

EXHIBIT "C"

COMPREHENSIVE ASBESTOS SURVEYS

ASBESTOS ABATEMENT REMOVAL

1242 YEAMANS HALL ROAD

1240 YEAMANS HALL ROAD

5902 HOWARD STREET

COMPREHENSIVE ASBESTOS SURVEY

**COMMERCIAL BUILDING
1240 YEAMANS HALL ROAD
HANAHAN, SC 29410**



Prepared For:

**CITY OF HANAHAN
Attn: Mrs. Katherine Farias
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Hanahan, SC 29410
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Performed By:

TES

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COMPREHENSIVE ASBESTOS SURVEY

Commercial Building
1240 Yeamans Hall Road
Hanahan, SC 29410

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EXECUTIVE SUMMARY

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 18, 2018 of the Commercial Building located at 1240 Yeamans Hall Road in Hanahan, South Carolina did reveal the presence of asbestos containing building materials. The following summary exhibits the asbestos containing building materials (ACBM) that were identified in the inspection.

Asbestos

Description	Type
Transite Siding	Category II – Non Friable
Exterior Caulk	Category I – Non Friable
9” Floor Tile (beige)	RACM – Friable
Floor Tile Mastic (black)	Category I – Non Friable
Vinyl Sheet Flooring (yellow squares)	RACM – Friable
Vinyl Mastic (black)	Category I – Non Friable
Drywall/Joint Compound	RACM – Friable

RACM – Regulated Asbestos Containing Material

The identified ACBM includes the item(s) listed above. All removal work of the identified ACBM should be performed by a properly trained and licensed abatement contractor prior to the planned renovation/demolition activities.

BACKGROUND

Trident Environmental Services, Inc. was contracted by City of Hanahan to perform a comprehensive asbestos survey of the Commercial Building located at 1240 Yeamans Hall Road in Hanahan, South Carolina. The survey was performed in order to satisfy the NESHAP requirements for renovation and/or demolition. The structure is a one bedroom, one bathroom duplex constructed on foundation and consisting of approximately 800 square feet. Interior walls and ceilings are drywall with joint compound applied at the seams and patches. Floor finishes include vinyl floor tiles, vinyl sheet flooring, hardwood and carpet. Roofing material consists of asphalt shingles and felt paper. Exterior construction is wood, with wood trim, soffits, eaves doors/windows and transite siding,

Asbestos

The inspection was conducted to identify asbestos-containing building materials (ACBM) which may be disturbed during the renovation/demolition activities. The identification of ACBM will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos fibers. Identification of ACBM also complies with Title 40 Code of the Federal Regulations, Part 61, and South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, along with Title 29 Code of Federal Regulations, Part 1926 enforced by the Occupational Safety and Health Administration (OSHA). The Asbestos Survey describes the investigative procedures utilized, results of the suspect ACBM sampled/analyzed, and recommendations regarding the structures as related to asbestos.

ASBESTOS SURVEY

Asbestos Investigative Procedures

Trident Environmental Services, Inc. conducted an inspection for suspect ACBM on September 18, 2018 of the Commercial Building located at 1240 Yeamans Hall Road in Hanahan, South Carolina. It is our understanding that the subject structure will undergo renovation or demolition activities in the near future. The asbestos survey was performed by observing and sampling suspect building materials. Significant destructive testing was not utilized during the inspection. There is a possibility that suspect materials exist in inaccessible areas such as wall cavities and pipe chases. If any additional suspect ACBM are discovered during the course of demolition activities, bulk samples should be extracted to identify the presence, or absence, of asbestos prior to continuation of work activities.

A sampling strategy was developed to provide representative samples for analysis. Samples were then extracted from a variety of suspect ACBM. Bulk samples collected were recorded on a Chain-of-Custody record and submitted to Trident Environmental Service Center, Inc. (TESC) a Polarized Light Microscopy (PLM) laboratory. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). TESC is accredited by NVLAP for the analysis of bulk asbestos by PLM (NVLAP Lab Code: 200794-0).

The suspect materials were analyzed by trained microscopists utilizing PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F- Appendix A. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present. The EPA and OSHA defines materials as asbestos containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample.

Non-Friable Organically Bound (NOB) samples were submitted to AmeriSci Richmond Laboratory for analyses by Transmission Electron Microscopy (TEM). SCDHEC requires NOB materials with negative or trace results by PLM to be analyzed by at least one TEM. SCDHEC in accordance with ASTM E 2356-04 defines NOB materials as “materials that are not friable and that consist of fibers and other particulate matter embedded in a solid matrix of asphalt, vinyl or other organic substances.” Examples of NOB materials include but are not limited to flooring materials such as vinyl floor tiles, vinyl sheet flooring, adhesives, mastics, asphalt shingles, roofing materials, glazing, caulks, and cove base.

The EPA classifies ACBM into two categories, friable and non-friable. A friable material creates a greater health hazard due to the fact that it may be “crumbled, pulverized or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations.”

Friable Asbestos material means any material containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Category I Non Friable Asbestos-Containing Material (ACM) means asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II Non Friable ACM means any material, excluding Category I non friable ACM, containing more than one percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (cement siding, transite board shingles, etc.)

Regulated Asbestos-Containing Material (RACM) means (a) Friable asbestos material, (b) Category I non friable ACM that has become friable, (c) Category I non friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The following section summarizes the sample numbers, locations, type material, asbestos type, percent of asbestos detected, present condition of the asbestos containing material, potential for disturbance, and hazard assessment ratings. The asbestos sample laboratory analyses and chain of custody records are included at the end of this report.

Asbestos Abbreviations and Hazard Assessment Key

The EPA and SCDHEC require that confirmed ACBM is given a hazard assessment based on its present condition and potential for future disturbance. This hazard assessment is used as a tool for prioritization in future remedial actions regarding the ACBM. The following key demonstrates the criteria that make up the hazard assessment.

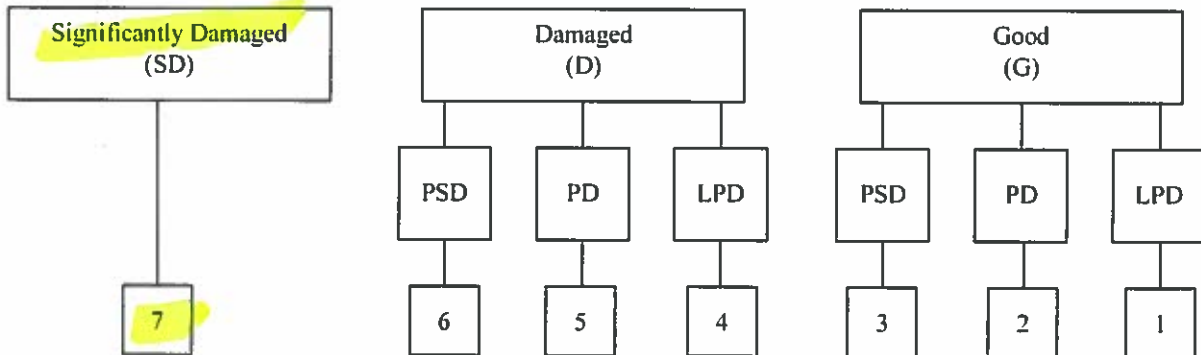
Present Condition

- F = Friable
- NF = Non-friable
- G = Good (very localized limited damage)
- D = Damaged (<10% distributed and/or <25% localized)
- S = Significantly Damaged (≥10% distributed and/or 25% localized)

Potential for Future Disturbance

- LPD = Low Potential for Disturbance (Contact, Vibration, and/or Air Erosion – low concern)
- PD = Potential for Damage (Contact, Vibration, and/or Air Erosion – moderate concern)
- PSD = Potential for Significant Damage (Contact, Vibration and/or Air Erosion – high concern)

Hazard Assessment



HOMOGENOUS AREA ESTIMATED FOOTAGE TABLE
Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC

HOMOGENOUS AREA ID #	DESCRIPTION	ESTIMATED AMOUNT
01	Transite Siding	1,440 SF
02	Siding Felt	1,400 SF
03	Window Glazing	44 SF
04	Exterior Caulk	80 SF
05	Roof Shingle	960 SF
06	Roof Felt	960 SF
07	Brick Mastic (black)	8 SF
08	16" Self-Stick Floor Tile (gray stone)	100 SF
09	Vinyl Sheet Flooring (gray/white squares)	100 SF
10	12" Self-Stick Floor Tile (slate)	50 SF
11	Vinyl Sheet Flooring (green pebble)	140 SF
12	Vinyl Mastic (black)	140 SF
13	9" Floor Tile (beige)	200 SF
14	Floor Tile Mastic (black)	336 SF
15	Vinyl Sheet Flooring (yellow squares)	50 SF
16	Vinyl Mastic (black)	50 SF
17	Vinyl Sheet Flooring (beige)	50 SF
18	Vinyl Sheet Flooring (beige slate)	100 SF
19	Drywall	3,200 SF
20	Joint Compound	3,200 SF

ASBESTOS SUMMARY
Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC

DESCRIPTION	TYPE	ESTIMATED AMOUNT
Transite Siding	Category II – Non Friable	1,440 SF
Exterior Caulk	Category I – Non Friable	80 SF
9” Floor Tile (beige) / Mastic	RACM – Friable	200 SF
Vinyl Sheet Flooring (yellow squares)	RACM – Friable	50 SF
Vinyl Mastic (black)	Category I – Non Friable	50 SF
Drywall/Joint Compound	RACM - Friable	3,200 SF

RACM – Regulated Asbestos Containing Material

*PACM - Presumed Asbestos Containing Material

SCDHEC requires any non-friable material that is identified in an asbestos inspection report in a condition other than good and non-friable must be handled as a Regulated Asbestos Containing Material (RACM) and identified as friable on the asbestos abatement application. This requirement is reflected in the Asbestos Summary Table listed above.

Asbestos fibers were identified in the Transite Siding. Approximately 1,440 square feet is present and in good condition. This material is considered Category II – Non Friable Asbestos and is located on the exterior walls.

Asbestos fibers were identified in the Exterior Caulk. Approximately 80 square feet is present and in good condition. This material is considered Category I – Non Friable Asbestos and is located around exterior windows and doors.

Asbestos fibers were identified in the 9” Floor Tile (beige) and the associated Floor Tile Mastic (black). Approximately 236 square feet of each is present and is significantly damaged condition. These materials are considered RACM – Friable Asbestos and are located in Bedroom B (layer 2) and Bedroom A (layer 1). **Note: Floor Tiles may be located under cabinets, appliance and non-load bearing walls.**

Asbestos fibers were identified in the Vinyl Sheet Flooring (yellow squares) and the associated Floor Tile Mastic (black). Approximately 50 square feet is present and in good condition. The materials are considered RACM – Friable Asbestos and is located in Bathroom A. (layer 2) **Note: Floor Tiles may be located under cabinets, appliance and non-load bearing walls.**

The estimated quantities provided should be verified by contractor and/or building owner. Any discrepancies are to be addressed prior to removal of ACM. Please note that removal costs vary depending on the contractor, the quantity/condition of the ACM, and the accessibility/location of the ACM.

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
01-01	Transite Panel	Exterior Siding	N	10.0%	CHRY	7	3
01-02	Transite Panel	Exterior Siding	N	NT	PACM	7	3
01-03	Transite Panel	Exterior Siding	N	NT	PACM	7	3
02-04	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-05	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-06 T	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
03-07	Window Glazing	Window 1	Y	0.0%	ND	7	N/A
03-08	Window Glazing	Window 2	Y	0.0%	ND	7	N/A
03-09 T	Window Glazing	Window 3	Y	0.0%	ND	7	N/A
04-10	Exterior Caulk	Window	N	2.0%	CHRY	7	1
04-11	Exterior Caulk	Door	N	NT	PACM	7	1
04-12	Exterior Caulk	Door	N	NT	PACM	7	1
05-13	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-14	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-15 T	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
06-16	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-17	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-18 T	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
07-19	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
07-20	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
07-21 T	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
08-22	16" Self-Stick Floor Tile (gray stone)	Kitchen B – Layer 1	N	0.0%	ND	7	N/A
08-23	16" Self-Stick Floor Tile (gray stone)	Kitchen B – Layer 1	N	0.0%	ND	7	N/A
08-24 T	16" Self-Stick Floor Tile (gray stone)	Kitchen B – Layer 1	N	0.0%	ND	7	N/A
09-25	Vinyl Sheet Flooring (gray/white squares)	Kitchen B – Layer 2	N	0.0%	ND	7	N/A
09-26	Vinyl Sheet Flooring (gray/white squares)	Kitchen B – Layer 2	N	0.0%	ND	7	N/A
09-27 T	Vinyl Sheet Flooring (gray/white squares)	Kitchen B – Layer 2	N	0.0%	ND	7	N/A

Assessment Categories

- (1) Thermal Systems Insulation – Good Condition
- (2) Thermal Systems Insulation – Damaged
- (3) Thermal Systems Insulation – Significantly Damaged
- (4) Surfacing – Good Condition

- (5) Surfacing – Damaged
- (6) Surfacing – Significantly Damaged
- (7) Miscellaneous – Good Condition
- (8) Miscellaneous – Damaged
- (9) Miscellaneous – Significantly Damaged

Asbestos Present

- AMOS – Amosite
- CHRY – Chrysotile
- CROC – Crocidolite
- ANTH – Anthophyllite
- TREM – Tremolite
- ACTI – Actinolite
- ND – None Detected
- NT – Not Tested
- PACM – Presumed ACM
- Asbestos Detected**

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
10-28	12" Self-Stick Floor Tile (slate)	Bathroom B	N	0.0%	ND	7	N/A
10-29	12" Self-Stick Floor Tile (slate)	Bathroom B	N	0.0%	ND	7	N/A
10-30 T	12" Self-Stick Floor Tile (slate)	Bathroom B	N	0.0%	ND	7	N/A
11-31	Vinyl Sheet Flooring (green pebble)	Living Room B	Y	0.0%	ND	7	N/A
11-32	Vinyl Sheet Flooring (green pebble)	Living Room B	Y	0.0%	ND	7	N/A
11-33 T	Vinyl Sheet Flooring (green pebble)	Living Room B	Y	0.0%	ND	7	N/A
12-34	Vinyl Mastic (black)	Living Room B	N	0.0%	ND	7	N/A
12-35	Vinyl Mastic (black)	Living Room B	N	0.0%	ND	7	N/A
12-36 T	Vinyl Mastic (black)	Living Room B	N	<1.0%	CHRY	7	N/A
13-37	9" Floor Tile (beige)	Bedroom B	N	3.0%	CHRY	8	6
13-38	9" Floor Tile (beige)	Bedroom B	N	NT	PACM	8	6
13-39	9" Floor Tile (beige)	Bedroom A	N	NT	PACM	8	6
14-40	Floor Tile Mastic (black)	Bedroom B	N	8.0%	CHRY	7	1
14-41	Floor Tile Mastic (black)	Bedroom B	N	NT	PACM	7	1
14-42	Floor Tile Mastic (black)	Bedroom A	N	NT	PACM	7	1
15-43	Vinyl Sheet Flooring (yellow squares)	Bathroom A Layer 2	Y	20.0%	CHRY	7	1
15-44	Vinyl Sheet Flooring (yellow squares)	Bathroom A Layer 2	Y	NT	PACM	7	1
15-45	Vinyl Sheet Flooring (yellow squares)	Bathroom A Layer 2	Y	NT	PACM	7	1
16-46	Vinyl Mastic (black)	Bathroom A Layer 2	N	5.0%	CHRY	7	1
16-47	Vinyl Mastic (black)	Bathroom A Layer 2	N	NT	PACM	7	1
16-48	Vinyl Mastic (black)	Bathroom A Layer 2	N	NT	PACM	7	1
17-49	Vinyl Sheet Flooring (beige)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A
17-50	Vinyl Sheet Flooring (beige)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A

Assessment Categories

- (1) Thermal Systems Insulation – Good Condition
- (2) Thermal Systems Insulation – Damaged
- (3) Thermal Systems Insulation – Significantly Damaged
- (4) Surfacing – Good Condition

- (5) Surfacing – Damaged
- (6) Surfacing – Significantly Damaged
- (7) Miscellaneous – Good Condition
- (8) Miscellaneous – Damaged
- (9) Miscellaneous – Significantly Damaged

Asbestos Present

- AMOS – Amosite
- CHRY – Chrysotile
- CROC – Crocidolite
- ANTH – Anthophyllite
- TREM – Tremolite
- ACTI – Actinolite
- ND – None Detected
- NT – Not Tested
- PACM – Presumed ACM
- Asbestos Detected**

ASBESTOS SAMPLE DATA TABLE
Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
17-51 T	Vinyl Sheet Flooring (beige)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A
18-52	Vinyl Sheet Flooring (beige slate)	Kitchen – Layer 1	N	0.0%	ND	7	N/A
18-53	Vinyl Sheet Flooring (beige slate)	Kitchen – Layer 1	N	0.0%	ND	7	N/A
18-54	Vinyl Sheet Flooring (beige slate)	Kitchen – Layer 1	N	0.0%	ND	7	N/A
19-55	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
19-56	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
19-57	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
20-58	Joint Compound	Bedroom A	Y	2.0%	CHRY	4	3
20-59	Joint Compound	Bedroom A	Y	NT	PACM	4	3
20-60	Joint Compound	Bedroom A	Y	NT	PACM	4	3
20-61	Joint Compound	Bedroom A	Y	NT	PACM	4	3
20-62	Joint Compound	Bedroom A	Y	NT	PACM	4	3

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

CONCLUSIONS/RECOMMENDATIONS

Asbestos Inspection

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 18, 2018 of the Commercial Building located at 1240 Yeamans Hall Road in Hanahan, South Carolina did reveal the presence of ACBM. Renovation or demolition activities that will disturb the ACBM will require removal per state and federal regulations. Asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release asbestos fibers into the air of the building. All areas that contain asbestos should be utilized in a controlled manner to reduce the potential for disturbance. OSHA requires notification to all trades/contractors about the condition of the ACBM to prevent possible occupational exposures.

Demolition activities in public and commercial buildings are regulated by OSHA, EPA, and SCDHEC. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, "National Emissions Standards for Hazardous Air Pollutants" (NESHAP), and SCDHEC Regulation 61-86.1 require the proper removal and disposal of ACBM that is affected by renovation or demolition. Demolition of the subject structures will require written notification, proper transportation, and disposal per state and federal regulations.

