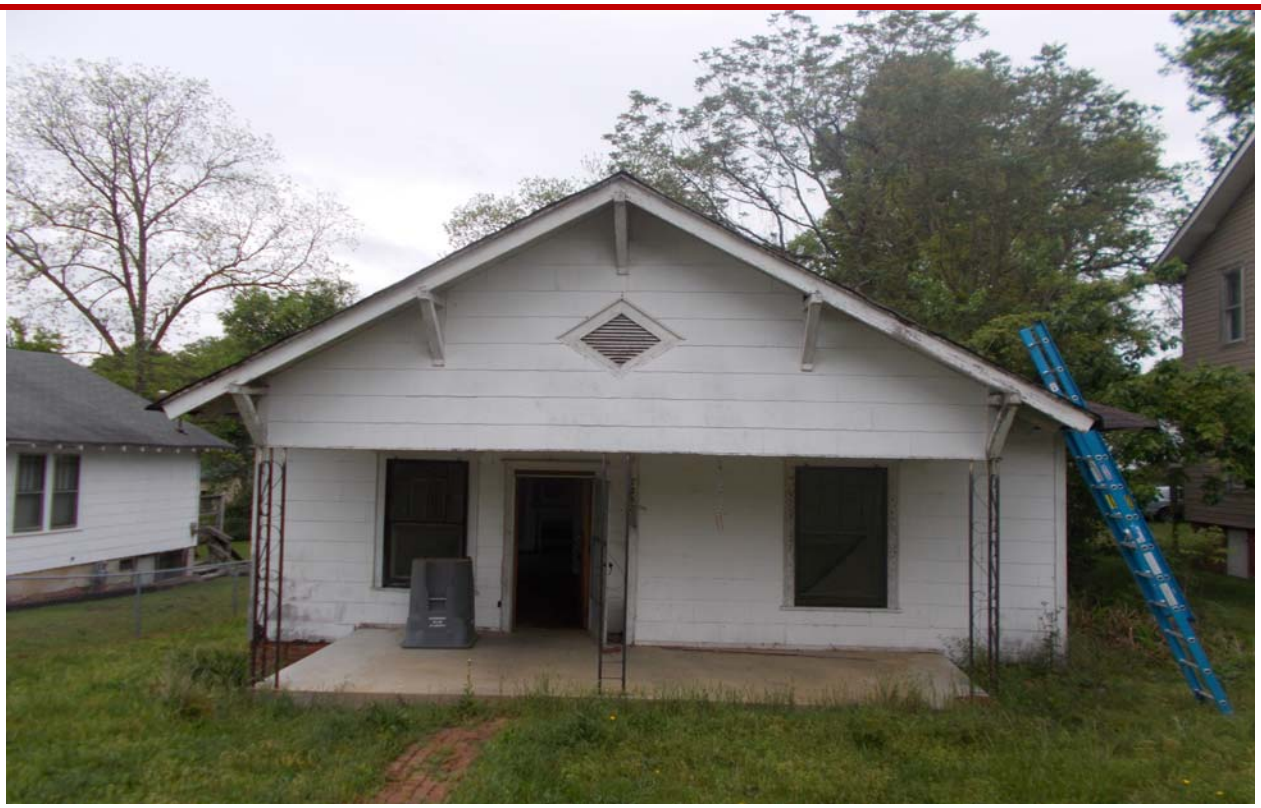

Asbestos & Lead Based Paint Assessment

City of Spartanburg
735 Fulton Ave
Spartanburg, South Carolina

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

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

Project Number: 0417-66

May 31, 2017

PEX
Environmental
Management

Environmental Management

7 Winchester Court
Mauldin, SC 29662
864.404.3210 office
864.404.3213 fax
www.apex-ehs.com

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Environmental Site Assessments

Hazard Communication

Apex Project Number 0417-66

May 31, 2017

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

Reference: Asbestos and Lead-Based Paint Assessment Services
735 Fulton Ave
Spartanburg, South Carolina

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.

Ben Oliver
Project Manager

Tom Oliver
Director of Operations

Appendices

ASBESTOS AND LEAD BASED PAINT ASSESSMENT

CITY OF SPARTANBURG
735 FULTON AVE
SPARTANBURG, SOUTH CAROLINA

APEX PROJECT NO. 0417-66

TABLE OF CONTENTS

SECTION

SECTION I

Asbestos & Lead Evaluation Report

ASBESTOS/LEAD EVALUATION REPORT
APEX PROJECT NUMBER: 0417-66

Date:	5/31/2017	Page Number:	1 of 4
Client:	City of Spartanburg	Client Contact:	Mr. Martin Livingston
Client Address:	440 South Church St, Suite B, Spartanburg, SC 29306-5234	Client Phone Number:	(864) 580-5323
Project:	Asbestos and Lead Evaluation		
Property Address:	735 Fulton Avenue Spartanburg, SC		
Assessor:	Tom Oliver	Date of Assessment:	4/18/2017
Company:	Apex Environmental Management 7 Winchester Court Mauldin, SC 29662	Phone Number:	(864) 404-3210
Purpose of Assessment:	Demolition	Age of Structure:	Approximately 60 years
Building Type:	Residential	Number of Stories:	1
Foundation:	Crawlspace	Approximate Square Footage	1,170 SF

EXTERIOR BUILDING MATERIALS

- Pitched wooden roof with shingles and felt.
- Wooden windows with glazing and no caulk.
- Metal exterior door in rear.
- Wooden exterior door with no caulk.
- Cement board siding with felt.
- Two chimneys with tar/mastic assumed positive.

INTERIOR BUILDING MATERIALS

- Caulk on interior metal door in rear.
- Plaster with finish walls and ceilings.
- Pinhole and fissured 2'x4' ceiling tiles on a grid system.
- Multiple types and layers of floor tile and vinyl floor with and with no mastic.
- Wooden floors with no felt.
- Vinyl floors exist under wood in the kitchen.
- 2'x4' wooden composite ceiling tiles with no mastic.

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 CEI Labs (CEI) as an NVLAP certified laboratory, their accreditation number is 101768-0.
- 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. Thirty-eight (38) bulk samples were collected during the survey and submitted to CEI in Cary, 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). CEI participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Their NVLAP accreditation number is 101768-0. EPA regulations require that multiple samples of each homogeneous material be collected for laboratory analysis. In accordance with South Carolina Regulation 61-86.1, non-friable organically bound materials that are reported to be non-asbestos containing by PLM analysis must also be analyzed by Transmission Electron Microscopy (TEM). Eleven (11) 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. Materials were analyzed to contain less than 1% asbestos and it should be noted that OSHA asbestos regulations will apply. A specific *PLM* and *TEM* table is located in Appendix II of this report and identifies positive materials and designates approximate quantities.

