



## **Asbestos & Lead Based Paint Assessment**

City of Spartanburg  
152 Palisade Street  
Spartanburg, South Carolina

### ***Prepared for:***

The City of Spartanburg  
440 South Church Street, Suite B  
Spartanburg, SC 29306-5234

### ***Prepared by:***

Apex Environmental Management, Inc.  
7 Winchester Court  
Mauldin, South Carolina 29662

Project Number: 0815-163

August 11, 2016





Apex Project Number 0815-163

August 11, 2016

7 Winchester Court  
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Mr. Lynn Coggins  
City of Spartanburg  
440 South Church Street, Suite B  
Spartanburg, SC 29306-5234

Reference: Asbestos and Lead-Based Paint Assessment Services  
152 Palisade Street  
Spartanburg, South Carolina

**SERVICES**

- Indoor Air Quality
- Mold Remediation
- Asbestos & Lead
- Industrial Hygiene
- Worker Health & Safety
- Mold Consulting
- Moisture Management Plans
- Safety Assessment
- Environmental Site Assessments
- Hazard Communication

Dear Mr. Coggins:

Apex Environmental Management, Inc. (Apex) is pleased to provide the results of our assessment services for the referenced property.

This report and the associated attachments summarize our evaluation of the conditions observed at the project site. The findings presented by Apex are based upon sampling performed in the subject building. There is a chance that undetected ACM may exist in the building between walls or in other areas that would only be exposed during demolition or structural renovations. Should material be discovered that could potentially contain asbestos during the demolition process, additional samples of the material should be collected by a licensed asbestos inspector and submitted to an accredited laboratory for analytical interpretation. Our recommendations are based on the guidelines presented in EPA and/or OSHA regulations.

Please note that this document is not a specification for asbestos removal. It does not contain means and methods for abatement. Quantities are estimates and contractors must verify amounts prior to bidding or removal. If you are planning an abatement project, please contact Apex to discuss the requirements. Use of this document without the express written consent of Apex is at the sole risk of the user and or/abatement contractor.

The conclusions and/or recommendations contained in this report are based on our understanding of the applicable standards at the time this report was prepared. No warranty, expressed or implied, is made. If you have any questions please feel free to contact us at (864) 404-3210.

Respectfully submitted,  
**APEX ENVIRONMENTAL MANAGEMENT, INC.**

A handwritten signature in blue ink, appearing to read 'Nick Neerhof'.

Nick Neerhof  
Project Manager

A handwritten signature in blue ink, appearing to read 'Tom Oliver'.

Tom Oliver  
Director of Operations

Appendices

**ASBESTOS AND LEAD BASED PAINT ASSESSMENT**

**CITY OF SPARTANBURG  
152 PALISADE STREET  
SPARTANBURG, SOUTH CAROLINA**

**APEX PROJECT NO. 0815-163**

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**SECTION I**

**Asbestos & Lead Evaluation Report**

**ASBESTOS/LEAD EVALUATION REPORT**  
**APEX PROJECT NUMBER: 0815-163**

Date: 8/11/2016 Page Number: 1 of 5

Client: City of Spartanburg Client Contact: Mr. Lynn Coggins  
 Client Address: 440 South Church St., Suite B Client Phone: (864) 596-2914  
 Spartanburg, SC 29306-5234 Number:

Project: Asbestos and Lead Evaluation

Property Address: 152 Palisade Street  
 Spartanburg, SC

Assessor: Ted Shultz Date of Assessment: 7/15/2016  
 Company: Apex Environmental Management Phone Number:  
 7 Winchester Court

Mauldin, SC 29662

Purpose of Assessment: Demolition Age of Structure: Approx. 65 years

Building Type: Residential Number of Stories: 1

Foundation: Brick and Block Approximate Square Footage: 5,000 SF

**EXTERIOR BUILDING MATERIALS**

- Pitched wooden roofs with shingles and felt
- Shed with pitched wooden roof with shingles and felt
- Metal storm windows
- Wood windows
- One chimney with tar assumed positive

**INTERIOR BUILDING MATERIALS**

- Drywall walls over plaster
- Drywall ceilings
- Plaster walls with skim coat
- Drywall with joint compound
- Skim coat over block with paper
- Multiple types and layers of vinyl flooring with and without mastic
- Wood flooring

## SCOPE OF THE SURVEY

The objectives of the asbestos and lead assessment included the following:

- Identification of suspect asbestos-containing material (ACM) and lead based paints (LBP) in readily observable locations. Limited demolition of building finishes was conducted.
- Asbestos survey with sample collection by a South Carolina accredited inspector.
- Suspect ACM analysis by polarized light microscopy (PLM) utilizing EMSL Analytical, Inc. (EMSL) as an NVLAP certified laboratory, their accreditation number is 200841-0.
- Transmission electron microscopy (TEM) analysis of non-friable organically bound materials suspected to contain asbestos and testing negatively by PLM analysis.
- Lead inspection by a lead inspector certified by the Environmental Protection Agency and licensed to conduct LBP surveys in South Carolina.
- In situ analysis of suspected lead based paints by X-ray fluorescence (XRF).
- Presenting the results in a report identifying confirmed ACMs and LBPs.

## METHODS

### Asbestos Containing Materials

In order to determine if the suspect materials observed during the visual survey contained asbestos, representative bulk samples were collected and placed in sealed packages. Eighty-five (85) bulk samples were collected during the survey and submitted to EMSL in Charlotte, North Carolina for analysis using the EPA recommended method of Polarized Light Microscopy (PLM) coupled with dispersion staining (Method No. EPA 600/M4-82-020, Dec. 1982). EMSL participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Their NVLAP accreditation number is 200841-0. EPA regulations require that multiple samples of each homogeneous material be collected for laboratory analysis. In accordance with South Carolina Regulation 61-86.1, non-friable organically bound materials that are reported to be non-asbestos containing by PLM analysis must also be analyzed by Transmission Electron Microscopy (TEM). Sixty-six (66) samples were analyzed using TEM.

### Lead-Based Paint

Lead painted surfaces were analyzed in place using X-ray fluorescence. Painted surfaces were selected based on color of topcoat, underlying layers and substrate on which it was painted.

## RESULTS

### Asbestos Containing Materials

The EPA defines an asbestos-containing material (ACM) as a material containing more than 1% asbestos. OSHA defines ACM as a material containing any amount of asbestos. Multiple materials were analyzed to contain less than 1% asbestos and it should be noted that OSHA asbestos regulations will apply. Provided below is a general discussion of the asbestos containing materials identified in the residence. The *Asbestos PLM & TEM Data Table* is provided in Appendix II. Portions of the residence have collapsed floors or floors that are collapsing. These areas were fully assessed, however, if additional suspect ACM should be

discovered during demolition activities, Apex recommends that work activities stop until the suspect building materials may be sampled and analyzed.

