *	TILE: NOT determined → NONE
Environmental Detachment Charleston, SC CNC-1346 - 042	21	Rm - 111	TSI	Amosite = 3% Chrysotile > 1%
Environmental Detachment Charleston, SC CNC-1346 - 043	21	Rm - 108	TSI	Amosite = 3% Chrysotile > 1%
Environmental Detachment Charleston, SC CNC-1346 - 044	21	Rm - 110	TSI	Amosite = 3% Chrysotile > 1%
Environmental Detachment Charleston, SC CNC-1346 - 045	22	Rm 112	Ceiling Tile	NONE
Environmental Detachment Charleston, SC CNC-1346 - 046	22	Rm 113	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 047	23	EXT	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-1346 - 048	23	EXT	↓	NONE

\* FLOOR TILE CAN NOT BE  
DETERMINED TO BE ASBESTOS  
FREE ON THE BASIS OF  
PLM

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

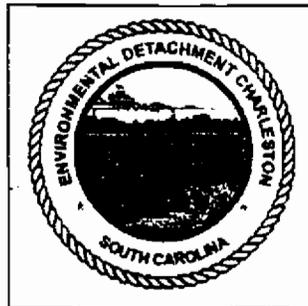
BUILDING #: 1346 DATE: 5/12/98

INSPECTORS NAMES: BUTLER / ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1346 - 049	2A	EXT	Window Glazing	NONE
Environmental Detachment Charleston, SC CNC-1346 - 050	2A	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 051	25	EXT	Caulking	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 052	25	EXT	CAULKING ↓	> 1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 053	26	EXT	Transite Panel	80% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 054	26	EXT	TRANSITE ↓	80% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 055	27	R-100	Caulking	NONE
Environmental Detachment Charleston, SC CNC-1346 - 056	27	R-101	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 057	27	R-105	SILVER COATING	5% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1346 - 058	28	R-102	Black Cat Sealer	NONE
Environmental Detachment Charleston, SC CNC-1346 - 059	28	R-107	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 060	29	R-101	Silver Sealer	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1340 DATE: 5/12/98

INSPECTORS NAMES: BUTLER/ADKINS  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1346 - 061	29	R-101	Silver Sealer	NONE <del>CHRY</del> 5-12-98
Environmental Detachment Charleston, SC CNC-1346 - 062	30	R-101	Grey & Black Sealer	10% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1346 - 063	30	R-103	Grey & Black MATL	10% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1346 - 064	30	R-103	Grey & Black MATL	10% CHRYSOPILE
Environmental Detachment Charleston, SC CNC-1346 - 065	31	R-102	Tar & Shingle	NONE
Environmental Detachment Charleston, SC CNC-1346 - 066	31	R-102	↓	NONE
Environmental Detachment Charleston, SC CNC-1346 - 067	32	R-104	Felt & Shingles	NONE
Environmental Detachment Charleston, SC CNC-1346 - 068	32	R-104	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1737 DATE: 4/6/98

INSPECTORS NAMES: BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1737 - 001	1	Rm-100	Cer. Tile Grout	NONE
Environmental Detachment Charleston, SC CNC-1737 - 002	1	Rm-102	↓	NONE
Environmental Detachment Charleston, SC CNC-1737 - 003	2	Rm-100	conc. Block Mortar	NONE
Environmental Detachment Charleston, SC CNC-1737 - 004	2	Rm-101	↓	NONE
Environmental Detachment Charleston, SC CNC-1737 - 005	3	Rm-100	TSI (FITTING)	2% AMOSITE
Environmental Detachment Charleston, SC CNC-1737 - 006	3	Rm-102	TSI BROWN	2% AMOSITE
Environmental Detachment Charleston, SC CNC-1737 - 007	4	Rm-100	TSI (piping)	NONE
Environmental Detachment Charleston, SC CNC-1737 - 008	4	Rm-102	↓	NONE
Environmental Detachment Charleston, SC CNC-1737 - 009	5	Rm-103	TSI <sup>WHITE</sup> (tank)	NONE
Environmental Detachment Charleston, SC CNC-1737 - 010	5	Rm-103	↓ BROWNISH TSI	15% AMOSITE
Environmental Detachment Charleston, SC CNC-1737 - 011	6	EXT.	Red Brick Mortar	NONE
Environmental Detachment Charleston, SC CNC-1737 - 012	6	EXT.	↓	NONE

