Asbestos & Lead Based Paint Assessment

City of Spartanburg
741 Hayne Street
Spartanburg, South Carolina 29301

Prepared for:
The City of Spartanburg
440 South Church St., Suite B
Spartanburg, South Carolina 29306

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

Project Number: 0521-99

October 29, 2021

APEX ENVIRONMENTAL HEALTH & SAFETY
NAVIGATING YOUR NEEDS

7 Winchester Court
Mauldin, SC 29662
864.404.3210 office
864.404.3213 fax

802 E. Martintown Rd.
Suite 208
N. Augusta, SC 29841
803.440.2790 office

www.apex-ehs.com

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Apex Project Number 0521-99

October 29, 2021

Mr. Jeff Tillerson
City of Spartanburg
440 South Church Street, Suite B
Spartanburg, SC 29306

Reference: Asbestos and Lead-Based Paint Assessment Services
741 Hayne Street
Spartanburg, South Carolina 29301

Dear Mr. Tillerson:

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.

Stephanie Hamby
Project Manager

Tom Oliver
Vice President

Appendices

ASBESTOS AND LEAD BASED PAINT ASSESSMENT

CITY OF SPARTANBURG
741 HAYNE STREET
SPARTANBURG, SOUTH CAROLINA 29301

APEX PROJECT NO. 0521-99

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SECTION

SECTION I

Asbestos & Lead Evaluation Report

ASBESTOS EVALUATION REPORT
APEX PROJECT NUMBER: 0521-99

Date:	10/29/2021	Page Number:	1 of 4
Client:	City of Spartanburg	Client Contact:	Mr. Jeff Tillerson
Client Address:	440 South Church Street Suite B Spartanburg, SC 29306	Client Phone Number:	(864) 596-2911
Project:	Asbestos Evaluation and Lead Based Paint Assessment		
Property Address:	741 Hayne Street Spartanburg, SC 29303		
Assessor:	Stephanie Hamby	Date of Assessment:	9/15/2021
Company:	Apex Environmental Management 7 Winchester Court Mauldin, SC 29662	Phone Number:	(864) 404-3210
Purpose of Assessment:	Demolition	Age of Structure:	Not provided
Building Type:	Residential	Number of Stories:	1
Foundation:	Crawlspace	Approximate Square Footage	1,400 SF

EXTERIOR BUILDING MATERIALS

- Gable roof system with four layers of shingles with tar.
- Wood windows with glazing.
- CMU block walls.
- Aluminum siding over wood siding.
- Significant damage to foundation throughout front left front and back side of residence.
- Chimney with tar.

INTERIOR BUILDING MATERIALS

- Three types of flooring in bathroom. One layer is located under wood floor.
- Hard wood flooring throughout.
- Collapsed floors throughout residence.
- Plaster on walls throughout and on ceilings under two types of 2”x4” ceiling tiles.
- Several layers of flooring observed in kitchen was inaccessible due to structural damage to floor.
- Wood paneling located on walls throughout.
- Drywall walls with finish sporadic.

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. Twenty-eight (28) bulk samples were collected during the survey and submitted to EMSL in Pineville, 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. Forty-two (42) samples were analyzed due to layering by PLM and positive stop methods. 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). Ten (10) samples were analyzed using TEM.

Lead-Based Paint

Lead painted surfaces were not analyzed due to inaccessibility to several painted surfaces and safety concerns.

RESULTS

Asbestos Results

The EPA defines an asbestos-containing material (ACM) as a material containing more than 1% asbestos. OSHA defines ACM as a material containing detectable amounts of asbestos. Provided below is a general discussion of the asbestos containing materials identified in the residence. A specific *PLM and TEM Data Table* is located in Appendix II of this report and identifies positive materials and designates approximate quantities.

The foundation was observed to have significant damage to structural beams throughout the left side of the residence. Several floors in the building were collapsed at the time of the assessment. A limited assessment was conducted due to safety concerns. Sampling was performed in areas Apex could safely access suspect materials through exterior openings and in debris piles. Apex recommends that the residence be demolished in place and materials be treated and disposed of as friable, regulated ACM.

