

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

City of Spartanburg 321 Caulder Avenue Spartanburg, South Carolina 29306

#### 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: 0120-17

February 10, 2020





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#### **Apex Project Number 0120-17**

February 10, 2020

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

Reference: Asbestos and Lead-Based Paint Assessment Services

321 Caulder Avenue

Spartanburg, South Carolina 29306

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 Field Scientist

**Appendices** 

Tom Oliver Vice President

#### ASBESTOS AND LEAD BASED PAINT ASSESSMENT

### CITY OF SPARTANBURG 321 CAULDER AVENUE SPARTANBURG, SOUTH CAROLINA 29306

#### **APEX PROJECT NO. 0120-17**

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### **SECTION I**

**Asbestos & Lead Evaluation Report** 

#### ASBESTOS EVALUATION REPORT **APEX PROJECT NUMBER: 0120-17**

Page Number: 1 of 4 Date: 2/10/2020

Client: City of Spartanburg Client Contact: Mr. Jeff Tillerson 440 South Church Street Client Client Phone (864) 596-2911

Address: Suite B Number:

Spartanburg, SC 29306

Project: Asbestos Evaluation and

Lead Based Paint Assessment

**Property** 321 Caulder Avenue Address: Spartanburg, SC 29306

Assessor: Ted Shultz Date of 1/08/2020

Assessment: Phone (864) 404-3210 Company: Apex Environmental

Management 7 Winchester Court

Mauldin, SC 29662

Purpose of Demolition Age of Approximately 50+

Assessment: Structure: years

Residential Number of Building 1

Type: Stories:

Foundation: Block crawlspace Approximate 1,500 SF

Square Footage

#### EXTERIOR BUILDING MATERIALS

Roll roof shingles on back porch roof.

• Tab shingles and two layers of felt on the main roof.

Aluminum siding.

• Transite with felt siding.

Aluminum awnings.

Metal windows.

Wood windows.

· Wood doors.

Window glazing.

• Chimney tar on 1 chimney – assumed.

• Roofing tar on back porch roof- assumed.

### INTERIOR BUILDING MATERIALS

Wood floors.

Number:

- Ceramic tile.
- Multiple types & layers of vinyl floors with & without mastics.
- Plaster with finish walls & ceilings.
- Unfinished drywall walls & ceilings.
- Popcorn ceiling texture in left rear room.
- Swirl ceiling texture in the kitchen.
- Interior caulk on windows.

City of Spartanburg 321 Caulder Avenue Apex Project No. 0120-17 February 10, 2020

#### **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. Fortynine (49) 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. Sixty (60) 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). Seventeen (17) 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. 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.

City of Spartanburg 321 Caulder Avenue Apex Project No. 0120-17 February 10, 2020

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

- Approximately 150 SF of popcorn ceiling texture located in the left rear room.
- Approximately 150 SF of brown and red roll vinyl flooring located in the front left bedroom.
- Approximately 120 SF of green roll vinyl flooring located in the rear 4<sup>th</sup> bedroom.
- Approximately 4,100 SF of white transite siding.
- Approximately 6 LF of chimney tar on 1 chimney (Assumed).
- Approximately 25 SF of roof tar on the back porch roof (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  $\mu$ g/m³) during an eight-hour workday and a permissible exposure level of fifty micrograms per cubic meter (50  $\mu$ g/m³) for employees.

Currently, EPA defines LBP as paint containing in excess of, or equal to, 1.0 mg/cm<sup>2</sup>. XRF LBP Data Sheets providing XRF results for testing combinations can be found in the Appendices at the conclusion of this report. Paint-chip sampling was not required for XRF inconclusive values.

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

#### Exterior:

- Grey concrete front steps.
- White wood doors.
- White wood window & door frames.

#### Interior:

No lead based paint found in tested areas.

#### 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

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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 Environmental Protection Agency (EPA) define LBP as paint containing greater than 1.0 milligrams per square centimeter (mg/cm²) 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 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/cm² 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/m³) 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 321 Caulder Avenue NIP ACM-LBP Sampled By: Ted Shultz

Project Location: 321 Caulder Avenue, Spartanburg, SC 29301 Project Manager: Ted Shultz

Project Number: 0120-17 Date: 1/8/2020

| Sample No. | Location          | Sample Description                              | Analytical Results               | Friable/Non<br>Friable | Condition | Quantity |
|------------|-------------------|---|----------------------------------|------------------------|-----------|----------|
| 1          |                   |   | PLM - NAD                        |                        |           |          |
| 2          | Roof              | Roofing (1 shingle, 2 felt)                     | I LIVI - IVAD                    | Non-friable            | Good      | 1,850 SF |
| 3          |                   |   | TEM - NAD                        |                        |           |          |
| 4          |                   | Doofing (2 vall chingles 9                      | PLM - NAD                        |                        |           |          |
| 5          | Back porch roof   | Roofing (2 roll shingles & tar with no no felt) | FLIVI - NAD                      | Non-friable            | Good      | 200 SF   |
| 6          |                   | tar with no no long                             | TEM - NAD                        |                        |           |          |
| 7          |                   |   | PLM - 25% Chrysotile (Transite), |                        |           |          |
| 8          | Exterior siding   | Transite & felt                                 | PLM - NAD (Felt)                 | Non-friable            | Good      | 4,100 SF |
| 9          | ]                 |   | TEM - NAD (Felt)                 | ]                      |           |          |
| 10         |                   |   |                                  |                        |           |          |
| 11         | Left rear room    | Popcorn ceiling Texture                         | PLM - 2% Chrysotile              | Friable                | Good      | 150 SF   |
| 12         | ]                 |   |                                  |                        |           |          |
| 13         |                   | <b>-</b> 1.0                                    | DIM NAD                          |                        |           |          |
| 14         | Kitchen closet    | Felt flooring red/green floral                  | PLM - NAD                        | Non-friable            | Good      | 6 SF     |
| 15         |                   | liorai  | TEM - NAD                        | 1                      |           |          |
| 16         |                   |   |                                  |                        |           |          |
| 17         | Walls & Ceiling   |   |                                  |                        |           |          |
| 18         | (except rear left | Plaster w/ finish                               | PLM - NAD                        | Friable                | Good      | 3,500 SF |
| 19         | room)             |   |                                  |                        |           |          |
| 20         |                   |   |                                  |                        |           |          |
| 21         |                   |   |                                  |                        |           |          |
| 22         | Walls & Ceiling   | Unfinished drywall                              |                                  |                        |           |          |
| 23         | throughout        | (no joint compound)                             | PLM - NAD                        | Friable                | Good      | 4,100 SF |
| 24         |                   | ( jo oopod.ia)                                  |                                  |                        |           |          |
| 25         |                   |   |                                  |                        |           |          |