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

- Approximately 1,715 SF of exterior cement board siding.
- Approximately 145 SF of multiple layers of vinyl flooring and mastic under wooden sub-flooring in the kitchen.
- Approximately 25 SF of the 2nd layer of white pattern vinyl floor with no mastic in the kitchen pantry.
- Approximately 12 LF of tar/mastic on two chimneys – assumed positive.

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 µg/m^3) during an eight-hour workday and a permissible exposure level of fifty micrograms per cubic meter (50 µg/m^3) for employees.

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

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

Exterior
- White wooden window frames.
- Black wooden windows.
- White wooden porch headers.
- White wooden door frames.
- White wooden trim.

Interior
- White wooden door frames.
- White wooden baseboards.

RECOMMENDATIONS AND DISCUSSION

Asbestos Containing Materials

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

APEX recommends the following:

1. Abate the asbestos containing materials in the structure prior to renovation or demolition.

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

Lead-Based Paint

Currently the South Carolina Department of Health and Environmental Control (SCDHEC) define LBP as paint containing greater than 1.0 milligram per square centimeter (mg/cm^2) lead or in excess of, or equal to, 0.5 percent lead. Building materials identified as being painted with LBP should be segregated from the other building materials and recycled or disposed of in a municipal lined landfill. The removed wastes would need to be containerized and further tested by Toxic Characteristic Leaching procedures (TCLP) to determine if the waste is classified as hazardous. The remaining building materials that are not painted with LBP may be disposed of in a construction and demolition landfill. However, the landfills should be contacted to determine their specific disposal requirements.

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

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

SECTION II

Asbestos & LBP Data Tables

ASBESTOS SURVEY FIELD DATA SHEET

Project Name: COS 735 Fulton Avenue ACM/LBP

Project Location: 735 Fulton Avenue, Spartanburg, SC

Project Number: 0417-66

Sampled By: Tom Oliver

Project Manager: Ben Oliver

Date: 4/18/2017

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
1	Roof	Roofing shingles (2 layers) and felt (1 layer)	PLM - NAD	Non-Friable	Good	1,310 SF
2						
3			TEM - NAD			
4	**Exterior Siding**	**Cement Board Siding**	**PLM - 15% Chrysotile**	**Non-Friable**	**Good**	**1,715 SF**
5						
6						
7	Exterior Siding	Siding Felt	PLM - NAD	Non-Friable	Good	1,715 SF
8						
9			TEM - <1% Chrysotile			
10	Exterior Wooden Windows	Window Glazing	PLM - NAD	Non-Friable	Good	13 EA
11						
12			TEM - NAD			
13	Interior Rear Door	Wooden Door Caulk	PLM - NAD	Non-Friable	Good	1 EA
14						
15			TEM - NAD			
16	Throughout Ceiling Grid	2'x4' fissure ceiling tile	PLM - NAD	Friable	Good	415 SF
17						
18						
19	Ceiling Grid in Middle Left Room	2'x4' pinhole ceiling tile	PLM - NAD	Friable	Good	175 SF
20						
21						
22	Throughout Interior	Plaster with finish	PLM - NAD	Friable	Good	3,220 SF
23						
24						
25						
26						

ASBESTOS SURVEY FIELD DATA SHEET

Project Name: COS 735 Fulton Avenue ACM/LBP

Project Location: 735 Fulton Avenue, Spartanburg, SC

Project Number: 0417-66

Sampled By: Tom Oliver

Project Manager: Ben Oliver

Date: 4/18/2017

Sample No.	Location	Sample Description	Analytical Results	Friable/Non Friable	Condition	Quantity
27	Kitchen and Pantry (top layer)	Dark tan square pattern vinyl floor with no mastic	PLM - NAD	Non-Friable	Good	170 SF
28						
29			TEM - NAD			
30	Kitchen (2nd layer)	12"x12" grey floor tile with no mastic	PLM - NAD	Non-Friable	Good	145 SF
31						
32			TEM - NAD			
33	**Kitchen Under Wood (3 layers)**	**Multi-color vinyl floor with no mastic over brown vinyl floor with mastic over cream vinyl floor with no mastic**	**PLM - Middle vinyl floor & mastic - 5% to 25% Chry**	**Non-Friable**	**Good**	**145 SF**
34						
35			**TEM -1st & 3rd floors <1% Chry**			
36	**Pantry (2nd and 3rd layers)**	**White pattern vinyl floor with no mastic over dark vinyl floor with no mastic**	**PLM - White floor 25% Chry,** black floor NAD	**Non-Friable**	**Good**	**25 SF**
37						
38			TEM - Black floor NAD			
Assumed	**Two Chimneys with Tar/Mastic Assumed Positive**			**Non-Friable**	**Good**	**12 LF**

NAD = No Asbestos Detected
Bold = Positive For Asbestos

LF = Linear Feet
SF = Square Feet

EA = Each
Chry = Chrysotile

FIELD DATA SHEET
LBP ANALYSIS

Project Name: COS 735 Fulton Ave ACM/LBP

Sampled By: Ben Oliver

Project Location: 735 Fulton Ave, Spartanburg, SC

Project Manager: Ben Oliver

Project Number: 0417-66

Date: 4/21/2017

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m^3)
88	Exterior	Siding	White	Cement Board	0.00
89	**Exterior**	**Window Frame**	**White**	**Wood**	**5.00**
90	**Exterior**	**Window**	**Black**	**Wood**	**1.05**
91	**Exterior**	**Porch Header**	**White**	**Wood**	**2.80**
92	**Exterior**	**Door Frame**	**White**	**Wood**	**5.00**
93	**Exterior**	**Trim**	**White**	**Wood**	**5.00**
94	Exterior	Porch Railing	Brown	Wood	0.00
95	Exterior	Porch Floor	Brown	Wood	0.12
96	Exterior	Door	White	Metal	0.00
97		Standardization			1.84
98		Calibration			1.05
99		Calibration			1.06
100		Calibration			1.05
101	Interior	Wall	White	Plaster	0.56
102	**Interior**	**Door Frame**	**White**	**Wood**	**2.74**
103	**Interior**	**Base Board**	**White**	**Wood**	**2.93**
104	Interior	Floor	Brown	Wood	0.02
105	Interior	Fireplace	White	Concrete	0.00
106	Interior	Wall	Beige	Plaster	0.12
107	Interior	Fireplace Mantle	White	Wood	0.05
108	Interior	Window Sill	White	Wood	0.25
109	Interior	Window	White	Wood	0.10
110	Interior	Door	White	Wood	0.09
111	Interior	Door	Brown	Wood	0.03
112	Interior	Cabinet	White	Wood	0.00
113	Interior	Cabinet	Beige	Wood	0.02