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

- Approximately 1,400 SF contaminated and unassessed suspect ACM within the residence and associate debris piles.

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. 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. Demolish the residence with ACM in place and dispose of the waste stream as friable Regulated Asbestos Containing Materials (RACM) and delivered to an asbestos approved hazardous waste landfill for disposal.

2. Air monitoring will be required by SC DHEC.

3. 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

Changes to state and federal regulations have changed the disposal options for LBP waste and LBP residue. LBP waste is defined as material such as wood, brick, metal, etc. that is coated with LBP. LBP residue is defined as residue that is generated from the removal (scraped, chipped, sandblasted, chemical means, etc.) of LBP from a structure. The regulations allow LBP waste from residential and commercial structures to be disposed of in Class 2 (construction and demolition debris) and Class 3 (municipal solid waste or industrial) landfills in South Carolina. The management of LBP residue is based on the source and lead concentration characterized by Toxic Characteristic Leaching Procedures (TCLP) to determine if the waste is classified as hazardous or non-hazardous. LBP residues that have TCLP sample results less than 5 milligrams

per liter (mg/L) lead may be disposed of in a Class 3 landfill and is considered to be non-hazardous. LBP residues that have TCLP sample results equal to or greater than 5 mg/L lead should be disposed of in a Subtitle C landfill and is considered to be hazardous. 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^2 or above to satisfy the OSHA requirements. If a baseline exposure lower than the OSHA Action Level of 30 micrograms per cubic meter ($\mu g/m^3$) 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 Data Table

ASBESTOS SURVEY FIELD DATA SHEET
PLM & TEM ANALYSIS

Project Name: COS 741 Hayne Street ACM-LBP

Sampled By: S. Hamby

Project Location: 741 Hayne Street, Spartanburg, South Carolina 29301

Project Manager: Tom Oliver

Project Number: 0521-99

Date: 9/15/2021

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Roof	4 layer of shingles, no felt, with tar	PLM - NAD	Non-Friable	Good	1,800 SF
2						
3			TEM - NAD			
4	Windows	Glazing	PLM - NAD	Non-Friable	Good	10 EA
5						
6			TEM - NAD			
7	Chimney	Tar	PLM - NAD	Non-Friable	Damaged	10 EA
8						
9			TEM - NAD			
10	Walls and ceilings throughout	Plaster with finish	PLM - NAD	Friable	Good	4,000 SF
11						
12						
13						
14						
15	Walls throughout scattered	Drywall with finish	PLM - NAD	Friable	Significantly damaged	2,000 SF
16						
17						
18						
19						
20	Bathroom floor	Tan & blue under floor, 12"x12" black & white marble pattern, 12"x12" tan square pattern flooring	PLM - NAD	Non-Friable	Good	115 SF
21						
22			TEM - NAD			

ASBESTOS SURVEY FIELD DATA SHEET
PLM & TEM ANALYSIS

Project Name: COS 741 Hayne Street ACM-LBP

Sampled By: S. Hamby

Project Location: 741 Hayne Street, Spartanburg, South Carolina 29301

Project Manager: Tom Oliver

Project Number: 0521-99

Date: 9/15/2021

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
23	Ceiling grid throughout sporadic	2'x4' worm hole pattern ceiling tile	PLM - NAD	Friable	Good	130 SF
24						
25						
26	Ceiling grid throughout sporadic	2'x4' fissure ceiling tile	PLM - NAD	Friable	Good	180 SF
27						
28						
Assumed	**House/unassessed area**	**House/unassessed area**	**Assumed**	**Friable**	**Significantly damaged**	**1,400 SF**

NAD = No Asbestos Detected
LF = Linear Feet
EA = Each
Bold = Positive For Asbestos
SF = Square Feet
Chry = Chrysotile

SECTION III

Laboratory Analytical Results & Chain of Custody

EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

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

http://www.EMSL.com / charlottelab@emsl.com

EMSL Order:	412109049
Customer ID:	AXEM25
Customer PO:	
Project ID:	

Attention:	Stephanie Hamby	**Phone:**	(864) 918-1433
	Apex Environmental Management	**Fax:**	
	7 Winchester Court	**Received Date:**	09/24/2021 9:50 AM
	Mauldin, SC 29662	**Analysis Date:**	09/30/2021
		Collected Date:	
Project:	0521-99 741 Hayne St.		