# ASBESTOS SURVEY FIELD DATA SHEET PLM & TEM ANALYSIS

Project Name: COS 321 Caulder Avenue NIP ACM-LBP Sampled By: Ted Shultz

Project Location: 321 Caulder Avenue, Spartanburg, SC 29301 Project Manager: Ted Shultz

Project Number: 0120-17 Date: 1/8/2020

| Sample No. | Location            | Sample Description                       | Analytical Results                     | Friable/Non<br>Friable | Condition | Quantity |
|------------|---------------------|--|--|------------------------|-----------|----------|
| 26         | Interior window     |  | PLM - NAD                              |                        |           |          |
| 27         | frames              | White caulk                              |  | Non-Friable            | Good      | 14 EA    |
| 28         | namoo               |  | TEM - NAD                              |                        |           |          |
| 29         | _                   |  | PLM - NAD                              |                        |           |          |
| 30         | Windows             | Glazing                                  |  | Friable                | Good      | 12 EA    |
| 31         |                     |  | TEM - NAD                              |                        |           |          |
| 32         |                     | Brown & red roll vinyl                   |  |                        |           |          |
| 33         | Front left bedroom  | (no visible mastic)                      | PLM - 15% Chrysotile                   | Non-Friable            | Good      | 150 SF   |
| 34         |                     | ` ,                                      |  |                        |           |          |
| 35         |                     | Roll vinyl brown square                  | PLM - NAD                              |                        |           |          |
| 36         | Kitchen             | pattern w/ mastic & 9x9                  |  | Non-Friable            | Good      | 150 SF   |
| 37         |                     | red tile w/ mastic & felt                | TEM - NAD                              |                        |           |          |
| 38         |                     |  | PLM - NAD                              |                        |           |          |
| 39         | Kitchen walls       | Mastic under tile                        |  | Non-Friable            | Good      | 420 SF   |
| 40         |                     |  | TEM - NAD                              |                        |           |          |
| 41         |                     | Swirl pattern ceiling                    |  |                        |           |          |
| 42         | Kitchen             | texture                                  | PLM - NAD                              | Friable                | Good      | 150 SF   |
| 43         |                     |  |  |                        |           |          |
| 44         |                     | Top roll vipyl floor (no                 | PLM - NAD                              |                        |           |          |
| 45         | Left third bedroom  | Tan roll vinyl floor (no visible mastic) | I LIVI - NAD                           | Non-Friable            | Good      | 120 SF   |
| 46         |                     | violbic mastic)                          | TEM - NAD                              |                        |           |          |
| 47         |                     |  | PLM - 15% Chrysotile (green flooring), |                        |           |          |
| 48         | Rear fourth bedroom | Green roll vinyl floor w/<br>mastic      | PLM - NAD (mastic)                     | Non-Friable            | Good      | 120 SF   |
| 49         | Deuroom             | mastic                                   | TEM - NAD (mastic)                     |                        |           |          |
| Assumed    | Chimney             | Chimney tar                              | Assumed                                | Non-friable            | Good      | 6 LF     |

NAD = No Asbestos Detected

LF = Linear Feet

EA = Each

**Bold = Positive For Asbestos** 

SF = Square Feet

Chry = Chrysotile

# FIELD DATA SHEET LBP ANALYSIS

Project Name: COS 321 Caulder Avenue NIP ACM-LBP Sampled By: Tom Oliver

Project Location: 321 Caulder Avenue, Spartanburg, SC 29301 Project Manager: Tom Oliver

Project Number: 0120-17 Date: 1/30/2020

| Sample No. | Sample Location | Component        | Color | Substrate | Analytical Result (mg/m³) |
|------------|-----------------|------------------|-------|-----------|---------------------------|
| 31         | Exterior        | CMU              | White | Concrete  | 0.00                      |
| 32         | Exterior        | Hand Rail        | White | Metal     | 0.00                      |
| 33         | Exterior        | Porch Rail       | White | Wood      | 0.00                      |
| 34         | Exterior        | Porch Ceiling    | White | Wood      | 0.67                      |
| 35         | Exterior        | Porch Header     | White | Wood      | 0.79                      |
| 36         | Exterior        | Porch Column     | White | Metal     | 0.34                      |
| 37         | Exterior        | Window Frame     | White | Wood      | 0.99                      |
| 38         | Exterior        | Siding           | White | Metal     | 0.00                      |
| 39         | Exterior        | Front Steps      | Grey  | Concrete  | 1.00                      |
| 40         | Exterior        | Door             | White | Wood      | 1.09                      |
| 41         | Exterior        | Door Frame       | White | Wood      | 0.90                      |
| 42         | Interior        | Window           | White | Wood      | 0.11                      |
| 43         | Interior        | Window Casing    | White | Wood      | 0.20                      |
| 44         | Interior        | Wall             | White | Plaster   | 0.05                      |
| 45         | Interior        | Wall             | Blue  | Plaster   | 0.02                      |
| 46         | Interior        | Fireplace Mantle | White | Wood      | 0.26                      |
| 47         | Interior        | Baseboard        | White | Wood      | 0.05                      |
| 48         | Interior        | Door             | White | Wood      | 0.00                      |
| 49         | Interior        | Door Casing      | White | Wood      | 0.07                      |
| 50         | Interior        | Bath Cabinet     | Green | Wood      | 0.10                      |
| 51         | Interior        | Window           | Brown | Wood      | 0.26                      |
| 52         | Interior        | Window Frame     | Brown | Wood      | 0.11                      |
| 53         | Interior        | Kitchen Cabinet  | White | Wood      | 0.04                      |