PHOTOGRAPHS

Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC



HOMOGENEOUS AREA 01
TRANSITE PANEL



HOMOGENEOUS AREA 02
SIDING FELT



HOMOGENEOUS AREA 03
WINDOW GLAZING



HOMOGENEOUS AREA 04
EXTERIOR CAULK



HOMOGENEOUS AREA 05
ROOF SHINGLE



HOMOGENEOUS AREA 06
ROOF FELT

PHOTOGRAPHS

Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREA 07
BRICK MASTIC (BLACK)**



**HOMOGENEOUS AREA 08
16" SELF-STICK FLOOR TILE (GRAY STONE)**



**HOMOGENEOUS AREA 09
VINYL SHEET FLOORING
(GRAY/WHITE SQUARES)**



**HOMOGENEOUS AREA 10
12" SELF-STICK FLOOR TILE
(SLATE)**



**HOMOGENEOUS AREAS 11, 12
VINYL SHEET FLOORING (GREEN PEBBLE)
MASTIC (BLACK)**



**HOMOGENEOUS AREAS 13, 14
9" FLOOR TILE (BEIGE)
MASTIC (BLACK)**

PHOTOGRAPHS

Commercial Building – 1240 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREAS 15, 16
VINYL SHEET FLOORING
(YELLOW SQUARES)
MASTIC (BLACK)**



**HOMOGENEOUS AREA 17
VINYL SHEET FLOORING (BEIGE)**



**HOMOGENEOUS AREA 18
VINYL SHEET FLOORING (BEIGE SLATE)**



**HOMOGENEOUS AREA 19
DRYWALL**



**HOMOGENEOUS AREA 20
JOINT COMPOUND**

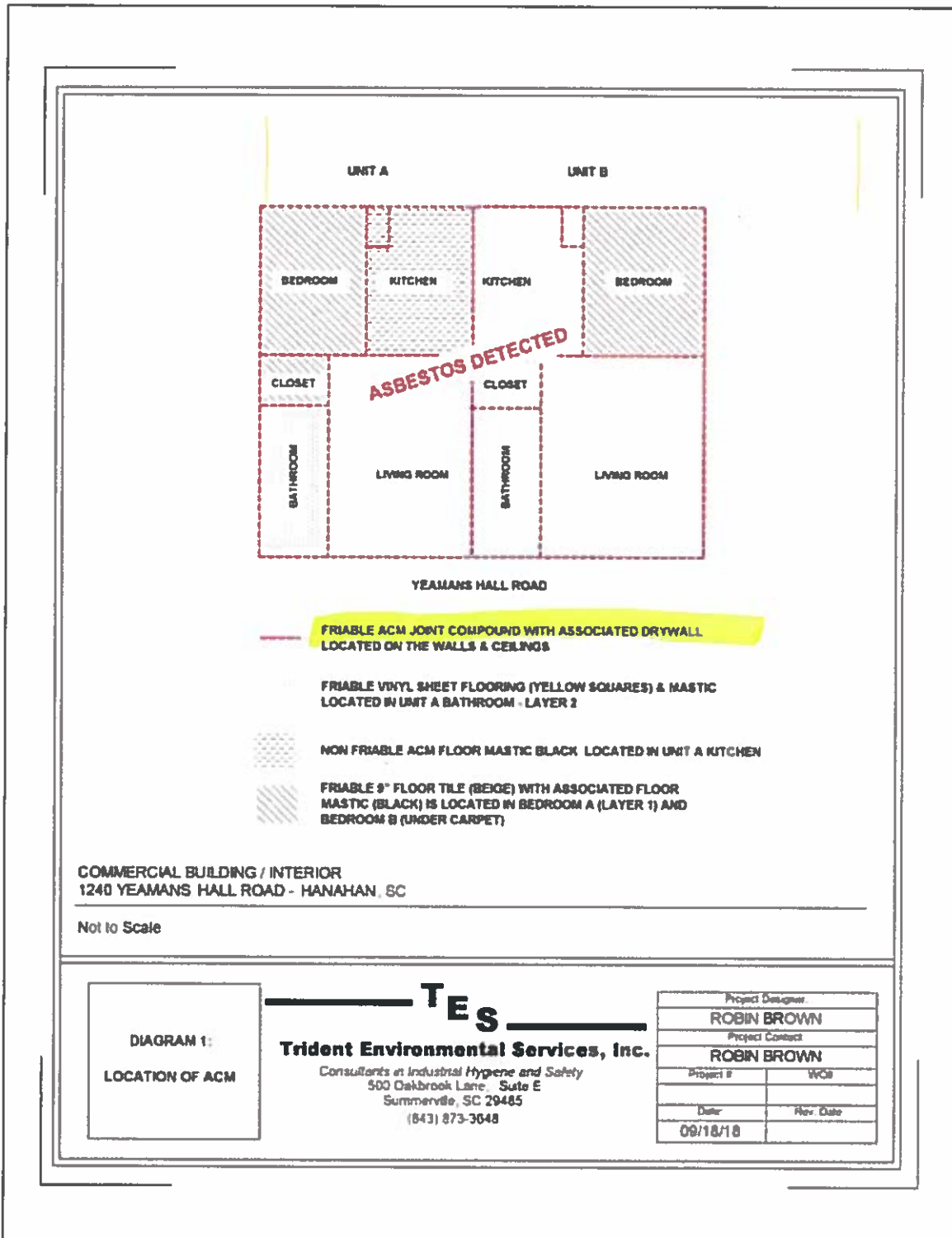
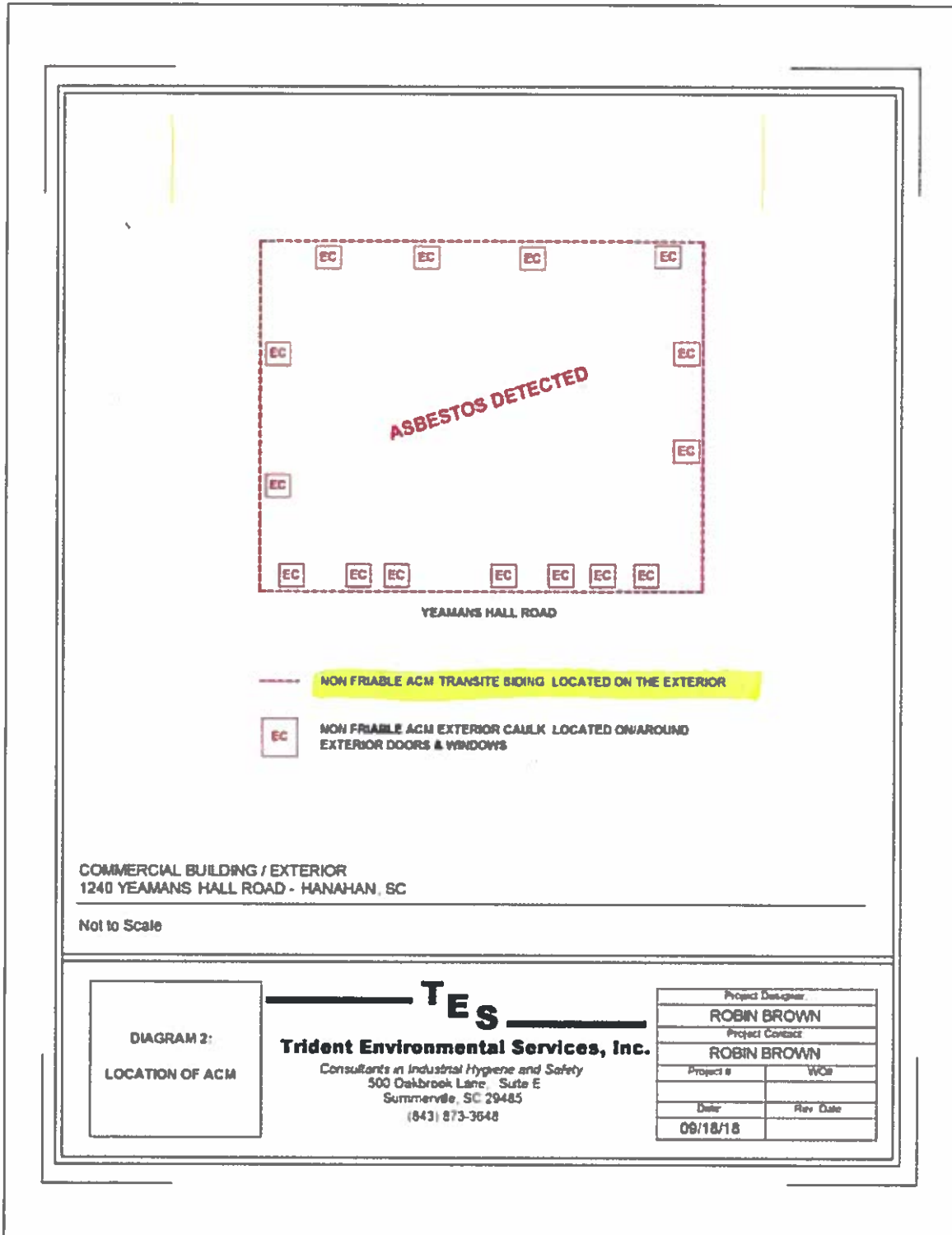


DIAGRAM 1:
 LOCATION OF ACM

TES
Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane - Suite E
 Summerville, SC 29485
 (843) 873-3648

Project Designer	
ROBIN BROWN	
Project Contact	
ROBIN BROWN	
Project #	W08
Date	Rev. Date
09/18/18	



COMPREHENSIVE ASBESTOS SURVEY

Inspection Date: 09/18/2018

Preparation Date: 09/26/2018

Inspected & Prepared By:

Hunter Hanson

Hunter Hanson
S.C. Inspector License BI – 01468

SCDHEC ISSUED

Asbestos ID Card

Hunter Hanson



CONSULTBI	BI-01468	Expiration Date:
AIRSAMPLER	AS-00413	10/28/18
		01/06/19

Reviewed By:

Robin A. Brown

Robin A. Brown
S.C. Inspector License BI – 00613

SCDHEC ISSUED

Asbestos ID Card

Robin Brown



CONSULTPD	PD-00176	Expiration Date:
CONSULTBI	BI-00613	06/14/19
AIRSAMPLER	AS-00178	06/26/19
		02/05/19

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200794-0

Triangle Environmental Service Center, Inc.
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2008).

2018-04-01 through 2019-03-31

Effective Dates



A handwritten signature in black ink, which appears to read "Thomas S. Lamm".

For the National Voluntary Laboratory Accreditation Program

NVLAP National Voluntary
Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Triangle Environmental Service Center, Inc.
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http://www.tesclab.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200794-0

Bulk Asbestos Analysis

Code

Description

IM/A01

EPA - 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples

IM/A03

EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101904-0

AmeriSci Richmond
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2018-07-01 through 2019-06-30

Effective Dates



Patricia S. Gammie
For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AmeriSci Richmond
dba AmeriSci Richmond
13635 Genito Road
Midlothian, VA 23112
Mr. Thomas B. Keith
Phone: 804-763-1200 Fax: 804-763-1800
Email: bkeith@amerisci.com
<http://www.amerisci.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101904-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleburg, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01-01 / Gray granular, white fibers	10% Chrysotile		90%
2	01-02 /	Positive Stop		100%
3	01-03 /	Positive Stop		100%
4	02-04 / Black fibers	NAD	98% Cellulose	2%
5	02-05 / Black fibers	NAD	98% Cellulose	2%
6	02-06 / Black fibers	NAD	98% Cellulose	2%
7	03-07 / White powder	NAD		100%
8	03-08 / White powder	NAD		100%
9	03-09 /	Not Analyzed		100%
10	04-10 / White powder	2% Chrysotile		98%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA/600/R-93-116, July 1993) (EPA-600/3-93-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected, not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLA# Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Jianhua Jiang, Senior Geologist

Wednesday, September 19, 2018

Page 1 of 7

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29483

TESC LOGIN # 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	04-11 /	Positive Stop		100%
12	04-12 /	Positive Stop		100%
13	05-13 / Black tar-like	NAD	20% Fiberglass	80%
14	05-14 / Black tar-like	NAD	20% Fiberglass	80%
15	05-15 /	Not Analyzed		100%
16	06-16 / Black fibers	NAD	98% Cellulose	2%
17	06-17 / Black fibers	NAD	98% Cellulose	2%
18	06-18 /	Not Analyzed		100%
19	07-19 / Black adhesive	NAD		100%
20	07-20 / Black adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-R2-020, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVTAP Lab Code: 2107944

[LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound]

Reviewed By: Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Jianqiang Jiang, Senior Geologist

Wednesday, September 19, 2018

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TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

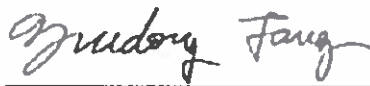
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
21	07-21 /	Not Analyzed		100%
22	08-22 / Beige vinyl	NAD		100%
23	08-23 / Beige vinyl	NAD		100%
24	08-24 /	Not Analyzed		100%
25	09-25 / Gray limo fibers	NAD	20% Cellulose 5% Fiberglass	75%
26	09-26 / Gray limo fibers	NAD	20% Cellulose 5% Fiberglass	75%
27	09-27 /	Not Analyzed		100%
28	10-28 / Brown vinyl	NAD		100%
29	10-29 / Brown vinyl	NAD		100%
30	10-30 /	Not Analyzed		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/3-93-020, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVTAP Lab Code: 218794-0

[LEGEND: NAD=No Asbestos Detected, Lmo = 1 molecule, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Juehong Fang, Senior Geologist

Wednesday, September 19, 2018

Page 1 of 7

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	11-11 / Green lino , black fibers	NAD	20% Cellulose	80%
32	11-32 / Green lino , black fibers	NAD	20% Cellulose	80%
11	11-11 /	Not Analyzed		100%
14	12-14 / Black adhesive	NAD		100%
35	12-35 / Black adhesive	NAD		100%
36	12-36 /	Not Analyzed		100%
37	13-37 / Brown vinyl	3% Chrysotile		97%
38	13-38 /	Positive Stop		100%
19	13-19 /	Positive Stop		100%
40	14-40 / Black adhesive	8% Chrysotile		92%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-A2-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected, not detected at/w below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the items tested.

NVI AP Lab Code: 200794-0

[LEGEND: NAD=No Asbestos Detected, f mo =1 molecule, K=Joint Compound]

Reviewed By Authorized Signatory:

Judong Jung

Feng Jiang, VES Senior Geologist, Laboratory Director
 Judong Jung, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB/ #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
41	14-41 /	Positive Stop		100%
42	14-42 /	Positive Stop		100%
43	15-43 / Beige vinyl gray fibers	20% Chrysotile		80%
44	15-44 /	Positive Stop		100%
45	15-45 /	Positive Stop		100%
46	16-46 / Black adhesive	5% Chrysotile		95%
47	16-47 /	Positive Stop		100%
48	16-48 /	Positive Stop		100%
49	17-49 / Beige lino . gray fibers	NAD	20% Cellulose 5% Fiberglass	75%
50	17-50 / Beige lino . gray fibers	NAD	20% Cellulose 5% Fiberglass	75%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/409/R-93-116, July 1993 (EPA-600/5-93-020), Dec. 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. (This test report relates only to the item(s) tested)

NVLAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I mo = I molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Jueheng Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 580 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919C

DATE OF RECEIPT 9/19/2018
 DATE OF ANALYSIS 9/19/2018
 DATE OF REPORT 9/19/2018

CLIENT JOB/ #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
51	17-51 /	Not Analyzed		100%
52	18-52 / Brown lino , gray fibers	NAD	20% Cellulose 5% Fiberglass	75%
53	18-53 / Brown lino , gray fibers	NAD	20% Cellulose	80%
54	18-54 /	Not Analyzed		100%
55	19-55 / White powder, brown fibers	NAD	20% Cellulose	80%
56	19-56 / White powder, brown fibers	NAD	20% Cellulose	80%
57	19-57 / White powder, brown fibers	NAD	20% Cellulose	80%
58	20-58 / White powder	2% Chrysotile		98%
59	20-59 /	Positive Stop		100%
60	20-60 /	Positive Stop		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/34-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. (This test report relates only to the item(s) tested.)

NVLAP Lab Code: 200794-0

(LEGEND: NAD=No Asbestos Detected, I mo =I molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Juechung Fung, Senior Geologist

Wednesday, September 19, 2018

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TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919C

DATE OF RECEIPT: 9/19/2018
 DATE OF ANALYSIS: 9/19/2018
 DATE OF REPORT: 9/19/2018

CLIENT JOB #:

JOB SITE: 1240 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
61	20-61 /	Positive Stop		100%
62	20-62 /	Positive Stop		100%

Total Samples/Layers Analyzed: 35

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/54-82-020), Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

[LEGEND: NAD=No Asbestos Detected, I=Ino.=Inorganic, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Juechang Fang, Senior Geologist

Wednesday, September 19, 2018

Page 7 of 7

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13599 East Boundary Road, Suite B, Middleham, VA 23112 • 804-739-1751 • fax: 804-739-1753

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 540 Oakbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 1240 Yeamans Hall Rd
 TAT: 1 Days

TESC LOGIN #: INP19K
 ANALYST: J. Turner

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/21/2018
 DATE OF REPORT: 09/23/2018

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
1	03-09	0.518	7.3	85.7	7	NAD
2	05-15	0.467	20.8	45	34.2	NAD
3	06-18	0.823	97.6	1.8	.6	NAD
4	07-21	0.421	99.3	.5	.2	NAD
5	08-24	0.551	27.8	69.5	2.7	NAD

Handwritten Signature: Audrey Tang

Reviewed By: Authorized Signatory:

Handwritten Signature: Audrey Tang
 Feng Jiang, MS, Senior Geologist, Laboratory Director
 Feng Jiang, MS, Senior Geologist

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TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13599 East Broadway Road, Suite B, Middleburg, VA 23112 • 803-729-1751 • Fax: 803-729-1753

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 18M19K

DATE OF RECEIPT: 09/19/2018

DATE OF ANALYSIS: 09/21/2018

DATE OF REPORT: 09/23/2018

ANALYST: J. Turner

CLIENT PROJECT #: 1240 Yeamans Hall Rd

JOBSITE: TAT

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
6	09-27	0.306	72.2	10.8	17	NAD
7	10-30	0.576	36.8	49.0	14.4	NAD
8	11-33	0.366	76.8	23	2	NAD
9	12-36	0.432	43.1	12.5	44.4	<1% Chrysotile
10	17-51	0.415	64.8	34.9	3	NAD

Judyong Fang

Reviewed By Authorized Signatory:

Judyong Fang, Science (Analyst)

This report must not be reproduced except in full with the approval of TES, Inc. The test report relates only to the item(s) tested. This test was performed by an NVLAP Accredited IEM Lab, NVLAP Lab # 10193249. IEM analysis by EPA 600/R-93/116 (not covered by NVLAP) (bulk accreditation) [ILLUSTRATION] NAD - No Asbestos Detected; NA - Not Analyzed; IS - Positive; Neg. Trace - 1% NVA - No Visual Asbestos

September 24, 2018

Page 2 of 1

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13599 East Boundary Road, Suite B, Middleburg, VA 22112 • 804-739-1751 • Fax: 804-739-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 5400 Oatbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 1240 Yeamans Hall Rd
 JOBSITE: TAT

TESC LOGIN #: 18M19K
 DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/21/2018
 DATE OF REPORT: 09/24/2018
 ANALYST: J. Turner

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
11	10-54	0.295	51.2	40.5	3	NAD

Total Sample(s) Analyzed: 11

Judyong Fang

Reviewed By: Authorized Signatory

Fang, Judyong, M.S. Senior Geologist, Laboratory Director
 J. Turner, P.E., Senior Geologist

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TES 180919C

Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Calhoun Lane, Suite E
 Summerville, SC 29485
 Phone (843) 873-3648
 Fax (843) 873-1787