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-Shingle 1 *412109049-0001*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Non-Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
1-Shingle 2 *412109049-0001A*	Roof - 4 Shingles (Layers) w/ Tar	White/Black/Green Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
1-Shingle 3 *412109049-0001B*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Fibrous Heterogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
1-Shingle 4 *412109049-0001C*	Roof - 4 Shingles (Layers) w/ Tar	Black/Green Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
1-Tar *412109049-0001D*	Roof - 4 Shingles (Layers) w/ Tar	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
2-Shingle 1 *412109049-0002*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
2-Shingle 2 *412109049-0002A*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
2-Shingle 3 *412109049-0002B*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
2-Shingle 4 *412109049-0002C*	Roof - 4 Shingles (Layers) w/ Tar	Gray/Black/Green Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
2-Tar *412109049-0002D*	Roof - 4 Shingles (Layers) w/ Tar	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
4 *412109049-0003*	Windows - Glazing	Gray/Tan Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
5 *412109049-0004*	Windows - Glazing	Tan/White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
7 *412109049-0005*	Chimney - Tar	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
8 *412109049-0006*	Chimney - Tar	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
10 *412109049-0007*	Walls & Ceiling Throughout - Plaster	Tan Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 10% Ca Carbonate 60% Non-fibrous (Other)	None Detected
11 *412109049-0008*	Walls & Ceiling Throughout - Plaster	Tan Non-Fibrous Homogeneous		35% Quartz 65% Non-fibrous (Other)	None Detected

Initial report from: 10/01/2021 09:13:50

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10801 Southern Loop Blvd Pineville, NC 28134
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EMSL Order: 412109049
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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
12 *412109049-0009*	Walls & Ceiling Throughout - Plaster	Tan Non-Fibrous Homogeneous	<1% Cellulose	35% Quartz 5% Ca Carbonate 60% Non-fibrous (Other)	None Detected
13 *412109049-0010*	Walls & Ceiling Throughout - Plaster	Tan/Beige Fibrous Heterogeneous	1% Hair	35% Quartz 64% Non-fibrous (Other)	None Detected
14-Rough Coat *412109049-0011*	Walls & Ceiling Throughout - Plaster	Tan/Beige Fibrous Heterogeneous	1% Cellulose	35% Quartz 64% Non-fibrous (Other)	None Detected
14-Skim Coat *412109049-0011A*	Walls & Ceiling Throughout - Plaster	Beige Non-Fibrous Heterogeneous		35% Quartz 65% Non-fibrous (Other)	None Detected
15-Drywall *412109049-0012*	Walls Throughout - Scattered - Drywall w/ Finish	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
15-Finish *412109049-0012A*	Walls Throughout - Scattered - Drywall w/ Finish	Tan/Green Non-Fibrous Homogeneous	2% Cellulose	5% Ca Carbonate 93% Non-fibrous (Other)	None Detected
16-Drywall *412109049-0013*	Walls Throughout - Scattered - Drywall w/ Finish	Gray Fibrous Heterogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
16-Finish *412109049-0013A*	Walls Throughout - Scattered - Drywall w/ Finish	Tan/Green Non-Fibrous Homogeneous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected
17-Drywall *412109049-0014*	Walls Throughout - Scattered - Drywall w/ Finish	Gray Fibrous Heterogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
17-Finish *412109049-0014A*	Walls Throughout - Scattered - Drywall w/ Finish	Tan/Green Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
18-Drywall *412109049-0015*	Walls Throughout - Scattered - Drywall w/ Finish	Brown/Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18-Finish *412109049-0015A*	Walls Throughout - Scattered - Drywall w/ Finish	Green/Beige Non-Fibrous Homogeneous	4% Cellulose	8% Ca Carbonate 88% Non-fibrous (Other)	None Detected
19-Drywall *412109049-0016*	Walls Throughout - Scattered - Drywall w/ Finish	Brown/Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-Finish *412109049-0016A*	Walls Throughout - Scattered - Drywall w/ Finish	Green/Beige Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
20-Floor Tile 1 *412109049-0017*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	Tan Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
20-Floor Tile 2 *412109049-0017A*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	White/Black Non-Fibrous Homogeneous	5% Synthetic	20% Quartz 75% Non-fibrous (Other)	None Detected
20-Vinyl Sheet Flooring *412109049-0017B*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	Red/Black/Green Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected

Initial report from: 10/01/2021 09:13:50

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10801 Southern Loop Blvd Pineville, NC 28134
Tel/Fax: (704) 525-2205 / (704) 525-2382
http://www.EMSL.com / charlottelab@emsl.com

EMSL Order: 412109049
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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
21-Floor Tile 1 *412109049-0018*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	Tan/Beige Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
21-Floor Tile 2 *412109049-0018A*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	White/Black Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
21-Vinyl Sheet Flooring *412109049-0018B*	Bathroom Floor - 12x12 Tan Square Flooring, 12x12 B & W Marble Pattern & Tan & Blue Roll Vinyl	Brown/Green Fibrous Heterogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
23 *412109049-0019*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Wormhole Pattern	Tan Fibrous Homogeneous	40% Cellulose 10% Glass	30% Perlite 20% Non-fibrous (Other)	None Detected
24 *412109049-0020*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Wormhole Pattern	Tan Fibrous Heterogeneous	40% Cellulose 10% Glass	30% Perlite 20% Non-fibrous (Other)	None Detected
25 *412109049-0021*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Wormhole Pattern	Tan/White/Beige Fibrous Heterogeneous	55% Cellulose 8% Min. Wool	30% Perlite 7% Non-fibrous (Other)	None Detected
26 *412109049-0022*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Fissure Pattern	Tan Fibrous Heterogeneous	40% Cellulose 10% Glass	30% Perlite 20% Non-fibrous (Other)	None Detected
27 *412109049-0023*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Fissure Pattern	Tan Fibrous Homogeneous	40% Cellulose 15% Glass	30% Perlite 15% Non-fibrous (Other)	None Detected
28 *412109049-0024*	Ceiling Grid - Sporadic - 2x4 Ceiling Tile - Fissure Pattern	Tan/White/Beige Fibrous Heterogeneous	60% Cellulose 8% Min. Wool	30% Perlite 2% Non-fibrous (Other)	None Detected

Analyst(s)
Cameron Evans (23)
Ryan Rains (19)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

Initial report from: 10/01/2021 09:13:50

EMSL Analytical, Inc.
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EMSL Order: 412109049
Customer ID: AXEM25
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Project ID:

Attention: Stephanie Hamby
Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

Project: 0521-99 741 Hayne St.

Phone: (864) 918-1433
Fax:
Received Date: 09/24/2021 9:50 AM
Analysis Date: 10/06/2021
Collected Date:

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-Shingle 1 *412109049-0025*	Roof	Gray/Black/Green Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
3-Shingle 2 *412109049-0026*	Roof	Gray/Black/Green Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
3-Shingle 3 *412109049-0027*	Roof	Gray/Black/Green Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
3-Shingle 4 *412109049-0028*	Roof	Gray/Black/Green Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
3-Tar *412109049-0029*	Roof	Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
6 *412109049-0030*	Windows	Tan/White Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
9 *412109049-0031*	Chimney	Brown/Black Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected
22-Floor Tile 1 *412109049-0032*	Bathroom Floor	Tan/Beige Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
22-Floor Tile 2 *412109049-0033*	Bathroom Floor	White/Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
22-Vinyl Sheet Flooring *412109049-0034*	Bathroom Floor	Brown/Black/Green Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from: 10/06/2021 13:37:14

EMSL Analytical, Inc.
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Tel/Fax: (704) 525-2205 / (704) 525-2382
http://www.EMSL.com / charlottelab@emsl.com

EMSL Order: 412109049
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Attention: Stephanie Hamby
Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

Project: 0521-99 741 Hayne St.