# ASBESTOS LABORATORY SAMPLE LOG



FACILITY: CNC

BUILDING #: 1737 DATE: 4/6/98

INSPECTORS NAMES: BUTLER  
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1737 - 013	7	EXT.	Gray Caulking	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1737 - 014	7	EXT.	GRAY CAULKING	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1737 - 015	8	EXT.	White Caulking	NONE
Environmental Detachment Charleston, SC CNC-1737 - 016	8	EXT.	↓	NONE
Environmental Detachment Charleston, SC CNC-1737 - 017	9	ROOF	Shingle & Sealer	25% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1737 - 018	9	ROOF	SEALER BRICK	25% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1737 - 019	10	ROOF	Tar & Felt	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1737 - 020	10	ROOF	TAR ↓	>1% CHRYSOTILE

**General Engineering Laboratories, Inc.**  
 Attention: **Karen Blakeney**  
 P.O. Box 30712  
 Charleston, SC 29417.

Friday, June 12, 1998

Reference No: GA981411

**Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\***

**Project: NPWC00197**

SPORT	Asbestos (%)	Chrysotile (%)	Asbestos Type	Asbestos (%)
SPORT 0696-1	14.2	80.5	None Detected	0
SPORT 0696-2	17.6	70.8	None Detected	0
SPORT 0696-3	13.9	78.9	Chrysotile	0.5
SPORT 0696-4	16.2	76.6	Chrysotile	0.5
SPORT 0696-5	15.5	79.3	Chrysotile	0.9
SPORT 0696-6	28.7	17.1	Chrysotile	47.5
SPORT 0696-7	28.1	17.8	Chrysotile	44.6
SPORT 0696-8	13.8	82.2	None Detected	0
SPORT 0696-9	25.1	26.5	Chrysotile	26.6
SPORT 0696-10	11.1	41.4	None Detected	0

*Rachel Travis*  
 \_\_\_\_\_  
 Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.  
 \*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.  
 NYLAP# 101048-1

**General Engineering Laboratories, Inc.**  
**Attention: Karen Blakeney**  
 P.O. Box 30712  
 Charleston, SC 29417

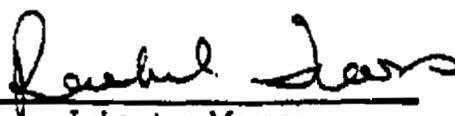
Friday, June 12, 1998

Reference No: GA981411

## Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\*

Project: NPWC00197

SPORT	Weight % Dusts/Minerals	Weight % Fibrous Material	Asbestos Type	TEM Quantity per Sample
SPORT 0696-11	15.3	82.8	None Detected	0
SPORT 0696-12	13.7	84.3	None Detected	0
SPORT 0696-13	23.1	64.0	Chrysotile	4.9
SPORT 0696-14	21.9	68.9	Chrysotile	4.2
SPORT 0696-15	12.8	81.8	None Detected	0
SPORT 0696-16	17.2	80.3	Chrysotile	Trace
SPORT 0696-17	19.6	63.9	None Detected	0
SPORT 0696-18	20.8	61.9	None Detected	0
SPORT 0696-19	20.0	77.6	None Detected	0
SPORT 0696-20	20.3	76.5	None Detected	0



Laboratory Manager  
 Rachel Travis

\*Results over 1% are not reliable by this method and a more accurate SEM method is recommended.  
 \*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the correct diagnosis over rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.  
 NYLAP# 101048-1