Bold = LBP

### **SECTION III**

**Laboratory Analytical Results** 



**Customer PO:** 

Project ID: City of Spartanburg

Attention: Stephanie Hamby Phone: (864) 640-5274

Apex Environmental Management

7 Winchester Court Received Date: 01/20/2020 11:57 AM Mauldin, SC 29662 Analysis Date: 01/22/2020 - 01/24/2020

**Collected Date:** 01/08/2020

Fax:

Project: COS 321 Caulder Ave (City of Spartanburg)

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

|                          |   |  | Non-Asbe                  | <u>stos</u>                                 | Asbestos                     |  |
|--------------------------|---|--|---------------------------|---|------------------------------|--|
| Sample                   | Description   | Appearance                                 | % Fibrous                 | % Non-Fibrous                               | % Type                       |  |
| 1-Shingle                | Roof - 1 Shingle, 2<br>Felt                             | Gray/Black<br>Fibrous<br>Homogeneous       | <1% Cellulose<br>5% Glass | 95% Non-fibrous (Other)                     | None Detected                |  |
| 1-Felt 1                 | Roof - 1 Shingle, 2<br>Felt                             | Brown/Black<br>Fibrous                     | 60% Cellulose             | 40% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0001A          | 1 010   | Homogeneous                                |                           |   |                              |  |
| l-Felt 2                 | Roof - 1 Shingle, 2<br>Felt                             | Brown/Black<br>Fibrous                     | 60% Cellulose             | 40% Non-fibrous (Other)                     | None Detected                |  |
| 12000574-0001B           |   | Homogeneous                                |                           |   |                              |  |
| 2-Shingle                | Roof - 1 Shingle, 2<br>Felt                             | Gray/Black<br>Fibrous                      | <1% Cellulose<br>8% Glass | 92% Non-fibrous (Other)                     | None Detected                |  |
| 112000574-0002           |   | Heterogeneous                              |                           |   |                              |  |
| 2-Felt 1                 | Roof - 1 Shingle, 2<br>Felt                             | Black<br>Fibrous                           | 65% Cellulose             | 35% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0002A          |   | Homogeneous                                |                           |   |                              |  |
| 2-Felt 2                 | Roof - 1 Shingle, 2<br>Felt                             | Brown/Black<br>Fibrous                     | 65% Cellulose             | 35% Non-fibrous (Other)                     | None Detected                |  |
| 112000574-0002B          |   | Homogeneous                                |                           |   |                              |  |
| 1-Shingle 1              | Back Porch Roof - 2 Rooll Shingle & Tar                 | Black<br>Fibrous                           | <1% Cellulose<br>5% Glass | 95% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0003           | (No Felt)   | Homogeneous                                | .=                        |   |                              |  |
| 4-Shingle 2              | Back Porch Roof - 2 Rooll Shingle & Tar                 | Gray/Black<br>Fibrous                      | 15% Cellulose<br>1% Glass | 84% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0003A          | (No Felt)   | Homogeneous                                |                           |   |                              |  |
| 1-Tar<br>112000574-0003B | Back Porch Roof - 2<br>Rooll Shingle & Tar<br>(No Felt) | Black<br>Fibrous                           | 15% Cellulose<br>1% Glass | 84% Non-fibrous (Other)                     | None Detected                |  |
|                          | ,   | Homogeneous                                | 200/ Callulana            | 000/ New Share (Other)                      | Nana Datastad                |  |
| 5-Shingle 1              | Back Porch Roof - 2<br>Rooll Shingle & Tar<br>(No Felt) | Gray/Tan/Black<br>Fibrous<br>Heterogeneous | 20% Cellulose             | 80% Non-fibrous (Other)                     | None Detected                |  |
| 5-Shingle 2              | Back Porch Roof - 2<br>Rooll Shingle & Tar              | Gray/Black<br>Fibrous                      | <1% Cellulose<br>8% Glass | 92% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0004A          | (No Felt)   | Heterogeneous                              | 0 /0 Olass                |   |                              |  |
| 5-Tar                    | Back Porch Roof - 2<br>Rooll Shingle & Tar              | <u> </u>                                   |                           |   | Positive Stop (Not Analyzed) |  |
| 112000574-0004B          | (No Felt)   |  |                           |   |                              |  |
| 7-Transite               | Ext. Siding - Transite<br>& Felt                        | Gray/White<br>Fibrous                      |                           | 10% Ca Carbonate<br>65% Non-fibrous (Other) | 25% Chrysotile               |  |
| 112000574-0005           |   | Homogeneous                                |                           | ·   |                              |  |
| 7-Felt                   | Ext. Siding - Transite & Felt                           | Brown/Black<br>Fibrous                     | 60% Cellulose             | 40% Non-fibrous (Other)                     | None Detected                |  |
| 112000574-0005A          |   | Homogeneous                                |                           |   |                              |  |
| 3-Transite               | Ext. Siding - Transite<br>& Felt                        |  |                           |   | Positive Stop (Not Analyzed) |  |
| 112000574-0006           |   |  |                           |   |                              |  |
| 3-Felt                   | Ext. Siding - Transite<br>& Felt                        | Black<br>Fibrous                           | 50% Cellulose             | 50% Non-fibrous (Other)                     | None Detected                |  |
| 412000574-0006A          |   | Homogeneous                                |                           |   |                              |  |

