

COMPREHENSIVE ASBESTOS SURVEY

**SUMMERVILLE FIRE & RESCUE STATION II
110 LUDEN DRIVE
SUMMERVILLE, SOUTH CAROLINA 29483**



Prepared For:

**SUMMERVILLE FIRE & RESCUE DEPARTMENT
300 West Second North Street
Summerville, SC 29483
(843) 873-5107**

Performed By:

TES

Trident Environmental Services, Inc.

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

**COMPREHENSIVE
ASBESTOS SURVEY**

Summerville Fire & Rescue Station II
110 Luden Drive
Summerville, SC 29483

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EXECUTIVE SUMMARY

The comprehensive asbestos survey conducted March 31, 2015 of the Summerville Fire & Rescue Station II located at 110 Luden Drive in Summerville, 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
Sink Coating (black)	Category I – Non Friable

RACM – Regulated Asbestos Containing Material

The identified asbestos containing building materials (ACBM's) to include the item(s) listed above. All removal work of the identified ACBM's 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 the Summerville Fire & Rescue Department to perform a comprehensive asbestos survey of the Summerville Fire & Rescue Station II located at 110 Luden Drive in Summerville, South Carolina. The survey was performed in order to satisfy the NESHAP requirements for renovation and/or demolition. The concrete structure is built slab on grade and consists of approximately 4,000 square feet. Interior walls and ceilings are drywall/joint compound. Floor finishes include carpet and ceramic tiles. Roof construction consists of roof core and roof flashing.

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's 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 Hazard 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 March 31, 2015 of the Summerville Fire & Rescue Station II located at 110 Luden Drive in Summerville, 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's 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's. Bulk samples collected were recorded on a Chain-of-Custody record and submitted to Triangle 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). NOB samples were submitted to AmeriSci Richmond laboratory for analyses by Transmission Electron Microscopy (TEM) as required by SCDHEC. AmeriSci is accredited by NVLAP for the analysis of bulk asbestos by PLM (NVLAP Lab Code: 101904-0).

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.

The SCDHEC requires Non-Friable Organically Bound (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, 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.

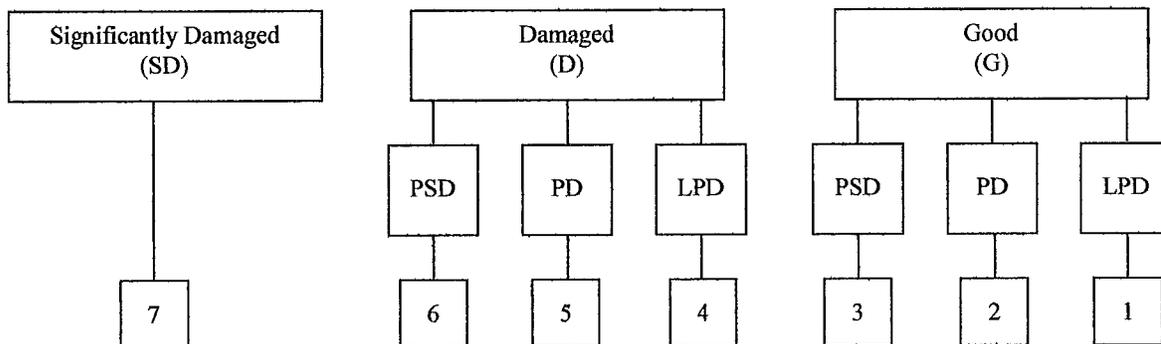
Present Condition

- 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
Fire & Rescue Station II – 110 Luden Drive – Summerville, SC

HOMOGENOUS AREA ID #	DESCRIPTION	ESTIMATED AMOUNT
01	Sink Coating (black)	6 SF
02	Drywall	4,216 SF
03	Joint Compound	4,216 SF
04	Ceiling Texture	1,054 SF
05	Carpet Glue	1,054 SF
06	Felt Paper	1,054 SF
07	Ceramic Tile Grout	260 SF
08	Window/Door Caulk	280 LF
09	Stucco	4,496 SF
10	Roof Core	3,986 SF
11	Roof Flashing	918 SF