Suspect asbestos containing materials that were identified to be asbestos containing include:

- Approximately 216 SF of purple 12"x12" vinyl flooring with mastic, yellow square pattern 12"x12" vinyl flooring with mastic, grey speckled 12"x12" vinyl flooring with mastic, grey stone pattern roll vinyl with mastic in the far rear left room.
- Approximately 216 SF of pink tile 12"x12" vinyl flooring with mastic, brown and yellow roll vinyl with mastic, tan stone pattern vinyl flooring with mastic in the second room from the rear on the left side.
- Approximately 416 SF of grey speckled 12"x12" vinyl flooring with mastic, grey and brown square pattern roll vinyl over two more layers of roll vinyl in the third room from the rear on the left.
- Approximately 200 SF of 4 layers of flooring, top pink layer already seen, 2nd tan striated pattern vinyl flooring, 3rd layer grey vinyl flooring, 4th thinner layer of vinyl flooring can't tell color in the janitor's closet.
- Approximately 300 SF of vinyl flooring top layer pink 12"x12" vinyl flooring, grey 12"x12" tile with mastic in the big room behind the janitor's closet.
- Approximately 300 SF of vinyl flooring, top layer pink 12"x12" vinyl flooring, 2nd tan striated 12"x12" floor tile, 3rd thin layer of vinyl flooring discolored on both sides by mastic in the kitchen.
- Approximately 13,500 SF of drywall with joint compound throughout the interior with sample numbers on wall at sample sight.
- Approximately 350 SF of black floor mastic in the shed behind the house.
- Approximately 50 SF of tan and brown pattern roll vinyl with mastic at the left front door entrance area.
- Approximately 144 brown pattern 12"x12" self-stick tile and stone pattern 12"x12" self-stick vinyl flooring in the left entrance room to the left.
- Approximately 300 SF of tan 12"x12" tile with mastic and yellow roll vinyl with mastic in the hall and two rooms to the right of the middle entrance area.
- Approximately 6 LF of chimney mastic on 1 chimney - assumed.

### Lead Based Paint

OSHA does not recognize a threshold level of lead for definition purposes, only the presence or absence of lead. The current OSHA regulations recognize an airborne action level of thirty micrograms per cubic meter ( $30 \mu\text{g}/\text{m}^3$ ) during an eight-hour workday and a permissible exposure level of fifty micrograms per cubic meter ( $50 \mu\text{g}/\text{m}^3$ ) for employees.

Currently, SCDHEC defines LBP as paint containing in excess of, or equal to,  $1.0 \text{ mg}/\text{cm}^2$ . The laboratory analytical results and chain-of-custody are included in the Lead Analysis Reports in Appendix A. The approximate locations of the paint samples collected and analytical results are presented in the Tables included with this report .

One surface in the building tested positive for lead in excess of the regulatory definition:

- Rear left right room brown wooden door frame.

## **RECOMMENDATIONS AND DISCUSSION**

### Asbestos Containing Materials

If the above referenced asbestos materials are to be disturbed by renovations or demolition, the asbestos must be removed in accordance with EPA, State of South Carolina and OSHA asbestos regulations. The State of South Carolina, Department of Health and Environmental Control (DHEC) has specific regulations that must be adhered to during asbestos removal/abatement projects.

Apex recommends the following:

1. Abate the asbestos containing materials in the structure prior to renovation or demolition.
2. Follow applicable asbestos regulations during renovation or demolition of the structure. You should be aware that stringent requirements are imposed upon anyone renovating or demolishing a structure in which ACM will be disturbed. This work must be performed in accordance with OSHA asbestos regulations, 29 CFR 1910 & 1926, and NESHAP asbestos regulations 40 CFR 61, subpart M. South Carolina regulations require the accreditation of personnel who work in the asbestos field and notification and permitting fees for asbestos removal projects. There is a 10 working day notification period required prior to abatement of asbestos in a facility. Failure to take proper precautions and actions to protect human health and the environment can result in penalties, danger to personnel, and construction delays.

### Lead Based Paint

Currently the South Carolina Department of Health and Environmental Control (SCDHEC) define LBP as paint containing greater than  $1.0 \text{ milligrams per square centimeter (mg}/\text{cm}^2)$  lead or in excess of, or equal to, 0.5 percent lead. Building materials identified as being painted with LBP should be segregated from the other building materials and recycled or disposed of in a municipal lined landfill. The removed wastes would need to be containerized and further tested by Toxic Characteristic Leaching procedures (TCLP) to determine if the waste is classified as

*City of Spartanburg  
152 Palisade Street  
Apex Project No: 0815-163  
August 11, 2016*

hazardous. The remaining building materials that are not painted with LBP may be disposed of in a construction and demolition landfill. However, the landfills should be contacted to determine their specific disposal requirements.

Occupational Safety and Health Administration Lead Regulations apply to actions initiated on lead containing materials. This regulation applies to lead concentrations greater than the analytical limit of detection. This regulation sets exposure levels on airborne lead and does not reference the percent lead in paint. Therefore, initial personal air monitoring should be conducted on workers performing work on surfaces which have a lead concentration of 0.1 mg/cm<sup>2</sup> or above to satisfy the OSHA requirements. If a baseline exposure lower than the OSHA Action Level of 30 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) is established, personal air monitoring may be terminated. The full OSHA lead standard should be referenced for compliance.

**A copy of this report must be submitted to SCDHEC at least ten (10) working days prior to demolition when applying for a demolition permit.**

**SECTION II**

**Asbestos & LBP Data Tables**

## ASBESTOS SURVEY FIELD DATA SHEET

Project Name: COS 152 Palisade Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 152 Palisade St, Spartanburg SC

Project Manage Ted Shultz

Project Number: 0815-163

Date: 7/14/2016

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Far Rear Left Room	purple 12"x12" vinyl flooring with mastic, yellow square pattern 12"x12" vinyl flooring with mastic, grey speckled 12"x12" vinyl flooring with mastic, grey stone pattern roll vinyl with mastic	PLM - white floor Tile - 3% chrysotile PLM - tan floor Tile - 3% chrysotile TEM - mastic - 0.91% chrysotile	Non-Friable	Good	216 SF
2						
3						
4	2nd from rear on left side	pink tile 12"x12" vinyl flooring with mastic, brown and yellow roll vinyl with mastic, tan stone pattern vinyl flooring with mastic	PLM - brown flooring - 10% chrysotile PLM - mastic - <1% chrysotile PLM - yellow flooring - 10% chrysotile TEM - mastic - 2.2% chrysotile	Non-Friable	Good	216 SF
5						
6						
7	Hall at 2nd rear room	Skim coat over block with paper	NAD	Friable	Good	100 SF
8						
9						
10	3rd room from rear on left	grey speckled 12"x12" vinyl flooring with mastic, grey and brown square pattern roll vinyl over two more layers of roll vinyl	PLM - green flooring - 10% chrysotile PLM - mastic - <1% chrysotile PLM - brown flooring - 10% chrysotile PLM - yellow/green flooring - 8% chrysotile TEM - mastic - 3% chrysotile	Non-Friable	Good	416 SF
11						
12						