**Customer PO:** 

Project ID: City of Spartanburg

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

|                                  |   |                                      | Non-Asbest      |   | <u>Asbestos</u>              |
|----------------------------------|---|--------------------------------------|-----------------|---|------------------------------|
| Sample                           | Description   | Appearance                           | % Fibrous       | % Non-Fibrous                                     | % Type                       |
| 9-Transite                       | Ext. Siding - Transite<br>& Felt                    |                                      |                 |   | Positive Stop (Not Analyzed) |
| 412000574-0006B                  |   |                                      |                 |   |                              |
| 10                               | Left Rear Room -<br>C-Text (popcorn)                | White/Beige<br>Non-Fibrous           |                 | 20% Ca Carbonate<br>5% Mica                       | 2% Chrysotile                |
| 12000574-0007                    |   | Homogeneous                          |                 | 73% Non-fibrous (Other)                           |                              |
| 1                                | Left Rear Room -<br>C-Text (popcorn)                |                                      |                 |   | Positive Stop (Not Analyzed) |
| 112000574-0008                   |   |                                      |                 |   |                              |
| 2                                | Left Rear Room -<br>C-Text (popcorn)                |                                      |                 |   | Positive Stop (Not Analyzed) |
| 112000574-0009                   |   |                                      |                 |   |                              |
| 13                               | Kitchen Closet - Felt<br>Flooring Red/Green         | Red/Black<br>Fibrous                 | 60% Cellulose   | 40% Non-fibrous (Other)                           | None Detected                |
| 112000574-0010                   | Floral  | Homogeneous                          |                 |   |                              |
| 14                               | Kitchen Closet - Felt<br>Flooring Red/Green         | Tan/Red/Black<br>Fibrous             | 60% Cellulose   | 40% Non-fibrous (Other)                           | None Detected                |
| 412000574-0011                   | Floral  | Heterogeneous                        | 404.0.11.1      |   |                              |
| 16-Skim Coat                     | Wall & Ceiling<br>Throughout - Plaster<br>w/ Finish | White<br>Non-Fibrous<br>Homogeneous  | <1% Cellulose   | 10% Ca Carbonate<br>90% Non-fibrous (Other)       | None Detected                |
|                                  |   |                                      | 40/ O-III-I     | 050/ Min-   | Name Detected                |
| 16-Rough Coat                    | Wall & Ceiling<br>Throughout - Plaster<br>w/ Finish | Gray Non-Fibrous                     | <1% Cellulose   | 25% Mica<br>75% Non-fibrous (Other)               | None Detected                |
|                                  |   | Homogeneous                          | 40/ O-III-I     | 400/ On Onderson                                  | Name Detected                |
| 17-Skim Coat                     | Wall & Ceiling<br>Throughout - Plaster<br>w/ Finish | White<br>Non-Fibrous<br>Homogeneous  | <1% Cellulose   | 10% Ca Carbonate<br>90% Non-fibrous (Other)       | None Detected                |
|                                  |   | Tan                                  | <1% Cellulose   | 35% Quartz  | None Detected                |
| 17-Rough Coat                    | Wall & Ceiling<br>Throughout - Plaster<br>w/ Finish | Non-Fibrous<br>Homogeneous           | <1% Cellulose   | 10% Ca Carbonate<br>55% Non-fibrous (Other)       | None Detected                |
|                                  | Wall & Ceiling                                      | White                                | <1% Cellulose   | 10% Ca Carbonate                                  | None Detected                |
| 18-Skim Coat                     | Throughout - Plaster<br>w/ Finish                   | Non-Fibrous<br>Homogeneous           | <1% Cellulose   | 90% Non-fibrous (Other)                           | None Detected                |
|                                  |   | Tan                                  | <1% Cellulose   | 35% Quartz  | None Detected                |
| 18-Rough Coat                    | Wall & Ceiling<br>Throughout - Plaster<br>w/ Finish | Non-Fibrous<br>Homogeneous           | <1% Cellulose   | 10% Ca Carbonate<br>55% Non-fibrous (Other)       | None Detected                |
| 19-Skim Coat                     | Wall & Ceiling                                      | White                                | <1% Cellulose   | 10% Ca Carbonate                                  | None Detected                |
| 19-5kim Coat<br>412000574-0015   | Throughout - Plaster<br>w/ Finish                   | Non-Fibrous<br>Homogeneous           | ~ 170 Cellulose | 90% Non-fibrous (Other)                           | None Detected                |
| 19-Rough Coat                    | Wall & Ceiling                                      | Tan                                  | <1% Cellulose   | 35% Quartz  | None Detected                |
| 19-Rough Coat<br>412000574-0015A | Throughout - Plaster<br>w/ Finish                   | Non-Fibrous<br>Homogeneous           | 1 / Geliulose   | 10% Ca Carbonate<br>55% Non-fibrous (Other)       | None Detected                |
| 20-Skim Coat                     | Wall & Ceiling                                      | White                                |                 | 20% Ca Carbonate                                  | None Detected                |
| 20-3KIII COat<br>412000574-0016  | Throughout - Plaster<br>w/ Finish                   | Non-Fibrous<br>Homogeneous           |                 | 80% Non-fibrous (Other)                           | None Detected                |
|                                  | Wall & Ceiling                                      | Tan/Various/Beige                    |                 | 35% Quartz  | None Detected                |
| 20-Rough Coat<br>412000574-0016A | Throughout - Plaster<br>w/ Finish                   | Non-Fibrous Heterogeneous            |                 | 5% Quartz 5% Ca Carbonate 60% Non-fibrous (Other) | None Detected                |
|                                  | Wall & Ceiling                                      | -                                    | 10% Cellulose   |   | None Detected                |
| 21<br>412000574-0017             | wall & Celling Throughout - Unfnished Drywall       | Gray/White<br>Fibrous<br>Homogeneous | 10% Cellulose   | 90% Non-fibrous (Other)                           | None Detected                |
| · · ·                            | (No JC)   |                                      |                 |   |                              |
| 22                               | Wall & Ceiling<br>Throughout -                      | Gray<br>Fibrous                      | 10% Cellulose   | 90% Non-fibrous (Other)                           | None Detected                |
| 412000574-0018                   | Unfnished Drywall<br>(No JC)                        | Homogeneous                          |                 |   |                              |