ASBESTOS SUMMARY

Fire & Rescue Station II – 110 Luden Drive – Summerville, SC

DESCRIPTION	TYPE	ESTIMATED AMOUNT
Sink Coating (black)	Category I – Non Friable	6 SF

RACM – Regulated Asbestos Containing Material

Asbestos fibers were identified in the Black Sink Coating. Approximately 6 square feet is present and is in good condition. This material is considered Category I – Non Friable Asbestos and is located in the kitchen.

The abatement contractor is responsible for verifying the quantities listed above 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
Fire & Rescue Station II – 110 Luden Drive – Summerville, 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	Sink Coating (black)	Kitchen	N	2.0%	CHRY	7	1
01-02	Sink Coating (black)	Kitchen	N	NT	PACM	7	1
01-03	Sink Coating (black)	Kitchen	N	NT	PACM	7	1
02-04	Drywall	Kitchen	Y	0.0%	ND	7	N/A
02-05	Drywall	TV Room	Y	0.0%	ND	7	N/A
02-06	Drywall	Office	Y	0.0%	ND	7	N/A
03-07	Joint Compound	Kitchen	Y	0.0%	ND	4	N/A
03-08	Joint Compound	TV Room	Y	0.0%	ND	4	N/A
03-09	Joint Compound	Office	Y	0.0%	ND	4	N/A
03-10	Joint Compound	Hall	Y	0.0%	ND	4	N/A
03-11	Joint Compound	Bunk Room	Y	0.0%	ND	4	N/A
04-12	Ceiling Texture	Kitchen	Y	0.0%	ND	4	N/A
04-13	Ceiling Texture	TV Room	Y	0.0%	ND	4	N/A
04-14	Ceiling Texture	Office	Y	0.0%	ND	4	N/A
04-15	Ceiling Texture	Hall	Y	0.0%	ND	4	N/A
04-16	Ceiling Texture	Bunk Room	Y	0.0%	ND	4	N/A
05-17	Carpet Glue	Bunk Room	N	0.0%	ND	7	N/A
05-18	Carpet Glue	Bunk Room	N	0.0%	ND	7	N/A
05-19 T	Carpet Glue	2 nd Floor	N	0.0%	ND	7	N/A
06-20	Felt Paper	Bunk Room	N	0.0%	ND	7	N/A
06-21	Felt Paper	Bunk Room	N	0.0%	ND	7	N/A
06-22 T	Felt Paper	2 nd Floor	N	0.0%	ND	7	N/A
07-23	Ceramic Tile Grout	Bathroom	Y	0.0%	ND	7	N/A
07-24	Ceramic Tile Grout	Bathroom	Y	0.0%	ND	7	N/A
07-25	Ceramic Tile Grout	Bathroom	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 Asbestos Detected |
| TREM – Tremolite | |

ASBESTOS SAMPLE DATA TABLE
Fire & Rescue Station II – 110 Luden Drive – Summerville, 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		
08-26	Window/Door Caulk	Exterior	N	0.0%	ND	7	N/A
08-27	Window/Door Caulk	Exterior	N	0.0%	ND	7	N/A
08-28 T	Window/Door Caulk	Exterior	N	0.0%	ND	7	N/A
09-29	Stucco	Exterior	Y	0.0%	ND	4	N/A
09-30	Stucco	Exterior	Y	0.0%	ND	4	N/A
09-31	Stucco	Exterior	Y	0.0%	ND	4	N/A
09-32	Stucco	Exterior	Y	0.0%	ND	4	N/A
09-33	Stucco	Exterior	Y	0.0%	ND	4	N/A
10-34	Roof Core	Roof	N	0.0%	ND	7	N/A
10-35	Roof Core	Roof	N	0.0%	ND	7	N/A
10-36 T	Roof Core	Roof	N	0.0%	ND	7	N/A
11-37	Roof Flashing	Roof	N	0.0%	ND	7	N/A
11-38	Roof Flashing	Roof	N	0.0%	ND	7	N/A
11-39 T	Roof Flashing	Roof	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