FIELD DATA SHEET
LBP ANALYSIS

Project Name: COS 735 Fulton Ave ACM/LBP

Sampled By: Ben Oliver

Project Location: 735 Fulton Ave, Spartanburg, SC

Project Manager: Ben Oliver

Project Number: 0417-66

Date: 4/21/2017

Sample No.	Sample Location	Component	Color	Substrate	Analytical Result (mg/m^3)
Bold = Lead Based Paint					

SECTION III

Laboratory Analytical Results

April 26, 2017

Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CLIENT PROJECT: COS 735 Fulton Ave ACM & LBP; 0417-66
CEI LAB CODE: B17-0574

Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on April 20, 2017. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP TESTING
NVLAP LAB CODE 101768-0

ASBESTOS ANALYTICAL REPORT
By: Polarized Light Microscopy

Prepared for

Apex Environmental Management

CLIENT PROJECT: COS 735 Fulton Ave ACM & LBP; 0417-66

CEI LAB CODE: B17-0574

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 04/26/17

TOTAL SAMPLES ANALYZED: 28

SAMPLES >1% ASBESTOS: 4

TEL: 866-481-1412

www.ceilabs.com

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: COS 735 Fulton Ave ACM & LBP; 0417 -66 **CEI LAB CODE:** B17-0574

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
1	Layer 1	B237746A	Black	Roofing Shingle	None Detected
	Layer 2	B237746A	Black,Gray	Roofing Shingle	None Detected
		B237746B	Black	Felt Paper	None Detected
2	Layer 1	B237747A	Black	Roofing Shingle	None Detected
	Layer 2	B237747A	Black,Gray	Roofing Shingle	None Detected
		B237747B	Black	Felt Paper	None Detected
3	Layer 1	B237748A		Sample Submitted for TEM Analysis	
	Layer 2	B237748A		Sample Submitted for TEM Analysis	
		B237748B		Sample Submitted for TEM Analysis	
4		B237749	Gray,White	Cement Board	Chrysotile 15%
5		B237750		Sample Not Analyzed per COC	
6		B237751		Sample Not Analyzed per COC	
7		B237752	Black	Siding Felt	None Detected
8		B237753	Black	Siding Felt	None Detected
9		B237754		Sample Submitted for TEM Analysis	
10		B237755	Black,Off-white	Window Glazing	None Detected
11		B237756	Black,Off-white	Window Glazing	None Detected
12		B237757		Sample Submitted for TEM Analysis	
13		B237758	White	Door Caulk	None Detected
14		B237759	White	Door Caulk	None Detected
15		B237760		Sample Submitted for TEM Analysis	
16		B237761	White,Tan	Ceiling Tile	None Detected
17		B237762	White,Tan	Ceiling Tile	None Detected
18		B237763	White,Tan	Ceiling Tile	None Detected
19		B237764	White,Tan	Ceiling Tile	None Detected
20		B237765	White,Tan	Ceiling Tile	None Detected
21		B237766	White,Tan	Ceiling Tile	None Detected

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: COS 735 Fulton Ave ACM & LBP; 0417 -66 **CEI LAB CODE:** B17-0574

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
22	Layer 1	B237767	Gray	Finish	None Detected
	Layer 2	B237767	Tan	Plaster Base Coat	None Detected
23	Layer 1	B237768	Gray	Finish	None Detected
	Layer 2	B237768	Tan	Plaster Base Coat	None Detected
24	Layer 1	B237769	Gray	Finish	None Detected
	Layer 2	B237769	Tan	Plaster Base Coat	None Detected
25	Layer 1	B237770	Gray	Finish	None Detected
	Layer 2	B237770	Tan	Plaster Base Coat	None Detected
26	Layer 1	B237771	Gray	Finish	None Detected
	Layer 2	B237771	Tan	Plaster Base Coat	None Detected
27		B237772	Dark Tan, Square Pattern	Vinyl Floor	None Detected
28		B237773	Dark Tan, Square Pattern	Vinyl Floor	None Detected
29		B237774		Sample Submitted for TEM Analysis	
30		B237775	Gray	Self-stick Floor Tile	None Detected
31		B237776	Gray	Self-stick Floor Tile	None Detected
32		B237777		Sample Submitted for TEM Analysis	
33		B237778A	Off-white	Sheet Vinyl Floor	None Detected
	Layer 1	B237778B	Brown	Sheet Vinyl Flooring	Chrysotile 25%
	Layer 2	B237778B	Yellow	Mastic	Chrysotile 5%
		B237778C	Black	Sheet Vinyl Floor	None Detected
34		B237779A	Off-white	Sheet Vinyl Floor	None Detected
	Layer 1	B237779B		Sample Not Analyzed per COC	
	Layer 2	B237779B		Sample Not Analyzed per COC	
		B237779C	Black	Sheet Vinyl Floor	None Detected
35		B237780A		Sample Submitted for TEM Analysis	
	Layer 1	B237780B		Sample Not Analyzed per COC	
	Layer 2	B237780B		Sample Not Analyzed per COC	

Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: COS 735 Fulton Ave ACM & LBP; 0417-66 **CEI LAB CODE:** B17-0574

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
		B237780C		Sample Submitted for TEM Analysis	
36		B237781A	White	Sheet Vinyl Floor	Chrysotile 25%
		B237781B	Black	Sheet Vinyl Floor	None Detected
37		B237782A		Sample Not Analyzed per COC	
		B237782B	Black	Sheet Vinyl Floor	None Detected
38		B237783A		Sample Not Analyzed per COC	
		B237783B		Sample Submitted for TEM Analysis	

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
1 Layer 1 B237746A	Roofing Shingle	Heterogeneous Black Fibrous Bound	35%	Fiberglass	40% 25%	Tar Silicates	None Detected
Layer 2 B237746A	Roofing Shingle	Heterogeneous Black,Gray Fibrous Bound	35%	Fiberglass	40% 25%	Tar Silicates	None Detected
B237746B	Felt Paper	Heterogeneous Black Fibrous Bound	65%	Cellulose	35%	Tar	None Detected
2 Layer 1 B237747A	Roofing Shingle	Heterogeneous Black Fibrous Bound	35%	Fiberglass	40% 25%	Tar Silicates	None Detected
Layer 2 B237747A	Roofing Shingle	Heterogeneous Black,Gray Fibrous Bound	35%	Fiberglass	40% 25%	Tar Silicates	None Detected
B237747B	Felt Paper	Heterogeneous Black Fibrous Bound	65%	Cellulose	35%	Tar	None Detected
3 Layer 1 B237748A	Sample Submitted for TEM Analysis						
Layer 2 B237748A	Sample Submitted for TEM Analysis						
B237748B	Sample Submitted for TEM Analysis						