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 1240 Yeamans Hall Rd Date: 9-18-18
 Location: Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS				
Nearest Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	DDMS Assn	HAZ Assn	
	01	Exterior Siding	Transite Panel		/				
	02								
	03								
	04	Window 1	Window Glazing		/				
	05								
	06								
	07	Window 2	Window Glazing		/				
	08								
	09								
	10	Window 3	Exterior Caulk		/				
	11								
	12								
	13	Door	Roof Shingle		/				
	14								
	15								
	16	Exterior Roof	Roof Felt		/				
	17								
	18								
	19	Beck Mason	Beck Mason		/				
	20								
	21								

CONDITION Assessment Categories

(1) Thermal Systems Insulation - Good Condition
 (2) Thermal Systems Insulation - Damaged
 (3) Thermal Systems Insulation - Significantly Damaged
 (4) Surfacing - Good Condition
 (5) Surfacing - Damaged
 (6) Surfacing - Significantly Damaged

Asbestos Product

(1) Aracells
 (2) Chrysotile
 (3) Crocidolite
 (4) Amphibylite
 (5) Tremolite
 (6) Actinolite

HAZARD Assessment Categories

D = Good Condition
 D = Damaged
 S = Significantly Damaged
 LPD = Low Potential for Disturbance

Samples Collected by: Hunter Brann Date / Time: 9-18-18
 Samples Received by: North King Date / Time: 9/18/18 9:40am

OK

180919C

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oatbrook Lane, Suite E
 Summerville, SC 29405
 Phone (843) 873-3848
 Fax (843) 873-1767

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 1240 Yeamans Hall Rd. Date: 9-18-18
 Location: Hanahan SC

DESCRIPTION OF EACH SAMPLE AREA						ASSESSMENT OF MATERIALS		
Rooming Area	Sam. #	Location	Description	Priority (+)	Priority (-)	Asbestos Type	COND Assess	HAZ Assess
08	22	Kitchen B C1	16" Self Stick tile (Grey stone)		X			
	23							
	24							
09	25	Kitchen B C2	Vinyl Sheet flooring (Grey/white/g)		X			
	26		Nonasbestos					
	27							
10	28	Bedroom B	12" Self Stick tile (State)		X			
	29							
	30							
11	31	Living Room B	Vinyl Sheet flooring (Green Pebble)	X				
	32							
	33							
12	34		Vinyl/mastic (Black)		X			
	35							
	36							
13	37	Bedroom B	4" Floor Tile (Brige)	X				
	38	Bedroom B						
	39	Bedroom B						
14	40	Bedroom B	Tile mastic (Black)		X			
	41	Bedroom B						
	42	Bedroom B						

CONDITION Assessment Categories

- (1) Thermal Systems Insulation - Good Condition
- (2) Thermal Systems Insulation - Damaged
- (3) Thermal Systems Insulation - Significantly Damaged
- (4) Surfacing - Good Condition
- (5) Surfacing - Damaged
- (6) Surfacing - Significantly Damaged

Asbestos Project

- (1) Amosite
- (2) Chrysotile
- (3) Crocidolite
- (4) Anthophyllite
- (5) Tremolite
- (6) Actinolite

HAZARD Assessment Categories

- G - Good Condition
- D - Damaged
- S - Significantly Damaged

LPO = Low Potential for Disturbance

Samples Collected by: Hunter Hanson
 Samples Received by: John King

Date / Time: 9-18-18
 Date / Time: 9/19/18 9:40am

180919C

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Dalbrook Lane, Suite E
 Summerville, SC 29485
 Phone (843) 873-3648
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CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 1240 Yeamans Hall Rd Date: 9-18-18
 Location: Hanahan SC

DESCRIPTION OF EACH SAMPLE AREA						ASSESSMENT OF MATERIALS		
Rooming Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Assess	HAZ Assess
15	43	Bathroom A L2	Vinyl Sheet Flooring (Yellow 89)	X				
	44							
	45							
16	46	↓	Vinyl Mastix (Black)		X			
	47							
	48							
17	49	Bathroom A L1	Vinyl Sheet Flooring (Beige)		X			
	50							
	51							
18	52	Kitchen L1	Vinyl Sheet Flooring (Beige/Grey)		X			
	53							
	54							
19	55	Kitchen A	Drywall	X			7	
	56							
	57							
20	58	Bedroom A	Junk Storage	X				4
	59	Bedroom A						
	60	Kitchen B						
	61	Bedroom B						
	62	Bedroom B						

CONDITION Assessment Categories
 (1) Thermal Systems Insulation - Good Condition
 (2) Thermal Systems Insulation - Damaged
 (3) Thermal Systems Insulation - Significantly Damaged
 (4) Surfacing - Good Condition
 (5) Surfacing - Damaged
 (6) Surfacing - Significantly Damaged

Asbestos Present
 (1) Amosite
 (2) Chrysotile
 (3) Crocidolite
 (4) Anthophyllite
 (5) Tremolite
 (6) Actinolite

HAZARD Assessment Categories
 G = Good Condition
 D = Damaged
 S = Significantly Damaged
 LPD = Low Potential for Disturbance

Samples Collected by: Hunter Harris Date / Time: 9-18-18
 Samples Received by: Armando Lopez Date / Time: 9/19/18 9:40am

COMPREHENSIVE ASBESTOS SURVEY

**COMMERCIAL BUILDING
1242 YEAMANS HALL ROAD
HANAHAN, SC 29410**



Prepared For:

**CITY OF HANAHAN
Attn: Mrs. Katherine Farias
1255 Yeamans Hall Road
Hanahan, SC 29410
(843) 576-5254**

Performed By:

TES

Trident Environmental Services, Inc.

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Summerville, SC 29485
(843) 873-3648*

COMPREHENSIVE ASBESTOS SURVEY

Commercial Building
1242 Yeamans Hall Road
Hanahan, SC 29410

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EXECUTIVE SUMMARY

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 18, 2018 of the Commercial Building located at 1242 Yeamans Hall Road in Hanahan, South Carolina did reveal the presence of asbestos containing building materials. The following summary exhibits the asbestos containing building materials (ACBM) that were identified in the inspection.

Asbestos

Description	Type
Transite Siding	Category II – Non Friable
Sink Coating (black)	Category I – Non Friable
Ceiling Texture (texture)	RACM – Friable
9” Floor Tile (green)	RACM – Friable
Floor Tile Mastic (black)	Category I – Non Friable

RACM – Regulated Asbestos Containing Material

PACM – Presumed Asbestos Containing Material

The identified ACBM includes the item(s) listed above. All removal work of the identified ACBM should be performed by a properly trained and licensed abatement contractor prior to the planned renovation/demolition activities.

BACKGROUND

Trident Environmental Services, Inc. was contracted by City of Hanahan. to perform a comprehensive asbestos survey of the Commercial Building located at 1242 Yeamans Hall Road in Hanahan, South Carolina. The survey was performed in order to satisfy the NESHAP requirements for renovation and/or demolition. The Commercial Building is approximately 1,113 square feet and is built slab on grade. Interior walls and ceilings are drywall with joint compound applied at the seams and patches. Flooring material is vinyl floor tile, vinyl sheet flooring, hardwood and carpet. Exterior walls are cementitious paneling with felt paper. Roofing material consists of asphalt roofing shingles and felt paper. Exterior windows and doors are wood.

Asbestos

The inspection was conducted to identify ACBM which may be disturbed during the renovation/demolition activities. The identification of ACBM will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos fibers. Identification of ACBM also complies with Title 40 Code of the Federal Regulations, Part 61, and South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, along with Title 29 Code of Federal Regulations, Part 1926 enforced by the Occupational Safety and Health Administration (OSHA). The Asbestos Survey describes the investigative procedures utilized, results of the suspect ACBM sampled/analyzed, and recommendations regarding the structures as related to asbestos.

ASBESTOS SURVEY

Asbestos Investigative Procedures

Trident Environmental Services, Inc. conducted an inspection for suspect ACM on September 18, 2018 of the Commercial Building located at 1242 Yeamans Hall Road in Hanahan, South Carolina. It is our understanding that the subject structure will undergo renovation or demolition activities in the near future. The asbestos survey was performed by observing and sampling suspect building materials. Significant destructive testing was not utilized during the inspection. There is a possibility that suspect materials exist in inaccessible areas such as wall cavities and pipe chases. If any additional suspect ACM are discovered during the course of demolition activities, bulk samples should be extracted to identify the presence, or absence, of asbestos prior to continuation of work activities.

A sampling strategy was developed to provide representative samples for analysis. Samples were then extracted from a variety of suspect ACM. Bulk samples collected were recorded on a Chain-of-Custody record and submitted to Trident Environmental Service Center, Inc. (TESC) a Polarized Light Microscopy (PLM) laboratory. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). TESC is accredited by NVLAP for the analysis of bulk asbestos by PLM (NVLAP Lab Code: 200794-0).

The suspect materials were analyzed by trained microscopists utilizing PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F- Appendix A. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present. The EPA and OSHA defines materials as asbestos containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample.

Non-Friable Organically Bound (NOB) samples were submitted to AmeriSci Richmond Laboratory for analyses by Transmission Electron Microscopy (TEM). SCDHEC requires NOB materials with negative or trace results by PLM to be analyzed by at least one TEM. SCDHEC in accordance with ASTM E 2356-04 defines NOB materials as “materials that are not friable and that consist of fibers and other particulate matter embedded in a solid matrix of asphalt, vinyl or other organic substances.” Examples of NOB materials include but are not limited to flooring materials such as vinyl floor tiles, vinyl sheet flooring, adhesives, mastics, asphalt shingles, roofing materials, glazing, caulks, and cove base.

The EPA classifies ACBM into two categories, friable and non-friable. A friable material creates a greater health hazard due to the fact that it may be “crumbled, pulverized or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations.”

Friable Asbestos material means any material containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Category I Non Friable Asbestos-Containing Material (ACM) means asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II Non Friable ACM means any material, excluding Category I non friable ACM, containing more than one percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (cement siding, transite board shingles, etc.)

Regulated Asbestos-Containing Material (RACM) means (a) Friable asbestos material, (b) Category I non friable ACM that has become friable, (c) Category I non friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The following section summarizes the sample numbers, locations, type material, asbestos type, percent of asbestos detected, present condition of the asbestos containing material, potential for disturbance, and hazard assessment ratings. The asbestos sample laboratory analyses and chain of custody records are included at the end of this report.

Asbestos Abbreviations and Hazard Assessment Key

The EPA and SCDHEC require that confirmed ACBM is given a hazard assessment based on its present condition and potential for future disturbance. This hazard assessment is used as a tool for prioritization in future remedial actions regarding the ACBM. The following key demonstrates the criteria that make up the hazard assessment.

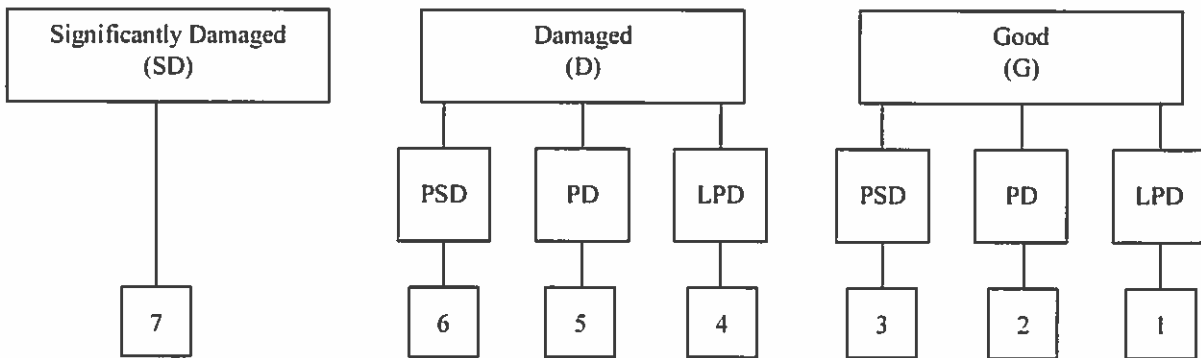
Present Condition

- F = Friable
- NF = Non-friable
- G = Good (very localized limited damage)
- D = Damaged (<10% distributed and/or <25% localized)
- S = Significantly Damaged (\geq 10% distributed and/or 25% localized)

Potential for Future Disturbance

- LPD = Low Potential for Disturbance (Contact, Vibration, and/or Air Erosion – low concern)
- PD = Potential for Damage (Contact, Vibration, and/or Air Erosion – moderate concern)
- PSD = Potential for Significant Damage (Contact, Vibration and/or Air Erosion – high concern)

Hazard Assessment



HOMOGENOUS AREA ESTIMATED FOOTAGE TABLE
Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC

HOMOGENOUS AREA ID #	DESCRIPTION	ESTIMATED AMOUNT
01	Transite Siding	1,788 SF
02	Siding Felt	1,788 SF
03	Window Glazing	56 SF
04	Exterior Caulk	90 SF
05	Roof Shingle	960 SF
06	Roof Felt	960 SF
07	Brick Mastic (black)	8 SF
08	Sink Coating (black)	4 SF
09	Drywall	4,452 SF
10	Joint Compound	4,452 SF
11	Ceiling Texture (texture)	170 SF
12	Ceiling Texture (stapled)	100 SF
13	Sink Coating (gray)	4 SF
14	Vinyl Sheet Flooring (green/pink)	100 SF
15	Vinyl Sheet Flooring (green/dark green)	100 SF
16	Vinyl Sheet Flooring (12" slate squares)	100 SF
17	Vinyl Sheet Flooring (9" beige/white square)	130 SF
18	Vinyl Sheet Flooring (beige/green)	120 SF
19	9" Floor Tile (green)	140 SF
20	Floor Tile Mastic (black)	140 SF
20	Vinyl Sheet Flooring (light wood)	120 SF
21	Vinyl Sheet Flooring (stone)	260 SF
22	Floor Felt Paper	370 SF
23	Vinyl Sheet Flooring (dark wood)	210 SF
24	Vinyl Sheet Flooring (beige/green)	120 SF

ASBESTOS SUMMARY
Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC

DESCRIPTION	TYPE	ESTIMATED AMOUNT
Transite Siding	Category II – Non Friable	1,788 SF
Sink Coating (black)	Category I – Non Friable	4 SF
Ceiling Texture (texture)	RACM – Friable	170 SF
9” Floor Tile (green)	RACM – Friable	140 SF
Floor Tile Mastic (black)	Category I – Non Friable	140 SF

RACM – Regulated Asbestos Containing Material

*PACM - Presumed Asbestos Containing Material

SCDHEC requires any non-friable material that is identified in an asbestos inspection report in a condition other than good and non-friable must be handled as a Regulated Asbestos Containing Material (RACM) and identified as friable on the asbestos abatement application. This requirement is reflected in the Asbestos Summary Table listed above.

Asbestos fibers were identified in the Transite Siding. Approximately 1,788 square feet is present and in good condition. This material is considered Category II – Non Friable Asbestos and is located on the exterior.

Asbestos fibers were identified in the Sink Coating (black). Approximately 4 square feet is present and in good condition. This material is considered Category I – Non Friable Asbestos and is located in the Unit A Kitchen.

Asbestos fibers were identified in the Ceiling Texture (texture). Approximately 170 square feet is present and is good condition. This material is considered RACM – Friable Asbestos and is located in the Unit B Living Room.

Asbestos fibers were identified in the 9” Floor Tile (beige) and associated Floor Tile Mastic (black). Approximately 140 square feet is present and is significantly damaged. This material is considered RACM – Friable Asbestos and is located in Room 2 (layer 2) and Room 1 Closet (layer 2). **Note: Floor Tile may be located under non-load bearing walls and cabinets.**

The estimated quantities provided should be verified by contractor and/or building owner. Any discrepancies are to be addressed prior to removal of ACM. Please note that removal costs vary depending on the contractor, the quantity/condition of the ACM, and the accessibility/location of the ACM.

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
01-01	Transite Siding	Exterior Siding	N	10.0%	CHRY	7	3
01-02	Transite Siding	Exterior Siding	N	NT	PACM	7	3
01-03	Transite Siding	Exterior Siding	N	NT	PACM	7	3
02-04	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-05	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-06 T	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
03-07	Window Glazing	Window 1	Y	0.0%	ND	7	N/A
03-08	Window Glazing	Window 2	Y	0.0%	ND	7	N/A
03-09 T	Window Glazing	Window 3	Y	0.0%	ND	7	N/A
04-10	Exterior Caulk	Window	N	0.0%	ND	7	N/A
04-11	Exterior Caulk	Door	N	0.0%	ND	7	N/A
04-12 T	Exterior Caulk	Door	N	0.0%	ND	7	N/A
05-13	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-14	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-15 T	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
06-16	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-17	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-18 T	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
07-19	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
07-20	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
07-21 T	Brick Mastic (black)	Exterior Roof	N	0.0%	ND	7	N/A
08-22	Sink Coating (black)	Kitchen A	N	3.0%	CHRY	7	1
08-23	Sink Coating (black)	Kitchen A	N	NT	PACM	7	1
08-24	Sink Coating (black)	Kitchen A	N	NT	PACM	7	1
09-25	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
09-26	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
09-27	Drywall	Kitchen A	Y	0.0%	ND	7	N/A
10-28	Joint Compound	Kitchen A	Y	0.0%	ND	4	N/A
10-29	Joint Compound	Living Room A	Y	0.0%	ND	4	N/A

Assessment Categories

- (1) Thermal Systems Insulation – Good Condition
- (2) Thermal Systems Insulation – Damaged
- (3) Thermal Systems Insulation – Significantly Damaged
- (4) Surfacing – Good Condition

- (5) Surfacing – Damaged
- (6) Surfacing – Significantly Damaged
- (7) Miscellaneous – Good Condition
- (8) Miscellaneous – Damaged
- (9) Miscellaneous – Significantly Damaged

Asbestos Present

- AMOS – Amosite
- CHRY – Chrysotile
- CROC – Crocidolite
- ANTH – Anthophyllite
- TREM – Tremolite
- ACTI – Actinolite
- ND – None Detected
- NT – Not Tested
- PACM – Presumed ACM
- Asbestos Detected**