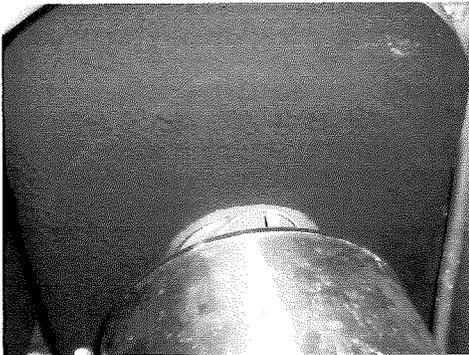
Asbestos Inspection

The comprehensive asbestos survey conducted of the Summerville Fire & Rescue Station II located at 110 Luden Drive in Summerville, South Carolina **did** reveal the presence of ACM's. Renovation or demolition activities that will disturb the ACM's 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's to prevent possible occupational exposures.

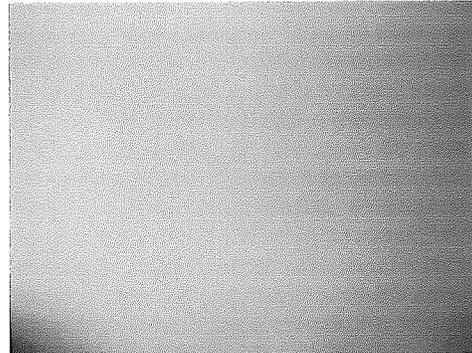
Demolition activities in public and commercial buildings are regulated by OSHA, EPA, and SCDHEC. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, "National Emissions Standards for Hazardous Air Pollutants" (NESHAP), and South Carolina Department of Health and Environmental Control (SCDHEC) 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

Fire & Rescue Station II – 110 Luden Drive – Summerville, SC



**HOMOGENEOUS AREA 01
SINK COATING (BLACK)**



**HOMOGENEOUS AREA 02
DRYWALL**



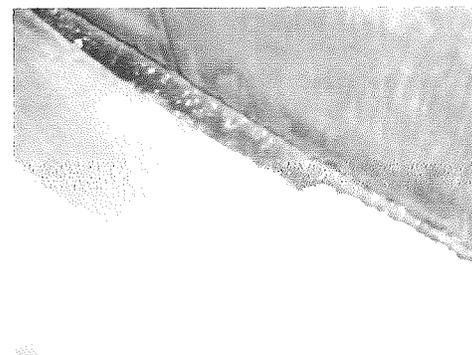
**HOMOGENEOUS AREA 03
JOINT COMPOUND**



**HOMOGENEOUS AREA 04
CEILING TEXTURE**



**HOMOGENEOUS AREA 05
CARPET GLUE**



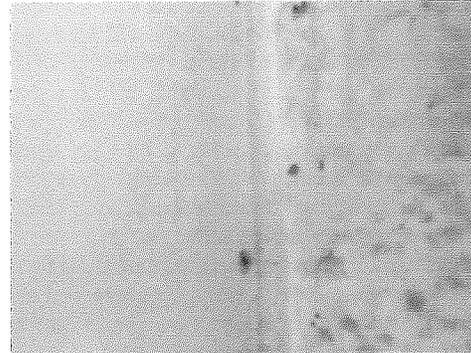
**HOMOGENEOUS AREA 06
FELT PAPER**

PHOTOGRAPHS

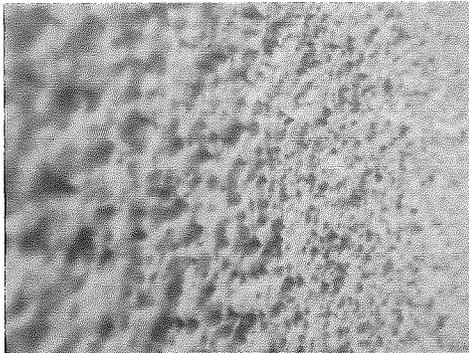
Fire & Rescue Station II – 110 Luden Drive – Summerville, SC



