



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

City of Spartanburg  
342 Allen 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: 0124-01

January 31, 2024





**Apex Project Number 0124-01**

January 31, 2024

Mr. Martin Livingston  
City of Spartanburg  
440 South Church Street, Suite B  
Spartanburg, SC 29306

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

Dear Mr. Livingston:

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.**

Ted Shultz  
Project Manager

Rebecca Shultz CIH, CSP  
President

Appendices

7 Winchester Court  
Mauldin, SC 29662  
864.404.3210 office  
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**ASBESTOS AND LEAD BASED PAINT ASSESSMENT**

**CITY OF SPARTANBURG  
342 ALLEN STREET  
SPARTANBURG, SOUTH CAROLINA 29303**

**APEX PROJECT NO. 0124-01**

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**SECTION I**

**Asbestos & Lead Evaluation Report**

<b>ASBESTOS EVALUATION REPORT</b> <b>APEX PROJECT NUMBER: 0122-17</b>
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Date:	1/31/2024	Page Number:	1 of 4
Client:	City of Spartanburg	Client Contact:	Mr. Martin Livingston
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:	342 Allen Street Spartanburg, SC 29301		
Assessor:	Ted Shultz	Date of Assessment:	1/11/2024
Company:	Apex Environmental Management 7 Winchester Court Mauldin, SC 29662	Phone Number:	(864) 404-3210
Purpose of Assessment:	Demolition	Age of Structure:	Approximately 87 years
Building Type:	Residential	Number of Stories:	1
Foundation:	Brick & CMU Crawlspace	Approximate Square Footage:	900 SF

**EXTERIOR BUILDING MATERIALS**

- Pitched roof with black shingles & felt.
- Wood siding.
- Vinyl windows with no glazing.
- Tar on 1 chimney – assumed positive-ACM.

**INTERIOR BUILDING MATERIALS**

- Multiple types & layers of vinyl flooring with & without mastic.
- Drywall with joint compound on walls and ceiling throughout.
- Popcorn ceiling texture in rear addition.

## **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 Scientific Analytical Institute (SAI) as an NVLAP certified laboratory, their accreditation number is 200664-0.
- 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 three (23) 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 200664-0. EPA regulations require that multiple samples of each homogeneous material be collected for laboratory analysis. Thirty-seven (37) 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). Five (5) 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 Results**

The EPA defines an asbestos-containing material (ACM) as a material containing more than 1% asbestos. It should be noted that the wooden window glazing was identified to contain less than 1% asbestos and OSHA Construction Industry Asbestos Standards (29 CFR 1926.1101) will apply if those materials are disturbed during renovation or demolition activities. 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.

No asbestos containing materials were identified.

### 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, HUD and the EPA define LBP as paint containing in excess of, or equal to,  $1.0 \text{ mg}/\text{cm}^2$ . *XRF LBP Data Sheets* providing XRF results for testing combinations can be found in the Appendices at the conclusion of this report.

Several surfaces in the building tested positive for lead in excess of the regulatory definition:

#### Exterior

- Grey metal porch ceiling header
- Blue metal window frame

#### Interior

- White wood door frame
- White wood wall

## **RECOMMENDATIONS AND DISCUSSION**

### Asbestos Containing Materials

No asbestos containing materials were identified, Apex has no further recommendations.

### 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  $0.1 \text{ mg}/$

*City of Spartanburg  
342 Allen Street  
Apex Project No. 0124-01  
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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  
PLM & TEM ANALYSIS**

Project Name: COS 342 Allen Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 342 Allen Street, Spartanburg, South Carolina 29301

Project Manager: Ted Shultz

Project Number: 0122-17

Date: 1/31/2024

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Roof	1 Shingle, 1 Felt	PLM - NAD	Non-Friable	Good	1,250 SF
2			TEM - NAD			
3						
4	Front Living Room	Woodgrain Self-Stick Vinyl Flooring	PLM - NAD	Non-Friable	Good	150 SF
5			TEM - NAD			
6						
7	Kitchen, Side Room and Bathroom	2 Layers Vinyl Flooring 1 Woodgrain, 1 Speckled w/Mastic	PLM - NAD	Non-Friable	Good	300 SF
8			TEM - NAD			
9						
10	Rear Addition	Ceiling Texture	PLM - NAD	Friable	Good	300 SF
11						
12						
13						
14						
15						
16						
17						
18						
19	Throughout Walls and Ceilings	Drywall with Joint Compound	PLM - NAD	Friable	Good	3,500 SF
20						
21						
22						
23						