**General Engineering Laboratories, Inc.**  
**Attention: Karen Blakeney**  
 P.O. Box 30712  
 Charleston, SC 29417

Friday, June 12, 1998

Reference No: GA981411

**Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\***

Project: NPWC00197

Sample ID	Asbestos (%)	Chrysotile (%)	Asbestos Type	Other Results
SPORT 0696-21	26.4	64.1	None Detected	0
SPORT 0696-22	24.5	53.8	None Detected	0
SPORT 0696-23	23.2	59.7	None Detected	0
SPORT 0696-24	21.2	46.1	None Detected	0
SPORT 0696-25	17.9	75.0	None Detected	0
SPORT 0696-26	20.3	75.2	None Detected	0
SPORT 0696-27	26.0	45.2	None Detected	0
SPORT 0696-28	27.8	46.1	Chrysotile	18.3
SPORT 0696-29	26.7	26.7	Chrysotile	32.6
SPORT 0696-30	26.8	55.5	None Detected	0

  
 Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.  
 \*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.  
 NVLAP# 101048-1



**General Engineering Laboratories, Inc.**  
 Attention: Karen Blakeney  
 P.O. Box 30712  
 Charleston, SC 29417

Friday, June 12, 1998

Reference No: GA981411

**Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\***

Project: NPWC00197

Sample	Asbestos (%)	Chrysotile (%)	Substance	TEM Results
SPORT 0696-31	14.7	75.7	Chrysotile	5.5
SPORT 0696-32	11.3	85.7	None Detected	0
SPORT 0696-33	23.3	50.4	Chrysotile	16.4
SPORT 0696-34	15.4	74.6	Chrysotile	4.7
SPORT 0696-35	10.5	80.6	None Detected	0
SPORT 0696-36	5.9	93.2	None Detected	0
SPORT 0696-37	19.1	62.6	None Detected	0
SPORT 0696-38	17.2	69.8	Chrysotile	4.9
SPORT 0696-39	14.3	74.1	Chrysotile	3.2
SPORT 0696-40	12.3	58.7	None Detected	0

*Rachel Travis*  
 Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.  
 \*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors, which could have been prevented with SEM QC.  
 NVLAP# 101048-1

**General Engineering Laboratories, Inc.**  
**Attention: Karen Blakeney**  
 P.O. Box 30712  
 Charleston, SC 29417

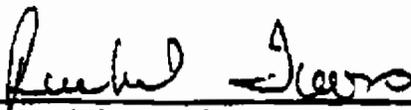
Friday, June 12, 1998

Reference No: GA981411

**Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\***

Project: NPWC00197

Sample	Asbestos (%)	Chrysotile (%)	Asbestos Type	Total Asbestos (%)
SPORT 0696-41	13.1	85.5	None Detected	0
SPORT 0696-42	9.4	89.8	None Detected	0
SPORT 0696-43	8.3	90.2	None Detected	0
SPORT 0696-44	12.8	79.4	None Detected	0
SPORT 0696-45	12.9	50.7	None Detected	0
SPORT 0696-46	27.5	29.0	Chrysotile	31.5
SPORT 0696-47	13.1	81.3	Chrysotile	0.1
SPORT 0696-48	26.8	6.2	Chrysotile	55.3
SPORT 0696-49	24.2	2.8	Chrysotile	67.5
SPORT 0696-50	30.8	11.0	Chrysotile	48.0

  
 Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.  
 \*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnostic error rate for TEM/NOB and TEM/Chatfield covers at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.  
 NYLAP# 101048-1

**General Engineering Laboratories, Inc.**  
**Attention: Karen Blakensy**  
 P.O. Box 30712  
 Charleston, SC 29417

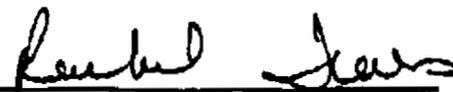
Friday, June 12, 1998

Reference No: GA981411

## Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\*

Project: NPWC00197

Sample	Asbestos (%)	Chrysotile (%)	Mineral	Asbestos (%)
SPORT 0696-51	31.2	34.1	Chrysotile	26.0
SPORT 0696-52	17.0	74.9	Chrysotile	0.1
SPORT 0696-53	13.9	78.8	None Detected	0
SPORT 0696-54	15.9	73.4	None Detected	0
SPORT 0696-55	15.7	50.1	None Detected	0
SPORT 0696-56	19.2	52.5	None Detected	0
Green Floor Tile SPORT 0696-57 A	14.2	63.8	Chrysotile	1.6
Red Floor Tile SPORT 0696-57 B	15.8	83.2	None Detected	0
Black Floor Tile SPORT 0696-57 C	28.0	47.7	Chrysotile	9.7
Red Floor Tile SPORT 0696-58 A	14.3	82.8	None Detected	0



Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.