HOMOGENEOUS AREA 07
CERAMIC TILE GROUT



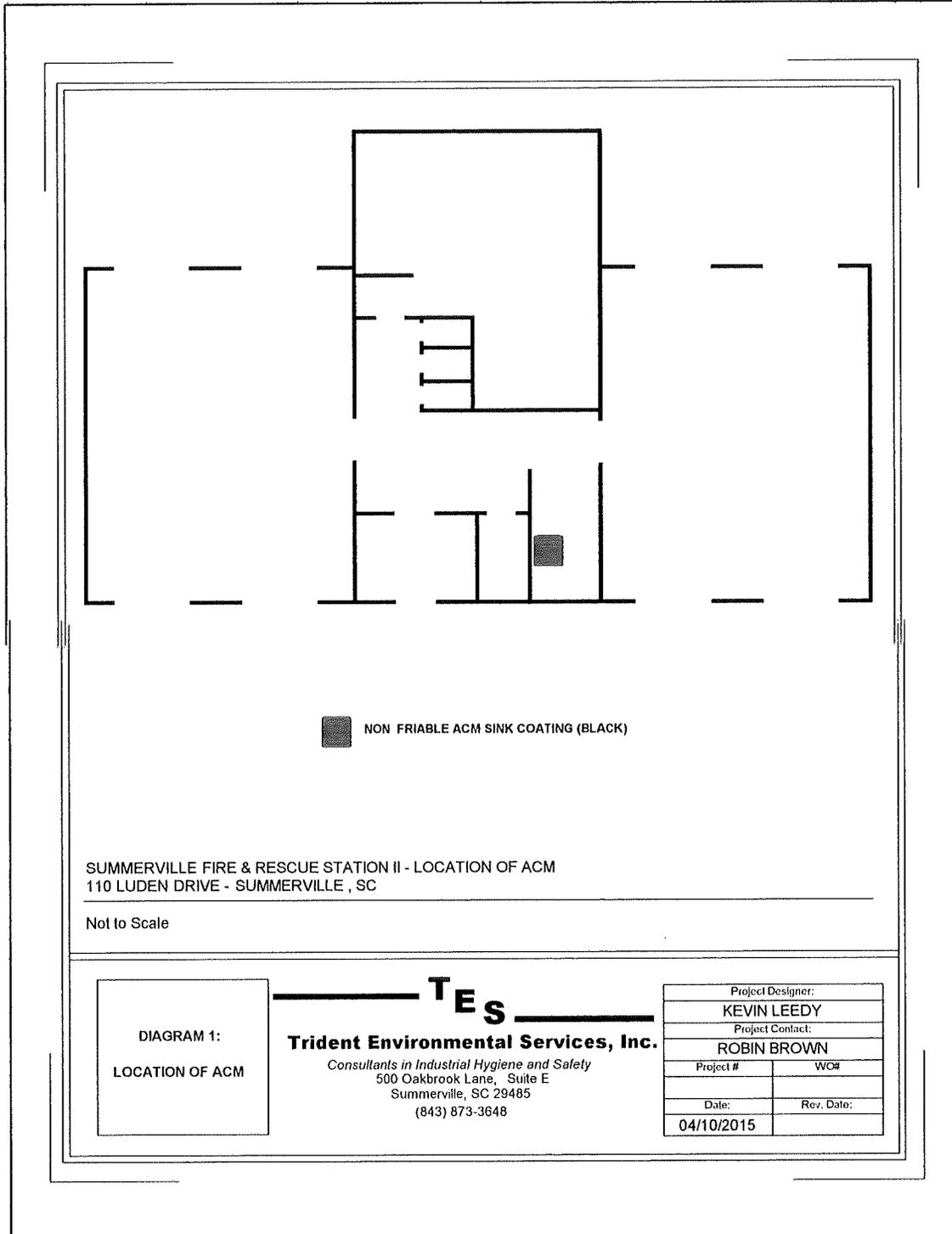
HOMOGENEOUS AREA 08
WINDOW DOOR CAULK



HOMOGENEOUS AREA 09
STUCCO



HOMOGENEOUS AREAS 10, 11
ROOF CORE/ROOF FLASHING

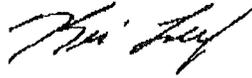


**COMPREHENSIVE
ASBESTOS SURVEY**

Inspection Date: 3/31/2015

Preparation Date: 4/10/2015

Inspected & Prepared By:



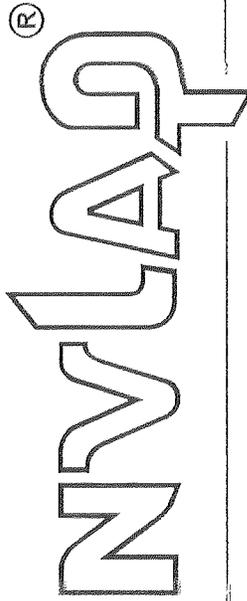
Kevin E Leedy
S.C. Inspector License ASB – 20589

SCDHEC ISSUED
Asbestos ID Card

Kevin Leedy

	Expires:
CONSULTBI	ASB-20589 02/03/16
CONSULTPD	ASB-22878 07/11/15
AIRAMPLER	ASB-20498 02/02/16

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:

BULK ASBESTOS FIBER ANALYSIS

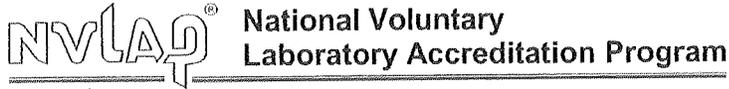
This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2015-04-01 through 2016-03-31

Effective dates



For the National Institute of Standards and Technology



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
E-Mail: info@tesclab.com
URL: http://www.tesclab.com

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 200794-0

NVLAP Code Designation / Description