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
4 B237749	Cement Board	Heterogeneous Gray,White Fibrous Bound			65% 10% 10%	Binder Paint Silicates	**15% Chrysotile**
5 B237750	Sample Not Analyzed per COC						
6 B237751	Sample Not Analyzed per COC						
7 B237752	Siding Felt	Heterogeneous Black Fibrous Bound	65%	Cellulose	35%	Tar	None Detected
8 B237753	Siding Felt	Heterogeneous Black Fibrous Bound	65%	Cellulose	35%	Tar	None Detected
9 B237754	Sample Submitted for TEM Analysis						
10 B237755	Window Glazing	Heterogeneous Black,Off-white Non-fibrous Bound			25% 10% 65%	Binder Paint Calc Carb	None Detected
11 B237756	Window Glazing	Heterogeneous Black,Off-white Non-fibrous Bound			25% 10% 65%	Binder Paint Calc Carb	None Detected
12 B237757	Sample Submitted for TEM Analysis						

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
13 B237758	Door Caulk	Heterogeneous White Non-fibrous Bound			25% 10% 65%	Binder Paint Calc Carb	None Detected
14 B237759	Door Caulk	Heterogeneous White Non-fibrous Bound			25% 10% 65%	Binder Paint Calc Carb	None Detected
15 B237760	Sample Submitted for TEM Analysis						
16 B237761	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected
17 B237762	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected
18 B237763	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected
19 B237764	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected
20 B237765	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
21 B237766	Ceiling Tile	Heterogeneous White,Tan Fibrous Bound	50% 15%	Cellulose Fiberglass	10% 25% <1%	Binder Perlite Paint	None Detected
22 Layer 1 B237767	Finish	Heterogeneous Gray Non-fibrous Bound			55% 10% 35%	Binder Paint Silicates	None Detected
Layer 2 B237767	Plaster Base Coat	Heterogeneous Tan Fibrous Bound	<1% <1%	Cellulose Hair	55% 45%	Binder Silicates	None Detected
23 Layer 1 B237768	Finish	Heterogeneous Gray Non-fibrous Bound			55% 10% 35%	Binder Paint Silicates	None Detected
Layer 2 B237768	Plaster Base Coat	Heterogeneous Tan Fibrous Bound	<1% <1%	Cellulose Hair	55% 45%	Binder Silicates	None Detected
24 Layer 1 B237769	Finish	Heterogeneous Gray Non-fibrous Bound			55% 10% 35%	Binder Paint Silicates	None Detected
Layer 2 B237769	Plaster Base Coat	Heterogeneous Tan Fibrous Bound	<1% <1%	Cellulose Hair	55% 45%	Binder Silicates	None Detected

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
25 Layer 1 B237770	Finish	Heterogeneous Gray Non-fibrous Bound			55% 10% 35%	Binder Paint Silicates	None Detected
Layer 2 B237770	Plaster Base Coat	Heterogeneous Tan Fibrous Bound	<1% <1%	Cellulose Hair	55% 45%	Binder Silicates	None Detected
26 Layer 1 B237771	Finish	Heterogeneous Gray Non-fibrous Bound			55% 10% 35%	Binder Paint Silicates	None Detected
Layer 2 B237771	Plaster Base Coat	Heterogeneous Tan Fibrous Bound	<1% <1%	Cellulose Hair	55% 45%	Binder Silicates	None Detected
27 B237772	Vinyl Floor	Heterogeneous Dark Tan,Square Pattern Fibrous Bound	15%	Fiberglass	35% 50%	Binder Vinyl	None Detected
28 B237773	Vinyl Floor	Heterogeneous Dark Tan,Square Pattern Fibrous Bound	15%	Fiberglass	35% 50%	Binder Vinyl	None Detected
29 B237774	Sample Submitted for TEM Analysis						

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
30 B237775	Self-stick Floor Tile	Heterogeneous Gray Non-fibrous Bound			25% 75%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							
31 B237776	Self-stick Floor Tile	Heterogeneous Gray Non-fibrous Bound			25% 75%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							
32 B237777	Sample Submitted for TEM Analysis						
33 B237778A	Sheet Vinyl Floor	Heterogeneous Off-white Fibrous Bound	25% 15%	Cellulose Synthetic Fiber	10% 50%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							
Layer 1 B237778B	Sheet Vinyl Flooring	Heterogeneous Brown Fibrous Bound	15%	Cellulose	10% 50%	Binder Vinyl	**25% Chrysotile**
Layer 2 B237778B	Mastic	Heterogeneous Yellow Fibrous Bound			95%	Binder	**5% Chrysotile**
Lab Notes: Contaminated by positive backing of Sheet Vinyl Floor.							
B237778C	Sheet Vinyl Floor	Heterogeneous Black Fibrous Bound	35%	Cellulose	15% 50%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
34 B237779A	Sheet Vinyl Floor	Heterogeneous Off-white Fibrous Bound	25% 15%	Cellulose Synthetic Fiber	10% 50%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							
Layer 1 B237779B	Sample Not Analyzed per COC						
Layer 2 B237779B	Sample Not Analyzed per COC						
B237779C	Sheet Vinyl Floor	Heterogeneous Black Fibrous Bound	35%	Cellulose	15% 50%	Binder Vinyl	None Detected
Lab Notes: No mastic present.							
35 B237780A	Sample Submitted for TEM Analysis						
Layer 1 B237780B	Sample Not Analyzed per COC						
Layer 2 B237780B	Sample Not Analyzed per COC						
B237780C	Sample Submitted for TEM Analysis						
36 B237781A	Sheet Vinyl Floor	Heterogeneous White Fibrous Bound	15%	Cellulose	10% 50%	Binder Vinyl	**25% Chrysotile**
Lab Notes: No mastic present.							

ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: B17-0574
Date Received: 04-20-17
Date Analyzed: 04-25-17
Date Reported: 04-26-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

ASBESTOS BULK PLM, EPA 600 METHOD

Client ID / Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS Fibrous		Non-Fibrous		ASBESTOS %
B237781B	Sheet Vinyl Floor	Heterogeneous Black Fibrous Bound	35%	Cellulose	15% 50%	Tar Vinyl	None Detected
Lab Notes: No mastic present.							
37 B237782A	Sample Not Analyzed per COC						
B237782B	Sheet Vinyl Floor	Heterogeneous Black Fibrous Bound	35%	Cellulose	15% 50%	Tar Vinyl	None Detected
Lab Notes: No mastic present.							
38 B237783A	Sample Not Analyzed per COC						
B237783B	Sample Submitted for TEM Analysis						

LEGEND:

Non-Anth	= Non-Asbestiform Anthophyllite
Non-Trem	= Non-Asbestiform Tremolite
Calc Carb	= Calcium Carbonate

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORTING LIMIT: <1% by visual estimation

REGULATORY LIMIT: >1% by weight

Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. Estimated measurement of uncertainty is available on request.

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

ANALYST: Megan Rumble

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP TESTING
NVLAP LAB CODE 101768-0

B17-0574
(38) B237746-
B237783

ASBESTOS CHAIN OF CUSTODY

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

LAB USE ONLY:
CEI Lab Code:
CEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
CEI CLIENT #:	Job Contact: Ben Oliver
Company: Apex Environmental Management, Inc.	Email / Tel: boliver@apex-ehs.com
Address: 7 Winchester Court	Project Name: COS 735 Fulton Ave ACM & LBP
Mauldin, South Carolina 29662	Project ID# 0417-66
Email: boliver@apex-ehs.com	PO #:
Tel: 864-404-3210 Fax: 864-404-3213	STATE SAMPLES COLLECTED IN: South Carolina

GENERAL INSTRUCTIONS			
POSITIVE STOP ANALYSIS	☒	PLM DUE DATE:	/ /
ANALYZE NOB'S BY TEM	☒	TEM DUE DATE:	/ /

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR AHERA	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR NIOSH	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☒
TEM DUST WIPE	ASTM D6480-05	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-13			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS: Utilize Positive Stop During Analysis	☑ Accept Samples ☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4-19-17	DC	4-20-17 9:10

Samples will be disposed of 30 days after analysis

B17-0574

ASBESTOS SAMPLING FORM

CEI LABS

COMPANY CONTACT INFORMATION	
Company: Apex Environmental Management, Inc.	Job Contact: Ben Oliver
Project Name: COS 735 Fulton Ave ACM/LBP	
Project ID #: 0417-66	Tel: 864-640-1147

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
1	Roofing shingles (2 layers) and felt (1 layer)		PLM [X]	TEM [ ]
2			PLM [X]	TEM [ ]
3			PLM [ ]	TEM [X]
4	Cement board		PLM [X]	TEM [ ]
5			PLM [X]	TEM [ ]
6			PLM [ ]	TEM [X]
7	Siding felt		PLM [X]	TEM [ ]
8			PLM [X]	TEM [ ]
9			PLM [ ]	TEM [X]
10	Window Glazing		PLM [X]	TEM [ ]
11			PLM [X]	TEM [ ]
12			PLM [ ]	TEM [X]
13	Door caulk		PLM [X]	TEM [ ]
14			PLM [X]	TEM [ ]
15			PLM [ ]	TEM [X]
16	2'x4' fissure ceiling tile		PLM [X]	TEM [ ]
17			PLM [X]	TEM [ ]
18			PLM [X]	TEM [ ]
19	2'x4' pinhole ceiling tile		PLM [X]	TEM [ ]
20			PLM [X]	TEM [ ]
21			PLM [X]	TEM [ ]
22	Plaster with finish		PLM [X]	TEM [ ]
23			PLM [X]	TEM [ ]
24			PLM [X]	TEM [ ]
25			PLM [X]	TEM [ ]
26			PLM [X]	TEM [ ]
27	Dark tan square pattern floor with no mastic	vinyl	PLM [X]	TEM [ ]
28			PLM [X]	TEM [ ]
29			PLM [ ]	TEM [X]
30	12"x12" grey self-stick		PLM [X]	TEM [ ]

B17-0574

ASBESTOS SAMPLING FORM

CEI LABS

COMPANY CONTACT INFORMATION			
Company:	Apex Environmental Mgt.	Job Contact:	Ben Oliver
Project Name:	COS 735 Fulton Ave ACM/LBP		
Project ID #:	0417-66	Tel:	864-404-3210

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
31	floor tile		PLM [X]	TEM [ ]
32			PLM [ ]	TEM [X]
33	Multi-color v.f. with no mastic,		PLM [X]	TEM [ ]
34	brown vinyl floor with mastic,		PLM [X]	TEM [ ]
35	cream v.f. with no mastic,		PLM [ ]	TEM [X]
36	White pattern v.f. with no mastic,		PLM [X]	TEM [ ]
37	dark v.f. with no mastic		PLM [X]	TEM [ ]
38			PLM [ ]	TEM [X]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
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			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]

VERSION CCOC.0214.2/2.LD
Customer COC Page 2

May 3, 2017

Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CLIENT PROJECT: COS 735 Fulton Ave ACM & LBP; 0417-66
CEI LAB CODE: T17-0785

Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on April 26, 2017. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield Method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations. If you have any questions, please feel free to call our office at 919-481-1413.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

Apex Environmental Management

CLIENT PROJECT: COS 735 Fulton Ave ACM & LBP; 0417-66

CEI LAB CODE: T17-0785

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116

REPORT DATE: 05/03/17

TEL: 866-481-1412

www.ceilabs.com

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: Apex Environmental Management
7 Winchester Court
Mauldin, SC 29662

CEI Lab Code: T17-0785
Date Received: 04-26-17
Date Analyzed: 04-27-17
Date Reported: 05-03-17

Project: COS 735 Fulton Ave ACM & LBP; 0417-66

TEM BULK CHATFIELD / EPA 600 / R93 / 116

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
3 T61683	Black Roofing Shingle	0.344	22.4	41.3	36.3	**None Detected**
3 T61684	Black, Gray Roofing Shingle	0.344	27	43.9	29.1	**None Detected**
3 T61685	Black Felt Paper	0.533	95.3	2.6	2.1	**None Detected**
9 T61686	Siding Felt	0.499	96.4	2.6	1	**<1% Chrysotile**
Probable contamination from small pieces of residual siding that could not be separated during sample preparation.						
12 T61687	Black, Off-white Window Glazing	0.302	11.3	87.4	1.3	**None Detected**
15 T61688	White Door Caulk	0.372	24.2	74.7	1.1	**None Detected**
29 T61689	Dark Tan, Square Pattern Vinyl Floor	0.21	73.3	22.9	3.8	**None Detected**
32 T61690	Gray Self-stick Floor Tile	0.252	34.5	65.1	.4	**None Detected**
35 T61691	Off-white Sheet Vinyl Floor	0.201	67.7	12.4	19.9	**None Detected**
35 T61692	Black Sheet Vinyl Floor	0.175	92	7.4	.6	**<1% Chrysotile**
38 T61693	Black Sheet Vinyl Floor	0.17	70	11.8	18.2	**None Detected**

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by CEI Labs, Inc. CEI Labs makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Estimated measurement of uncertainty is available on request. Samples were received in acceptable condition unless otherwise noted.