\*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.

NVLAP# 101046-1

**General Engineering Laboratories, Inc.**  
**Attention: Karen Blakeney**  
 P.O. Box 30712  
 Charleston, SC 29417

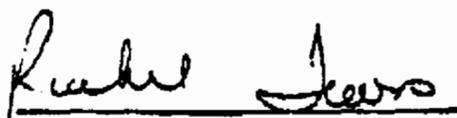
Friday, June 12, 1998

Reference No: GA981411

## Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method\*

Project: NPWC00197

Sample ID	Asbestos (%)	Non-Asbestos (%)	Asbestos Type	TEM Results
Green Floor Tile SPORT 0696-58 B	9.1	89.0	None Detected	0
SPORT 0696-59	14.6	83.0	None Detected	0
SPORT 0696-60	24.6	11.7	Chrysotile	46.2
SPORT 0696-61	24.9	25.2	Chrysotile	38.7
SPORT 0696-62	15.6	80.9	None Detected	0
SPORT 0696-63	18.2	68.0	Chrysotile	5.8
SPORT 0696-64	14.1	84.4	None Detected	0
SPORT 0696-65	13.6	84.6	None Detected	0
SPORT 0696-66	15.0	55.5	None Detected	0
SPORT 0696-67	14.6	79.3	None Detected	0



Laboratory Manager  
 Rachel Travis

\*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.

\*\*To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-3% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.

NVLAP# 101048-1

# AIR BIES TRIOIS

## CHAIN OF CUSTODY FORM



FACILITY: CNC BUILDING #: NS-27

INSPECTOR'S NAME(S): BUTLER / ~~CHAPLIN~~ <sup>RS</sup> DATE: 4/28/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 32

<u>Sample #s</u>	<u>Relinquished by;</u>	<u>Received by;</u>	<u>Date</u>
<u>CNC-NS27-001 THRU CNC-NS27-032</u>	<u>R. Butler</u>	<u>Johnny L. Smith</u>	<u>4/29/98</u>
_____	_____	_____	_____
_____	_____	_____	_____

Additional Information / Comments

---



---



---

### ANALYSIS

<u>Analysis Completed</u>	<u>Sample #s</u>
<u>Authenticated by: <u>Johnny L. Smith</u></u>	<u>Date: <u>4/30/98</u></u>
<u>Authenticated by: _____</u>	<u>Date: _____</u>
<u>Authenticated by: _____</u>	<u>Date: _____</u>

> Identification is determined by Polarized Light Microscopy and Dispersion Staining.

Notify of Results: Meltzer Phone 743-6777 EXT-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
 1899 NORTH HOBSON AVENUE  
 NORTH CHARLESTON, SC 29405-2106  
 (803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: Charleston Naval Complex BUILDING #: X-5A

INSPECTOR'S NAME(S): Butler-Adkins DATE: 5/14/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 5A

Sample #s	Relinquished by:	Received by;	Date
CNC-X54-001 THRU CNC-X54-05A	<i>R. Butler</i>	<i>J. I. Smith</i>	5-14-98

Additional Information / Comments

## ANALYSIS

Analysis Completed	Sample #s
Authenticated by: <i>W. E. May</i> Date: <u>5/19/98</u>	CNC-X54-001 THRU 014 CNC-X54-017 & 018 CNC-X54-020 THRU 024
Authenticated by: <i>W. E. May</i> Date: <u>5/19/98</u>	CNC-X54-027 THRU 030 CNC-X54-034 THRU 054
Authenticated by: <i>Jenny I. Smith</i> Date: <u>5/19/98</u>	CNC-X54-015, 016, 019 & 020, 025 & 026, 031 THRU 033

\*Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Meltzer Phone 743-6777 EXT-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: Charleston Naval Complex BUILDING #: NS-8A

INSPECTOR'S NAME(S): Butler-Adkins DATE: 5/18/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 67