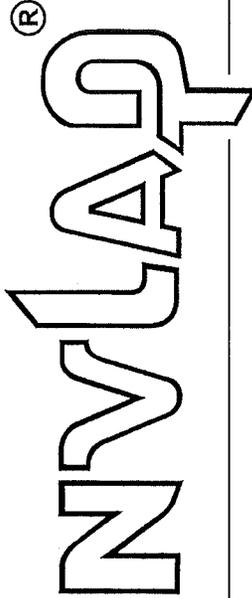
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

2015-04-01 through 2016-03-31

Effective dates

For the National Institute of Standards and Technology

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.*

BULK 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).*

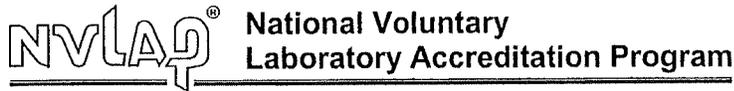
2014-07-01 through 2015-06-30

Effective dates



For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)



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
E-Mail: bkeith@amerisci.com
URL: <http://www.amerisci.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101904-0

NVLAP Code Designation / Description

18/A01	EPA 600/M4-82-020: Interim Method for 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

2014-07-01 through 2015-06-30

Effective dates

For the National Institute of Standards and Technology

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B, Middleham, 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 #: 1504071

DATE OF RECEIPT: 4/7/2015
 DATE OF ANALYSIS: 4/7/2015
 DATE OF REPORT: 4/7/2015

CLIENT JOB/ #: 110 Luden St.