Phone: (864) 918-1433
Fax:
Received Date: 09/24/2021 9:50 AM
Analysis Date: 10/06/2021
Collected Date:

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

Analyst(s)

Stephen Bennett (10)

Lee Plumley, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. EMSL recommends that samples reported as none detected or <1% undergo additional analysis via PLM to avoid the possibility of false negatives.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from: 10/06/2021 13:37:14

OrderID: 412109049

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only: 412109049

EMSL Analytical, Inc.
10801 Southern Loop Blvd
Pineville, NC 28134
PHONE: (704) 525-2205
EMAIL: charlottelab@EMSL.com

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	Apex Environmental Management	Company Name:	Apex Environmental Management
Contact Name:	Stephanie Hamby	Billing Contact:	Stephanie Hamby
Street Address:	7 Winchester Court	Street Address:	7 Winchester Court
City, State, Zip:	Mauldin SC 29662 Country: US	City, State, Zip:	Mauldin SC Country: US
Phone:	864-918-1433	Phone:	864-918-1433
Email(s) for Report:	shamby@apex-ehs.com	Email(s) for Invoice:	

Project Information

Project Name/No:	0521-99 741 Hayne St	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected: SC	State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name: T. Oliver	Sampled By Signature:	Date Sampled: 9-15-21	No. of Samples In Shipment: 28

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☑ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11 30am.

Test Selection

PLM - Bulk (reporting limit)

- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Bulk

- ☑ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable - NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Tests (please specify)

☑ Positive Stop - Clearly Identified Homogeneous Areas (HA)

Sample Number	HA Number	Sample Location	Material Description
1		~~Shed~~ Roof	4 Shingles (layers),
2		"	w/tar
3		"	"
4		Windows	Glazing
5		"	"
6		"	"
7		Chimney	Tar
8		"	"
9		"	"

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: FedEx		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 9-16-21 10A	Received by: KN	Date/Time: 9/24/21 950AM
Relinquished by:	Date/Time:	Received by: Fx 2837 5140 4535	Date/Time

Controlled Document - Asbestos Bulk R7 9/14/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

OrderID: 412109049

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

9049

EMSL Analytical, Inc.
10801 Southern Loop Blvd
Pineville, NC 28134
PHONE: (704) 525-2205
EMAIL: charlottelab@EMSL.com

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	HA Number	Sample Location	Material Description
10		Walls & Ceiling Throughout	Plaster
11		↓	↓
12		↓	↓
13		↓	↓
14		↓	↓
15		Walls throughout -	Drywall w/
16		scattered	finish
17		↓	↓
18		↓	↓
19		↓	↓
20		Bathroom floor	12x12 tan square floors
21		↓ 12x12	B&W marble patter &
22		↓	Tan & Blue roll vinyl
23		Ceiling Grid - Sporadic	2x4 ceiling tile -
24		↓	worm hole pattern
25		↓	↓
26		Ceiling Grid - Sporadic	2x4 ceiling tile -
27		↓	fissure pattern
28		↓	↓

Method of Shipment: FedEx		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 9-16-21 PA	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - Asbestos Bulk R7 08/14/2021

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SECTION IV

Photographic Log

Photo 1 – 741 Hayne Street in Spartanburg, South Carolina 29303

Photo 2 – Four layers of shingles with tar and no felt.

Photo 3 – Tar on chimney.