ANALYST: Abigail Nails

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director

B17-0574
(38) B237746-
B237783

ASBESTOS CHAIN OF CUSTODY

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

LAB USE ONLY:	
CEI Lab Code:	T17-0785
CEI Lab I.D. Range:	T61683-693 (11)

COMPANY INFORMATION		PROJECT INFORMATION	
CEI CLIENT #:		Job Contact:	Ben Oliver
Company:	Apex Environmental Management, Inc.	Email / Tel:	boliver@apex-ehs.com
Address:	7 Winchester Court	Project Name:	COS 735 Fulton Ave ACM & LBP
	Mauldin, South Carolina 29662	Project ID#	0417-66
Email:	boliver@apex-ehs.com	PO #:	
Tel: 864-404-3210	Fax: 864-404-3213	STATE SAMPLES COLLECTED IN:	South Carolina

GENERAL INSTRUCTIONS			
POSITIVE STOP ANALYSIS	☒	PLM DUE DATE:	/ /
ANALYZE NOB'S BY TEM	☒	TEM DUE DATE:	/ /

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	24 HR	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	☐	☐	☐	☐	☐	☒
PLM POINT COUNT (400)	EPA 600	☐	☐	☐	☐	☐	☐
PLM POINT COUNT (1000)	EPA 600	☐	☐	☐	☐	☐	☐
PLM GRAV w POINT COUNT	EPA 600		☐	☐	☐	☐	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR AHERA	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR NIOSH	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM BULK	CHATFIELD		☐	☐	☐	☐	☒
TEM DUST WIPE	ASTM D6480-05	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-13			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS: Utilize Positive Stop During Analysis

☑ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4-19-17	DC	4-20-17 9:10

Samples will be disposed of 30 days after analysis

Myra Rule 4/26/17 @ 1:31pm

B17-0574

T17-0785

ASBESTOS SAMPLING FORM

CEI LABS

COMPANY CONTACT INFORMATION	
Company: Apex Environmental Management, Inc.	Job Contact: Ben Oliver
Project Name: COS 735 Fulton Ave ACM/LBP	
Project ID #: 0417-66	Tel: 864-640-1147

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
1	Roofing shingles (2 layers) and felt (1 layer)		PLM ☒	TEM ☐
2			PLM ☒	TEM ☐
3			PLM ☐	TEM ☒
4	Cement board		PLM ☒	TEM ☐
5			PLM ☒	TEM ☐
6			PLM ☐	TEM ☒
7	Siding felt		PLM ☒	TEM ☐
8			PLM ☒	TEM ☐
9			PLM ☐	TEM ☒
10	Window Glazing		PLM ☒	TEM ☐
11			PLM ☒	TEM ☐
12			PLM ☐	TEM ☒
13	Door caulk		PLM ☒	TEM ☐
14			PLM ☒	TEM ☐
15			PLM ☐	TEM ☒
16	2'x4' fissure ceiling tile		PLM ☒	TEM ☐
17			PLM ☒	TEM ☐
18			PLM ☒	TEM ☐
19	2'x4' pinhole ceiling tile		PLM ☒	TEM ☐
20			PLM ☒	TEM ☐
21			PLM ☒	TEM ☐
22	Plaster with finish		PLM ☒	TEM ☐
23			PLM ☒	TEM ☐
24			PLM ☒	TEM ☐
25			PLM ☒	TEM ☐
26			PLM ☒	TEM ☐
27	Dark tan square pattern floor with no mastic	vinyl	PLM ☒	TEM ☐
28			PLM ☒	TEM ☐
29			PLM ☐	TEM ☒
30	12"x12" grey self-stick		PLM ☒	TEM ☐

B17-0574
T17-0785

CEI LABS

ASBESTOS SAMPLING FORM

COMPANY CONTACT INFORMATION			
Company:	Apex Environmental Mgt.	Job Contact:	Ben Oliver
Project Name:	COS 735 Fulton Ave ACM/LBP		
Project ID #:	0417-66	Tel:	864-404-3210

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST			
31	floor tile		PLM	☒	TEM	☐
32			PLM	☐	TEM	☒
33	Multi-color v.f. with no mastic,		PLM	☒	TEM	☐
34	brown vinyl floor with mastic,		PLM	☒	TEM	☐
35	cream v.f. with no mastic,		PLM	☐	TEM	☒
36	White pattern v.f. with no mastic,		PLM	☒	TEM	☐
37	dark v.f. with no mastic		PLM	☒	TEM	☐
38			PLM	☐	TEM	☒
			PLM	☐	TEM	☐
			PLM	☐	TEM	☐
			PLM	☐	TEM	☐
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Page 3 of 3

SECTION IV

Photographic Log

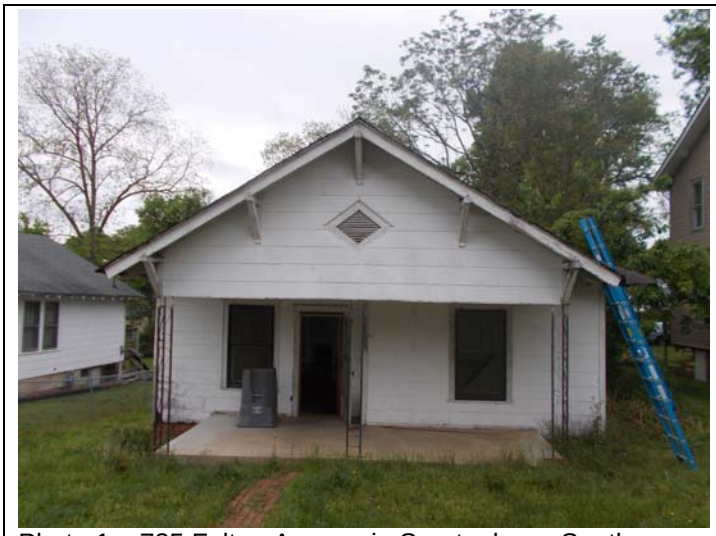

Photo 1 – 735 Fulton Avenue in Spartanburg, South Carolina.