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
13	Janitors closet	4 layers of flooring, top pink layer already seen, 2nd tan striated pattern vinyl flooring, 3rd layer grey vinyl flooring, 4th thinner layer of vinyl flooring can't tell color	PLM - gray flooring - 3% chrysotile PLM - mastic - <1% chrysotile PLM - thin floor tile - 4% chrysotile TEM - mastic - 1.3% chrysotile	Non-Friable	Good	200 SF
14						
15						
16	Big room behind janitors closet	top layer pink 12"x12" vinyl flooring, grey 12"x12" tile with mastic	PLM - white floor Tile - 3% chrysotile TEM - mastic - 1.9% chrysotile	Non-Friable	Good	300 SF
17						
18						
19	Kitchen	top layer pink 12"x12" vinyl flooring, 2nd tan striated 12"x12" floor tile, 3rd thin layer of vinyl flooring discolored on both sides by mastic	PLM - tan floor tile - 3% chrysotile PLM - thin floor tile - 3% chrysotile TEM - mastic - 2.9% chrysotile	Non-Friable	Good	300 SF
20						
21						
22	Throught interior with sample numbers on wall at sample sight	Drywall with joint compound	PLM - sample 23 joint compound - 2% chrysotile	Friable	Good	13,500 SF
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38	Shed	Black floor mastic	PLM - 3% chrysotile	Non-Friable	Good	350 SF
39						
40						

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
41	Front room with fireplace	blue 12"x12" tile and mastic	NAD	Non-Friable	Good	720 SF
42						
43						
44	Front left side bathroom	Tan roll vinyl flooring with mastic	NAD	Non-Friable	Good	60 SF
45						
46						
47	Left front door entrance area	Tan and brown pattern roll vinyl with mastic	<b>PLM - flooring - 8% chrysotile</b> <b>PLM - mastic - &lt;1% chrysotile</b> TEM - mastic - <0.51% chrysotile	Non-Friable	Good	50 SF
48						
49						
50	Left entrance room to left	Brown pattern 12"x12" self-stick tile and stone pattern 12"x12" self-stick vinyl flooring	PLM - brown floor tile - 3% chrysotile	Non-Friable	Good	144 SF
51						
52						
53	Hall and two rooms to the right of middle entrance	Tan 12"x12" tile with mastic and yellow roll vinyl with mastic	PLM - backing - 20% chrysotile	Non-Friable	Good	300 SF
54						
55						
56	Front middle entrance room	Grey 12"x12" tile with mastic, Tan 12"x12" tile with mastic, light tan 12"x12" tile with mastic, white 12"x12" tile with mastic	NAD	Non-Friable	Good	200 SF
57						
58						
59	Front right bathroom	Wood pattern roll vinyl	NAD	Non-Friable	Good	20 SF
60						
61						
62	Right meeting room	Grey 12"x12" vinyl tile with mastic	NAD	Non-Friable	Good	240 SF
63						
64						

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
65	Ktichen	Plaster with skim coat	NAD	Friable	Good	800 SF
66						
67						
68	Shed roof	Roof shingle	NAD	Non-Friable	Good	460 SF
69						
70						
71	Front left roof	Roof shingle(2) and felt(1)	NAD	Non-Friable	Good	1,300 SF
72						
73						
74	Middle left roof	Roof shingle(2) and felt(1)	NAD	Non-Friable	Good	500 SF
75						
76						
77	Rear left roof	Green roof shingle and felt(1)	NAD	Non-Friable	Significantly Damaged	1,100 SF
78						
79						
80	Front right roof	Roof shingle(2) and felt(1)	NAD	Non-Friable	Good	1,200 SF
81						
82						
83	Rear low roof	Roof shingle(3) and felt(1)	NAD	Non-Friable	Good	50 SF
84						
85						
<b>Assumed</b>	<b>Chimney</b>	<b>Chimney mastic on 1 chimney</b>	<b>Assumed</b>	<b>Non-Friable</b>	<b>Good</b>	<b>6 LF</b>

NAD = No Asbestos Detected    LF = Linear Feet

EA = Each

**Bold = Positive For Asbestos**    SF = Square Feet

**FIELD DATA SHEET  
LBP ANALYSIS**

Project Name: COS 152 Palisade Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 152 Palisade Street Spartanburg SC

Project Manager: Ted Shultz

Project Number: 0815-163

Date: 7/26/2016

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/cm <sup>2</sup> )
<b>73</b>	<b>Left rear right room</b>	<b>Door frame</b>	<b>Brown</b>	<b>Wood</b>	<b>1.06</b>
74	Left rear right room	Wall	White	Drywall	0.00
75	Left rear right room	Wall	White	Bead board	0.00
76	Exterior barn	Siding	Blue	Wood	0.00
77	Exterior barn	Door	Brown	Wood	0.00
78	Exterior barn	Wall	Green	Wood	0.00
79	Exterior barn	Foundation	Green	Cement	0.53
80	Exterior	Siding	White	Wood	0.49
81	Fifth room on the left	Wall	Yellow	Drywall	0.00
82	Fifth room on the left	Fireplace Surroundings	Brown	Wood	0.17
83	Front left room	Fireplace Surroundings	White	Brick	0.08
84	Front right hall	Wall	White	Drywall	0.00
85	Front right room	Door	Red	Metal	0.00
86	Exterior ramp	Ramp	Green	Cement	0.00
87	Exterior	Wall	White	Cement block	0.00

**Bold is Lead Based Paint**

### **SECTION III**

#### **Laboratory Analytical Results**



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411605610

Customer ID: AXEM25

Customer PO:

Project ID:

**Attention:** Ted Shultz  
Apex Environmental Management  
7 Winchester Court  
Mauldin, SC 29662

**Phone:** (803) 348-4921

**Fax:**

**Received Date:** 07/19/2016 9:45 AM

**Analysis Date:** 07/21/2016

**Collected Date:**

**Project:** 152 Palisade St./ 0815-163

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
411605610-0001	1-Purple Floor Tile Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Red/Purple Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
411605610-0001A	1-Mastic Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
411605610-0001B	1-Beige Floor Tile Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
411605610-0001C	1-Mastic Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
411605610-0001D	1-White Floor Tile Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	White Non-Fibrous Homogeneous		20% Ca Carbonate 77% Non-fibrous (Other)	3% Chrysotile



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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411605610  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-Mastic <i>411605610-0001E</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
1-Tan Floor Tile <i>411605610-0001F</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
1-Mastic <i>411605610-0001G</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2-Purple Floor Tile <i>411605610-0002</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Purple Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
2-Mastic <i>411605610-0002A</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
2-Beige Floor Tile <i>411605610-0002B</i>	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected

Initial Report From: 07/22/2016 08:01:56



# EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

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<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

**EMSL Order:** 411605610  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2-Mastic 411605610-0002C	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
2-White Floor Tile 411605610-0002D	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic				Positive Stop (Not Analyzed)
2-Mastic 411605610-0002E	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
2-Tan Floor Tile 411605610-0002F	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic				Positive Stop (Not Analyzed)
2-Mastic 411605610-0002G	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
4-Floor Tile 411605610-0003	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Brown Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4-Mastic 411605610-0003A	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Clear Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial Report From: 07/22/2016 08:01:56



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**EMSL Order:** 411605610  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4-Brown Flooring  411605610-0003B	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Brown/Gray Non-Fibrous Homogeneous	3% Cellulose	87% Non-fibrous (Other)	10% Chrysotile
4-Mastic  411605610-0003C	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Brown Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
4-Yellow Flooring  411605610-0003D	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Gray/Yellow Non-Fibrous Homogeneous	3% Cellulose	87% Non-fibrous (Other)	10% Chrysotile
<i>No mastic present</i>					
5-Floor Tile  411605610-0004	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
5-Mastic  411605610-0004A	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Clear Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
5-Brown Flooring  411605610-0004B	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic				Positive Stop (Not Analyzed)
5-Mastic  411605610-0004C	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
5-Yellow Flooring  411605610-0004D	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic				Positive Stop (Not Analyzed)