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
10-30	Joint Compound	Room 1	Y	0.0%	ND	4	N/A
10-31	Joint Compound	Room 3	Y	0.0%	ND	4	N/A
10-32	Joint Compound	Living Room B	Y	0.0%	ND	4	N/A
11-33	Ceiling Texture (texture)	Living Room B	Y	3.0%	CHRY	4	3
11-34	Ceiling Texture (texture)	Living Room B	Y	NT	PACM	4	3
11-35	Ceiling Texture (texture)	Living Room B	Y	NT	PACM	4	3
12-36	Ceiling Texture (stapled)	Kitchen A	Y	0.0%	ND	4	N/A
12-37	Ceiling Texture (stapled)	Kitchen A	Y	0.0%	ND	4	N/A
12-38	Ceiling Texture (stapled)	Kitchen A	Y	0.0%	ND	4	N/A
13-39	Sink Coating (gray)	Kitchen B	N	0.0%	ND	7	N/A
13-40	Sink Coating (gray)	Kitchen B	N	0.0%	ND	7	N/A
13-41 T	Sink Coating (gray)	Kitchen B	N	0.0%	ND	7	N/A
14-42	Vinyl Sheet Flooring (green/pink)	Kitchen A Layer 3	Y	0.0%	ND	7	N/A
14-43	Vinyl Sheet Flooring (green/pink)	Kitchen A Layer 3	Y	0.0%	ND	7	N/A
14-44 T	Vinyl Sheet Flooring (green/pink)	Kitchen A Layer 3	Y	0.0%	ND	7	N/A
15-45	Vinyl Sheet Flooring (green/dark green)	Kitchen A Layer 2	Y	0.0%	ND	7	N/A
15-46	Vinyl Sheet Flooring (green/dark green)	Kitchen A Layer 2	Y	0.0%	ND	7	N/A
15-47 T	Vinyl Sheet Flooring (green/dark green)	Kitchen A Layer 2	Y	0.0%	ND	7	N/A
16-48	Vinyl Sheet Flooring (12" slate square)	Kitchen A Layer 1	N	0.0%	ND	7	N/A
16-49	Vinyl Sheet Flooring (12" slate square)	Kitchen A Layer 1	N	0.0%	ND	7	N/A
16-50 T	Vinyl Sheet Flooring (12" slate square)	Kitchen A Layer 1	N	0.0%	ND	7	N/A
17-51	Vinyl Sheet Flooring (9" beige/white square)	Room 1 – Layer 1	N	0.0%	ND	7	N/A
17-52	Vinyl Sheet Flooring (9" beige/white square)	Room 1 – Layer 1	N	0.0%	ND	7	N/A
17-53 T	Vinyl Sheet Flooring (9" beige/white square)	Room 1 – Layer 1	N	0.0%	ND	7	N/A

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
18-54	Vinyl Sheet Flooring (beige/green)	Room 2 – Layer 3	Y	0.0%	ND	7	N/A
18-55	Vinyl Sheet Flooring (beige/green)	Room 2 – Layer 3	Y	0.0%	ND	7	N/A
18-56 T	Vinyl Sheet Flooring (beige/green)	Room 2 – Layer 3	Y	0.0%	ND	7	N/A
19-57	9" Floor Tile (green)	Room 2 – Layer 2	Y	3.0%	CHRY	9	1
19-58	9" Floor Tile (green)	Room 2 – Layer 2	Y	NT	PACM	9	1
19-59	9" Floor Tile (green)	Closet – Layer 2	Y	NT	PACM	9	1
20-60	Floor Tile Mastic (black)	Room 2 – Layer 2	N	8.0%	CHRY	7	1
20-61	Floor Tile Mastic (black)	Room 2 – Layer 2	N	NT	PACM	7	1
20-62	Floor Tile Mastic (black)	Closet – Layer 2	N	NT	PACM	7	1
20-63	Vinyl Sheet Flooring (light wood)	Room 2 – Layer 1	N	0.0%	ND	7	N/A
20-64	Vinyl Sheet Flooring (light wood)	Room 2 – Layer 1	N	0.0%	ND	7	N/A
20-65 T	Vinyl Sheet Flooring (light wood)	Room 2 – Layer 1	N	0.0%	ND	7	N/A
21-66	Vinyl Sheet Flooring (stone)	Living Room B	N	0.0%	ND	7	N/A
21-67	Vinyl Sheet Flooring (stone)	Living Room B	N	0.0%	ND	7	N/A
21-68 T	Vinyl Sheet Flooring (stone)	Kitchen B	N	0.0%	ND	7	N/A
22-69	Floor Felt Paper	Living Room B	N	0.0%	ND	7	N/A
22-70	Floor Felt Paper	Room 3	N	0.0%	ND	7	N/A
22-71 T	Floor Felt Paper	Room 4	N	0.0%	ND	7	N/A
23-72	Vinyl Sheet Flooring (dark wood)	Room 3 – Layer 1	N	0.0%	ND	7	N/A
23-73	Vinyl Sheet Flooring (dark wood)	Room 3 – Layer 1	N	0.0%	ND	7	N/A
23-74 T	Vinyl Sheet Flooring (dark wood)	Room 3 – Layer 1	N	0.0%	ND	7	N/A
24-75	12" Self-Stick Tile (beige stone)	Room 4 – Layer 2	N	0.0%	ND	7	N/A
24-76	12" Self-Stick Tile (beige stone)	Room 4 – Layer 2	N	0.0%	ND	7	N/A
24-77 T	12" Self-Stick Tile (beige stone)	Room 4 – Layer 2	N	0.0%	ND	7	N/A

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

CONCLUSIONS/RECOMMENDATIONS

Asbestos Inspection

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 18, 2018 of the Commercial Building located at 1242 Yeamans Hall Road in Hanahan, South Carolina did reveal the presence of ACBM. Renovation or demolition activities that will disturb the ACBM will require removal per state and federal regulations. Asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release asbestos fibers into the air of the building. All areas that contain asbestos should be utilized in a controlled manner to reduce the potential for disturbance. OSHA requires notification to all trades/contractors about the condition of the ACBM to prevent possible occupational exposures.

Demolition activities in public and commercial buildings are regulated by OSHA, EPA, and SCDHEC. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, "National Emissions Standards for Hazardous Air Pollutants" (NESHAP), and SCDHEC Regulation 61-86.1 require the proper removal and disposal of ACBM that is affected by renovation or demolition. Demolition of the subject structures will require written notification, proper transportation, and disposal per state and federal regulations.

PHOTOGRAPHS

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREA 01
TRANSITE SIDING**



**HOMOGENEOUS AREA 02
SIDING FELT**



**HOMOGENEOUS AREA 03
WINDOW GLAZING**



**HOMOGENEOUS AREA 04
EXTERIOR CAULK**



**HOMOGENEOUS AREA 05
ROOF SHINGLE**



**HOMOGENEOUS AREA 06
ROOF FELT**

PHOTOGRAPHS

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREA 07
BRICK MASTIC (BLACK)**



**HOMOGENEOUS AREA 08
SINK COATING (BLACK)**



**HOMOGENEOUS AREA 09
DRYWALL**



**HOMOGENEOUS AREA 10
JOINT COMPOUND**



**HOMOGENEOUS AREA 11
CEILING TEXTURE (TEXTURE)**



**HOMOGENEOUS AREA 12
CEILING TEXTURE (STAPLED)**

PHOTOGRAPHS

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREA 13
SINK COATING (GRAY)**



**HOMOGENEOUS AREA 14
VINYL SHEET FLOORING (GREEN/PINK)**



**HOMOGENEOUS AREA 15
VINYL SHEET FLOORING
(GREEN/DARK GREEN)**



**HOMOGENEOUS AREA 16
VINYL SHEET FLOORING
(12" SLATE SQUARES)**



**HOMOGENEOUS AREA 17
VINYL SHEET FLOORING
(9" BEIGE/WHITE SQUARES)**



**HOMOGENEOUS AREA 18
VINYL SHEET FLOORING
(BEIGE/GREEN)**

PHOTOGRAPHS

Commercial Building – 1242 Yeamans Hall Road – Hanahan, SC



**HOMOGENEOUS AREAS 19, 20
9" FLOOR TILE (GREEN)
MASTIC (BLACK)**



**HOMOGENEOUS AREA 20
VINYL SHEET FLOORING (LIGHT WOOD)**



**HOMOGENEOUS AREA 21
VINYL SHEET FLOORING
(STONE)**



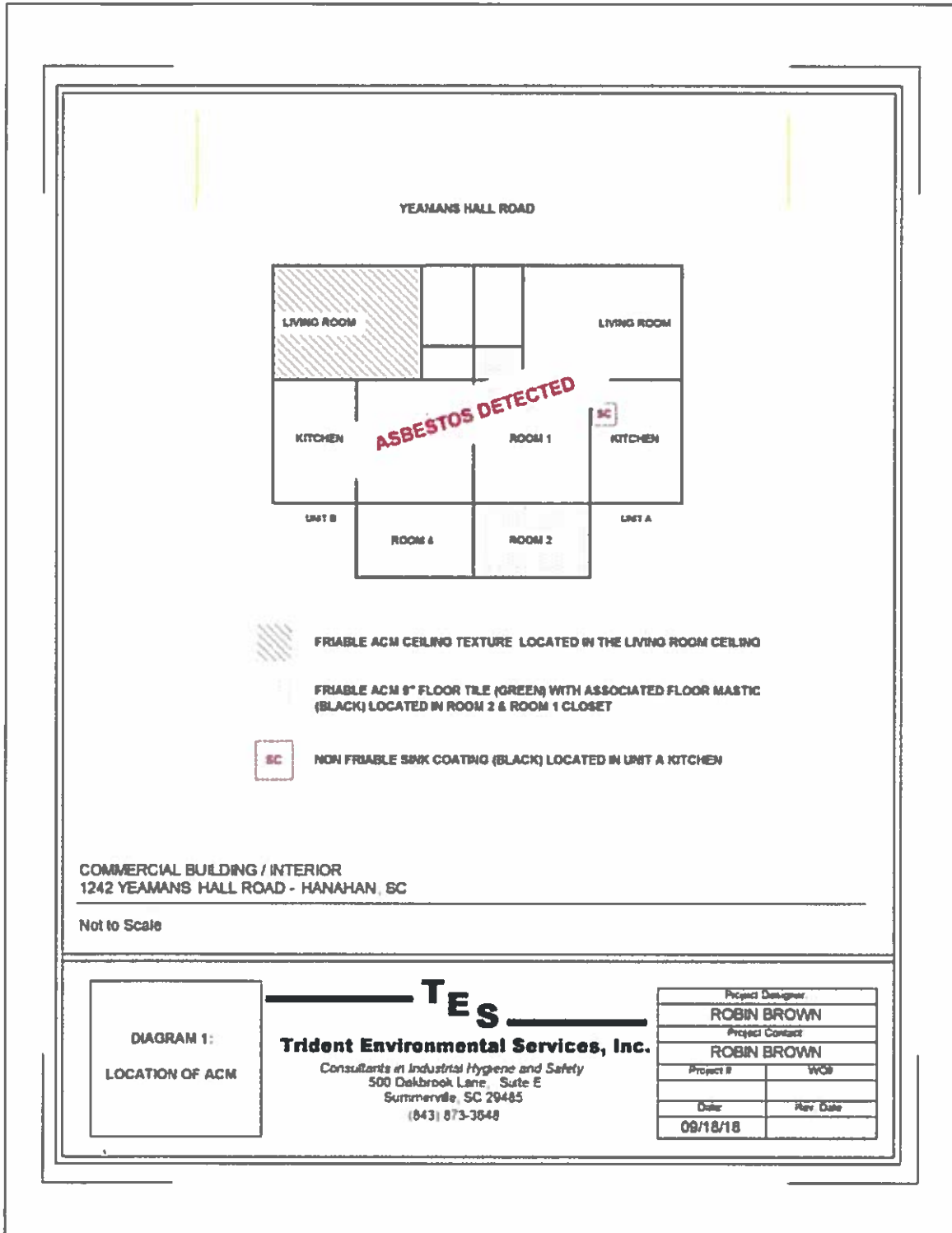
**HOMOGENEOUS AREA 22
FLOOR FELT PAPER**



**HOMOGENEOUS AREA 23
VINYL SHEET FLOORING
(DARK WOOD)**



**HOMOGENEOUS AREA 24
12" SELF-STICK TILE
(BEIGE STONE)**



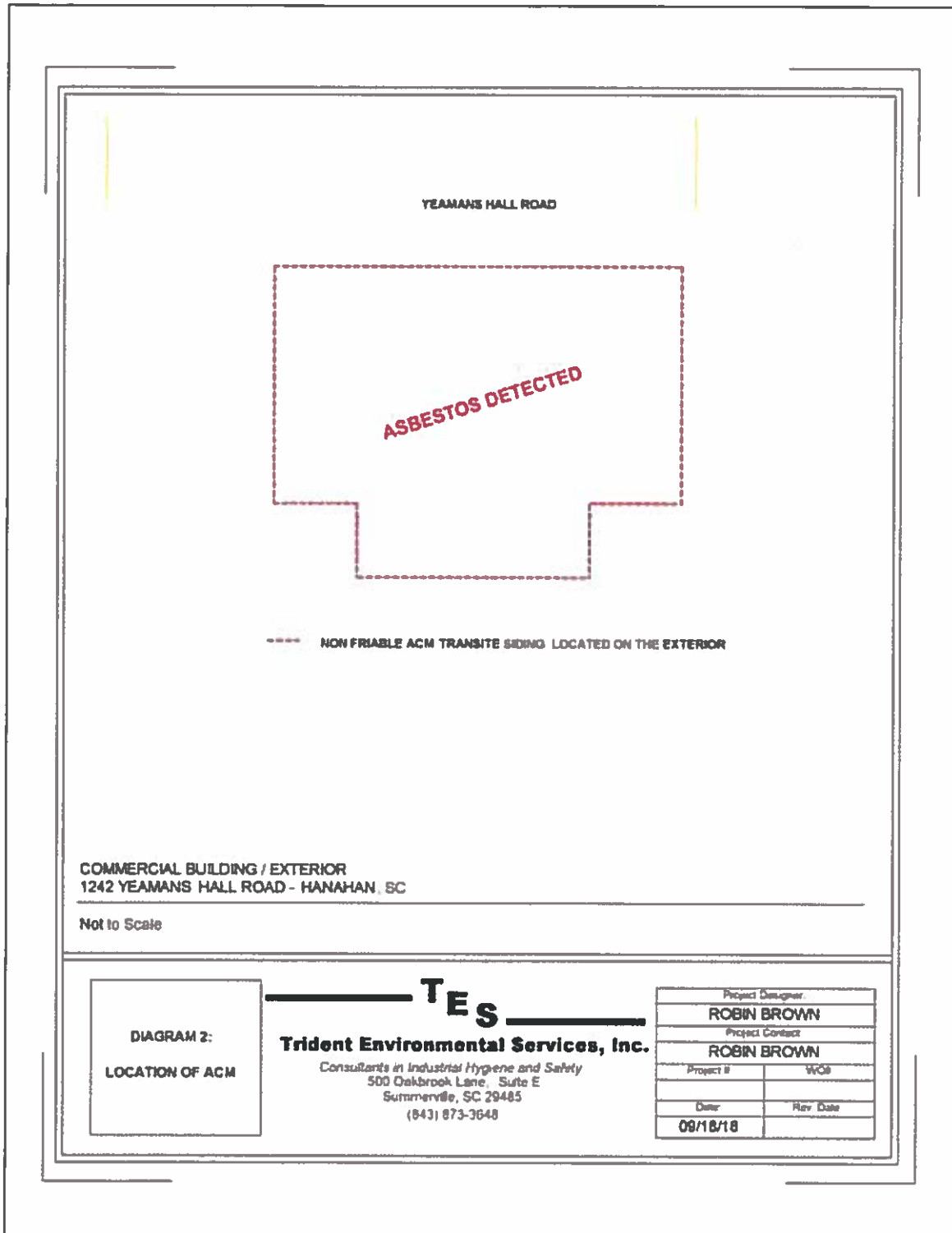


DIAGRAM 2:
 LOCATION OF ACM

TES
Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 (843) 873-3648

Project Designer	
ROBIN BROWN	
Project Contact	
ROBIN BROWN	
Project #	WOB
Date	Rev Date
09/18/18	

**COMPREHENSIVE
ASBESTOS SURVEY**

Inspection Date: 09/18/2018

Preparation Date: 09/26/2018

Inspected & Prepared By:

Hunter Hanson

Hunter Hanson
S.C. Inspector License BI – 01468

SCDHEC ISSUED
Asbestos ID Card

Hunter Hanson



CONSULTBI	BI-01468	Expiration Date:
AIRSAMPLER	AS-00413	10/28/18
		01/06/19

Reviewed By:

Robin A. Brown

Robin A. Brown
S.C. Inspector License BI – 00613

SCDHEC ISSUED
Asbestos ID Card

Robin Brown



CONSULTPD	PD-00176	Expiration Date:
CONSULTBI	BI-00613	06/14/19
AIRSAMPLER	AS-00178	06/26/19
		02/05/19

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200794-0

Triangle Environmental Service Center, Inc.
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-IAC-IAF Communique dated January 2008).



John S. Lamm
For the National Voluntary Laboratory Accreditation Program

2018-04-01 through 2019-03-31

Effective Dates



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Triangle Environmental Service Center, Inc.

13509 East Boundary Road, Suite B

Midlothian, VA 23112

Mr. Feng Jiang

Phone: 804-739-1751 Fax: 804-739-1753

Email: info@tesclab.com

<http://www.tesclab.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200794-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101904-0

AmeriSci Richmond
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2018-07-01 through 2019-06-30

Effective Dates



[Signature]
For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AmeriSci Richmond
dba AmeriSci Richmond
13635 Genito Road
Midlothian, VA 23112
Mr. Thomas B. Keith
Phone: 804-763-1200 Fax: 804-763-1800
Email: bkeith@amerisci.com
<http://www.amerisci.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101904-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919D

DATE OF RECEIPT 09/19/2018
 DATE OF ANALYSIS 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB/ #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01-01 / Gray granular, white fibers	10% Chrysotile		91%
2	01-02 /	Positive Stop		100%
3	01-03 /	Positive Stop		100%
4	02-04 / Black fibers	NAD	98% Cellulose	2%
5	02-05 / Black fibers	NAD	98% Cellulose	2%
6	02-06 / Black fibers	NAD	98% Cellulose	2%
7	03-07 / White powder	NAD		100%
8	03-08 / White powder	NAD		100%
9	03-09 /	Not Analyzed		100%
10	04-10 / Tan, white powder	NAD		100%

Samples are analyzed in accordance with "Ingram Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected - not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

[LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Yunhong Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB/ #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	04-11 / White adhesive	NAD		100%
12	04-12 /	Not Analyzed		100%
13	05-13 / Black tar-like	NAD	10% Fiberglass	90%
14	05-14 / Black tar-like	NAD	10% Fiberglass	90%
15	05-15 /	Not Analyzed		100%
16	06-16 / Black fibers	NAD	98% Cellulose	2%
17	06-17 / Black fibers	NAD	98% Cellulose	2%
18	06-18 /	Not Analyzed		100%
19	07-19 / Black adhesive	NAD		100%
20	07-20 / Black adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-92-029, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I.mn =I molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Luobang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
21	07-21 /	Not Analyzed		100%
22	08-22 / Black adhesive	3% Chrysotile		97%
23	08-23 /	Positive Stop		100%
24	08-24 /	Positive Stop		100%
25	09-25 / White powder, brown fibers	NAD	20% Cellulose	80%
26	09-26 / White powder, brown fibers	NAD	20% Cellulose	80%
27	09-27 / White powder, brown fibers	NAD	20% Cellulose	80%
28	10-28 / White powder	NAD		100%
29	10-29 / White powder	NAD		100%
30	10-30 / White powder	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-110, July 1993 (EPA-600/M-93-020 Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected - not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. (This test report relates only to the item(s) tested)

NVIAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I.mn =I monomer, JC=Joint Compound)

Reviewed By: Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Jianlong Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB/ #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	10-11 / White powder	NAD		100%
12	10-32 / White powder	NAD		100%
11	11-33 / White powder	3% Chrysotile		97%
34	11-34 /	Positive Stop		100%
35	11-35 /	Positive Stop		100%
36	12-36 / White powder	NAD		100%
17	12-37 / White powder	NAD		100%
38	12-38 / White powder	NAD		100%
39	13-39 / Gray adhesive	NAD		100%
40	13-40 / Gray adhesive	NAD		100%
41	13-41 /	Not Analyzed		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVIAP Lab Code: 21079440

[LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jung, MS Senior Geologist, Laboratory Director
 Jueckung Feng, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 3411 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
42	14-42 / Green lino, black fibers	NAD	20% Cellulose	80%
43	14-43 / Green lino, black fibers	NAD	20% Cellulose	80%
44	14-44 /	Not Analyzed		100%
45	15-45 / Green lino, black fibers	NAD	20% Cellulose	80%
46	15-46 / Green lino, black fibers	NAD	20% Cellulose	80%
47	15-47 /	Not Analyzed		100%
48	16-48 / Brown linoleum	NAD	5% Fiberglass	95%
49	16-49 / Brown linoleum	NAD	5% Fiberglass	95%
50	16-50 /	Not Analyzed		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-82-020 Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I mo =I molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Luochang Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: D. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
51	17-51 / Brown lino . white fibers	NAD	20% Cellulose	80%
52	17-52 / Brown lino . white fibers	NAD	20% Cellulose	80%
53	17-53 /	Not Analyzed		100%
54	18-54 / Brown lino . black fibers	NAD	20% Cellulose	80%
55	18-55 / Brown lino . black fibers	NAD	20% Cellulose	80%
56	18-56 /	Not Analyzed		100%
57	19-57 / Green vinyl	3% Chrysotile		97%
58	19-58 /	Positive Stop		100%
59	19-59 /	Positive Stop		100%
60	20-60 / Black adhesive	8% Chrysotile		92%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-92-020 Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the items tested.