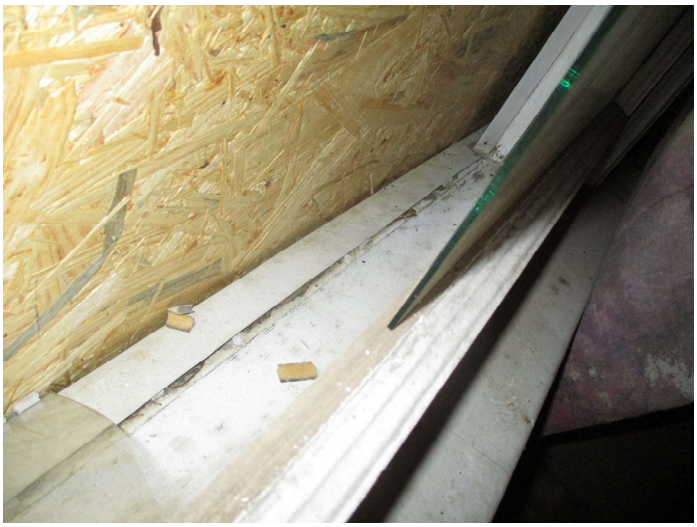

Photo 4 – Glazing on wood windows.

Photo 5 – Typical view of wood windows.

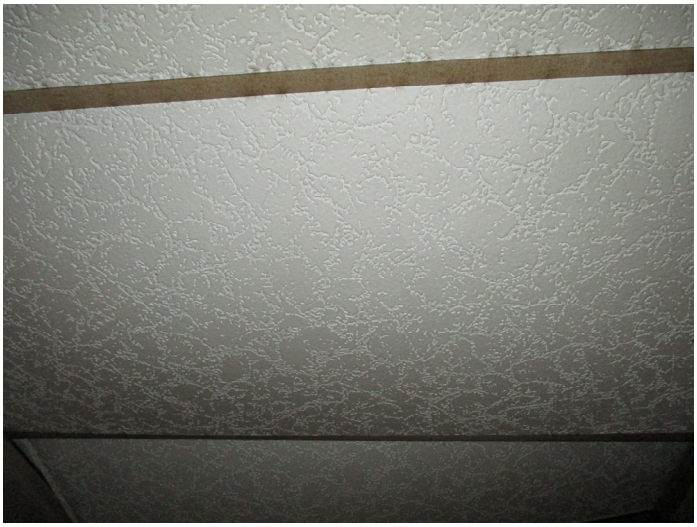

Photo 6 – 2'x4' fissure pattern ceiling tile.

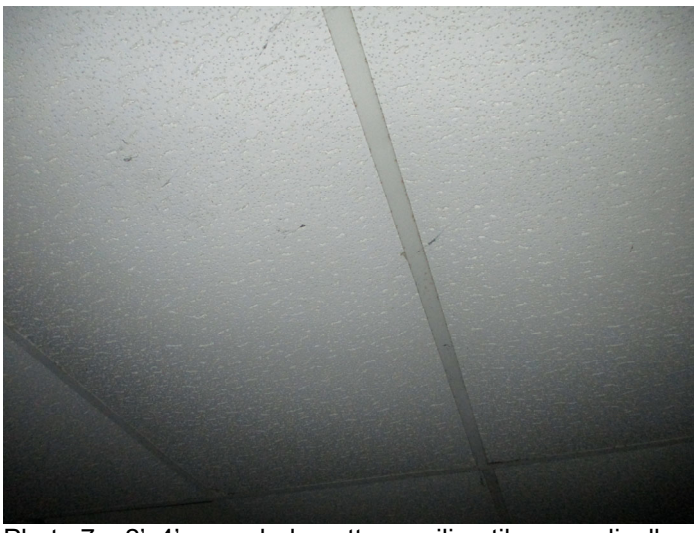
Photo 7 – 2'x4' worm hole pattern ceiling tile sporadically throughout.