**Customer PO:** 

Project ID: City of Spartanburg

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

|  |  |  | Non-Asbes                      | stos  | <u>Asbestos</u>              |
|--|--|--|--------------------------------|---|------------------------------|
| Sample                                 | Description  | Appearance                                       | % Fibrous                      | % Non-Fibrous                               | % Type                       |
| 23<br>412000574-0019                   | Wall & Ceiling<br>Throughout -<br>Unfnished Drywall<br>(No JC)                           | Gray<br>Fibrous<br>Homogeneous                   | 15% Cellulose                  | 85% Non-fibrous (Other)                     | None Detected                |
| 24                                     | Wall & Ceiling<br>Throughout -   | Gray/White<br>Fibrous                            | 10% Cellulose                  | 90% Non-fibrous (Other)                     | None Detected                |
| 412000574-0020                         | Unfnished Drywall<br>(No JC)   | Homogeneous                                      |                                |   |                              |
| 25<br>412000574-0021                   | Wall & Ceiling Throughout - Unfnished Drywall  | Brown/White<br>Fibrous<br>Heterogeneous          | 5% Cellulose                   | 95% Non-fibrous (Other)                     | None Detected                |
| 26                                     | (No JC) Interior Window Frames - White Caulk   | White<br>Non-Fibrous                             | <1% Cellulose                  | 10% Ca Carbonate<br>90% Non-fibrous (Other) | None Detected                |
| 412000574-0022<br>27<br>412000574-0023 | Interior Window<br>Frames - White Caulk  | Homogeneous  White/Beige Non-Fibrous Homogeneous | <1% Cellulose                  | 10% Ca Carbonate<br>90% Non-fibrous (Other) | None Detected                |
| 29                                     | Windows - Glazing  | Tan Non-Fibrous Homogeneous                      | <1% Cellulose                  | 10% Ca Carbonate<br>90% Non-fibrous (Other) | None Detected                |
| 30                                     | Windows - Glazing  | Tan/White/Beige<br>Non-Fibrous                   | <1% Cellulose                  | 10% Ca Carbonate<br>90% Non-fibrous (Other) | None Detected                |
| 32                                     | Front Left Bedroom -<br>Brown & Red Roll   | Homogeneous Tan/Red Fibrous                      | 5% Cellulose                   | 80% Non-fibrous (Other)                     | 15% Chrysotile               |
| 33                                     | Vinyl Front Left Bedroom - Brown & Red Roll  | Homogeneous                                      |                                |   | Positive Stop (Not Analyzed) |
| 412000574-0027                         | Vinyl  |  |                                |   |                              |
| 35-Flooring<br>412000574-0028          | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Brown/Green<br>Fibrous<br>Homogeneous            | 40% Cellulose<br>5% Synthetic  | 55% Non-fibrous (Other)                     | None Detected                |
| 35-Mastic<br>412000574-0028A           | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Tan<br>Non-Fibrous<br>Homogeneous                | 1% Cellulose                   | 99% Non-fibrous (Other)                     | None Detected                |
| 35-Floor Tile<br>412000574-0028B       | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Red<br>Non-Fibrous<br>Homogeneous                | 2% Cellulose                   | 20% Quartz<br>78% Non-fibrous (Other)       | None Detected                |
| 35-Mastic<br>412000574-0028C           | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Brown<br>Non-Fibrous<br>Homogeneous              | 1% Cellulose                   | 99% Non-fibrous (Other)                     | None Detected                |
| 35-Felt                                | Kitchen - Roll Vinyl<br>Brown Square Pat w/  | Brown/Black<br>Fibrous                           | 60% Cellulose                  | 40% Non-fibrous (Other)                     | None Detected                |
| 412000574-0028D                        | Mastic & 9x9 Red Tile w/ Mastic & Felt   | Homogeneous                                      | 000/ 0. ". :                   | 700/ N 51 / 2011                            | N. 5                         |
| 36-Flooring<br>412000574-0029          | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Brown/Tan/Green<br>Fibrous<br>Heterogeneous      | 20% Cellulose<br>2% Synthetic  | 78% Non-fibrous (Other)                     | None Detected                |
| 36-Mastic<br>412000574-0029A           | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Brown/Tan<br>Non-Fibrous<br>Homogeneous          | <1% Cellulose<br><1% Synthetic | 100% Non-fibrous (Other)                    | None Detected                |