Sample #s	Relinquished by;	Received by;	Date
CNC-NS8A-001 THRU CNC-NS8A-067	<i>R. Butler</i>	<i>W.E. May</i>	<i>5/18/98</i>

Additional Information / Comments

## ANALYSIS

<b>Analysis Completed</b>	<b>Sample #s</b>
Authenticated by; <i>Jimmy D. Smith</i>	Date <i>5/25/98</i> <i>NS-8A-001 thru 067</i>
Authenticated by; _____	Date _____
Authenticated by; _____	Date _____

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Miltzen Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: CNC BUILDING #: 180

INSPECTOR'S NAME(S): BUTLER / MAY DATE: 4/6/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 84

Sample #s	Relinquished by;	Received by;	Date
CNC-180-001 THRU CNC-180-084	<i>R. Butler</i>	<i>W. E. May</i>	<u>5/6/98</u>

Additional Information / Comments

---



---



---

## ANALYSIS

Analysis Completed	Sample #s
Authenticated by: <i>Jimmy L. Smith</i>	<u>CNC</u>
Date: <u>5-7-98</u>	<u>0180-001 thru 084</u>
Authenticated by: _____	Date: _____
Authenticated by: _____	Date: _____

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: MOLTZEN Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: CNC BUILDING #: 290  
INSPECTOR'S NAME(S): BUTLER DATE: 4/29/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 18

Sample #s	Relinquished by;	Received by;	Date
<u>CNC-290-001 THRU CNC-290-018</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>4-29-98</u>

### Additional Information / Comments

## ANALYSIS

<b>Analysis Completed</b>	<b>Sample #s:</b>
Authenticated by: <u>[Signature]</u>	Date: <u>4-30-98</u>
Authenticated by: _____	Date: _____
Authenticated by: _____	Date: _____
Identification is determined by Polarized Light Microscopy and Dispersion Staining	

Notify of Results: Moltzen Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: Charleston Naval Complex BUILDING #: 641

INSPECTOR'S NAME(S): Butler-Nelson DATE: 5/7/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 48

<u>Sample #s</u>	<u>Relinquished by;</u>	<u>Received by;</u>	<u>Date</u>
<u>CNC 641-C01 THRU CNC 641-C48</u>	<u>R. Butler</u>	<u>Jimmy J. Smith</u>	<u>5/7/98</u>
_____	_____	_____	_____
_____	_____	_____	_____

### Additional Information / Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ANALYSIS

<u>Analysis Completed</u>	<u>Sample #s</u>
Authenticated by: <u>Jimmy J. Smith</u> Date: <u>5-11-98</u>	<u>CNC 641-C01 THRU C48</u>
Authenticated by: _____ Date: _____	_____
Authenticated by: _____ Date: _____	_____

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzer Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: Charleston Naval Complex BUILDING #: 674

INSPECTOR'S NAME(S): Butler-Nelson DATE: 5/8/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: <sup>wem</sup> 32 30

Sample #s	Relinquished by;	Received by;	Date
CNC-674-001 THRU CNC-674-022	<u>R. Butler</u>	<u>W. E. May</u>	<u>5/8/98</u>
CNC-674-025 THRU CNC-674-032	<u>R. Butler</u>	<u>[downward arrows]</u>	<u>[downward arrows]</u>

Additional Information / Comments

## ANALYSIS

Analysis Completed	Sample #s
Authenticated by: <u>Jimmy J. Smith</u> Date <u>5-12-98</u> <u>B-674-001 thru 032</u>	<u>CNC</u>
Authenticated by: <u>Jimmy J. Smith</u> Date <u>5-12-98</u> <u>B-674-025 thru 032</u>	<u>CNC</u>
Authenticated by: _____ Date _____	

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Meltzer Phone 743-6777 EXT-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: CNC BUILDING #: 1177

INSPECTOR'S NAME(S): NELSON / BUTLER DATE: 4/27/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 34

<u>Sample #s</u>	<u>Relinquished by:</u>	<u>Received by:</u>	<u>Date</u>
<u>CNC-1177-001 THRU CNC-1177-034</u>	<u>R. Butler</u>	<u>W.E. May</u>	<u>4/28/98</u>