NV1.AP1 Lab Code: 210794-01

(LEGEND: NAD=No Asbestos Detected, I.mn =I.molecule, JC=Joint Compound)

Reviewed By: Authorized Signatory:

Fung Jung, MS, Senior Geologist, Laboratory Director
 Yunchung Jung, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB/ #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
61	20-61 /	Positive Stop		100%
62	20-62 /	Positive Stop		100%
63	20-63 / Brown linoleum	NAD	5% Fiberglass	95%
64	20-64 / Brown linoleum	NAD	5% Fiberglass	95%
65	20-65 /	Not Analyzed		100%
66	21-66 / Brown linoleum	NAD		100%
67	21-67 / Brown linoleum	NAD		100%
68	21-68 /	Not Analyzed		100%
69	22-69 / Black fibers	NAD	98% Cellulose	2%
70	22-70 / Black fibers	NAD	98% Cellulose	2%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M4-82-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM) for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

[(LEGEND: NAD=No Asbestos Detected, I=Insulation, JC=Joint Compound)]

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Jianqiang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 300 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180919D

DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/19/2018
 DATE OF REPORT: 09/19/2018

CLIENT JOB #:

JOB SITE: 1242 Yeamans Hall Rd.

ANALYST: B TRINNET

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
71	22-71 /	Not Analyzed		100%
72	23-72 / Brown linoleum	NAD		100%
73	23-73 / Brown linoleum	NAD		100%
74	23-74 /	Not Analyzed		100%
75	24-75 / Gray vinyl	NAD		100%
76	24-76 / Gray vinyl	NAD		100%
77	24-77 /	Not Analyzed		100%

Total Samples/Layers Analyzed: 51

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-92-020, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVI-AP Lab Code: 210794-0

[LEGEND: NAD=No Asbestos Detected, I mo =I moleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Juehng Fung, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Broadway Road, Suite B, Middletown, VA 23112 • 804-799-1751 • Fax: 804-799-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # INP1914
 DATE OF RECEIPT: 09/19/2018
 DATE OF ANALYSIS: 09/21/2018
 DATE OF REPORT: 09/23/2018
 ANALYST: B. Gjoka

CLIENT PROJECT #
 JOBSITE: 1242 Yeamans Hall Rd.
 TAT: 1 Day

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
1	03-00	0.465	7.1	86.8	0	NAD
2	05-15	0.463	18.1	40.6	41.3	NAD
3	06-18	0.1013	93.1	2.7	4.2	NAD
4	07-21	0.205	90	7	3	NAD
5	13-41	0.243	18.9	37	44.1	NAD

Reviewed By Authorized Signatory:

Grudoy Tang

Feng Jiang, M.S. Senior Geologist, Laboratory Director
 Feng Tang, M.S. Senior Geologist

This report must not be reproduced except in full with the approval of TESC, Inc. The test report relates only to the item(s) tested. This test was performed by an NVLAP accredited ILM Lab. NVLAP Lab ID # 10194240. ILM analysis by EPA 640.R-93-116 (not covered by NVLAP). Full accreditation (ELEMENT): NAD - No Asbestos Detected; NA - Not Analyzed; PS - Positive Slip; TIVE - 1%, RVA - No Visual Aberrant

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleburg, VA 23112 • 804-739-1751 • fax: 804-739-1753

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 1242 Yeamans Hall Rd.

JOB SITE: TAT

TESC LOGIN #: IR0919H

DATE OF RECEIPT: 09/19/2018

DATE OF ANALYSIS: 09/21/2018

DATE OF REPORT: 09/24/2018

ANALYST: B. Gjola

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
6	14-44	0.42	74.5	14.5	11	NAD
7	15-47	0.324	79	17.6	3.4	NAD
8	16-50	0.635	72.4	24.6	3	NAD
9	17-53	0.406	48	50	2	NAD
10	18-56	0.325	70.8	24.3	4.9	NAD

Brenden Tang

Reviewed By Authorized Signatory

Feng Jiang, J.S. Scire (Principal, Laboratory Director)
 Brenden Tang, Senior Analyst

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 [LEGEND: NAD – No Asbestos Detected; NA – Not Analyzed; PS – Positive Strip; Trace – 1%, NVA – No Visual Asbestos]

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Boundary Road, Suite B, Middleburg, VA 23112 • 804-739-1751 • Fax: 804-739-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 1242 Yeamans Hall Rd

JOBSITE TAT: B. Gjoka

TEFSC LOGIN #: 18P119A

DATE OF RECEIPT: 09/19/2018

DATE OF ANALYSIS: 09/21/2018

DATE OF REPORT: 09/23/2018

ANALYST: B. Gjoka

TEFSC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
11	20-65	0.42	72.9	26.7	.4	NAD
12	21-68	0.355	50.7	45.1	4.2	NAD
13	22-71	0.476	94.5	2.7	2.8	NAD
14	23-74	0.536	73	26.2	.8	NAD
15	24-77	0.876	14	66.7	19.3	NAD

Ajudory Fang

Reviewed By Authorized Signatory:
 Feng Jiang, IES Senior Consultant, Laboratory Director
 Feng Jiang, IES Senior Consultant, Laboratory Director

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TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112 • 804-799-1751 • Int: 804-799-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 1242 Yeamans Hall Rd.

JOB SITE: TAT

TESC LOGIN #: 18M19VL

DATE OF RECEIPT: 09/19/2018

DATE OF ANALYSIS: 09/21/2018

DATE OF REPORT: 09/24/2018

ANALYST: B. Gjoka

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
18	04-12	0.499	22.4	73.7	3.9	NAD

Total Sample(s) Analyzed: 16

Grudoy Fang

Fang, Jiang, LCS Senior Analyst, Laboratory Director
 Fending Fang, Senior Analyst

Reviewed By Authorized Signatory:

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TESC LOGIN NUMBER: 180919D

TRIANGLE ENVIRONMENTAL SERVICE CENTER
 13809 East Boundary Road, Suite B • Midlothian • VA • 23112 • Tel: 804-739-1761 • Fax: 804-739-1753

CHAIN OF CUSTODY FORM
 LAB CUSTOMER: Trident Environmental Services, Inc.
 ADDRESS: 500 Oakbrook Lane - Suite E
 CITY, STATE, ZIP: Summerville, SC 29485

DATE: 9-18-18
 CONTACT NAME: Robin Brown

PROJECT #: 1242 Yeamans Hall Rd
 PROJECT SITE: 1242 Yeamans Hall Rd
 Email: On TESC File

TAT: 2 Hour: 6 Hour: 24 Hour: PU 48 Hour: 3 Day: 5 Day:
 CONTACT METHOD: Phone: 843-873-3648 Fax: 888-266-2040

Sample number	Asbestos				Lead				Other Metals				Air Quality/Mold				Comments										
	Sample Date	Bulk ID by PLM	PCM Fiber Count	PLM Point Count 400	PLM Point Count 1000	PLM Gravimetric	CARB 435 (So2 only)	TEM AHERA Air	TEM Bulk Chertfield	Air	Partic % & PPM	So2 (PPM)	Mold	TCLP (Pb)	Waste Water	Drinking Water (Pb)		TCLP RCRA 8	CAM 17	Welding Fume	Toxic Metal Profile	Bioassess	Grate	Surface Tape	Surface Swab	Bulk	Air Volume (L)
Released by: <u>Michael H. So</u>																	Date/Time: <u>9-18-18</u>										
Received by:																	Date/Time: <u>11/18/18</u>										
Released by:																	Date/Time: <u>11/18/18</u>										
Received by:																	Date/Time: <u>11/18/18</u>										

Prepared by TESC _____ Pages: _____ of _____

Paint the floor, submerge cubes for NIOSH, Airtel upon request

1809/9D
180919L
16 TEM Bulk

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29405
 Phone (843) 673-3645
 Fax (843) 673-1767

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 1242 Yeamans Hall Rd Date: 9-18-18
 Location: Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS				
Sampling Area	Sample ID	Location	Description	Priority (+)	Priority (-)	Asbestos Type	COND Asbestos	HAZ Asbestos	
01	01	Exterior Wall	Terrazzo Panel						
	02					X			
	03								
02	04	↓	Subing Felt						
	05					X			
	06								
03	07	Window	Window Siding						
	08								
	09								
04	10	Window	Exterior Caulk					X	
	11	Door							
	12	Door							
05	13	Roof	Roof Shingle					X	
	14								
	15								
06	16		Roof Felt					X	
	17								
	18								
07	19	↓	Bulk Mustic						
	20								X
	21								

CONDITION Assessment Categories (1) Thermal Systems Insulation - Good Condition (2) Thermal Systems Insulation - Damaged (3) Thermal Systems Insulation - Significantly Damaged (4) Gutters - Good Condition (5) Gutters - Damaged (6) Gutters - Significantly Damaged	Asbestos Project (1) Asbestos (2) Chrysotile (3) Crocidolite (4) Amphibole (5) Tremolite (6) Actinolite	HAZARD Assessment Categories G = Good Condition D = Damaged S = Significantly Damaged LPO = Low Potential for Disturbance
---	--	--

Samples Collected by: Hunter H. Jones Date / Time: 9-18-18
 Samples Received by: [Signature] Date / Time: 9/19/18 9:40am

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 DeBrook Lane, Suite E
 Summerville, SC 29485
 Phone (843) 873-3848
 Fax (843) 873-1787

180919D
180919L

CHAIN OF CUSTODY FORM
Asbestos Bulk Samples

Project Name: 1242 Yeaman Hall Rd Date: 9-18-18
 Location: Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS			
Sampling Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Asbestos	HAZ Asbestos
	22	Kitchen A	Sink Grouting		X		?	
	23	↓	(Black)					
	24	↓						
	25	Kitchen A	Drywall	X			?	
	26	↓						
	27	↓						
	28	Kitchen A	Joint Compound	X			?	
	29	Living Room A						
	30	Bedroom 1						
	31	Room 3						
	32	Living Room B						
	33	Living Room B	Ceiling Texture	X			?	
	34		(texture)					
	35							
	36	Kitchen A	Ceiling Texture	X			?	
	37		(White)					
	38							
	39	Kitchen B	Sink Grouting		X		?	
	40		(gray)					
	41							

CONDITION Assessment Categories (1) Thermal Systems Insulation - Good Condition (2) Thermal Systems Insulation - Damaged (3) Thermal Systems Insulation - Significantly Damaged (4) Surfacing - Good Condition (5) Surfacing - Damaged (6) Surfacing - Significantly Damaged	Asbestos Present (1) Amosite (2) Chrysotile (3) Crocidolite (4) Anthophyllite (5) Tremolite (6) Actinolite	HAZARD Assessment Categories G = Good Condition D = Damaged S = Significantly Damaged LPD = Low Potential for Disturbance
---	---	--

Samples Collected by: Hunter Hanan Date / Time: 9-18-18
 Samples Received by: [Signature] Date / Time: 9/19/18 9:40am
[Signature]

180419
1809

TES
 Trident Environmental Services, Inc.
 Consultant in Industrial Hygiene and Safety
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 Summerville, SC 29485
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 Fax (843) 873-1787

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 124 Yeamans Hall Date: 9-18-18
 Location: Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS			
Sample Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Assess	HAZ Assess
14	42	Kitchen A	Hand Sanded Floor					
	43	Kitchen A	(Floor)					
	44	Room 2	no material					
15	45	Kitchen A	Hand Sanded Floor	X				
	46		(Floor)					
	47		no material					
16	48	Kitchen A	Hand Sanded Floor		X			
	49		(Floor)					
	50	Room 1	no material					
17	51	Room 1	Play Street Flooring		X			
	52	Room 1	(Floor)					
	53	Room 1	no material					
18	54	Room 1	Hand Sanded Floor	X				
	55		(Floor)					
	56		no material					
19	57	Room 1	Hand Sanded Floor	X				
	58		(Floor)					
	59	Room 1	Hand Sanded Floor					
20	60	Room 1	Hand Sanded Floor		X			
	61		(Floor)					
	62	Room 1	Hand Sanded Floor					

CONDITION Assessment Categories

(1) Thermal System Insulation - Good Condition
 (2) Thermal System Insulation - Damaged
 (3) Thermal System Insulation - Significantly Damaged
 (4) Surfacing - Good Condition
 (5) Surfacing - Damaged
 (6) Surfacing - Significantly Damaged

Asbestos Present

(1) Amosite
 (2) Chrysotile
 (3) Crocidolite
 (4) Anthophyllite
 (5) Tremolite
 (6) Actinolite

HAZARD Assessment Categories

G = Good Condition
 D = Damaged
 S = Significantly Damaged
 LPD = Low Potential for Disturbance

Samples Collected by: Hunter H. Jones Date / Time: 9-18-18
 Samples Received by: Hunter H. Jones Date / Time: 9/19/18 9:40am
1:50pm

TES
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 Phone (843) 873-3840
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180414D
1809'9L

CHAIN OF CUSTODY FORM
Asbestos Bulk Samples

Project Name: 1242 Yeamans Hall Rd Date: 9-18-18
 Location: Hanahan SC

DESCRIPTION OF EACH SAMPLE AREA						ASSESSMENT OF MATERIALS		
Room Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	OCSD Asses	HAZ Asses
20	63	Room A L1	Vinyl Sheet Floor (1K wood)		X			
	64	↓	normal tile					
	65	↓	normal tile					
21	66	Living Room B L1	Vinyl Sheet Floor (Stone)		X			
	67	↓	normal tile					
	68	Kitchen B L1	normal tile					
22	69	Living Room	Floor Felt Paper		X			
	70	Room 3						
	71	Room 4						
23	72	Room 3 L1	Vinyl Sheet Floor (DK wood)		X			
	73	↓	normal tile					
	74	Room 4 L1	normal tile					
24	75	Room 4 L2	12" Self Stick tile (Beige Stone)		X			
	76	↓						
	77	↓						

<p>CONDITION Assessment Categories</p> <p>(1) Thermal System Insulation - Good Condition (2) Thermal System Insulation - Damaged (3) Thermal System Insulation - Significantly Damaged (4) Surfing - Good Condition (5) Surfing - Damaged (6) Surfing - Significantly Damaged</p>	<p>Asbestos Types</p> <p>(1) Amosite (2) Chrysotile (3) Crocidolite (4) Anthophyllite (5) Tremolite (6) Actinolite</p>	<p>HAZARD Assessment Categories</p> <p>G = Good Condition D = Damaged S = Significantly Damaged LPD = Low Potential for Disturbance</p>
---	--	---

Samples Collected by: A. Lantz Hanson Date / Time: 9-18-18
 Samples Received by: Pragya Chandra Date / Time: 9/19/18 9:40am
Pragya Chandra 1:31pm

COMPREHENSIVE ASBESTOS SURVEY

**COMMERCIAL BUILDING
5902 HOWARD STREET
HANAHAN, SC 29410**



Prepared For:

**CITY OF HANAHAN
Attn: Mrs. Katherine Farias
1255 Yeamans Hall Road
Hanahan, SC 29410
(843) 576-5254**

Performed By:

— T E S —

Trident Environmental Services, Inc.

Consultants in Industrial Hygiene and Safety
500 Oakbrook Lane, Suite E
Summerville, SC 29485
(843) 873-3648

COMPREHENSIVE ASBESTOS SURVEY

Commercial Building
5902 Howard Street
Hanahan, SC 29410

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EXECUTIVE SUMMARY

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 19, 2018 of the Commercial Building located at 5902 Howard Street in Hanahan, South Carolina did reveal the presence of asbestos containing building materials. The following summary exhibits the asbestos containing building materials (ACBM) that were identified in the inspection.

Asbestos

Description	Type
Transite Siding	Category II – Non Friable
Brick Mastic (black)	Category I – Non Friable
Joint Compound	RACM – Friable
Ceiling Panel	RACM – Friable
12" Floor Tile (beige)	RACM – Friable
Floor Tile Mastic (tan)	Category I – Non Friable
Vinyl Sheet Flooring (red/orange)	RACM – Friable

RACM – Regulated Asbestos Containing Material

The identified ACBM includes the item(s) listed above. All removal work of the identified ACBM should be performed by a properly trained and licensed abatement contractor prior to the planned renovation/demolition activities.

BACKGROUND

Trident Environmental Services, Inc. was contracted by City of Hanahan to perform a comprehensive asbestos survey of the Commercial Building located at 5902 Howard Street in Hanahan, South Carolina. The survey was performed in order to satisfy the NESHAP requirements for renovation and/or demolition. The structure contains three one bedroom, one bathroom apartments constructed on foundation and consisting of approximately 1,900 square feet. Interior walls and ceilings are drywall with joint compound applied at the seams and patches. Floor finishes include vinyl floor tiles, vinyl sheet flooring, hardwood and carpet. Roofing material consists of asphalt shingles and felt paper. Exterior construction is wood, with wood trim, soffits, eaves doors/windows and transite siding,

Asbestos

The inspection was conducted to identify asbestos-containing building materials (ACBM) which may be disturbed during the renovation/demolition activities. The identification of ACBM will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos fibers. Identification of ACBM also complies with Title 40 Code of the Federal Regulations, Part 61, and South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, along with Title 29 Code of Federal Regulations, Part 1926 enforced by the Occupational Safety and Health Administration (OSHA). The Asbestos Survey describes the investigative procedures utilized, results of the suspect ACBM sampled/analyzed, and recommendations regarding the structures as related to asbestos.