**Customer PO:** 

Project ID: City of Spartanburg

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

|  |  |   | Non-Asbe                     | estos  | <u>Asbestos</u>              |  |
|--|--|---|------------------------------|--|------------------------------|--|
| Sample   | Description  | Appearance                                    | % Fibrous                    | % Non-Fibrous  | % Type                       |  |
| 36-Floor Tile<br>412000574-0029B                 | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile<br>w/ Mastic & Felt | Red<br>Non-Fibrous<br>Homogeneous             |                              | 20% Quartz<br>80% Non-fibrous (Other)                      | None Detected                |  |
| 36-Mastic<br>412000574-0029C                     | Kitchen - Roll Vinyl<br>Brown Square Pat w/<br>Mastic & 9x9 Red Tile                     | Brown/Tan/Black<br>Non-Fibrous<br>Homogeneous | <1% Cellulose                | 100% Non-fibrous (Other)                                   | None Detected                |  |
| 36-Felt<br>412000574-0029D                       | w/ Mastic & Felt  Kitchen - Roll Vinyl Brown Square Pat w/ Mastic & 9x9 Red Tile         | Black<br>Fibrous<br>Homogeneous               | 65% Cellulose                | 35% Non-fibrous (Other)                                    | None Detected                |  |
| 38   | w/ Mastic & Felt  Kitchen Walls - Mastic  Under Tile                                     | Beige<br>Non-Fibrous                          | <1% Cellulose                | 100% Non-fibrous (Other)                                   | None Detected                |  |
| <u>412000574-0030</u><br>39<br>412000574-0031    | Kitchen Walls - Mastic<br>Under Tile   | Tan Non-Fibrous Homogeneous                   | <1% Cellulose                | 100% Non-fibrous (Other)                                   | None Detected                |  |
| 41-Skim Coat<br>412000574-0032                   | Kitchen Ceiling - Swirl<br>C-Text  | White Non-Fibrous Homogeneous                 | <1% Cellulose                | 10% Ca Carbonate<br>90% Non-fibrous (Other)                | None Detected                |  |
| 41-Rough Coat                                    | Kitchen Ceiling - Swirl<br>C-Text  | Gray<br>Non-Fibrous<br>Homogeneous            | <1% Cellulose                | 25% Perlite<br>75% Non-fibrous (Other)                     | None Detected                |  |
| 42-Skim Coat<br>412000574-0033                   | Kitchen Ceiling - Swirl<br>C-Text  | White Non-Fibrous Homogeneous                 | <1% Cellulose                | 10% Ca Carbonate<br>90% Non-fibrous (Other)                | None Detected                |  |
| 42-Rough Coat<br>412000574-0033A                 | Kitchen Ceiling - Swirl<br>C-Text  | Gray<br>Non-Fibrous<br>Homogeneous            | <1% Cellulose                | 25% Perlite<br>75% Non-fibrous (Other)                     | None Detected                |  |
| 43-Skim Coat                                     | Kitchen Ceiling - Swirl<br>C-Text  | White Non-Fibrous Homogeneous                 | <1% Cellulose                | 25% Ca Carbonate<br>75% Non-fibrous (Other)                | None Detected                |  |
| 43-Rough Coat                                    | Kitchen Ceiling - Swirl<br>C-Text  | Gray<br>Non-Fibrous<br>Heterogeneous          |                              | 10% Ca Carbonate<br>30% Perlite<br>60% Non-fibrous (Other) | None Detected                |  |
| 412000574-0035                                   | Left 3rd Bedroom -<br>Tan Roll Vinyl Flr   | Gray/Tan<br>Fibrous<br>Homogeneous            | 5% Cellulose<br>1% Synthetic | 94% Non-fibrous (Other)                                    | None Detected                |  |
| 45<br>412000574-0036                             | Left 3rd Bedroom -<br>Tan Roll Vinyl Flr   | Brown/Tan/Beige<br>Fibrous<br>Heterogeneous   | 12% Cellulose                | 88% Non-fibrous (Other)                                    | None Detected                |  |
| 47-Flooring                                      | Rear 4th Bedroom -<br>Green Roll Vinyl Flr   | White/Green<br>Fibrous                        | 8% Cellulose                 | 77% Non-fibrous (Other)                                    | 15% Chrysotile               |  |
| 41-2000574-0037<br>47-Mastic                     | w/ Mastic  Rear 4th Bedroom -  Green Roll Vinyl Flr                                      | Homogeneous Tan Non-Fibrous                   | 1% Cellulose                 | 99% Non-fibrous (Other)                                    | None Detected                |  |
| 412000574-0037A<br>48-Flooring<br>412000574-0038 | w/ Mastic  Rear 4th Bedroom -  Green Roll Vinyl Flr  w/ Mastic                           | Homogeneous                                   |                              |  | Positive Stop (Not Analyzed) |  |
| 48-Mastic<br>412000574-0038A                     | Rear 4th Bedroom -<br>Green Roll Vinyl Flr<br>w/ Mastic                                  | Tan<br>Non-Fibrous<br>Homogeneous             | <1% Cellulose                | 100% Non-fibrous (Other)                                   | None Detected                |  |



**Customer PO:** 

Project ID: City of Spartanburg

Analyst(s)

Cameron Evans (38) Ryan Rains (22) Lee Plumley, Laboratory Manager or Other Approved Signatory

Evan L Plumber

EMSL maintains liability limited to cost of analysis. 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 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. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. 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. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321



**Customer PO:** 

Project ID: City of Spartanburg

Attention: Stephanie Hamby Phone: (864) 640-5274

Apex Environmental Management Fax:

7 Winchester Court Received Date: 01/20/2020 11:57 AM

Mauldin, SC 29662 Analysis Date: 01/30/2020 Collected Date: 01/08/2020

**Project:** COS 321 Caulder Ave (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<br>412000574-0039     | Roof - 1 Shingle, 2 Felt   | Gray/Black<br>Fibrous<br>Heterogeneous         | 100.0 Other       | None                  | No Asbestos Detected |
| 3-Felt 1<br>412000574-0040      | Roof - 1 Shingle, 2 Felt   | Black<br>Fibrous<br>Homogeneous                | 100.0 Other       | None                  | No Asbestos Detected |
| 3-Felt 2<br>412000574-0041      | Roof - 1 Shingle, 2 Felt   | Black<br>Fibrous<br>Homogeneous                | 100.0 Other       | None                  | No Asbestos Detected |
| 6-Shingle 1<br>412000574-0042   | Back Porch Roof - 2 Roll<br>Shingle & Tar (No Felt)                                      | Gray/Tan/Black<br>Fibrous<br>Heterogeneous     | 100.0 Other       | None                  | No Asbestos Detected |
| 6-Shingle 2<br>412000574-0043   | Back Porch Roof - 2 Roll<br>Shingle & Tar (No Felt)                                      | Gray/Black<br>Fibrous<br>Heterogeneous         | 100.0 Other       | None                  | No Asbestos Detected |
| 9-Felt<br>412000574-0044        | Ext. Siding - Transite & Felt  | Black<br>Fibrous<br>Homogeneous                | 100.0 Other       | None                  | No Asbestos Detected |
| 15<br>412000574-0045            | Kitchen Closet - Felt<br>Flooring Red/Green Floral                                       | Black/Green/Orange<br>Fibrous<br>Heterogeneous | 100.0 Other       | None                  | No Asbestos Detected |
| 28<br>412000574-0046            | Interior Window Frames -<br>White Caulk  | Beige<br>Non-Fibrous<br>Homogeneous            | 100.0 Other       | None                  | No Asbestos Detected |
| 31<br>412000574-0047            | Windows - Glazing  | Gray/Tan<br>Non-Fibrous<br>Homogeneous         | 100.0 Other       | None                  | No Asbestos Detected |
| 37-Flooring<br>412000574-0048   | Kitchen - Roll Vinyl Brown<br>Square Pat w/ Mastic &<br>9x9 Red Tile w/ Mastic &<br>Felt | Brown/Tan/Green<br>Fibrous<br>Heterogeneous    | 100.0 Other       | None                  | No Asbestos Detected |
| 37-Mastic<br>412000574-0049     | Kitchen - Roll Vinyl Brown<br>Square Pat w/ Mastic &<br>9x9 Red Tile w/ Mastic &<br>Felt | Brown/Tan<br>Non-Fibrous<br>Homogeneous        | 100.0 Other       | None                  | No Asbestos Detected |
| 37-Floor Tile<br>412000574-0050 | Kitchen - Roll Vinyl Brown<br>Square Pat w/ Mastic &<br>9x9 Red Tile w/ Mastic &<br>Felt | Red<br>Non-Fibrous<br>Homogeneous              | 100.0 Other       | None                  | No Asbestos Detected |