Additional Information / Comments

## ANALYSIS

<u>Analysis Completed</u>	<u>Sample #s</u>
<u>Authenticated by:</u> <u>[Signature]</u>	<u>Date:</u> <u>[Date]</u>
<u>Authenticated by:</u> <u>[Signature]</u>	<u>Date:</u> <u>[Date]</u>
<u>Authenticated by:</u> <u>[Signature]</u>	<u>Date:</u> <u>[Date]</u>

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzer Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: 1177

INSPECTORS NAME: BUTLER DATE: 4-27-98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 2

<u>Sample #s</u>	<u>Relinquished by:</u>	<u>Received by:</u>	<u>Date</u>
<u>CNC-1177-015 &amp; 030</u>	<u>Jimmy J. Smith</u>	<u>Kathy D. Bailey</u>	<u>29 Apr 98</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Additional Information / Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ANALYSIS

<u>Analysis Completed</u>	<u>Sample #s</u>
Authenticated by: <u>John C Barnes</u> Date <u>5-7-98</u>	<u>98-463</u>
Authenticated by: <u>John C Barnes</u> Date <u>5-7-98</u>	<u>98-464</u>
Authenticated by: _____ Date _____	_____

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: \_\_\_\_\_ Phone \_\_\_\_\_

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: Charleston Naval Complex BUILDING #: 1346

INSPECTOR'S NAME(S): Butler-Adkins DATE: 5/12/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 68

Sample #s	Relinquished by;	Received by;	Date
<u>CNC-1346-001 THRU CNC-1346-068</u>	<u>R. Butler</u>	<u>J. J. Smith</u>	<u>5-14-98</u>

### Additional Information / Comments

## ANALYSIS

Analysis Completed	Sample #s
Authenticated by: <u>Jimmy J. Smith</u> Date: <u>5-19-98</u>	<u>CNC</u>
Authenticated by: _____ Date: _____	<u>B-1346-001 thru 068</u>
Authenticated by: _____ Date: _____	

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzer Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# ASBESTOS CHAIN OF CUSTODY FORM



FACILITY: CNC BUILDING #: 1737

INSPECTOR'S NAME(S): BUTLER DATE: 4/6/98  
(PRINT)

TOTAL NUMBER OF SAMPLES RELINQUISHED: 20

Sample #s	Relinquished by;	Received by;	Date
<u>CNC-1737-001 THRU CNC-1737-020</u>	<u>[Signature]</u>	<u>Jimmy J. Smith</u>	<u>5/7/98</u>
_____	_____	_____	_____
_____	_____	_____	_____

### Additional Information / Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## ANALYSIS

Analysis Completed	Sample #s
Authenticated by: <u>Jimmy J. Smith</u>	<u>CNC</u>
Date: <u>5/11/98</u>	<u>B-1737-001 thru 020</u>
Authenticated by: _____	Date: _____
Authenticated by: _____	Date: _____

>Identification is determined by Polarized Light Microscopy and Dispersion Staining<