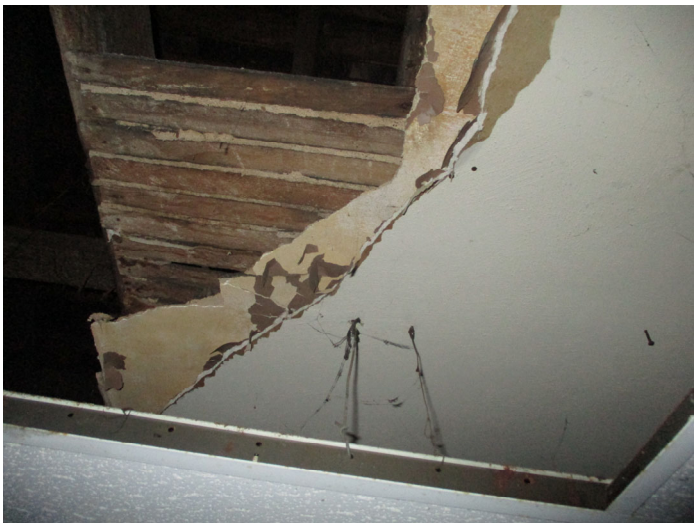
Photo 8 – Plaster on ceiling under 2'x4' ceiling tiles sporadically throughout.


Photo 9 – Plaster with finish and drywall walls throughout.


Photo 10 – Wood paneling over plaster walls


Photo 11 – Structural damage to left front room.

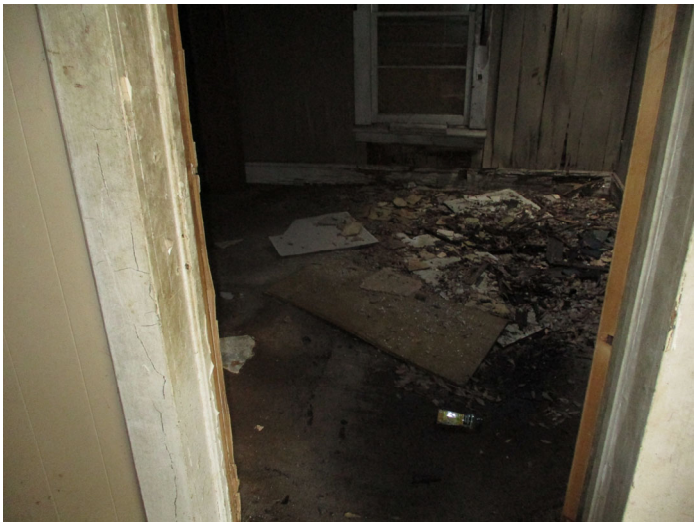
Photo 12 – Building debris throughout.

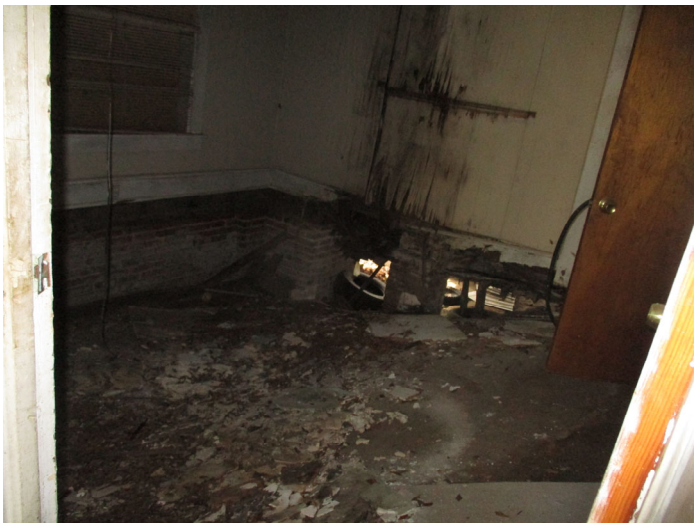
Photo 13 – Structural damage to left rear room. Room was not assessed.