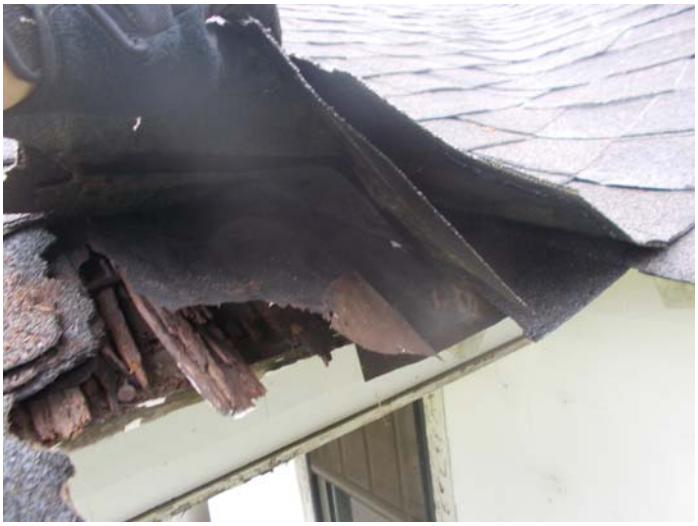

Photo 2 – Roofing shingles (2 layers) and felt (1 layer).

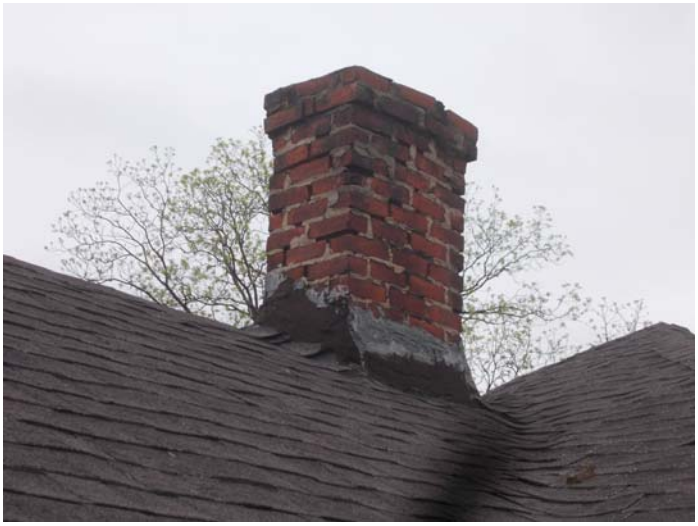

Photo 3 – Two chimneys with tar/mastic assumed positive.

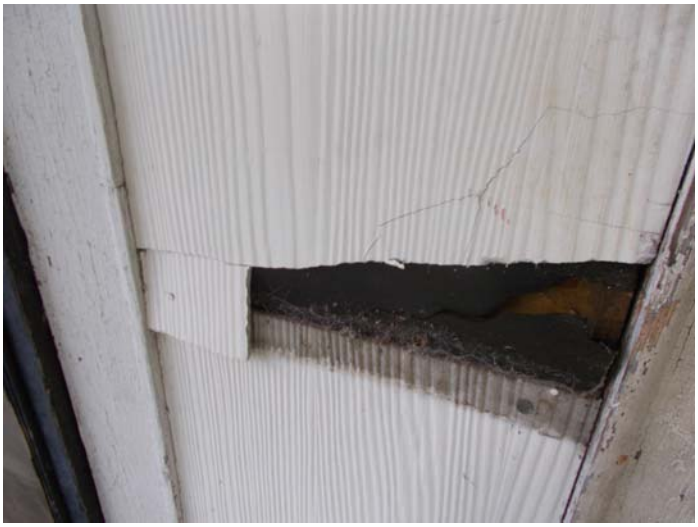

Photo 4 – Cement board siding with felt beneath.

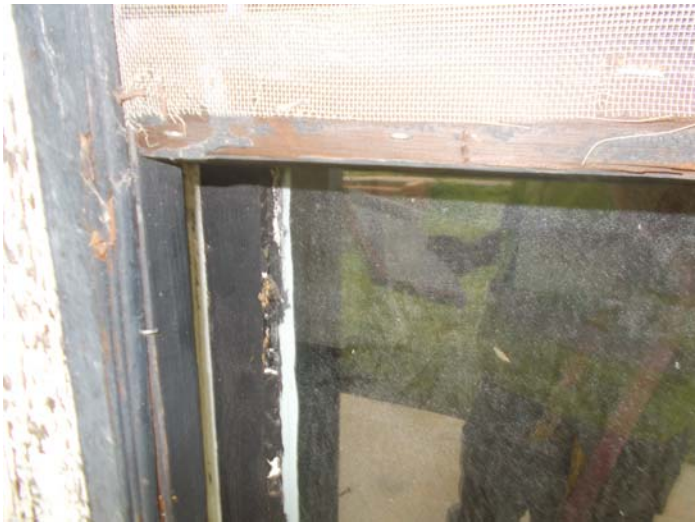

Photo 5 – Glazing on wooden windows.

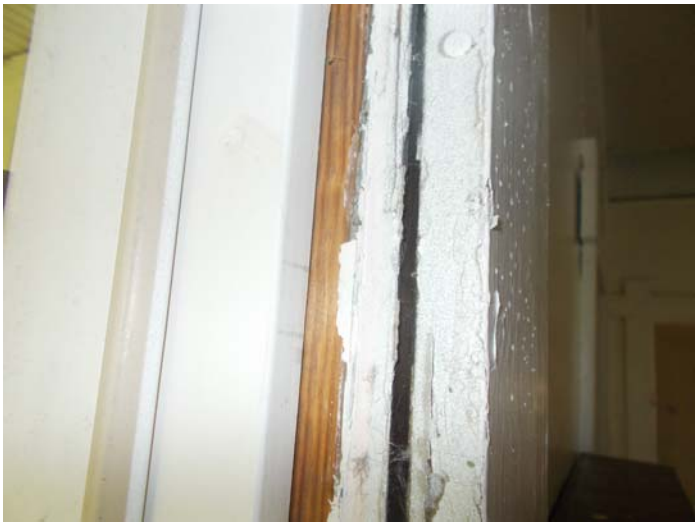

Photo 6 – Caulk on interior door frame.