Notify of Results: Meltzer Phone 743-6777 Ext. 238

ENVIRONMENTAL DETACHMENT CHARLESTON  
1899 NORTH HOBSON AVENUE  
NORTH CHARLESTON, SC 29405-2106  
(803) 743-6777

# CHAIN OF CUSTODY RECORD

Page 1 of 6

Client Name/Facility Name			SAMPLE ANALYSIS REQUIRED (X) - use remarks area to specify specific compounds or methods														Remarks				
Collected by/Company			# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phosol	Acid Extractables	B/N Extractables	PCB's		Cyanide	Cellulose - specify type	USE OF PRESERVATION	
SAMPLE ID	DATE	TIME															WELL				SOIL
SPORT0696-1	5/26/98	1500																		X	CNC-NS84-001
SPORT0696-2	5/26/98	1500																		X	CNC-NS84-003
SPORT0696-3	5/26/98	1500																		X	CNC-NS84-005
SPORT0696-4	5/26/98	1500																		X	CNC-NS84-022
SPORT0696-5	5/26/98	1500																		X	CNC-NS84-023
SPORT0696-6	5/26/98	1500																		X	CNC NS84-024
SPORT0696-7	5/26/98	1500																		X	CNC-NS84-031
SPORT0696-8	5/26/98	1500																		X	CNC-180-006
SPORT0696-9	5/26/98	1500																		X	CNC-180-014
SPORT0696-10	5/26/98	1500																		X	CNC-180-035
SPORT0696-11	5/26/98	1500																		X	CNC-180-049
SPORT0696-12	5/26/98	1500																		X	CNC-180-050
SPORT0696-13	5/26/98	1500																		X	CNC-180-061
Relinquished by:			Date:	Time:	Received by:					Relinquished by:					Date:	Time:	Received by:				
<i>Jenny L. Smith</i>			5-26-98	1630	Nirvan Washington					<i>Nirvan Washington</i>					5/27/98	1400	Stephanie Beckwith				
Relinquished by:			Date:	Time:	Received by lab by:					Date:	Time:	Remarks:									

White = sample collector    Yellow = file    Pink = with report



# CHAIN OF CUSTODY RECORD

Page 3 of 6

Client Name/Facility Name			# OF CONTAINERS						SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods															Remarks
Collected by/Company									pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Pb/enol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB																		
SPORT0696-27	5/26/98	1500				X													X		HAAF-1033-001			
SPORT0696-28	5/26/98	1500				X													X		HAAF-1033-011			
SPORT0696-29	5/26/98	1500				X													X		HAAF-1033-012			
SPORT0696-30	5/26/98	1500				X													X		CNC-X54-029			
SPORT0696-31	5/26/98	1500				X													X		CNC-X54-023			
SPORT0696-32	5/26/98	1500				X													X		CNC-X54-001			
SPORT0696-33	5/26/98	1500				X													X		Cecil-338-044			
SPORT0696-34	5/26/98	1500				X													X		CNC-NS27-001			
SPORT0696-35	5/26/98	1500				X													X		HAAF-304-001			
SPORT0696-36	5/26/98	1500				X													X		HAAF-304-012			
SPORT0696-37	5/26/98	1500				X													X		HAAF-304-014			
SPORT0696-38	5/26/98	1500				X													X		HAAF-304-016			
SPORT0696-39	5/26/98	1500				X													X		HAAF-304-018			
Relinquished by: <i>Jimmy J. Smith</i>			Date: 5-26-98	Time: 1630	Received by: <i>Wivan Washington</i>					Relinquished by: <i>Wivan Washington</i>					Date: 5/26/98	Time: 1450	Received by: <i>Stephanie Berdeon</i>							
Relinquished by:			Date:	Time:	Received by lab by:					Date:	Time:	Remarks:												

White = sample collector    Yellow = file    Pink = with report



# CHAIN OF CUSTODY RECORD

Page 5 of 6

Client Name/Facility Name		SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods														Remarks			
Collected by/Company		# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's		Cyanide	Coliform - specify type	ASBESTOS
SAMPLE ID	DATE															TIME			
SPORT ENV DET CHASN																			
SPORT ENV DET CHASN																			
SPORT0696-53	5/26/98	1500																	X
SPORT0696-54	5/26/98	1500																	X
SPORT0696-55	5/26/98	1500																	X
SPORT0696-56	5/26/98	1500																	X
SPORT0696-57	5/26/98	1500																	X
SPORT0696-58	5/26/98	1500																	X
SPORT0696-59	5/26/98	1500																	X
SPORT0696-60	5/26/98	1500																	X
SPORT0696-61	5/26/98	1500																	X
SPORT0696-62	5/26/98	1500																	X
SPORT0696-63	5/26/98	1500																	X
SPORT0696-64	5/26/98	1500																	X
SPORT0696-65	5/26/98	1500																	X
Relinquished by:	Date:	Time:	Received by:		Relinquished by:	Date:	Time:	Received by:											
<i>James J. Smith</i>	5/26/98	1630	<i>Wainan Washington</i>		<i>Wainan Washington</i>	5/26/98	1450	<i>Stephanie Beckerton</i>											
Relinquished by:	Date:	Time:	Received by lab by:		Date:	Time:	Remarks:												