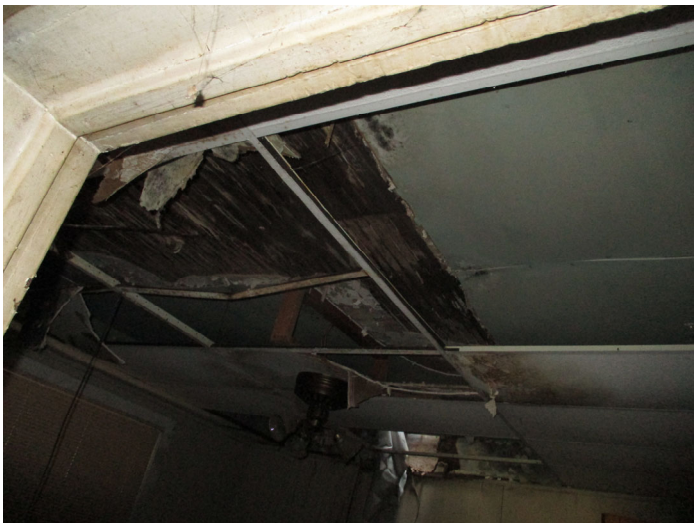
Photo 14 – Wood ceiling above ceiling grid and plaster.


Photo 15 – 12”x12” black and white marble pattern and 12”x12” tan square pattern in bathroom.


Photo 16 – Tan and blue vinyl flooring under thin wood floor in bathroom.

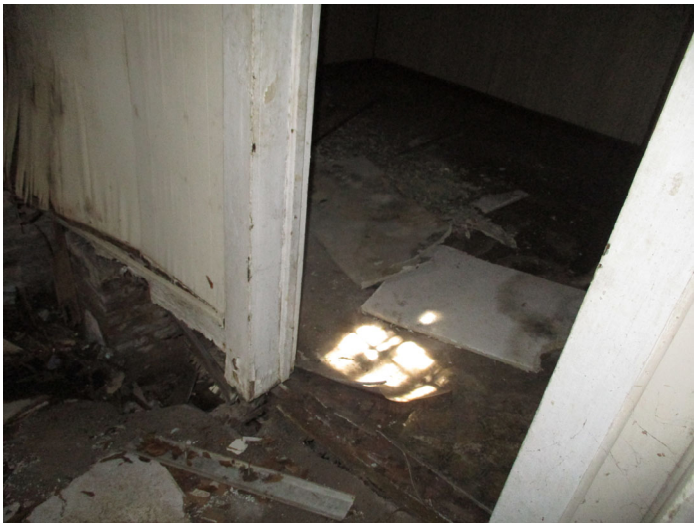
Photo 17 – Damage to floor entering into the kitchen.

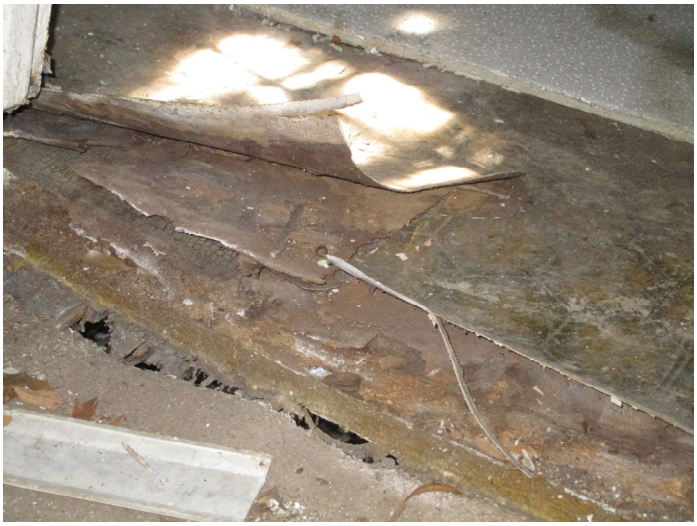
Photo 18 – Vinyl flooring in kitchen inaccessible due unstable floor.

SECTION V

SC DHEC Asbestos Inspector License

SCDHEC ISSUED
Asbestos ID Card

STEPHANIE HAMBY

		Expiration Date:
AIRSAMPLER	AS-000632	08/05/22
CONSULTBI	BI-01894	01/12/22