ASBESTOS SURVEY

Asbestos Investigative Procedures

Trident Environmental Services, Inc. conducted an inspection for suspect ACM on September 19, 2018 of the Commercial Building located at 5902 Howard Street in Hanahan, South Carolina. It is our understanding that the subject structure will undergo renovation or demolition activities in the near future. The asbestos survey was performed by observing and sampling suspect building materials. Significant destructive testing was not utilized during the inspection. There is a possibility that suspect materials exist in inaccessible areas such as wall cavities and pipe chases. If any additional suspect ACM are discovered during the course of demolition activities, bulk samples should be extracted to identify the presence, or absence, of asbestos prior to continuation of work activities.

A sampling strategy was developed to provide representative samples for analysis. Samples were then extracted from a variety of suspect ACM. Bulk samples collected were recorded on a Chain-of-Custody record and submitted to Trident Environmental Service Center, Inc. (TESC) a Polarized Light Microscopy (PLM) laboratory. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). TESC is accredited by NVLAP for the analysis of bulk asbestos by PLM ([NVLAP Lab Code: 200794-0](#)).

The suspect materials were analyzed by trained microscopists utilizing PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F- Appendix A. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present. The EPA and OSHA defines materials as asbestos containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample.

Non-Friable Organically Bound (NOB) samples were submitted to AmeriSci Richmond Laboratory for analyses by Transmission Electron Microscopy (TEM). SCDHEC requires NOB materials with negative or trace results by PLM to be analyzed by at least one TEM. SCDHEC in accordance with ASTM E 2356-04 defines NOB materials as “materials that are not friable and that consist of fibers and other particulate matter embedded in a solid matrix of asphalt, vinyl or other organic substances.” Examples of NOB materials include but are not limited to flooring materials such as vinyl floor tiles, vinyl sheet flooring, adhesives, mastics, asphalt shingles, roofing materials, glazing, caulks, and cove base.

The EPA classifies ACBM into two categories, friable and non-friable. A friable material creates a greater health hazard due to the fact that it may be “crumbled, pulverized or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations.”

Friable Asbestos material means any material containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section I, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Category I Non Friable Asbestos-Containing Material (ACM) means asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section I, Polarized Light Microscopy.

Category II Non Friable ACM means any material, excluding Category I non friable ACM, containing more than one percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section I, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (cement siding, transite board shingles, etc.)

Regulated Asbestos-Containing Material (RACM) means (a) Friable asbestos material, (b) Category I non friable ACM that has become friable, (c) Category I non friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The following section summarizes the sample numbers, locations, type material, asbestos type, percent of asbestos detected, present condition of the asbestos containing material, potential for disturbance, and hazard assessment ratings. The asbestos sample laboratory analyses and chain of custody records are included at the end of this report.

Asbestos Abbreviations and Hazard Assessment Key

The EPA and SCDHEC require that confirmed ACBM is given a hazard assessment based on its present condition and potential for future disturbance. This hazard assessment is used as a tool for prioritization in future remedial actions regarding the ACBM. The following key demonstrates the criteria that make up the hazard assessment.

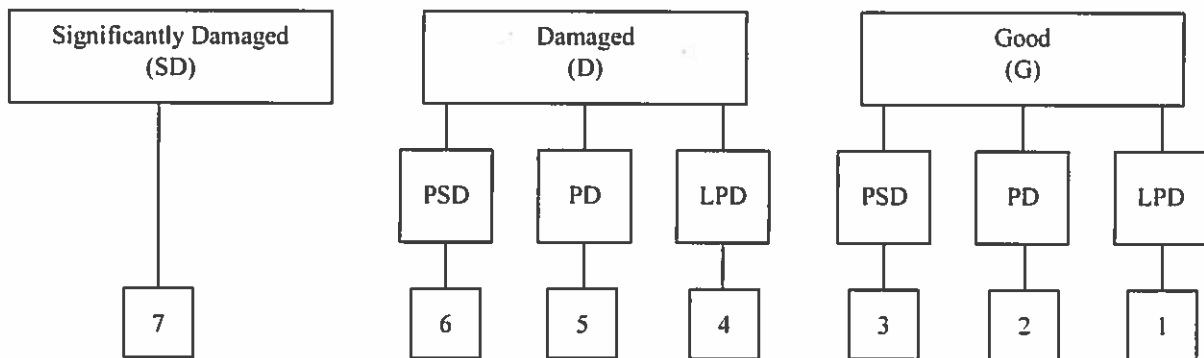
Present Condition

F = Friable G = Good (very localized limited damage)
NF = Non-friable D = Damaged (<10% distributed and/or <25% localized)
S = Significantly Damaged (≥10% distributed and/or 25% localized)

Potential for Future Disturbance

LPD = Low Potential for Disturbance (Contact, Vibration, and/or Air Erosion – low concern)
PD = Potential for Damage (Contact, Vibration, and/or Air Erosion – moderate concern)
PSD = Potential for Significant Damage (Contact, Vibration and/or Air Erosion – high concern)

Hazard Assessment



HOMOGENOUS AREA ESTIMATED FOOTAGE TABLE
Commercial Building – 5902 Howard Street – Hanahan, SC

HOMOGENOUS AREA ID #	DESCRIPTION	ESTIMATED AMOUNT
01	Transite Siding	3,330 SF
02	Siding Felt	3,330 SF
03	Window Glazing	52 SF
04	Exterior Caulk	100 SF
05	Roof Shingle	2,293 SF
06	Roof Felt	2,293 SF
07	Brick Mastic (black)	16 SF
08	MDF Board	280 SF
09	Drywall	4,676 SF
10	Joint Compound	4,956 SF
11	Ceiling Panel	35 SF
12	12" Floor Tile (beige)	189 SF
13	Floor Tile Mastic (tan)	189 SF
14	Vinyl Sheet Flooring (green/red)	329 SF
15	Vinyl Sheet Flooring (gray/red/yellow)	189 SF
16	Vinyl Sheet Flooring (red brick)	50 SF
17	Vinyl Sheet Flooring (blue brick)	160 SF
18	Vinyl Mastic (tan)	160 SF
19	Vinyl Sheet Flooring (12" slate)	194 SF
20	Vinyl Sheet Flooring (9" beige squares)	108 SF
21	Floor Felt Paper	108 SF
22	Vinyl Sheet Flooring (green/beige circle)	108 SF
23	Vinyl Sheet Flooring (green rocks)	108 SF
24	Vinyl Sheet Flooring (red flower)	140 SF
25	Vinyl Sheet Flooring (wood)	290 SF
26	12" Self-Stick Floor Tile (dark slate)	10 SF
27	Vinyl Floor Plank (dark wood)	36 SF
28	Vinyl Sheet Flooring (red/orange)	60 SF

ASBESTOS SUMMARY
Commercial Building – 5902 Howard Street – Hanahan, SC

DESCRIPTION	TYPE	ESTIMATED AMOUNT
Transite Siding	Category II – Non Friable	3,330 SF
Brick Mastic (black)	Category I – Non Friable	16 SF
Joint Compound	RACM – Friable	4,956 SF
Ceiling Panel	RACM – Friable	35 SF
12” Floor Tile (beige)	RACM – Friable	189 SF
Floor Tile Mastic (tan)	Category I – Non Friable	189 SF
Vinyl Sheet Flooring (red/orange)	RACM – Friable	60 SF

RACM – Regulated Asbestos Containing Material

*PACM - Presumed Asbestos Containing Material

SCDHEC requires any non-friable material that is identified in an asbestos inspection report in a condition other than good and non-friable must be handled as a Regulated Asbestos Containing Material (RACM) and identified as friable on the asbestos abatement application. This requirement is reflected in the Asbestos Summary Table listed above.

Asbestos fibers were identified in the Transite Siding. Approximately 3,330 square feet is present and in good condition. This material is considered Category II – Non Friable Asbestos and is located on the exterior.

Asbestos fibers were identified in the Brick Mastic (black). Approximately 16 square feet is present and in good condition. This material is considered Category I – Non Friable Asbestos and is located around the roof.

Asbestos fibers were identified in the Joint Compound. Approximately 4,956 square feet is present and is good condition. This material is considered RACM – Friable Asbestos and is located on the walls and ceilings.

Asbestos fibers were identified in the Ceiling Panel. Approximately 35 square feet is present and is significantly damaged. This material is considered RACM – Friable Asbestos and is located on the Shop ceiling and above the ceiling in Bedroom 4.

Asbestos fibers were identified in the 12” Floor Tile (beige). Approximately 189 square feet is present and in good condition. This material is considered RACM – Friable Asbestos and is located in the Kitchen inside Unit A. (layer 1) **Note: Floor Tile Mastic may be located under cabinets or non-load bearing walls.**

Asbestos fibers were identified in the Floor Tile Mastic (tan). Approximately 189 square feet is present and in good condition. This material is considered Category I – Non Friable Asbestos and is located in the Kitchen inside Unit A. (layer 1). **Note: Floor Tile Mastic may be located under cabinets or non-load bearing walls.**

Asbestos fibers were identified in the Vinyl Sheet Flooring (red/orange). Approximately 60 square feet is present and in good condition. This material is considered RACM – Friable Asbestos and is located in the Bathroom inside Unit C. **Note: Floor Tile Mastic may be located under cabinets or non-load bearing walls.**

The estimated quantities provided should be verified by contractor and/or building owner. **Any discrepancies are to be addressed prior to removal of ACM.** Please note that removal costs vary depending on the contractor, the quantity/condition of the ACM, and the accessibility/location of the ACM.

ASBESTOS SAMPLE DATA TABLE
Commercial Building – 5902 Howard Street – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
01-01	Transite Siding	Exterior Siding	N	20.0%	CHRY	7	3
01-02	Transite Siding	Exterior Siding	N	NT	PACM	7	3
01-03	Transite Siding	Exterior Siding	N	NT	PACM	7	3
02-04	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-05	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
02-06 T	Siding Felt	Exterior Siding	N	0.0%	ND	7	N/A
03-07	Window Glazing	Window 1	Y	0.0%	ND	7	N/A
03-08	Window Glazing	Window 2	Y	0.0%	ND	7	N/A
03-09 T	Window Glazing	Window 3	Y	0.0%	ND	7	N/A
04-10	Exterior Caulk	Window 1	N	0.0%	ND	7	N/A
04-11	Exterior Caulk	Door 1	N	0.0%	ND	7	N/A
04-12 T	Exterior Caulk	Door 2	N	<1.0%	CHRY	7	N/A
05-13	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-14	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
05-15 T	Roof Shingle	Exterior Roof	N	0.0%	ND	7	N/A
06-16	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-17	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
06-18 T	Roof Felt	Exterior Roof	N	0.0%	ND	7	N/A
07-19	Brick Mastie (black)	Exterior Roof	N	10.0%	CHRY	7	1
07-20	Brick Mastie (black)	Exterior Roof	N	NT	PACM	7	1
07-21 T	Brick Mastie (black)	Exterior Roof	N	NT	PACM	7	1
08-22	MDF Board	Living Room B	Y	0.0%	ND	7	N/A
08-23	MDF Board	Living Room B	Y	0.0%	ND	7	N/A
08-24	MDF Board	Living Room B	Y	0.0%	ND	7	N/A
09-25	Drywall	Bedroom A	Y	0.0%	ND	7	N/A
09-26	Drywall	Bedroom A	Y	0.0%	ND	7	N/A
09-27	Drywall	Bedroom A	Y	0.0%	ND	7	N/A
10-28	Joint Compound	Living Room A	Y	2.0%	CHRY	4	3
10-29	Joint Compound	Living Room A	Y	NT	PACM	4	3

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACT1 – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 5902 Howard Street – Hanahan, SC

Homogeneous Area & Sample ID	DESCRIPTION OF EACH SAMPLE AREA			LABORATORY		ASSESSMENT OF MATERIALS	
	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
10-30	Joint Compound	Bedroom A	Y	NT	PACM	4	3
10-31	Joint Compound	Bedroom 2 B	Y	NT	PACM	4	3
10-32	Joint Compound	Living Room B	Y	NT	PACM	4	3
10-33	Joint Compound	Kitchen B	Y	NT	PACM	4	3
10-34	Joint Compound	Bedroom 1 B	Y	NT	PACM	4	3
11-35	Ceiling Panel	Shop	Y	98.0%	CHRY	9	7
11-36	Ceiling Panel	Shop	Y	NT	PACM	9	7
11-37	Ceiling Panel	Shop	Y	NT	PACM	9	7
12-38	12" Floor Tile (beige)	Kitchen A – Layer 1	Y	2.0%	CHRY	7	1
12-39	12" Floor Tile (beige)	Kitchen A – Layer 1	Y	NT	PACM	7	1
12-40	12" Floor Tile (beige)	Kitchen A – Layer 1	Y	NT	PACM	7	1
13-41	Floor Tile Mastic (tan)	Kitchen A – Layer 1	N	0.0%	ND	7	N/A
13-42	Floor Tile Mastic (tan)	Kitchen A – Layer 1	N	0.0%	ND	7	N/A
13-43	Floor Tile Mastic (tan)	Kitchen A – Layer 1	N	<1.9%	CHRY	7	1
14-44	Vinyl Sheet Flooring (green/red)	Kitchen A – Layer 2	Y	0.0%	ND	7	N/A
14-45	Vinyl Sheet Flooring (green/red)	Living Room A Layer 2	Y	0.0%	ND	7	N/A
14-46 T	Vinyl Sheet Flooring (green/red)	Bedroom 3 Layer 2	Y	0.0%	ND	7	N/A
15-47	Vinyl Sheet Flooring (green/red/yellow)	Kitchen A – Layer 3	Y	0.0%	ND	7	N/A
15-48	Vinyl Sheet Flooring (green/red/yellow)	Kitchen A – Layer 3	Y	0.0%	ND	7	N/A
15-49 T	Vinyl Sheet Flooring (green/red/yellow)	Kitchen A – Layer 3	Y	0.0%	ND	7	N/A
16-50	Vinyl Sheet Flooring (red brick)	Kitchen A – Layer 1	Y	0.0%	ND	7	N/A
16-51	Vinyl Sheet Flooring (red brick)	Kitchen A – Layer 1	Y	0.0%	ND	7	N/A
16-52 T	Vinyl Sheet Flooring (red brick)	Kitchen A – Layer 1	Y	0.0%	ND	7	N/A
17-53	Vinyl Sheet Flooring (blue brick)	Living Room A Layer 1	Y	0.0%	ND	7	N/A

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

ASBESTOS SAMPLE DATA TABLE

Commercial Building – 5902 Howard Street – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
17-54	Vinyl Sheet Flooring (blue brick)	Living Room A Layer 1	Y	0.0%	ND	7	N/A
17-55 T	Vinyl Sheet Flooring (blue brick)	Living Room A Layer 1	Y	0.0%	ND	7	N/A
18-56	Vinyl Mastic (tan)	Living Room A Layer 1	N	0.0%	ND	7	N/A
18-57	Vinyl Mastic (tan)	Living Room A Layer 1	N	0.0%	ND	7	N/A
18-58 T	Vinyl Mastic (tan)	Living Room A Layer 1	N	0.0%	ND	7	N/A
19-59	Vinyl Sheet Flooring (12" slate)	Living Room A Layer 1	Y	0.0%	ND	7	N/A
19-60	Vinyl Sheet Flooring (12" slate)	Living Room A Layer 1	Y	0.0%	ND	7	N/A
19-61 T	Vinyl Sheet Flooring (12" slate)	Kitchen B Layer 1	Y	0.0%	ND	7	N/A
20-62	Vinyl Sheet Flooring (9" beige squares)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A
20-63	Vinyl Sheet Flooring (9" beige squares)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A
20-64 T	Vinyl Sheet Flooring (9" beige squares)	Bathroom A Layer 1	Y	0.0%	ND	7	N/A
21-65	Floor Felt Paper	Bathroom A Layer 2	N	0.0%	ND	7	N/A
21-66	Floor Felt Paper	Bathroom A Layer 2	N	0.0%	ND	7	N/A
21-67 T	Floor Felt Paper	Bathroom A Layer 2	N	0.0%	ND	7	N/A
22-68	Vinyl Sheet Flooring (green/beige circle)	Bathroom A Layer 3	Y	0.0%	ND	7	N/A
22-69	Vinyl Sheet Flooring (green/beige circle)	Bathroom A Layer 3	Y	0.0%	ND	7	N/A
22-70 T	Vinyl Sheet Flooring (green/beige circle)	Bathroom A Layer 3	Y	0.0%	ND	7	N/A
23-71	Vinyl Sheet Flooring (green rocks)	Bathroom A Layer 4	Y	0.0%	ND	7	N/A
23-72	Vinyl Sheet Flooring (green rocks)	Bathroom A Layer 4	Y	0.0%	ND	7	N/A
23-73 T	Vinyl Sheet Flooring (green rocks)	Bathroom A Layer 4	Y	0.0%	ND	7	N/A

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACT1 – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

ASBESTOS SAMPLE DATA TABLE
Commercial Building – 5902 Howard Street – Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Location/Room #	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
24-74	Vinyl Sheet Flooring (red flower)	Bedroom 3 Layer 3	Y	0.0%	ND	7	N/A
24-75	Vinyl Sheet Flooring (red flower)	Bedroom 3 Layer 3	Y	0.0%	ND	7	N/A
24-76 T	Vinyl Sheet Flooring (red flower)	Bedroom 3 Layer 3	Y	0.0%	ND	7	N/A
25-77	Vinyl Sheet Flooring (wood)	Living Room B Layer 1	Y	0.0%	ND	7	N/A
25-78	Vinyl Sheet Flooring (wood)	Living Room B Layer 1	Y	0.0%	ND	7	N/A
25-79 T	Vinyl Sheet Flooring (wood)	Living Room B Layer 1	Y	0.0%	ND	7	N/A
26-80	12" Self-Stick Floor Tile (dark slate)	Kitchen B Layer 1	N	0.0%	ND	7	N/A
26-81	12" Self-Stick Floor Tile (dark slate)	Kitchen B Layer 1	N	0.0%	ND	7	N/A
26-82 T	12" Self-Stick Floor Tile (dark slate)	Kitchen B Layer 1	N	0.0%	ND	7	N/A
27-83	Vinyl Floor Plank (dark wood)	Bathroom B Layer 1	Y	0.0%	ND	7	N/A
27-84	Vinyl Floor Plank (dark wood)	Bathroom B Layer 1	Y	0.0%	ND	7	N/A
27-85 T	Vinyl Floor Plank (dark wood)	Bathroom B Layer 1	Y	0.0%	ND	7	N/A
28-86	Vinyl Sheet Flooring (red/orange)	Bathroom C Layer 1	Y	20.0%	CHRY	7	3
28-87	Vinyl Sheet Flooring (red/orange)	Bathroom C Layer 1	Y	NT	PACM	7	3
28-88	Vinyl Sheet Flooring (red/orange)	Bathroom C Layer 1	Y	NT	PACM	7	3

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

CONCLUSIONS/RECOMMENDATIONS

Asbestos Inspection

The comprehensive asbestos survey performed by Trident Environmental Services, Inc. on September 19, 2018 of the Commercial Building located at 5902 Howard Street in Hanahan, South Carolina did reveal the presence of ACM. Renovation or demolition activities that will disturb the ACM will require removal per state and federal regulations. Asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release asbestos fibers into the air of the building. All areas that contain asbestos should be utilized in a controlled manner to reduce the potential for disturbance. OSHA requires notification to all trades/contractors about the condition of the ACM to prevent possible occupational exposures.