NAD = No Asbestos Detected  
**Bold = Positive For Asbestos**

LF = Linear Feet  
SF = Square Feet

EA = Each  
Chry = Chrysotile

**ASBESTOS SURVEY FIELD DATA SHEET  
PLM & TEM ANALYSIS**

Project Name: COS 342 Allen Street ACM/LBP

Sampled By: Ted Shultz

Project Location: 342 Allen Street, Spartanburg, South Carolina 29301

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Project Number: 0122-17

Date: 1/31/2024

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Roof	1 Shingle, 1 Felt	PLM - NAD	Non-Friable	Good	1,250 SF
2			TEM - NAD			
3						
4	Front Living Room	Woodgrain Self-Stick Vinyl Flooring	PLM - NAD	Non-Friable	Good	150 SF
5			TEM - NAD			
6						
7	Kitchen, Side Room and Bathroom	2 Layers Vinyl Flooring 1 Woodgrain, 1 Speckled w/Mastic	PLM - NAD	Non-Friable	Good	300 SF
8			TEM - NAD			
9						
10	Rear Addition	Ceiling Texture	PLM - NAD	Friable	Good	300 SF
11						
12						
13						
14						
15						
16						
17						
18						
19	Throughout Walls and Ceilings	Drywall with Joint Compound	PLM - NAD	Friable	Good	3,500 SF
20						
21						
22						
23						

NAD = No Asbestos Detected  
**Bold = Positive For Asbestos**

LF = Linear Feet  
SF = Square Feet

EA = Each  
Chry = Chrysotile

**FIELD DATA SHEET  
XRF LBP ANALYSIS**

Project Name: COS 342 Allen Street ACM/LBP

Sampled By: Tom Oliver

Project Location: 342 Allen Street, Spartanburg, SC 29303

Project Manager: Ted Shultz

Project Number: 0124-01

Date: 1/16/2024

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m <sup>3</sup> )
1		Calibration			1.18
2		Calibration			1.16
3		Calibration			1.17
4	Exterior	Door	White	Metal	0.00
5	Exterior	Door frame	Gray	Metal	0.00
6	Exterior	Siding	Yellow	FFV	0.00
7	Exterior	Porch ceiling	Blue	FFV	0.01
<b>8</b>	<b>Exterior</b>	<b>Porch ceiling header</b>	<b>Gray</b>	<b>FFM</b>	<b>4.13</b>
9	Exterior	Window frame	Blue	Wood	0.01
10	Exterior	Soffit	Blue	FFV	0.03
11	Exterior	Fascia	Blue	FFM	0.15
12	Exterior	Foundation	Blue	CMU block	0.00
13	Exterior	Window	White	Metal	0.00
<b>14</b>	<b>Exterior</b>	<b>Window frame</b>	<b>Blue</b>	<b>FFM</b>	<b>&gt;5.00</b>
15	Exterior	Foundation	Blue	Brick	0.03
16	Interior	Wall	Blue	Drywall	0.01
17	Interior	Ceiling	White	Drywall	0.00
18	Interior	Window frame	White	Wood	0.00
19	Interior	Window sill	White	Wood	0.00
20	Interior	Base board	White	Wood	0.53
21	Interior	Crown molding	White	Wood	0.00
<b>22</b>	<b>Interior</b>	<b>Door frame</b>	<b>White</b>	<b>Wood</b>	<b>1.47</b>
23	Interior	Cabinets	Blue	Wood	0.00
24	Interior	Counter top	Black	Wood	0.00
25	Interior	Bath tub	White	Metal	0.00

**FIELD DATA SHEET  
XRF LBP ANALYSIS**

Project Name: COS 342 Allen Street ACM/LBP

Sampled By: Tom Oliver

Project Location: 342 Allen Street, Spartanburg, SC 29303

Project Manager: Ted Shultz

Project Number: 0124-01

Date: 1/16/2024

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m <sup>3</sup> )
26	Interior	Door	White	Wood	0.00
27	Interior	Ceiling	White	Wood	0.00
<b>28</b>	Interior	Wall	White	Wood	<b>&gt;5.00</b>
29	Interior	Floor	Brown	Wood	0.00
30		Calibration			1.15
31		Calibration			1.09
32		Calibration			1.11