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**EMSL Order:** 411605610  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
5-Mastic  411605610-0004E	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Brown/Tan Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
7  411605610-0005	Hall at 2nd Rear Room - Skim Coat over Block with Paper	Gray/Tan Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
8  411605610-0006	Hall at 2nd Rear Room - Skim Coat over Block with Paper	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
9  411605610-0007	Hall at 2nd Rear Room - Skim Coat over Block with Paper	Brown/Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
10-Floor Tile  411605610-0008	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
10-Mastic  411605610-0008A	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
10-Green Flooring  411605610-0008B	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Gray/Yellow/Green Fibrous Heterogeneous	3% Cellulose	87% Non-fibrous (Other)	10% Chrysotile
10-Mastic  411605610-0008C	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
10-Brown Flooring  411605610-0008D	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Brown/Gray Fibrous Heterogeneous	5% Cellulose	85% Non-fibrous (Other)	10% Chrysotile



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			% Fibrous	% Non-Fibrous	% Type
10-Mastic <i>411605610-0008E</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
10-Yellow/Green Flooring <i>411605610-0008F</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Gray/Yellow/Green Fibrous Heterogeneous	2% Cellulose	90% Non-fibrous (Other)	8% Chrysotile
10-Mastic <i>411605610-0008G</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
11-Floor Tile <i>411605610-0009</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Gray Non-Fibrous Homogeneous	3% Cellulose	25% Ca Carbonate 72% Non-fibrous (Other)	None Detected
11-Mastic <i>411605610-0009A</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected
11-Green Flooring <i>411605610-0009B</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl				Positive Stop (Not Analyzed)
11-Mastic <i>411605610-0009C</i>	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					



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			% Fibrous	% Non-Fibrous	% Type
11-Brown Flooring  411605610-0009D	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl				Positive Stop (Not Analyzed)
11-Mastic  411605610-0009E	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
11-Yellow/Green Flooring  411605610-0009F	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl				Positive Stop (Not Analyzed)
11-Mastic  411605610-0009G	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
13-Pink Floor Tile  411605610-0010	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Pink Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
13-Mastic  411605610-0010A	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-Tan Floor Tile  411605610-0010B	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
13-Mastic <i>411605610-0010C</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
13-Gray Floor Tile <i>411605610-0010D</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Gray/White Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
13-Mastic <i>411605610-0010E</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Brown/Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
13-Thin Floor Tile <i>411605610-0010F</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Gray/Tan Non-Fibrous Homogeneous		20% Ca Carbonate 76% Non-fibrous (Other)	4% Chrysotile
13-Mastic <i>411605610-0010G</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-Pink Floor Tile <i>411605610-0011</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Pink Non-Fibrous Homogeneous	1% Cellulose	35% Ca Carbonate 64% Non-fibrous (Other)	None Detected
14-Mastic <i>411605610-0011A</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
14-Tan Floor Tile <i>411605610-0011B</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	2% Cellulose	30% Ca Carbonate 68% Non-fibrous (Other)	None Detected
14-Mastic <i>411605610-0011C</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
14-Gray Floor Tile <i>411605610-0011D</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color				Positive Stop (Not Analyzed)
14-Mastic <i>411605610-0011E</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Brown/Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
14-Thin Floor Tile <i>411605610-0011F</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color				Positive Stop (Not Analyzed)
14-Mastic <i>411605610-0011G</i>	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Brown Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
16-Pink Floor Tile <i>411605610-0012</i>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Pink Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
16-Mastic <i>411605610-0012A</i>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
16-White Floor Tile <small>411605610-0012B</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	White Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
16-Mastic <small>411605610-0012C</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
17-Pink Floor Tile <small>411605610-0013</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Pink Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
17-Mastic <small>411605610-0013A</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
17-White Floor Tile <small>411605610-0013B</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic				Positive Stop (Not Analyzed)
17-Mastic <small>411605610-0013C</small>	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-Pink Floor Tile <small>411605610-0014</small>	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Pink Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
19-Mastic <small>411605610-0014A</small>	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Brown/Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
19-Tan Floor Tile <small>411605610-0014B</small>	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile
19-Mastic <small>411605610-0014C</small>	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
19-Thin Floor Tile <small>411605610-0014D</small>	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Gray/Tan Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
19-Mastic 411605610-0014E	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
20-Pink Floor Tile 411605610-0015	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Pink Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
20-Mastic 411605610-0015A	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
20-Tan Floor Tile 411605610-0015B	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic				Positive Stop (Not Analyzed)
20-Mastic 411605610-0015C	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
20-Thin Floor Tile 411605610-0015D	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic				Positive Stop (Not Analyzed)
20-Mastic 411605610-0015E	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Brown Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
22-Drywall 411605610-0016	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
22-Joint Compound 411605610-0016A	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
22-Tape 411605610-0016B	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected

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			% Fibrous	% Non-Fibrous	% Type
23-Drywall <i>411605610-0017</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
23-Joint Compound <i>411605610-0017A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
24-Drywall <i>411605610-0018</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
24-Joint Compound <i>411605610-0018A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
24-Tape <i>411605610-0018B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
25-Drywall <i>411605610-0019</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
25-Joint Compound <i>411605610-0019A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
25-Tape <i>411605610-0019B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
26-Drywall <i>411605610-0020</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
<i>No joint compound present</i>					
27-Drywall <i>411605610-0021</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
<i>No joint compound present</i>					
28-Drywall <i>411605610-0022</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected

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			% Fibrous	% Non-Fibrous	% Type
28-Joint Compound <i>411605610-0022A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
29-Drywall <i>411605610-0023</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
29-Joint Compound <i>411605610-0023A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
30-Drywall <i>411605610-0024</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
<i>No joint compound present</i>					
31-Drywall <i>411605610-0025</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
31-Joint Compound <i>411605610-0025A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
32-Drywall <i>411605610-0026</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
32-Joint Compound <i>411605610-0026A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
32-Tape <i>411605610-0026B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
33-Drywall <i>411605610-0027</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Brown/Gray Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
33-Joint Compound <i>411605610-0027A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)

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**EMSL Order:** 411605610  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
33-Tape <i>411605610-0027B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
34-Drywall <i>411605610-0028</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
34-Joint Compound <i>411605610-0028A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
34-Tape <i>411605610-0028B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
35-Drywall <i>411605610-0029</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound  <i>No joint compound present</i>	Brown/Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
36-Drywall <i>411605610-0030</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Brown/Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
36-Joint Compound <i>411605610-0030A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
36-Tape <i>411605610-0030B</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Tan Fibrous Homogeneous	100% Cellulose		None Detected
37-Drywall <i>411605610-0031</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound	Brown/Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
37-Joint Compound <i>411605610-0031A</i>	Throughout Interior with Sample Numbers on Wall at Sample Sight - Drywall and Joint Compound				Positive Stop (Not Analyzed)
38 <i>411605610-0032</i>	Shed - Black Floor Mastic	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
39 <i>411605610-0033</i>	Shed - Black Floor Mastic				Positive Stop (Not Analyzed)
41-Floor Tile <i>411605610-0034</i>	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Blue Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected

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			% Fibrous	% Non-Fibrous	% Type
41-Mastic 411605610-0034A	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
42-Floor Tile 411605610-0035	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Blue Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
42-Mastic 411605610-0035A	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
44-Flooring 411605610-0036	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Tan/White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
44-Mastic 411605610-0036A	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45-Flooring 411605610-0037	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45-Mastic 411605610-0037A	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Tan Non-Fibrous Homogeneous	3% Cellulose	5% Ca Carbonate 92% Non-fibrous (Other)	None Detected
47-Flooring 411605610-0038	Left Front Door Entrance Area - Tan and Brown Pattern Roll Vinyl with Mastic	Gray/Beige Fibrous Heterogeneous	3% Cellulose	89% Non-fibrous (Other)	8% Chrysotile
47-Mastic 411605610-0038A	Left Front Door Entrance Area - Tan and Brown Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	<1% Chrysotile
<i>Possible contamination</i>					
48-Flooring 411605610-0039	Left Front Door Entrance Area - Tan and Brown Pattern Roll Vinyl with Mastic				Positive Stop (Not Analyzed)
48-Mastic 411605610-0039A	Left Front Door Entrance Area - Tan and Brown Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	<1% Chrysotile
50-Tan Floor Tile 411605610-0040	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Tan/Beige Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (Other)	None Detected
50-Brown Floor Tile 411605610-0040A	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
50-Mastic <i>411605610-0040B</i>	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
51-Tan Floor Tile <i>411605610-0041</i>	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
51-Brown Floor Tile <i>411605610-0041A</i>	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring				Positive Stop (Not Analyzed)
51-Mastic <i>411605610-0041B</i>	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
53-Floor Tile <i>411605610-0042</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
53-Mastic <i>411605610-0042A</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
53-Flooring <i>411605610-0042B</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Gray/Tan Fibrous Heterogeneous	5% Cellulose 1% Glass	5% Ca Carbonate 89% Non-fibrous (Other)	None Detected
53-Mastic <i>411605610-0042C</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
53-Backing <i>411605610-0042D</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Gray Fibrous Heterogeneous	8% Cellulose	72% Non-fibrous (Other)	20% Chrysotile
54-Floor Tile <i>411605610-0043</i>	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Brown Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
54-Mastic 411605610-0043A	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
54-Flooring 411605610-0043B	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Gray/Tan Fibrous Homogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
54-Mastic 411605610-0043C	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
56-Gray Floor Tile 411605610-0044	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
56-Mastic 411605610-0044A	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
56-Tan Floor Tile 411605610-0044B	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
56-Mastic 411605610-0044C	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
56-Beige Floor Tile 411605610-0044D	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Beige Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
56-Mastic <i>411605610-0044E</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
56-White Floor Tile <i>411605610-0044F</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	White Non-Fibrous Homogeneous		45% Ca Carbonate 55% Non-fibrous (Other)	None Detected
56-Mastic <i>411605610-0044G</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
57-Gray Floor Tile <i>411605610-0045</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
57-Mastic <i>411605610-0045A</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
57-Tan Floor Tile <i>411605610-0045B</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
57-Mastic <i>411605610-0045C</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
57-Beige Floor Tile <i>411605610-0045D</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Beige Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
57-Mastic <i>411605610-0045E</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
57-White Floor Tile <i>411605610-0045F</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
57-Mastic <i>411605610-0045G</i>	Front Middler Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
59-Flooring <i>411605610-0046</i>	Front Right Bathroom - Wood Pattern Roll Vinyl	Gray/Tan Fibrous Heterogeneous	10% Cellulose 1% Glass	89% Non-fibrous (Other)	None Detected
59-Mastic <i>411605610-0046A</i>	Front Right Bathroom - Wood Pattern Roll Vinyl	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
60-Flooring <i>411605610-0047</i>	Front Right Bathroom - Wood Pattern Roll Vinyl	Brown/Gray Fibrous Homogeneous	8% Cellulose 1% Glass	91% Non-fibrous (Other)	None Detected
60-Mastic <i>411605610-0047A</i>	Front Right Bathroom - Wood Pattern Roll Vinyl	Tan Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
62-Floor Tile <i>411605610-0048</i>	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Tan/White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
62-Mastic <i>411605610-0048A</i>	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
63-Floor Tile <i>411605610-0049</i>	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
63-Mastic <i>411605610-0049A</i>	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Tan Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
65-Skim Coat <i>411605610-0050</i>	Kitchen - Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

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			% Fibrous	% Non-Fibrous	% Type
65-Rough Coat <i>411605610-0050A</i>	Kitchen - Plaster	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
66-Skim Coat <i>411605610-0051</i>	Kitchen - Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
66-Rough Coat <i>411605610-0051A</i>	Kitchen - Plaster	Tan Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
67-Sikim Coat <i>411605610-0052</i>	Kitchen - Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
67-Rough Coat <i>411605610-0052A</i>	Kitchen - Plaster	Tan Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
68 <i>411605610-0053</i>	Shed Roof - Shingles	Gray/Black Fibrous Heterogeneous	5% Glass	10% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
69 <i>411605610-0054</i>	Shed Roof - Shingles	Gray/Black Fibrous Homogeneous	8% Glass	5% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
71-Shingle <i>411605610-0055</i> <i>Only one shingle present</i>	Front Left Roof - Shingle (2) and Felt (1)	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71-Felt <i>411605610-0055A</i>	Front Left Roof - Shingle (2) and Felt (1)	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
72-Gray Shingle <i>411605610-0056</i>	Front Left Roof - Shingle (2) and Felt (1)	Gray/Black Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
72-Black Shingle <i>411605610-0056A</i>	Front Left Roof - Shingle (2) and Felt (1)	Black Fibrous Homogeneous	5% Glass	5% Quartz 8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
72-Felt <i>411605610-0056B</i>	Front Left Roof - Shingle (2) and Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
74-Gray Shingle <i>411605610-0057</i>	Middle Left Roof - Shingles (2) and Felt (1)	Gray/Black Fibrous Heterogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
74-Gray/Black Shingle <i>411605610-0057A</i>	Middle Left Roof - Shingles (2) and Felt (1)	Gray/Black Fibrous Heterogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
74-Felt <i>411605610-0057B</i>	Middle Left Roof - Shingles (2) and Felt (1)	Black Non-Fibrous Homogeneous	100% Cellulose		None Detected
75-Gray Shingle <i>411605610-0058</i>	Middle Left Roof - Shingles (2) and Felt (1)	Gray Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
75-Gray/Black Shingle <i>411605610-0058A</i>	Middle Left Roof - Shingles (2) and Felt (1)	Gray/Black Fibrous Homogeneous	8% Glass	5% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
75-Felt <i>411605610-0058B</i>	Middle Left Roof - Shingles (2) and Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