Demolition activities in public and commercial buildings are regulated by OSHA, EPA, and SCDHEC. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, "National Emissions Standards for Hazardous Air Pollutants" (NESHAP), and SCDHEC Regulation 61-86.1 require the proper removal and disposal of ACM that is affected by renovation or demolition. Demolition of the subject structures will require written notification, proper transportation, and disposal per state and federal regulations.

PHOTOGRAPHS
Commercial Building – 5902 Howard Street – Hanahan, SC



**HOMOGENEOUS AREA 01
TRANSITE SIDING**



**HOMOGENEOUS AREA 02
SIDING FELT**



**HOMOGENEOUS AREA 03
WINDOW GLAZING**



**HOMOGENEOUS AREA 04
EXTERIOR CAULK**



**HOMOGENEOUS AREA 05
ROOF SHINGLE**



**HOMOGENEOUS AREA 06
ROOF FELT**

PHOTOGRAPHS
Commercial Building – 5902 Howard Street – Hanahan, SC



**HOMOGENEOUS AREA 07
BRICK MASTIC (BLACK)**



**HOMOGENEOUS AREA 08
MDF BOARD**



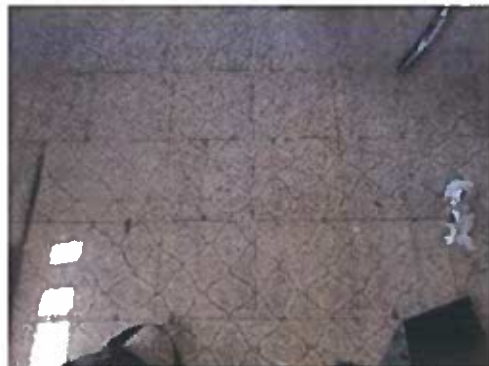
**HOMOGENEOUS AREA 09
DRYWALL**



**HOMOGENEOUS AREA 10
JOINT COMPOUND**

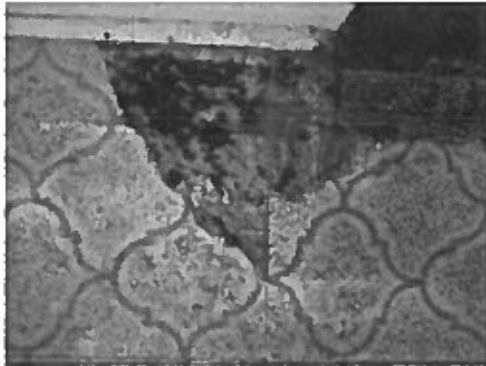


**HOMOGENEOUS AREA 11
CEILING PANEL**



**HOMOGENEOUS AREAS 12, 13
12" FLOOR TILE (BEIGE)
MASTIC (TAN)**

PHOTOGRAPHS
Commercial Building – 5902 Howard Street – Hanahan, SC



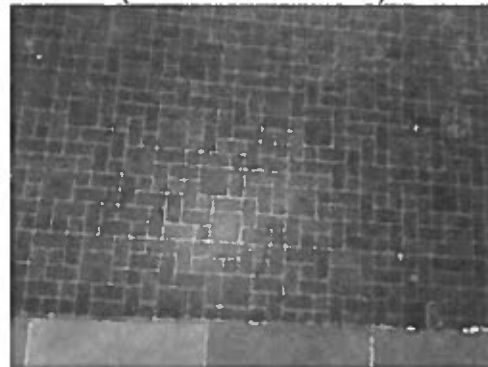
**HOMOGENEOUS AREA 14
VINYL SHEET FLOORING (GREEN/RED)**



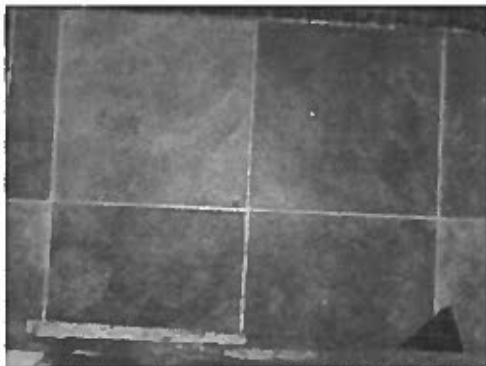
**HOMOGENEOUS AREA 15
VINYL SHEET FLOORING
(GRAY/RED/YELLOW)**



**HOMOGENEOUS AREA 16
VINYL SHEET FLOORING (RED BRICK)**



**HOMOGENEOUS AREAS 17, 18
VINYL SHEET FLOORING (BLUE BRICK)
MASTIC (TAN)**



**HOMOGENEOUS AREA 19
VINYL SHEET FLOORING
(12" SLATE)**



**HOMOGENEOUS AREA 20
VINYL SHEET FLOORING
(9" BEIGE SQUARES)**

PHOTOGRAPHS

Commercial Building – 5902 Howard Street – Hanahan, SC



**HOMOGENEOUS AREA 21
FLOOR FELT PAPER**



**HOMOGENEOUS AREA 22
VINYL SHEET FLOORING
(GREEN/BEIGE SQUARES)**



**HOMOGENEOUS AREA 23
VINYL SHEET FLOORING (GREEN ROCKS)**



**HOMOGENEOUS AREA 24
VINYL SHEET FLOORING (RED FLOWER)**



**HOMOGENEOUS AREA 25
VINYL SHEET FLOORING (WOOD)**



**HOMOGENEOUS AREA 26
12" SELF-STICK TILE (DARK SLATE)**

PHOTOGRAPHS

Commercial Building – 5902 Howard Street – Hanahan, SC



**HOMOGENEOUS AREA 27
VINYL FLOOR PLANKS (DARK WOOD)**



**HOMOGENEOUS AREA 28
VINYL SHEET FLOORING (RED/ORANGE)**

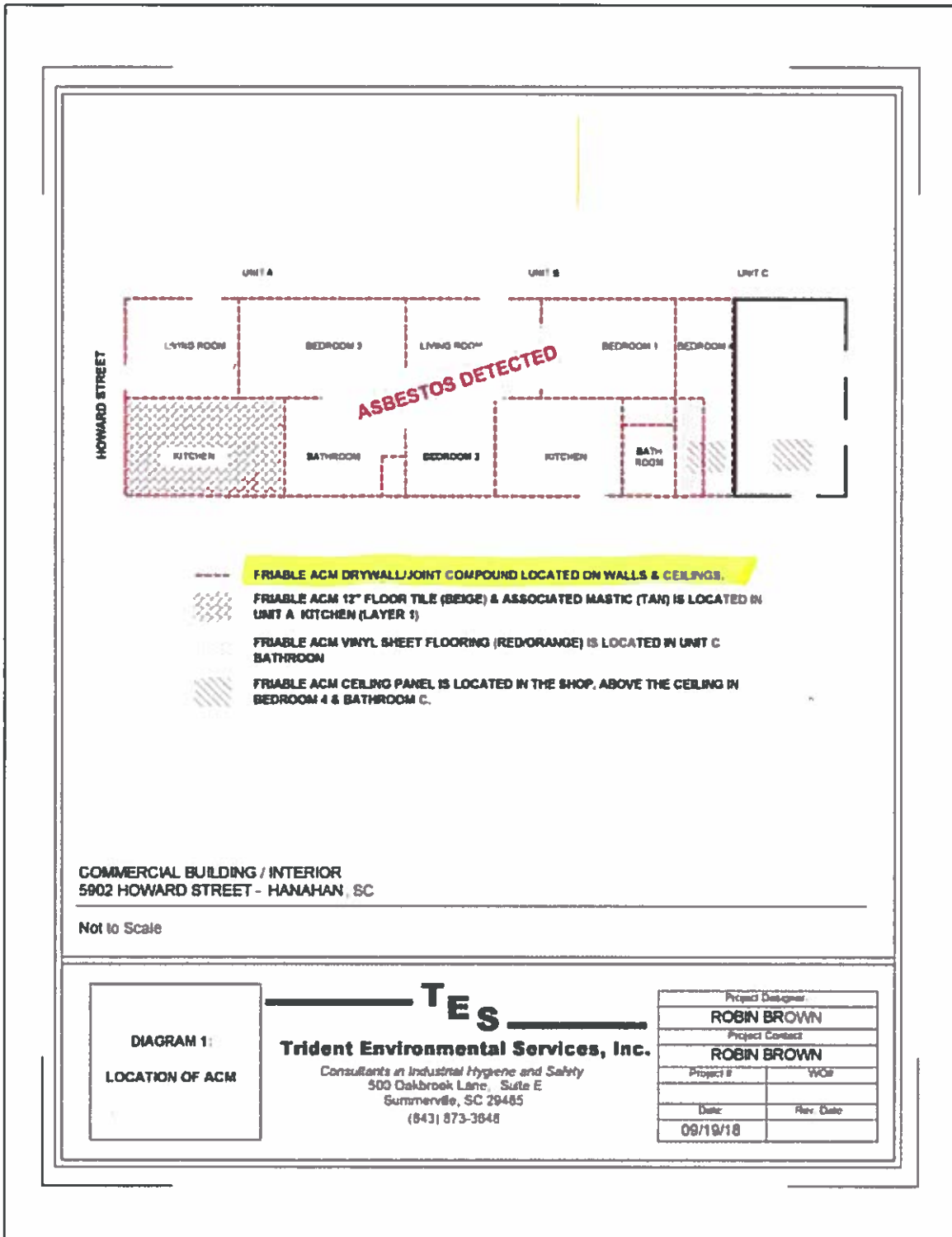


DIAGRAM 1:
 LOCATION OF ACM

TES
Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 (843) 873-3646

Project Designer	
ROBIN BROWN	
Project Contact	
ROBIN BROWN	
Project #	W08
Date	Rev. Date
09/19/18	

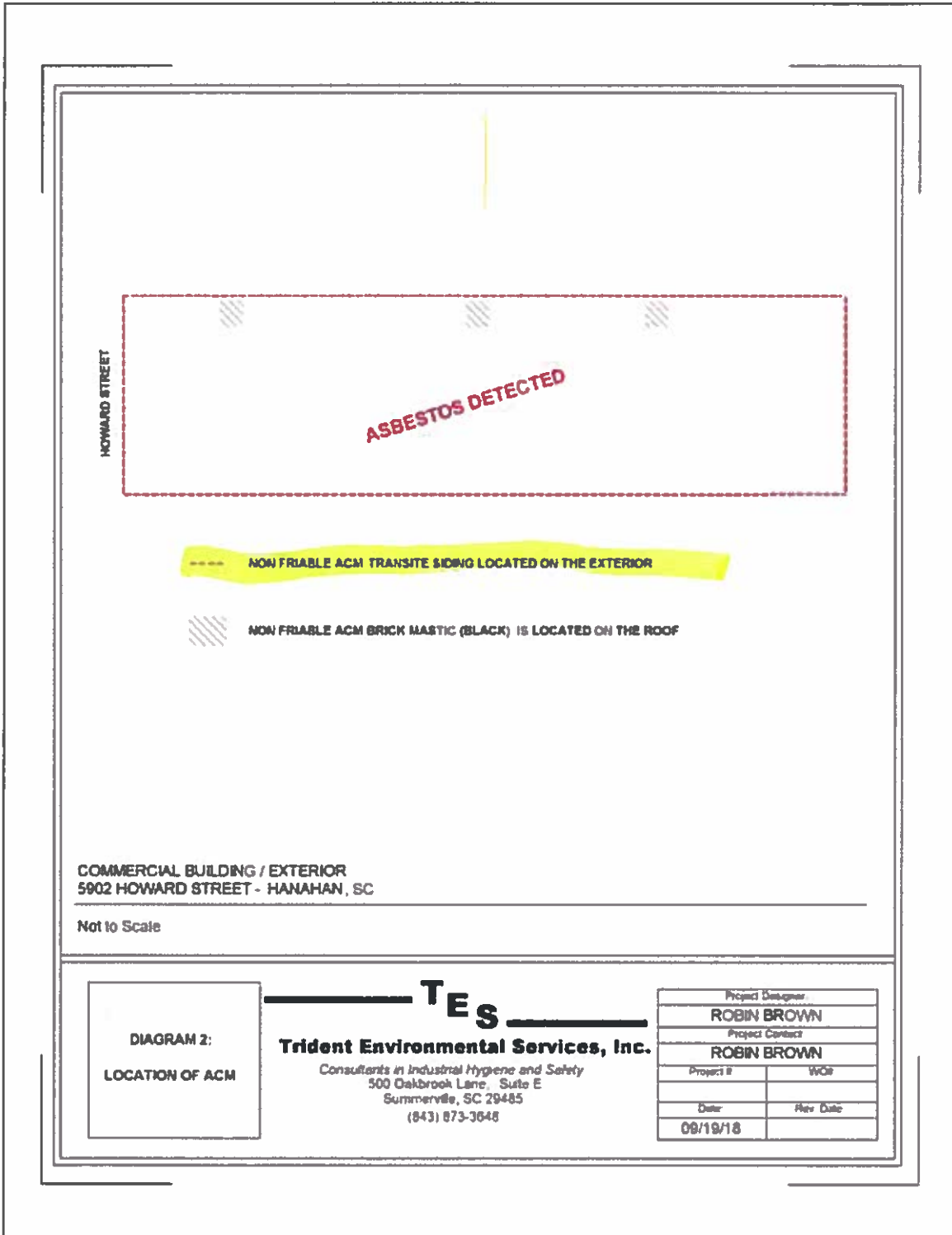


DIAGRAM 2:
 LOCATION OF ACM

TES

Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 (843) 873-3648

Project Designer	
ROBIN BROWN	
Project Contact	
ROBIN BROWN	
Project #	WO#
Date	Rev Date
09/19/18	

**COMPREHENSIVE
ASBESTOS SURVEY**

Inspection Date: 09/19/2018

Preparation Date: 10/03/2018

Inspected & Prepared By:

Hunter Hanson

Hunter Hanson
S.C. Inspector License BI – 01468

SCDHEC ISSUED
Asbestos ID Card

Hunter Hanson



CONSULTBI	BI-01468	10/28/18
AIRSAMPLER	AS-00413	01/06/19

Expiration Date:

Reviewed By:

Robin A. Brown

Robin A. Brown
S.C. Inspector License BI – 00613

SCDHEC ISSUED
Asbestos ID Card

Robin Brown



CONSULTPD	PD-00176	06/14/19
CONSULTBI	BI-00613	06/26/19
AIRSAMPLER	AS-00178	02/05/19

Expiration Date:

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200794-0

Triangle Environmental Service Center, Inc.
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-04-01 through 2019-03-31

Effective Dates



John S. Lamm
For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Triangle Environmental Service Center, Inc.
13509 East Boundary Road, Suite B
Midlothian, VA 23112
Mr. Feng Jiang
Phone: 804-739-1751 Fax: 804-739-1753
Email: info@tesclab.com
http://www.tesclab.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200794-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA – 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101904-0

AmeriSci Richmond
Midlothian, VA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2018-07-01 through 2019-06-30

Effective Dates



John S. Damm
For the National Voluntary Laboratory Accreditation Program

NVLAP National Voluntary
Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AmeriSci Richmond
dba AmeriSci Richmond
13635 Genito Road
Midlothian, VA 23112
Mr. Thomas B. Keith
Phone: 804-763-1200 Fax: 804-763-1800
Email: bkeith@amerisci.com
<http://www.amerisci.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101904-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116; Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleton, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB #: 5902 Howard Street

JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01-01 / Gray granular, white fibers	20% Chrysotile		80%
2	01-02 /	Positive Stop		100%
3	01-03 /	Positive Stop		100%
4	02-04 / Black tar-like	NAD	20% Cellulose	80%
5	02-05 / Black tar-like	NAD	20% Cellulose	80%
6	02-06 /	Not Analyzed		100%
7	03-07 / White powder	NAD		100%
8	03-08 / White powder	NAD		100%
9	03-09 /	Not Analyzed		100%
10	04-10 / White adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/4-R3-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I=ion, M=Molecule, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Jianqiang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB #: 5902 Howard Street
 JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	04-11 / White adhesive	NAD		100%
12	04-12 /	Not Analyzed		100%
13	05-13 / Black tar-like	NAD	10% Fiberglass	90%
14	05-14 / Black tar-like	NAD	10% Fiberglass	90%
15	05-15 /	Not Analyzed		100%
16	06-16 / Black fibers	NAD	98% Cellulose	2%
17	06-17 / Black fibers	NAD	98% Cellulose	2%
18	06-18 /	Not Analyzed		100%
19	07-19 / Black adhesive	10% Chrysotile	5% Cellulose	85%
20	07-20 /	Positive Stop		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-93-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the TPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the items tested.