# CHAIN OF CUSTODY RECORD

Client Name/Facility Name			Collected by/Company			# OF CONTAINERS	SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods																Use F or P in the boxes to indicate whether sample was filtered and/or preserved	Remarks		
SAMPLE ID	DATE	TIME	WELL	SOIL	COMP		GRAB	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type				
SPORTEN VDET CHASN			SPORTEN VDET CHASN																							
SPORTC096-06	5/20/98	1500				X																		X	CNC-674-011	
SPORTC096-07	5/20/98	1500				X																	X	CNC-674-012		
[The remainder of the table is crossed out with a large diagonal line.]																										
Relinquished by: <i>James L. Smith</i>			Date: <i>5/24/98</i>	Time: <i>1630</i>	Received by: <i>Vivian Washenfor</i>			Relinquished by: <i>Vivian Washenfor</i>			Date: <i>5/27/98</i>	Time: <i>1450</i>	Received by: <i>Stephanie B...</i>													
Relinquished by:			Date:	Time:	Received by lab by:			Date:	Time:	Remarks:																

# Medical University of South Carolina

## College of Health Professions

### Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

**RICHARD O. BUTLER**

Attended and Satisfactorily completed the

*Inspecting for Asbestos in Buildings*

conducted November 3 through November 05, 1997

and satisfactorily passed an exam on November 05, 1997.



127150-00766  
Certificate number

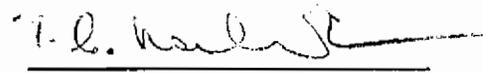
24  
Contact Hours

247-15-7024  
ID Number

  
R. Martin Jones, Ph. D.  
Chairman

November 05, 1997  
Exam Date

November 04, 1998  
Certificate Expires

  
T. A. Rowland III  
Instructor

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

# Medical University of South Carolina

## College of Health Professions

### Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

**RANDY E. ADKINS**

Attended and Satisfactorily completed the  
*Inspecting for Asbestos in Buildings Refresher*

conducted April 1 through April 01, 1998

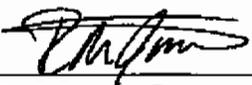
and satisfactorily passed an exam on April 01, 1998.



IR27150-01677  
Certificate number

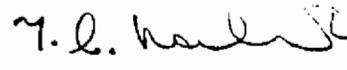
4  
Contact Hours

251-02-6161  
ID Number

  
R. Martin Jones, Ph. D.  
Chairman

April 01, 1998  
Exam Date

March 31, 1999  
Certificate Expires

  
T. A. Rowland III  
Instructor

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

# Medical University of South Carolina

## College of Health Professions

### Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315



Certifies that

**WILLIAM E. MAY**

Attended and Satisfactorily completed the

*Inspecting for Asbestos in Buildings Refresher*

conducted August 20 through August 20, 1997

and satisfactorily passed an exam on August 20, 1997.

IR27150-01412  
Certificate number

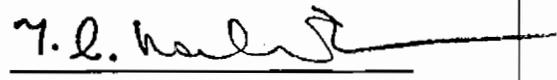
4  
Contact Hours

247-98-0917  
ID Number

  
R. Martin Jones, Ph. D.  
Chairman

August 20, 1997  
Exam Date

August 19, 1998  
Certificate Expires

  
T. A. Rowland III  
Instructor

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

# Medical University of South Carolina

## College of Health Professions

### Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

**JOHN J. NELSON**

Attended and Satisfactorily completed the

*Inspecting for Asbestos in Buildings Refresher*

conducted April 1 through April 01, 1998

and satisfactorily passed an exam on April 01, 1998.



IR27150-01681  
Certificate number

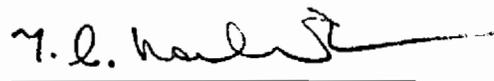
4  
Contact Hours

247-80-3440  
ID Number

  
R. Martin Jones, Ph. D.  
Chairman

April 01, 1998  
Exam Date

March 31, 1999  
Certificate Expires

  
T. A. Rowland III  
Instructor

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.