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			% Fibrous	% Non-Fibrous	% Type
77-Shingle <i>411605610-0059</i>	Rear Left Roof - Green Shingle and Felt (1)	Gray/Black/Green Fibrous Heterogeneous	5% Glass	10% Quartz 10% Ca Carbonate 75% Non-fibrous (Other)	None Detected
77-Felt <i>411605610-0059A</i>	Rear Left Roof - Green Shingle and Felt (1)	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
78-Shingle <i>411605610-0060</i>	Rear Left Roof - Green Shingle and Felt (1)	Black/Green Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
78-Felt <i>411605610-0060A</i>	Rear Left Roof - Green Shingle and Felt (1)	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
80-Gray Shingle <i>411605610-0061</i>	Front Right Roof - Shingles (2) and Felt	Gray Non-Fibrous Homogeneous	30% Cellulose	10% Quartz 60% Non-fibrous (Other)	None Detected
80-Black Shingle <i>411605610-0061A</i>	Front Right Roof - Shingles (2) and Felt	Black Non-Fibrous Homogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
80-Felt <i>411605610-0061B</i>	Front Right Roof - Shingles (2) and Felt	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
81-Gray Shingle <i>411605610-0062</i>	Front Right Roof - Shingles (2) and Felt	Gray Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
81-Black Shingle <i>411605610-0062A</i>	Front Right Roof - Shingles (2) and Felt	Black Fibrous Homogeneous	5% Glass	8% Quartz 10% Ca Carbonate 77% Non-fibrous (Other)	None Detected
81-Felt <i>411605610-0062B</i>	Front Right Roof - Shingles (2) and Felt	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (Other)	None Detected
83-Gray Shingle <i>411605610-0063</i> <i>Only two shingles present</i>	Rear Left Roof - Shingles (3) and Felt	Gray/Black Fibrous Heterogeneous	5% Glass	10% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
83-Black Shingle <i>411605610-0063A</i>	Rear Left Roof - Shingles (3) and Felt	Black Fibrous Homogeneous	5% Glass	8% Quartz 8% Ca Carbonate 79% Non-fibrous (Other)	None Detected
83-Felt <i>411605610-0063B</i>	Rear Left Roof - Shingles (3) and Felt	Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
84-Gray Shingle <i>411605610-0064</i> <i>Only two shingles present</i>	Rear Left Roof - Shingles (3) and Felt	Gray Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
84-Black Shingle <i>411605610-0064A</i>	Rear Left Roof - Shingles (3) and Felt	Black Fibrous Homogeneous	5% Glass	5% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
84-Felt <i>411605610-0064B</i>	Rear Left Roof - Shingles (3) and Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected



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EMSL Order: 411605610

Customer ID: AXEM25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (58)

Erin Guzowski (23)

Eric Loomis (99)

Lee Plumley, Laboratory Manager  
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC NVLAP Lab Code 200841-0, VA 3333 00312

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Phone: (864) 640-5274  
 Fax:  
 Received: 07/22/16 8:45 AM  
 Analysis Date: 7/26/2016  
 Collected:

Project: 152 Palisade St./ 0815-163

### Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
3-Purple Floor Tile 411605610-0065	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Purple Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-Mastic 411605610-0066	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	99.2	0.84 Fibrous (other)	No Asbestos Detected
3-Beige Floor Tile 411605610-0067	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
3-Mastic 411605610-0068	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	99.7	None	0.33% Chrysotile
3-Mastic 411605610-0069	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	99.4	None	0.58% Chrysotile

Analyst(s)

Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
 or other approved signatory

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**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM**  
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SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
3-Mastic 411605610-0070	Far Rear Left Room - Purple 12x12 with Mastic, Yellow Square Pattern 12x12 with Mastic, Grey Speckled 12x12 with Mastic, Grey Stone Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Homogeneous	99.1	None	0.91% Chrysotile
6-Floor Tile 411605610-0071	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-Mastic 411605610-0072	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Clear Non-Fibrous Homogeneous	100	None	No Asbestos Detected
6-Mastic 411605610-0073	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Tan Non-Fibrous Homogeneous	98.4	None	1.6% Chrysotile
6-Mastic 411605610-0073A	2nd from Rear on Left Side - Pink Tile 12x12 with Mastic, Brown and Yellow Roll Vinyl with Mastic, Tan Stone Pattern with Mastic	Brown/Tan Non-Fibrous Heterogeneous	97.8	None	2.2% Chrysotile

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## Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
12-Floor Tile 411605610-0074	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Gray/White Non-Fibrous Homogeneous	99.7	None	0.27% Chrysotile
12-Mastic 411605610-0075	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	100	None	<0.43% Chrysotile
12-Mastic 411605610-0076	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	97.0	None	3.0% Chrysotile
12-Mastic 411605610-0077	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	99.4	None	0.56% Chrysotile
12-Mastic 411605610-0078	3rd Room from Rear on Left - Grey Speckled 12x12 with Mastic, Grey and Brown Square Pattern Roll Vinyl over Two More Layers of Roll Vinyl	Tan Non-Fibrous Homogeneous	97.0	None	3.0% Chrysotile
15-Pink Floor Tile 411605610-0079	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Pink Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)  
 Aaron Hartley (66)

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 or other approved signatory

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### Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
15-Mastic 411605610-0080	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-Tan Floor Tile 411605610-0081	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
15-Mastic 411605610-0082	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	99.2	0.85 Fibrous (other)	No Asbestos Detected
15-Mastic 411605610-0083	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Tan Non-Fibrous Homogeneous	98.7	None	1.3% Chrysotile
15-Mastic 411605610-0084	Janitors Closet - 4 Layers of Flooring, Top Pink Layer already seen, 2nd Tan Strated Pattern, 3rd Layer Grey, 4th Thinner Layer can't tell Color	Brown Non-Fibrous Homogeneous	99.7	0.32 Fibrous (other)	No Asbestos Detected
18-Pink Floor Tile 411605610-0085	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Pink Non-Fibrous Heterogeneous	100	<0.1 Fibrous (other)	No Asbestos Detected

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**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM**  
**via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
18-Mastic 411605610-0086	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
18-Mastic 411605610-0087	Big Room behind Janitors Closet - Top Layer Pink 12x12, Grey 12x12 Tile with Mastic	Brown/Tan Non-Fibrous Heterogeneous	98.1	None	1.9% Chrysotile
21-Pink Floor Tile 411605610-0088	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Pink Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
21-Mastic 411605610-0089	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Tan Non-Fibrous Heterogeneous	99.7	0.30 Fibrous (other)	No Asbestos Detected
21-Mastic 411605610-0090	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Tan Non-Fibrous Heterogeneous	100	None	<0.15% Chrysotile
21-Mastic 411605610-0091	Kitchen - Top Layer Pink 12x12, 2nd Tan Striated 12x12 Tile, 3rd Layer Thin Discolored on both Sides by Mastic	Gray Non-Fibrous Heterogeneous	97.1	None	2.9% Chrysotile
43-Floor Tile 411605610-0092	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Blue Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
43-Mastic 411605610-0093	Front Room with Fireplace - Blue 12x12 Tile and Mastic	Tan Non-Fibrous Heterogeneous	99.4	0.59 Fibrous (other)	No Asbestos Detected

Analyst(s)  
 Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
 or other approved signatory