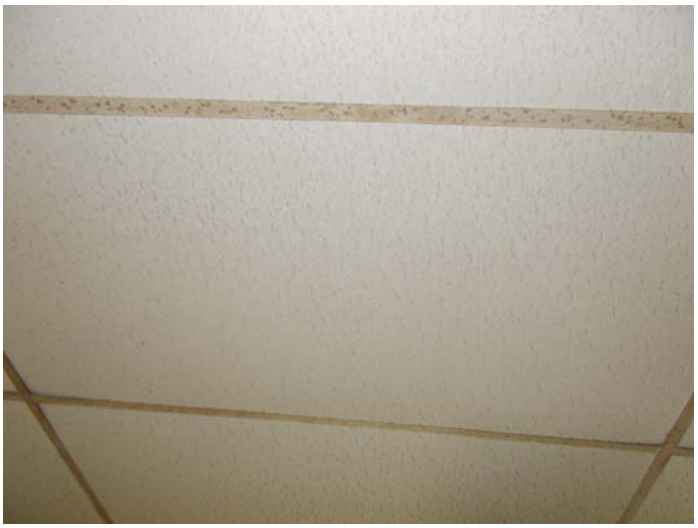

Photo 7 – 2'x4' fissured ceiling tiles throughout grid.

Photo 8 – 2'x4' pinhole ceiling tiles in middle left room.

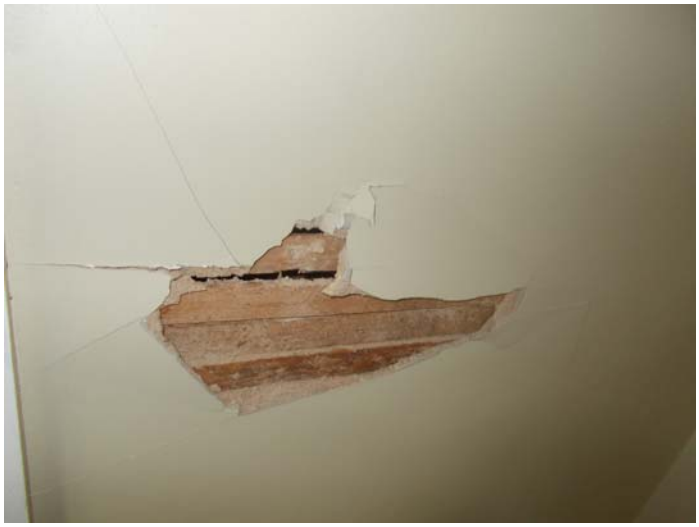

Photo 9 – Plaster with finish throughout interior.

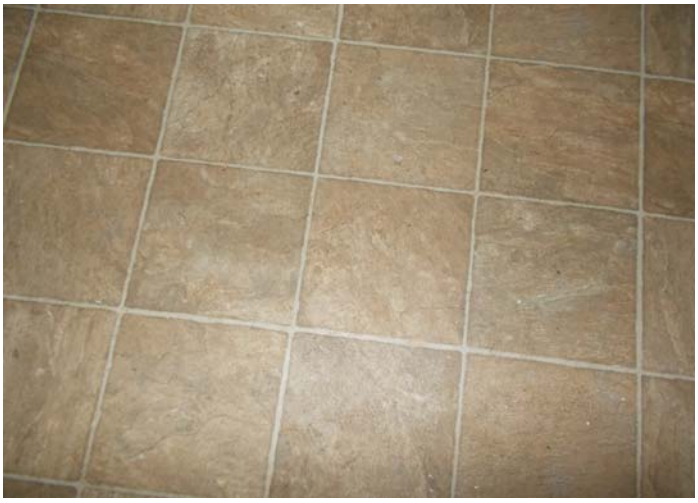

Photo 10 – Dark tan square pattern vinyl floor with no mastic in kitchen and pantry (top layer).

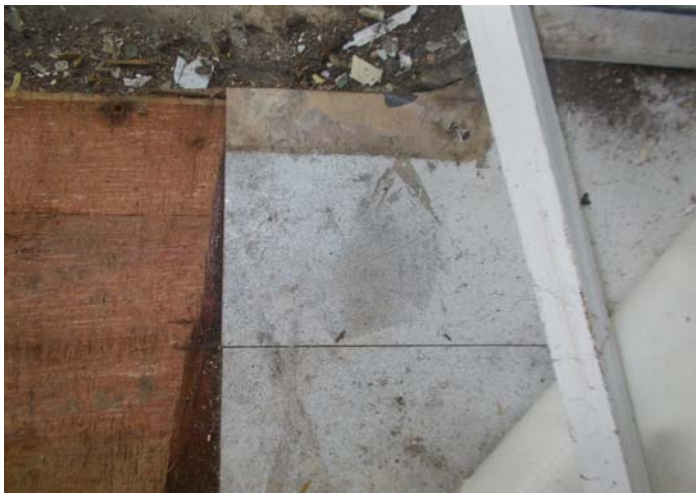

Photo 11 – 12"x12" grey floor tile in kitchen (2nd layer).

Photo 12 – Three layers of vinyl floor with and with no mastic under wood in kitchen.

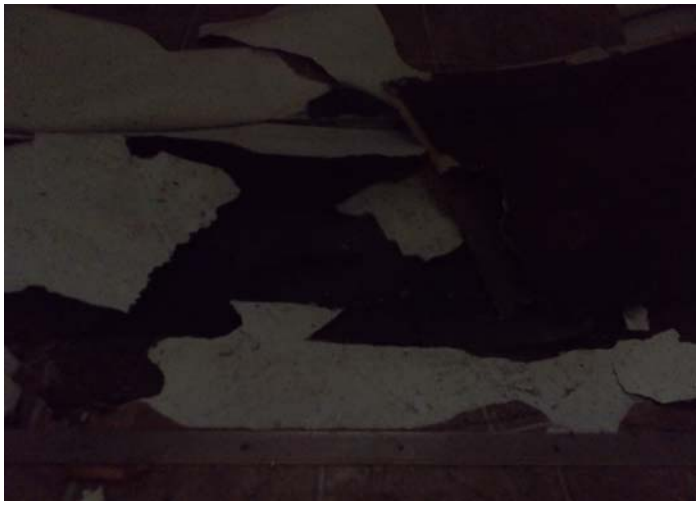

Photo 13 – White pattern vinyl floor with no mastic over dark vinyl floor with no mastic in pantry (2nd and 3rd layers).

SECTION V

SC DHEC Asbestos Inspector License

SCDHEC ISSUED
Asbestos ID Card

Thomas H Oliver

		Expiration Date
AIRSAMPLER	**AS-00202**	**03/17/18**
CONSULTBI	**BI-00680**	**01/18/18**