**Bold = LBP**

FFV = Factory Finished Vinyl Over Component

FFM = Factory Finished Metal Over Component

**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](mailto:charlottelab@emsl.com)

EMSL Order: 412400400

Customer ID: AXEM25

Customer PO:

Project ID: City of Spartanburg

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

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

**Fax:**

**Received Date:** 01/12/2024 9:15 AM

**Analysis Date:** 01/12/2024

**Collected Date:** 01/11/2024

**Project:** COS ACM 342 Allen St (City of Spartanburg)

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-Shingle <small>412400400-0001</small>	1 Shingle, 1 Felt	Gray/Black Fibrous Heterogeneous	12% Glass	5% Quartz 15% Ca Carbonate 68% Non-fibrous (Other)	None Detected
1-Felt <small>412400400-0001A</small>	1 Shingle, 1 Felt	Black Fibrous Homogeneous	65% Cellulose <1% Glass	35% Non-fibrous (Other)	None Detected
2-Shingle <small>412400400-0002</small>	1 Shingle, 1 Felt	Gray/Black Fibrous Heterogeneous	15% Glass	5% Quartz 20% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2-Felt <small>412400400-0002A</small>	1 Shingle, 1 Felt	Black Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
4 <small>412400400-0003</small>	Woodgrain Vinyl Flr Self-Stick	Brown Non-Fibrous Homogeneous	8% Synthetic	30% Ca Carbonate 62% Non-fibrous (Other)	None Detected
5 <small>412400400-0004</small>	Woodgrain Vinyl Flr Self-Stick	Brown/Black Non-Fibrous Heterogeneous	15% Cellulose	25% Ca Carbonate 60% Non-fibrous (Other)	None Detected
7-Gray Vinyl Flooring <small>412400400-0005</small>	2 Layer - Vinyl Flr Woodgrain & Speckled	Gray Non-Fibrous Homogeneous	15% Glass	20% Ca Carbonate 65% Non-fibrous (Other)	None Detected
7-Tan Vinyl Flooring <small>412400400-0005A</small>	2 Layer - Vinyl Flr Woodgrain & Speckled	Tan Non-Fibrous Homogeneous	8% Glass	20% Ca Carbonate 72% Non-fibrous (Other)	None Detected
8-Gray Vinyl Flooring <small>412400400-0006</small>	2 Layer - Vinyl Flr Woodgrain & Speckled	Gray/White Non-Fibrous Heterogeneous	15% Glass	18% Ca Carbonate 67% Non-fibrous (Other)	None Detected
8-Tan Vinyl Flooring <small>412400400-0006A</small>	2 Layer - Vinyl Flr Woodgrain & Speckled	Tan/White Non-Fibrous Heterogeneous	8% Glass	18% Ca Carbonate 74% Non-fibrous (Other)	None Detected
10 <small>412400400-0007</small>	Ceiling Texture	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
11 <small>412400400-0008</small>	Ceiling Texture	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
12 <small>412400400-0009</small>	Ceiling Texture	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
13 <small>412400400-0010</small>	Ceiling Texture	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
14 <small>412400400-0011</small>	Ceiling Texture	White Non-Fibrous Heterogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
15 <small>412400400-0012</small>	Ceiling Texture	White Non-Fibrous Heterogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected

Initial report from: 01/12/2024 13:39:19



# 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](mailto:charlottelab@emsl.com)

**EMSL Order:** 412400400  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:** City of Spartanburg

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
16 412400400-0013	Ceiling Texture	White Non-Fibrous Heterogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
17-Tape 412400400-0014	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
17-Joint Compound 412400400-0014A	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
17-Drywall 412400400-0014B	Drywall & JC	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
18-Tape 412400400-0015	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
18-Joint Compound 412400400-0015A	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
18-Drywall 412400400-0015B	Drywall & JC	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
19-Tape 412400400-0016	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
19-Joint Compound 412400400-0016A	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
19-Drywall 412400400-0016B	Drywall & JC	Gray Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
20-Tape 412400400-0017	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	10% Non-fibrous (Other)	None Detected
20-Joint Compound 412400400-0017A	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
20-Drywall 412400400-0017B	Drywall & JC	Gray Non-Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected
21-Tape 412400400-0018	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	8% Ca Carbonate 2% Non-fibrous (Other)	None Detected
21-Joint Compound 412400400-0018A	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
21-Drywall 412400400-0018B	Drywall & JC	Tan/White Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
22-Tape 412400400-0019 <i>No joint compound present.</i>	Drywall & JC	Yellow Fibrous Homogeneous	90% Glass	5% Ca Carbonate 5% Non-fibrous (Other)	None Detected
22-Drywall 412400400-0019A	Drywall & JC	Tan/White Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected