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from: 01/30/2020 15:25:33



**Customer PO:** 

Project ID: City of Spartanburg

Attention: Stephanie Hamby Phone: (864) 640-5274

Apex Environmental Management Fax:

7 Winchester Court Received Date: 01/20/2020 11:57 AM

Mauldin, SC 29662 Analysis Date: 01/30/2020 Collected Date: 01/08/2020

**Project:** COS 321 Caulder Ave (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       |
|-----------------------------|--|---|-------------------|-----------------------|----------------------|
| 37-Mastic<br>412000574-0051 | Kitchen - Roll Vinyl Brown<br>Square Pat w/ Mastic &<br>9x9 Red Tile w/ Mastic &<br>Felt | Brown/Black<br>Non-Fibrous<br>Homogeneous   | 100.0 Other       | None                  | No Asbestos Detected |
| 37-Felt<br>412000574-0052   | Kitchen - Roll Vinyl Brown<br>Square Pat w/ Mastic &<br>9x9 Red Tile w/ Mastic &<br>Felt | Black<br>Fibrous<br>Homogeneous             | 100.0 Other       | None                  | No Asbestos Detected |
| 40<br>412000574-0053        | Kitchen Walls - Mastic<br>Under Tile   | Brown/Tan<br>Non-Fibrous<br>Homogeneous     | 100.0 Other       | None                  | No Asbestos Detected |
| 46<br>412000574-0054        | Left 3rd Bedroom - Tan<br>Roll Vinyl Flr   | Gray/Tan/Yellow<br>Fibrous<br>Heterogeneous | 100.0 Other       | None                  | No Asbestos Detected |
| 49-Mastic<br>412000574-0055 | Rear 4th Bedroom -<br>Green Roll Vinyl Flr w/<br>Mastic                                  | Tan/Yellow<br>Non-Fibrous<br>Homogeneous    | 100.0 Other       | None                  | No Asbestos Detected |

| Analyst(s)       |  |
|------------------|--|
| Scott Combs (17) |  |

Lee Plumley, Laboratory Manager or other approved signatory

Evan L Plumber

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from: 01/30/2020 15:25:33

OrderID: 412000574



## Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL Analytical, Inc. 10801 Southern Loop Blvd