NVLAP Lab Code: 210794-0

[LEGEND: NAD=No Asbestos Detected, I=Inorganic, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Yuechang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB #: 5902 Howard Street
 JOB SITE: Hanahan, SC

ANALYST: B. Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
21	07-21 /	Positive Stop		100%
23	08-22 / Brown fibers	NAD	98% Cellulose	2%
23	08-23 / Brown fibers	NAD	98% Cellulose	2%
24	08-24 / Brown fibers	NAD	98% Cellulose	2%
25	09-25 / White powder, brown fibers	NAD	20% Cellulose	80%
26	09-26 / White powder, brown fibers	NAD	20% Cellulose	80%
27	09-27 / White powder, brown fibers	NAD	20% Cellulose	80%
28	10-28 / White powder	2% Chrysotile		98%
29	10-29 /	Positive Stop		100%
30	10-30 /	Positive Stop		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-93-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVIAP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I mo =I molecule, JC=Joint Compound)

Reviewed By: Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Luohong Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29483

TESC LOGIN #: 18092018

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB #: 5902 Howard Street
 JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	10-11 /	Positive Stop		100%
12	10-12 /	Positive Stop		100%
13	10-13 /	Positive Stop		100%
14	10-14 /	Positive Stop		100%
15	11-15 / Gray, white fibers	98% Chrysotile		2%
16	11-16 /	Positive Stop		100%
17	11-17 /	Positive Stop		100%
18	12-18 / Tan vinyl	2% Chrysotile		98%
19	12-19 /	Positive Stop		100%
40	12-40 /	Positive Stop		100%
41	11-41 / Brown adhesive	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-03-116, July 1993 (EPA-600/M4-R2-020, Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

(LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound)

Reviewed By: Authorized Signatory:



Feng Jiang, VN, Senior Geologist, Laboratory Director
 Lusheng Fang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 300 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB/ #: 5902 Howard Street

JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
42	13-42 / Brown adhesive	NAD		100%
43	13-43 /	Not Analyzed		100%
44	14-44 / Black lino., fibers	NAD	20% Cellulose	80%
45	14-45 / Black lino., fibers	NAD	20% Cellulose	80%
46	14-46 /	Not Analyzed		100%
47	15-47 / Yellow, red lino., black fibers	NAD	20% Cellulose	80%
48	15-48 / Yellow, red lino., black fibers	NAD	20% Cellulose	80%
49	15-49 /	Not Analyzed		100%
50	16-50 / Brown lino., gray fibers	NAD	20% Cellulose 10% Fiberglass	70%
51	16-51 / Brown lino., gray fibers	NAD	20% Cellulose 10% Fiberglass	70%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EJ/V660/R-93-116, July 1993 (EPA-600/4-92-020, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. (this test report relates only to the item(s) tested)

NVLAP Lab Code: 2107944

[LEGEND: NAD=No Asbestos Detected, I=Ino=Inorganic, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Jiankang Feng, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middletown, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB/ #: 5902 Howard Street

JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
52	16-52 /	Not Analyzed		100%
53	17-53 / Blue lino., gray fibers	NAD	20% Cellulose 5% Fiberglass	75%
54	17-54 / Blue lino., gray fibers	NAD	20% Cellulose 5% Fiberglass	75%
55	17-55 /	Not Analyzed		100%
56	18-56 / Yellow adhesive	NAD		100%
57	18-57 / Yellow adhesive	NAD		100%
58	18-58 /	Not Analyzed		100%
59	19-59 / Brown linoleum	NAD		100%
60	19-60 / Brown linoleum	NAD		100%
61	19-61 /	Not Analyzed		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/R-93-116, Dec 1992), or the current US EPA method for the analysis of asbestos in building material. None detected: not detected at or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NV1AF Lab Code: 21079141

[LEGEND: NAD=No Asbestos Detected, Lino = Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Junchang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

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 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB/ #: 5902 Howard Street

JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
62	20-62 / Gray lino , fibers	NAD	20% Cellulose	80%
63	20-63 / Gray lino , fibers	NAD	20% Cellulose	80%
64	20-64 /	Not Analyzed		100%
65	21-65 / Black fibers	NAD	98% Cellulose	2%
66	21-66 / Black fibers	NAD	98% Cellulose	2%
67	21-67 /	Not Analyzed		100%
68	22-68 / Green, blue lino , black fibers	NAD	20% Cellulose	80%
69	22-69 / Green, blue lino , black fibers	NAD	20% Cellulose	80%
70	22-70 /	Not Analyzed		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (TPA-600/RM-82-020 Dec 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at or below the detected limit of method (Reporting Limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. (this test report relates only to the items tested)

NVLAP Lab Code: 200794-0

[LEGEND: NAD=No Asbestos Detected, I mo =1 molecule, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Feng Jiang, Senior Geologist

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BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB/ #: 5902 Howard Street
 JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
71	21-71 / Green lino, black fibers	NAD	20% Cellulose	80%
72	23-72 / Green lino, black fibers	NAD	20% Cellulose	80%
73	23-73 /	Not Analyzed		100%
74	24-74 / Red, brown lino, black fibers	NAD	20% Cellulose	80%
75	24-75 / Red, brown lino, black fibers	NAD		100%
76	24-76 /	Not Analyzed		100%
77	25-77 / Brown linoleum	NAD	5% Fiberglass	95%
78	25-78 / Brown linoleum	NAD	5% Fiberglass	95%
79	25-79 /	Not Analyzed		100%
80	26-80 / Brown vinyl	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-93-029, Dec. 1992), or the current US EPA method for the analysis of asbestos in building material. None Detected: not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVLAP Lab Code: 210794-0

[LEGEND: NAD=No Asbestos Detected, Lino=Linoleum, JC=Joint Compound]

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Yunchang Jiang, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Midlothian, VA 23112
 804-739-1751 • fax: 804-739-1753

BULK ASBESTOS SAMPLE ANALYSIS SUMMARY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN #: 180920T

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/20/2018
 DATE OF REPORT: 09/20/2018

CLIENT JOB #: 5902 Howard Street

JOB SITE: Hanahan, SC

ANALYST: B Trimmer

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
R1	26-R1 / Brown vinyl	NAD		100%
R2	26-R2 /	Not Analyzed		100%
R3	27-R3 / Brown vinyl	NAD		100%
R4	27-R4 / Brown vinyl	NAD		100%
R5	27-R5 /	Not Analyzed		100%
R6	28-R6 / Red lined gray fibers	20% Chrysotile	20% Cellulose	60%
R7	28-R7 /	Positive Stop		100%
R8	28-R8 /	Positive Stop		100%

Total Samples/Layers Analyzed: 52

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA/600/R-93-116, July 1993 (EPA-600/M-82-029, Dec. 1982), or the current US EPA method for the analysis of asbestos in building material. None Detected - not detected at/or below the detected limit of method (Reporting limit: 1% Asbestos). Glass fiber is analyzed for quality control blank. TESC recommends by point count or Transmission Electron Microscopy (TEM), for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by Polarized Light Microscopy (PLM). Both services are available for an additional fee. This report must not be reproduced except in full with approval of Triangle Environmental Service Center, Inc. This test report relates only to the item(s) tested.

NVI AP Lab Code: 210794-0

(LEGEND: NAD=No Asbestos Detected, I=Inorganic, JC=Joint Compound)

Reviewed By Authorized Signatory:



Feng Jiang, MS, Senior Geologist, Laboratory Director
 Yuechung Fung, Senior Geologist

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Boundary Road, Suite B, Middleburg, VA 22112 • 804-729-1751 • FAX: 804-729-1752

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TIESC LOGIN # PR19201X
 DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/23/2018
 DATE OF REPORT: 09/25/2018
 ANALYST: B. Gjola

CLIENT PROJECT # 5902 Howard Street
 JOBSITE: Hanahan, SC
 TAT: 1 Day

TIESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
1	02-08	0.348	50.6	11.2	38.2	NAD
2	03-08	0.272	9.2	87.1	3.7	NAD
3	04-12	0.339	20.9	75.8	3.3	<1% Chrysotile
4	05-15	0.42	19.8	44.8	35.4	NAD
5	06-18	0.259	96.9	2.7	.4	NAD

Sample present in one of old glaze

Reviewed By Authorized Signatory:

Gaudyong Fang

Feng Jiang, IAT Science Consultant, Laboratory Director
 Gaudyong Fang, Senior Analyst

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 [LEGEND] NAD - No Asbestos Detected NA - Not Analyzed, PS - Positive Slap, Trace - 1%, NVA - No Visual Asbestos

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleham, VA 23112 • 804-739-1751 • fax: 804-739-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 TESC LOGIN #: IM19201X

CLIENT PROJECT #: 5902 Howard Street
 Hanahan, SC
 ANALYST: B. Gjoka

DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/23/2018
 DATE OF REPORT: 09/25/2018

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
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6	13-43	0.147	49	29.3	21.7	<1.9% Chrysotile
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Probable contamination from positive fiber tile

7	14-46	0.199	76.9	20.7	2.4	NAD
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8	15-49	0.181	75.2	24.2	.6	<1% Chrysotile
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Probable contamination from black marble

9	16-52	0.219	61.2	14.6	24.2	NAD
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10	17-55	0.125	51.2	26.4	22.4	NAD
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Reviewed By Authorized Signatory:

Qingdong Fang

Qingdong Fang, Senior Analyst, Laboratory Director
 Triangle Environmental Service Center

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 [LEGEND: NAD - No Asbestos Detected; NA - Not Analyzed; PS - Positive Stop; Trace - <1% NVA - No Visual Asbestos]

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Boundary Road, Suite B, Middleham, VA 23112 • 804-729-1751 • FAX: 804-729-1750

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485

TESC LOGIN # 181926X
 DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/24/2018
 DATE OF REPORT: 09/25/2018
 ANALYST: B. Gjola

CLIENT PROJECT # 5902 Howard Street
 JOBSITE: Hanahan, SC
 TAT:

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
11	18-58	0.145	59.3	6.2	34.5	NAD
12	19-61	0.242	78.5	20.2	1.3	NAD
13	20-64	0.291	56	43.3	7	NAD
14	21-67	0.175	86.9	6.3	6.8	NAD
15	22-70	0.196	58.7	37.8	3.5	NAD

Gwendolyn Fung

Reviewed By Authorized Signatory:

*Feng Jiang, LVS Senior Geologist, Laboratory Plans are
 Prepared From, Senior Geologist*

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TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleham, VA 23112 • 804-729-1751 • Fax: 804-729-1753

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc. TFCF LOGIN #: 181920X
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 DATE OF RECEIPT: 09/20/2018
 DATE OF ANALYSIS: 09/24/2018
 DATE OF REPORT: 09/25/2018
 ANALYST: B. Gjoka

CLIENT PROJECT #: 5902 Howard Street

JOB SITE: Hanahan, SC

TAT:

TFCF SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
16	23-73	0.195	76.4	23.1	.5	NAD
17	24-78	0.171	80.1	11.1	8.8	NAD
18	25-79	0.20	59	39.7	1.3	NAD
19	26-82	0.328	9.5	88	2.5	NAD
20	27-85	0.288	27.1	72.2	.7	NAD

Reviewed By Authorized Signatory:

Azudory Tang

Feng Jiang, J.S. Service (Analyst / Laboratory) /
 In-house / org. Service (Analyst)

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 [LEGEND] NAD - No Asbestos Detected; NA - Not Analyzed; PS - Positive Spill; Trace - PS, NVA - No Visual Asbestos]

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

12509 East Boundary Road, Suite B, Middleham, VA 23113 • 804-739-1781 • Fax: 804-739-1783

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc.
 501 Oakbrook Lane, Suite E
 Summerville, SC 29485

CLIENT PROJECT #: 5902 Howard Street
 Hanahan, SC

TAT:

TESC LOGIN #: IM1920X

DATE OF RECEIPT: 09/20/2018

DATE OF ANALYSIS: 09/21/2018

DATE OF REPORT: 09/25/2018

ANALYST: B. Gjola

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT (g)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS% BY TEM
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Total Sample(s) Analyzed: 20

Brenden Tang

Reviewed By: Authorized Signatory

Feng Hong, A.S. Senior Industrial Hygienist, Laboratory Director
 12509 East Boundary Road, Suite B, Middleham, VA 23113

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 (LEGEND: NAD - No Asbestos Detected; NA - Not Analyzed; PS - Positive Step; TMS - TMS; NVA - No Visual Asbestos)

September 25, 2018

Page 3 of 5

TESC LOGIN NUMBER: 180920T

TRIANGLE ENVIRONMENTAL SERVICE CENTER

13609 East Boundary Road, Suite B • Midlothian • VA • 23112 • Tel: 804-739-1761 • Fax: 804-739-1763

CHAIN OF CUSTODY FORM

LAB CUSTOMER: Trident Environmental Services, Inc.

ADDRESS: 500 Oakbrook Lane - Suite E

CITY, STATE, ZIP: Summerville, SC 29485

TAT: 2 Hour: 8 Hour: 24 Hour: RM 48 Hour: 3 Day: TCM 6 Day:

CONTACT METHOD: Phone: 843-873-3648 Fax: 888-266-2040

DATE: 9-19-18

CONTACT NAME: Robin Brown

PROJECT #: 5902 Howard Street

PROJECT SITE: Hanahan SC

Email: On TESC File

Sample number	Sample Date	Asbestos				Lead				Other Metals				Air Quality/Mold				Comments						
		Bulk ID by PLM	PCM Fiber Count	PLM Point Count 400	PLM Point Count 1000	PLM Gravimetric	CARB 435 (Sol only)	TEM AHERA Air	TEM Bulk Certified	Soil (ppm)	Wipe	TCLP (Pb)	Water Water	Drinking Water (Pb)	TCLP RCRA 8	CAM 17	Welding Fume		Toxic Metal Profile	Bioaerosols	Side	Surface Type	Surface Swab	Bulk
Released by	Hunter	Signature: <u>Hunter</u>												Date/Time:	<u>9-19-18</u>									
Received by	Hunter	Signature: <u>Hunter</u>												Date/Time:	<u>9-20-18 10:00AM</u>									
Released by		Signature:												Date/Time:										
Received by		Signature:												Date/Time:										

Prepared by TESC _____ Pages _____ of _____

multiple sheets are in request will need to be

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Calhoun Lane, Suite E
 Summerville, SC 29485
 Phone: (843) 873-3648
 Fax: (843) 873-1767

180920X 21 TEM Bulk

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name 5902 Howard Street Date 9-19-18
 Location Hanahan, SC

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS			
Sample Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Asbestos	HAZ Asbestos
✓	01	Exterior Siding	Tranlite Panel		X		7	
	02							
	03							
✓	02		Siding Felt		X		7	
	05							
	06							
✓	03	Window 1	Window Glazing	X			7	
	08	Window 2						
✓	09	Window 3						
✓	04	Window 1	Exterior Caulk		X		7	
	11	Door 1						
✓	12	Door 2						
✓	05	Exterior Roof	Roof Shingle		X		7	
	14							
✓	06		Roof felt Paper		X		7	
	17							
✓	07		Bulk material (Black)		X		7	
	20							
	21							

Condition Assessment Categories (1) Thermal Systems Insulation - Good Condition (2) Thermal Systems Insulation - Damaged (3) Thermal Systems Insulation - Significantly Damaged (4) Surfacing - Good Condition (5) Surfacing - Damaged (6) Surfacing - Significantly Damaged	Asbestos Project (1) Amosite (2) Chrysotile (3) Crocidolite (4) Anthophyllite (5) Tremolite (6) Actinolite	HAZARD Assessment Categories 0 = Good Condition D = Damaged S = Significantly Damaged LPD = Low Potential for Disturbance
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Samples Collected by: [Signature] Date / Time 9-19-18
 Samples Received by: [Signature] Date / Time 9-20-18 10:00am
[Signature] [Signature] 9/20/18 2:05pm

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180420X

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 5902 Howard Street Date: 9-17-18
 Location: Hanahan SC

DESCRIPTION OF EACH SAMPLE AREA						ASSESSMENT OF MATERIALS		
Room Area	Sample ID	Location	Description	Positive (+)	Negative (-)	Asbestos Type	COND Assess	HAZ Assess
08	22	Living Room A	MDF Board	X			7	
	23							
	24							
09	25	Bedroom A	Drywall	X			7	
	26							
	27							
10	28	Living Room A	Joint Compound	X			4	
	29	Kitchen A						
	30	Bedroom A						
	31	Bedroom 2 B						
	32	Living Room B						
	33	Kitchen B						
	34	Bedroom 1 B						
11	35	Shed	Ceiling Panel	X			9	
	36							
	37							
12	38	Kitchen A-L	12" Fiberglass (Boards)	X			7	
	39							
✓	40							

COND Assessment Categories

(1) Thermal Systems Insulation - Good Condition
 (2) Thermal Systems Insulation - Damaged
 (3) Thermal Systems Insulation - Significantly Damaged
 (4) Surfacing - Good Condition
 (5) Surfacing - Damaged
 (6) Surfacing - Significantly Damaged

Asbestos Present

(1) Actinolite
 (2) Chrysotile
 (3) Crocidolite
 (4) Amphibole
 (5) Tremolite
 (6) Actinolite

HAZARD Assessment Categories

0 = Good Condition
 D = Damaged
 3 = Significantly Damaged
 LPD = Low Potential for Disturbance

Samples Collected by: Hunter Hanson Date / Time: 9-19-18
 Samples Received by: [Signature] Date / Time: 9-20-18 10:00am
[Signature] 9/20/18 7:05pm

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18092018

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 5902 Howard Street Date: 9-19-18
 Location: Hanahan SC

Monitoring Area	Sample ID	Location	Description	Priority		ASSESSMENT OF MATERIALS		
				(+)	(-)	Asbestos Type	COND Asses	HAZ Asses
✓ 13	42	Kitchen # 1	Vinyl Floor Floor tile mastic (tan)	✓			7	
✓ 14	44	Kitchen A L2	Vinyl Sheet Flooring (Green/Red)	✓			7	
✓ 15	45	Kitchen Living Room # L2	Vinyl Sheet Flooring (Green/Red)	✓			7	
✓ 15	46	Room B L2	Vinyl Sheet Flooring (Green/Red)	✓			7	
✓ 15	47	Kitchen A L3	Vinyl Sheet Flooring (Grey/Red/Yellow)	✓			7	
✓ 15	48		Vinyl Sheet Flooring (Red/Black)	✓			7	
✓ 16	50	Kitchen A L1	Vinyl Sheet Flooring (Red/Black)	✓			7	
✓ 17	51							
✓ 17	52							
✓ 17	53	Living Room A L1	Vinyl Sheet Flooring (Blue/Black)	✓			7	
✓ 18	54							
✓ 18	55	Living Room A L1	Vinyl mastic (tan)	✓			7	
✓ 18	56							
✓ 17	57	Living Room A L1	Vinyl Sheet Flooring (1" Slate)	✓			7	
✓ 17	58							
✓ 17	59	Living Room A L1	Vinyl Sheet Flooring (1" Slate)	✓			7	
✓ 17	60							
✓ 17	61	Kitchen B L1	Vinyl Sheet Flooring (tan)	✓			7	

CONDITION Assessment Categories
 (1) Thermal Systems Insulation - Good Condition
 (2) Thermal Systems Insulation - Damaged
 (3) Thermal Systems Insulation - Significantly Damaged
 (4) Surfacing - Good Condition
 (5) Surfacing - Damaged
 (6) Surfacing - Significantly Damaged

Asbestos Content
 (1) Amosite
 (2) Chrysotile
 (3) Crocidolite
 (4) Anthophyllite
 (5) Tremolite
 (6) Actinolite

HAZARD Assessment Categories
 G = Good Condition
 D = Damaged
 S = Significantly Damaged
 LPO = Low Potential for Disturbance

Samples Collected by: Hunter Hanna
 Samples Received by: [Signature]

Date / Time: 9-19-18
 Date / Time: 9-20-18 10:00 AM
9/20/18 7:02 PM

TES
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180920X

CHAIN OF CUSTODY FORM
 Asbestos Bulk Samples

Project Name: 5902 Howard Street

Location: Hanahan SC

Date: 9-19-18

Sampling Area	Sample ID	DESCRIPTION OF EACH SAMPLE AREA				ASSESSMENT OF MATERIALS		
		Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Assess	HAZ Assess
✓ 20	L2	Bedroom A L1	Vinyl Sheet Flooring (9" Beige Sq)	X			7	
	L3							
	L4							
✓ 21	B5	L2	Floor Felt Paper		X		7	
	B6							
✓ 22	B7							
	B8	L3	Vinyl Sheet Flooring (Green/Orange wall)				7	
	B9							
✓ 23	B10		nominal					
	B11	L4	Vinyl Sheet Flooring (Green/Red wall)	X			7	
	B12							
✓ 24	B13	Bedroom 3 L3	Vinyl Sheet Flooring (Red Floor)	X			7	
	B14							
✓ 25	B15	Living Room B L1	Vinyl Sheet Flooring (Wood)				7	
	B16							
✓ 26	B17	Kitchen B L1	11" Self Stick Floor tile (Marble)	X			7	
	B18							
✓ 27	B19							

CONDITION Assessment Categories (1) Thermal System Insulation - Good Condition (2) Thermal System Insulation - Damaged (3) Thermal System Insulation - Significantly Damaged (4) Surfacing - Good Condition (5) Surfacing - Damaged (6) Surfacing - Significantly Damaged	Asbestos Present (1) Amosite (2) Chrysotile (3) Crocidolite (4) Anthophyllite (5) Tremolite (6) Actinolite	HAZARD Assessment Categories 0 = Good Condition D = Damaged S = Significantly Damaged LPD = Low Potential for Disturbance
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Samples Collected by: Hunter Hans

Samples Received by: [Signature]

Date / Time: 9-19-18
 Date / Time: 9-20-18 10:00am
9/20/18 7:00pm