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**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM**  
**via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
46-Flooring 411605610-0094	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
46-Mastic 411605610-0095	Front Left Side Bathroom - Tan Roll Vinyl Flooring with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
49-Mastic 411605610-0096	Front Left Side Bathroom - Tan and Brown Pattern Roll Vinyl with Mastic	Tan Non-Fibrous Heterogeneous	100	None	<0.51% Chrysotile
52-Tan Floor Tile 411605610-0097	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
52-Mastic 411605610-0098	Left Entrance Room to Left - Brown Pattern 12x12 Self Stick Tile and Stone Pattern 12x12 Self Stick Vinyl Flooring	Brown/Tan Non-Fibrous Heterogeneous	99.4	0.63 Fibrous (other)	No Asbestos Detected
55-Floor Tile 411605610-0099	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
55-Mastic 411605610-0100	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
55-Flooring 411605610-0101	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Gray/Tan Non-Fibrous Heterogeneous	100	<0.30 Fibrous (other)	No Asbestos Detected
55-Mastic 411605610-0102	Hall and Two Rooms to the Right of Middle Entrance - Tan 12x12 Tile with Mastic and Yellowish Roll Vinyl with Mastic	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-Gray Floor Tile 411605610-0103	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-Mastic 411605610-0104	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-Tan Floor Tile 411605610-0105	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

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58-Mastic 411605610-0106	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	<0.51 Fibrous (other)	No Asbestos Detected
58-Beige Floor Tile 411605610-0107	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Beige Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-Mastic 411605610-0108	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-White Floor Tile 411605610-0109	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Gray/White Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
58-Mastic 411605610-0110	Front Middle Entrance Room - Grey 12x12 Tile with Mastic, Tan 12x12 Tile with Mastic, Light Tan 12x12 Tile with Mastic, White 12x12 Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/26/2016 15:58:09

**EMSL Analytical, Inc.**

376 Crompton Street, Charlotte, NC 28273  
 Phone/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411605610  
 CustomerID: AXEM25  
 CustomerPO:  
 ProjectID:

Attn: **Ted Shultz**  
**Apex Environmental Management**  
**7 Winchester Court**  
**Mauldin, SC 29662**

Phone: (864) 640-5274  
 Fax:  
 Received: 07/22/16 8:45 AM  
 Analysis Date: 7/26/2016  
 Collected:

Project: 152 Palisade St./ 0815-163

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM**  
**via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
61-Flooring 411605610-0111	Front Right Bathroom - Wood Pattern Roll Vinyl	Brown/Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
61-Mastic 411605610-0112	Front Right Bathroom - Wood Pattern Roll Vinyl	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
64-Floor Tile 411605610-0113	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Gray Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
64-Mastic 411605610-0114	Right Meeting Room - Grey 12x12 Vinyl Tile with Mastic	Tan Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
70 411605610-0115	Shed Roof - Shingles	Gray/Black Non-Fibrous Heterogeneous	99.2	0.76 Fibrous (other)	No Asbestos Detected
73-Gray Shingle 411605610-0116	Front Left Roof - Shingle (2) and Felt (1)	Gray/Black Non-Fibrous Heterogeneous	99.6	0.42 Fibrous (other)	No Asbestos Detected
73-Black Shingle 411605610-0117	Front Left Roof - Shingle (2) and Felt (1)	Black Non-Fibrous Heterogeneous	99.1	0.86 Fibrous (other)	No Asbestos Detected
73-Felt 411605610-0118	Front Left Roof - Shingle (2) and Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
76-Gray Shingle 411605610-0119	Middle Left Roof - Shingles (2) and Felt (1)	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/26/2016 15:58:09

**EMSL Analytical, Inc.**

376 Crompton Street, Charlotte, NC 28273  
 Phone/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411605610  
 CustomerID: AXEM25  
 CustomerPO:  
 ProjectID:

Attn: **Ted Shultz**  
**Apex Environmental Management**  
**7 Winchester Court**  
**Mauldin, SC 29662**

Phone: (864) 640-5274  
 Fax:  
 Received: 07/22/16 8:45 AM  
 Analysis Date: 7/26/2016  
 Collected:

Project: **152 Palisade St./ 0815-163**

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM**  
**via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
76-Gray/Black Shingle 411605610-0120	Middle Left Roof - Shingles (2) and Felt (1)	Gray/Black Non-Fibrous  Heterogeneous	100	None	No Asbestos Detected
76-Felt 411605610-0121	Middle Left Roof - Shingles (2) and Felt (1)	Black Non-Fibrous Heterogeneous	100	<0.1 Fibrous (other)	No Asbestos Detected
79-Shingle 411605610-0122	Rear Left Roof - Green Shingle and Felt (1)	Black/Green Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
79-Felt 411605610-0123	Rear Left Roof - Green Shingle and Felt (1)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
82-Gray Shingle 411605610-0124	Front Right Roof - Shingles (2) and Felt)	Gray/Black Non-Fibrous Heterogeneous	99.8	0.18 Fibrous (other)	No Asbestos Detected
82-Black Shingle 411605610-0125	Front Right Roof - Shingles (2) and Felt)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
82-Felt 411605610-0126	Front Right Roof - Shingles (2) and Felt)	Brown/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
85-Gray Shingle 411605610-0127	Rear Left Roof - Shingles (3) and Felt)	Gray/Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected
85-Black Shingle 411605610-0128	Rear Left Roof - Shingles (3) and Felt)	Black Non-Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)  
 Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/26/2016 15:58:09



**EMSL Analytical, Inc.**

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Phone/Fax: (704) 525-2205 / (704) 525-2382  
<http://www.EMSL.com> [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411605610  
CustomerID: AXEM25  
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ProjectID:

Attn: **Ted Shultz**  
**Apex Environmental Management**  
**7 Winchester Court**  
**Mauldin, SC 29662**

Phone: (864) 640-5274  
Fax:  
Received: 07/22/16 8:45 AM  
Analysis Date: 7/26/2016  
Collected:

Project: 152 Palisade St./ 0815-163

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM  
via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
85-Felt 411605610-0129	Rear Left Roof - Shingles (3) and Felt)	Black Non-Fibrous Heterogeneous	100	<0.1 Fibrous (other)	No Asbestos Detected

Analyst(s) \_\_\_\_\_  
Aaron Hartley (66)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Charlotte, NC

Initial report from 07/26/2016 15:58:09



107 New Edition Court, Cary, NC 27511  
 Tel: 866-481-1412; Fax: 919-481-1442

411605610  
**CHAIN OF CUSTODY**

<b>LAB USE ONLY:</b>
<b>CEI Lab Code:</b>
<b>CEI Lab I.D. Range:</b>

COMPANY CONTACT INFORMATION	
Company: Apex Environmental Management	Client #:
Address: 7 Winchester Court	Job Contact: Ted Shultz
Mauldin, SC 29662	Email: tshultz@apex-ehs.com
	Tel: 864-404-3210
Project Name: 152 Palisade St	Fax:
Project ID #: 0815-163	P.O. #:

ASBESTOS	METHOD	4 HR*	8 HR*	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD EPA NDB		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>				
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>				
PLM GRAVIMETRIC	EPA 600		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>				

POSITIVE STOP ANALYSIS	<input checked="" type="checkbox"/>
SOUTH CAROLINA SAMPLES	<input checked="" type="checkbox"/>

TEM INSTRUCTIONS	
BEGIN TEM ANALYSIS AFTER NEGATIVE PLM	<input checked="" type="checkbox"/>
ANALYZE TEM SAMPLES SIMULTANEOUSLY WITH PLM	<input type="checkbox"/>