Pineville, NC 28134
PHONE: (704) 525-2205
FAX: (704) 525-2382

| / / | 11          |
|-----|-------------|
| / 1 | MACTI       |
| -   | 1//10/15/14 |
| - 1 | 1/1/100     |

| Company : Apex Environmental Management                               |  |  | EMSL-Bill to: ☑ Same ☐ Different  If Bill to is Different note instructions in Comments** |                                    |  |
|---|--|--|---|------------------------------------|--|
| Street: 7 Winchester Court  |  |  | Third Party Billing requires written authorization from third party                       |                                    |  |
| City: Mauldin State/Province: SC                                      |  |  | -   | Zip/Postal Code: 29662 Country: US |  |
| Report To (Name): Stephanie Hamby                                     |  |  | Telephone #: 86   | 64-640-5274                        |  |
| Email Address: shamby@apex-ehs.com                                    |  |  | Fax #:  |                                    | Purchase Order:  |
| Project Name/Number: COS 321 Caulder Ave U.S. State Samples Taken: SC |  |  | Please Provide  |                                    | ✓ Email Mail   |
| U.S. State  | Samples Taken: SC                          | Turnaround Time (T                               |   | Commercial/Tax                     | able Residential/Tax Exempt  |
|   |  | 24 Hour 48 Hour head to schedule. *There is a pi | r 72 Hour<br>remium charge for 3 Ho   | ☐ 96 Hour<br>ur TEM AHERA or EPA   | 1 Week 2 Week A Level II TAT. You will be asked to sign ted in the Analytical Price Guide. |
| di) di  | PLM - Bulk (reporting                      |  | danse with Liviel o Yell  | TEM - I                            |  |
| ■ PLM EP  | PA 600/R-93/116 (<1%)                      |  | ■ TEM EPA NOB   | - EPA 600/R-93/1                   | 16 Section 2.5.5.1   |
|   | PA NOB (<1%)                               |  | ☐ NY ELAP Meth  | od 198.4 (TEM)                     |  |
|   | t  |  |   | col (semi-quantitativ              |  |
| Point Coun  | t w/Gravimetric   400 (<0                  | 1.25%) 🗌 1000 (<0.1%)                            |   |                                    | 116 Section 2.5.5.2  |
| A construction of the second second second second second              | 9002 (<1%)                                 | ND O   |   | e via Filtration Prep              |  |
|   | AP Method 198.1 (friable in                | a contract of                                    | ☐ TEM Qualitative   | e via Drop Mount Pr                |  |
|   | AP Method 198.6 NOB (no<br>ID-191 Modified | n-mable-in t )                                   |   | Othe                               | <u>"I</u>  |
| _   | rd Addition Method                         |  |   |                                    |  |
| Check F   | For Positive Stop – Clear                  | ly Identify Homogenous                           | Group Date San  | anled: la Q                        | -2020  |
| iii Check i   | To rositive Stop - Clear                   | ly identity Homogenous                           | Group Date Sail   | ipied.   D                         | ~ 2020   |
| Samplers I  | Name: / Shul                               | 12   | Samplers Sig  | gnature:                           |  |
| Sample #  | HA #                                       | Sample Location                                  |   | Ma                                 | aterial Description  |
| 1   | Ruc  | Ruot   |   | 1 Shingle,                         | 251L   |
| 2   | 1  |  |   | , skingle,                         | 1  |
|   |  |  |   |                                    |  |
| 3   |  | _  |   |                                    |  |
| 4   |  |  |   | _                                  |  |
| 1   | Rad P                                      | and Roof   |   | 2 m/l chi                          | ale the (up fell)  |
| 5   | Back P.                                    | orch Roof  |   | 2 roll sho                         | ryle & tar (no felt)   |
| 5   | Back P.                                    | orch Roof  |   | 2 roll shin                        | yle & tar (no felt)  |
| 5   |  | orch Roof  |   |                                    |  |
| 5   | Back P.                                    | orch Roof  |   | 2 roll sho<br>transite             |  |
| 5   |  | ting   |   |                                    |  |
| 5 67 009  |  | orch Roof  |   |                                    |  |
| 5 67 00 9 10  | Ext. Sic                                   | ding   |   | transite<br>C-1                    | d felt<br>Lext (popcorn)   |
| 5 67 009  | Ext. Sic                                   | ting   |   | transite<br>C-1                    | d felt   |
| 5<br>6<br>7<br>9<br>10  | Ext. Sic                                   | ding<br>car room                                 | te: 1//6/20   | transite  C-1  Total # of          | d felt<br>Lext (popcorn)   |
| 5<br>6<br>7<br>9<br>10<br>Client Sam<br>Relinquish                    | Left somed (Client): A. Man                | ding  Car room  Dat                              | 1106  | transite  C-1  Total # of          | d felt  Lext (popcorn)  Samples: 49.  Time: 2:58pm   |
| 5<br>6<br>7<br>9<br>10<br>Client Sam<br>Relinquish<br>Received (      | Ext. Sich                                  | ding<br>car room                                 | 1106  | transite  C-1  Total # of          | d felt  cxt (papearn) =  Samples: 49.  |

OrderID: 412000574



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

412006574

EMSL Analytical, Inc. 10801 Southern Loop Blvd

Pineville, NC 28134

PHONE: (704) 525-2205 FAX: (704) 525-2382

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

| Sample # | HA# | Sample Location            | Material Description              |
|----------|-----|----------------------------|-----------------------------------|
| 11       |     | Lett rear room             | C- text (popcorn)                 |
| 12       |     |                            |                                   |
| 13       |     | Kitchen closet             | felt flooring red/green           |
| 14       |     |                            | felt flooring red/green<br>floral |
| 15       |     |                            |                                   |
| 16       |     | wall & reiling throughout  | plaster w finish                  |
| 17       |     | (minus rear let room)      |                                   |
| 18       |     | \                          |                                   |
| 19       |     |                            |                                   |
| 20       |     |                            |                                   |
| 21       |     | walls & ceiling throughout | anfinished drywall                |
| 22       |     |                            | (no Jant Capal)                   |
| 23       |     |                            |                                   |
| 24       |     |                            |                                   |
| 25       |     |                            |                                   |
| 26       |     | Interior Window frames     | white could                       |
| 27       |     |                            |                                   |
| 28       |     |                            |                                   |
| 29       |     | Windows                    | Slazing                           |
| 30       |     |                            |                                   |
| 31       |     | C                          |                                   |
| 32       |     | front left bedroom         | brown & red roll vingl            |
| 33       |     |                            | (no visual mastic)                |
|          |     | ial Instructions:          |                                   |

Page Z of 3 pages

OrderID: 412000574



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

412000574

EMSL Analytical, Inc. 10801 Southern Loop Blvd

Pineville, NC 28134

PHONE: (704) 525-2205 FAX: (704) 525-2382

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

| Sample # | HA#       | Sample Location  | Material Description        |
|----------|-----------|------------------|-----------------------------|
| 35       |           | Kitchen          | roll vinyl brown square     |
| 36       |           | 1                | pat w/mastic & 9x9 red tile |
|          |           |                  | w mastre of felt            |
| 37       |           | Kitchen walls    | Mastic under lile           |
| 39       |           |                  |                             |
| 40       |           |                  |                             |
| 41       |           | Kitchen Ceiling  | Swirl C-text                |
| 42       |           | )                |                             |
| 43       |           |                  |                             |
| 44       |           | Left 3rd bedroom | ten roll inyl flr (no       |
| 45       |           |                  | Visible most )              |
| 46       |           | Year 4th bedroom |                             |
| 4%       |           | Tear 9th Sceroon | green roll viny flr         |
| 49       |           |                  | w (mas)(c                   |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
|          |           |                  |                             |
| *Commer  | nts/Speci | al Instructions: |                             |
|          |           |                  |                             |

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**SECTION IV** 

Photographic Log



Photo 1-321 Caulder Avenue in Spartanburg, South Carolina.



Photo 2 – Assumed asbestos chimney tar.



Photo 3 – Transite exterior siding with black felt.



Photo 4 – Back porch roof.



Photo 5 – Popcorn ceiling texture in left rear bedroom.



Photo 6 – Kitchen swirl ceiling texture.



Photo 7 – Plaster over unfinished drywall.



Photo 8 – Kitchen closet floral felt flooring.



Photo 9 – Front left bedroom flooring.



Photo 10 – Kitchen flooring layers.



Photo  $11 - 3^{rd}$  and  $4^{th}$  bedroom roll flooring.

### **SECTION V**

**SC DHEC Asbestos Inspector License** 



**Tedman K Shultz** 



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