Initial report from: 01/12/2024 13:39:19





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**EMSL Order:** 412400400  
**Customer ID:** AXEM25  
**Customer PO:**  
**Project ID:** City of Spartanburg

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
23-Tape <small>412400400-0020</small>	Drywall & JC	Yellow Fibrous Homogeneous	95% Glass	3% Ca Carbonate 2% Non-fibrous (Other)	None Detected
23-Joint Compound <small>412400400-0020A</small>	Drywall & JC	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
23-Drywall <small>412400400-0020B</small>	Drywall & JC	Tan/White Fibrous Heterogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected

Analyst(s)

Jordan Simpson (16)

Matthew Schaefer (21)

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. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

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

Initial report from: 01/12/2024 13:39:19



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10801 Southern Loop Blvd Pineville, NC 28134

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**EMSL Order:** 412400400

**Customer ID:** AXEM25

**Customer PO:**

**Project ID:** City of Spartanburg

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

**Phone:** (803) 348-4921  
**Fax:**  
**Received Date:** 01/12/2024 9:15 AM  
**Analysis Date:** 01/15/2024  
**Collected Date:** 01/11/2024

**Project:** COS ACM 342 Allen St (City of Spartanburg)

## 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 412400400-0021	1 Shingle, 1 Felt	Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
3-Felt 412400400-0022	1 Shingle, 1 Felt	Black Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
6 412400400-0023	Woodgrain Vinyl Flr Self-Stick	Tan Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
9-Gray Vinyl Flooring 412400400-0024	2 Layer - Vinyl Flr Woodgrain & Speckled	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
9-Tan Vinyl Flooring 412400400-0025	2 Layer - Vinyl Flr Woodgrain & Speckled	Tan Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Sarah Breneman (5)

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. Pineville, NC

Initial report from: 01/15/2024 15:05:48



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Asbestos Bulk Building Materials - Chain of Custody

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
10801 Southern Loop Blvd

Pineville, NC 28134  
PHONE: (704) 525-2205  
EMAIL: charlottelab@EMSL.com

412400400

Customer Information	Customer ID:	Billing ID:
	Company Name: Apex Environmental Management	Company Name: Apex Environmental Management
	Contact Name: Ted Shultz	Billing Contact: Rebecca Shultz
	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: 864-404-3210	Phone: 864-404-3210
Email(s) for Report: tshultz@apex-ehs.com		Email(s) for Invoice:

**Project Information**

Project Name/No: COS ACM 342 Allen 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: Ted Shultz Sampled By Signature: [Signature] Date Sampled: 1-11-24 No. of Samples in Shipment: 23

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  
 POINT COUNT w/ GRAVIMETRIC  
 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			1 shingle, 1 felt
2			
3			
4			woodgrain vinyl
5			flr self-stick
6			
7			2 layers vinyl flr
8			woodgrain + speckled
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: [Signature] Date/Time: 1-11-24 Received by: [Signature] Date/Time: 1/12/24 9:15AM

Relinquished by: Date/Time: Received by: 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.



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



Photo 1 – Front elevation 342 Allen Street in Spartanburg, South Carolina 29303



Photo 2 – Rear elevation.



Photo 3 – Drywall walls.



Photo 4 - Drywall walls.



Photo 5 – Multi-layers of vinyl flooring.



Photo 6 – Wood flooring and vinyl planks.

**SECTION V**

**SC DHEC Asbestos Inspector License**

**SCDHEC ISSUED**  
Asbestos ID Card

**Tedman K Shultz**



**AIR SAMPLER  
CONSULTBI**

**AS-00355  
BI-00971**

**Expiration Date:  
02/16/24  
01/10/24**