REMARKS: If needed, combine samples from the same group to achieve sufficient weight for TEM analysis.	<input type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th style="width: 30%;">Relinquished By:</th> <th style="width: 20%;">Date/Time</th> <th style="width: 30%;">Received By:</th> <th style="width: 20%;">Date/Time</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Nick Neerhof</td> <td style="padding: 2px;">7/18/2016</td> <td style="padding: 2px; text-align: center;"> <i>Kyle Nbro</i>                      EMSL FAX 751 6933 0657                 </td> <td style="padding: 2px; text-align: center;"> <i>7/19/16 9:45AM</i> </td> </tr> </tbody> </table>	Relinquished By:	Date/Time	Received By:	Date/Time	Nick Neerhof	7/18/2016	<i>Kyle Nbro</i> EMSL FAX 751 6933 0657	<i>7/19/16 9:45AM</i>	
Relinquished By:	Date/Time	Received By:	Date/Time						
Nick Neerhof	7/18/2016	<i>Kyle Nbro</i> EMSL FAX 751 6933 0657	<i>7/19/16 9:45AM</i>						

\*Call to confirm RUSH analysis.

Samples will be disposed of 30 days after analysis



411605610

**SAMPLING FORM**

COMPANY CONTACT INFORMATION	
Company: Apex Env. Mgmt.	Job Contact: Ted Shultz
Project Name: 152 Palisade St	
Project ID #: 0815-163	Tel:803-348-4921

SAMPLE ID#	DESCRIPTION / LOCATION	TEST	
1	Far rear left room/ Purple 12x12 with mastic, yellow square pattern 12x12 with mastic, grey speckled 12x12 with mastic, grey stone pattern roll vinyl with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
2		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
3		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
4	2nd from rear on left side/pink tile 12x12 with mastic, brown and yellow roll vinyl with mastic, tan stone pattern with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
5		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
6		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
7	Hall at 2nd rear room/skim coat over block with paper	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
8		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
9		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
10	3rd room from rear on left/grey speckled 12x12 with mastic, grey and brown square pattern roll vinyl over two more layers of roll vinyl	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
11		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
12		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
13	Janitors closet/4 layers of flooring, top pink layer already seen, 2nd tan strated pattern, 3rd layer grey, 4th thinner layer can't tell color	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
14		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
15		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
16	Big room behind janitors closet/top layer pink 12x12, grey 12x12 tile with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
17		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
18		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
19	Kitchen/top layer pink 12x12, 2nd tan striated 12x12 tile, 3rd layer thin discolored on both sides by mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
20		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
21		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
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		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>

411605610



**SAMPLING FORM**

COMPANY CONTACT INFORMATION	
Company: Apex Env. Mgmt.	Job Contact: Ted Shultz
Project Name: 152 Palisade St	
Project ID #: 0815-163	Tel:803-348-4921

SAMPLE ID#	DESCRIPTION / LOCATION	TEST	
		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
22		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
23		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
24		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
25		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
26		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
27		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
28		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
29	Through interior with sample numbers on wall at sample sight/Drywall with joint compound	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
30		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
31		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
32		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
33		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
34		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
35		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
36		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
37		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
38	Shed/Black floor mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
39		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
40		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
41	Front room with fireplace/blue 12x12 tile and mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
42		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
43		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
44	Front left side bathroom/Tan roll vinyl flooring with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
45		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
46		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
47	Left front door entrance area/tan and brown pattern roll vinyl with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
48		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
49		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>
		PLM <input type="checkbox"/>	TEM <input type="checkbox"/>

411605610



**SAMPLING FORM**

COMPANY CONTACT INFORMATION	
Company: Apex Env. Mgmt.	Job Contact: Ted Shultz
Project Name: 152 Palisade St	
Project ID #: 0815-163	Tel:803-348-4921

SAMPLE ID#	DESCRIPTION / LOCATION	TEST	
50	Left entrance room to left/Brown pattern 12x12 self stick tile and stone pattern 12x12 self stick vinyl flooring	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
51		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
52		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
53	Hall and two rooms to the right of middle entrance/Tan 12x12 tile with mastic and yellowish roll vinyl with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
54		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
55		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
56	Front middle entrance room/Grey 12x12 tile with mastic, Tan 12x12 tile with mastic, light tan 12x12 tile with mastic, white 12x12 tile with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
57		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
58		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
59	Front right bathroom/Wood pattern role vinyl	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
60		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
61		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
62	Right meeting room/Grey 12x12 vinyl tile with mastic	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
63		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
64		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
65	Ktichen/Plaster	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
66		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
67		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
68	Shed roof/Shingles	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
69		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
70		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
71	Front left roof/Shingle(2) and Felt(1)	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
72		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
73		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
74	Middle left roof/Shingles(2) and Felt(1)	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
75		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
76		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
77	Rear left roof/Green shingle and Felt(1)	PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
78		PLM <input checked="" type="checkbox"/>	TEM <input type="checkbox"/>
79		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>



**SECTION IV**  
**Photographic Log**

Asbestos & Lead Assessment  
City of Spartanburg  
152 Palisade Street  
Spartanburg, South Carolina



Photo 1 – 152 Palisade Street, Spartanburg SC



Photo 2 – Front middle entrance room, multiple flooring



Photo 3 – Rear Shed



Photo 4 – Front Right bathroom flooring



Photo 5 – Flooring in Hall and 2 rooms right of middle.



Photo 6 – Front left roof, roof shingles(2) and felt(1)

Asbestos & Lead Assessment  
City of Spartanburg  
152 Palisade Street  
Spartanburg, South Carolina



Photo 7 – Middle left roof, roof shingles(2) and felt(1)



Photo 8 – Rear left roof, green roof shingles(1) and felt(1)



Photo 9 -



Photo 10 – Rear low roof, roof shingle(3) and felt(1)



Photo 11 – Front left side bathroom, tan roll vinyl flooring with mastic



Photo 12 – 3<sup>rd</sup> from rear room multiple types of flooring



Photo 13 - big room behind janitors closet, top layer pink 12"x12" vinyl flooring, grey 12"x12" tile with mastic



Photo 14 - Drywall over plaster



Photo 15 - Multiple flooring types



Photo 16 - third room from rear on left side, grey speckled 12"x12" vinyl flooring with mastic, three more layers of roll vinyl



Photo 17 - Far rear left room, purple 12"x12" vinyl flooring with mastic and multiple layers



Photo 18 - Janitors closet, 4 layers of flooring

**SECTION V**

**SC DHEC Asbestos Inspector License**

**North Carolina  
Asbestos Accreditation**



Tedman K Shultz  
201 Cannon Circle  
Greenville, SC 29607

110723

EXPIRATION			
02-28-2017			
DOB	SEX	HT	WT
03-16-1972	M	5'10"	270
CLASS	#	EXP	
AIR MONITOR	80864	02-17	
INSPECTOR	12900	01-17	

**SCDHEC ISSUED**  
Asbestos ID Card

**Tedman K Shultz**

Expiration Date



**AIRSAMPLER AS-00355 02/02/17**  
**CONSULTBI BI-00971 01/20/17**