JOB SITE: Summerville, SC

ANALYST: F. Jiang

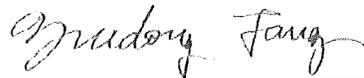
TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
1	01-01 / Black adhesive	2% Chrysotile		98%
2	01-02 /	Positive Stop		
3	01-03 /	Positive Stop		
4	02-04 / White powder, brown fibers	NAD	15% Cellulose	85%
5	02-05 / White powder, brown fibers	NAD	15% Cellulose	85%
6	02-06 / White powder, brown fibers	NAD	15% Cellulose	85%
7	03-07 / White powder	NAD		100%
8	03-08 / White powder	NAD		100%
9	03-09 / White powder	NAD		100%
10	03-10 / White powder	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA 600/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. 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 shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

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

Reviewed By Authorized Signatory:



Feng Jiang, A/S Senior Geologist, Laboratory Director
 Yuedong Fang, 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 #: 1504071

DATE OF RECEIPT: 4/7/2015
 DATE OF ANALYSIS: 4/7/2015
 DATE OF REPORT: 4/7/2015

CLIENT JOB/ #: 110 Luden St.

JOB SITE: Summerville, SC

ANALYST: F. Jiang

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
11	03-11 / White powder	NAD		100%
12	04-12 / White powder	NAD		100%
13	04-13 / White powder	NAD		100%
14	04-14 / White powder	NAD		100%
15	04-15 / White powder	NAD		100%
16	04-16 / White powder	NAD		100%
17	05-17 / Yellow adhesive	NAD		100%
18	05-18 / Yellow adhesive	NAD		100%
19	05-19 /	Not Analyzed		100%
20	06-20 / 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/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. 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 shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

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

Reviewed By Authorized Signatory:



Feng Jiang, AIS Senior Geologist, Laboratory Director
 Yuedang Fang, 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 #: 1504071

DATE OF RECEIPT: 4/7/2015
 DATE OF ANALYSIS: 4/7/2015
 DATE OF REPORT: 4/7/2015

CLIENT JOB/ #: 110 Luden St.

JOB SITE: Summerville, SC

ANALYST: F. Jiang

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
21	06-21 / Black fibers	NAD	98% Cellulose	2%
22	06-22 /	Not Analyzed		100%
23	07-23 / Light gray powder	NAD		100%
24	07-24 / Light gray powder	NAD		100%
25	07-25 / Light gray powder	NAD		100%
26	08-26 / White adhesive	NAD		100%
27	08-27 / White adhesive	NAD		100%
28	08-28 /	Not Analyzed		100%
29	09-29 / White powder	NAD		100%
30	09-30 / White powder	NAD		100%

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA 600/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. 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 shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

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

Reviewed By Authorized Signatory:



Feng Jiang, MS Senior Geologist, Laboratory Director
 Yuedong Fang, 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 #: 1504071

DATE OF RECEIPT: 4/7/2015
DATE OF ANALYSIS: 4/7/2015
DATE OF REPORT: 4/7/2015

CLIENT JOB/ #: 110 Luden St.

JOB SITE: Summerville, SC

ANALYST: F. Jiang

TESC SAMPLE #	CLIENT SAMPLE ID & GROSS DESCRIPTION	ESTIMATED % ASBESTOS	NON ASBESTOS % FIBERS	NON FIBROUS % MATERIALS
31	09-31 / White powder	NAD		100%
32	09-32 / White powder	NAD		100%
33	09-33 / White powder	NAD		100%
34	10-34 / Black tar-like	NAD	20% Fiberglass	80%
35	10-35 / Black tar-like	NAD	20% Fiberglass	80%
36	10-36 /	Not Analyzed		100%
37	11-37 / Black tar-like	NAD	20% Fiberglass	80%
38	11-38 / Black tar-like	NAD	20% Fiberglass	80%
39	11-39 /	Not Analyzed		100%

Total Samples/Layers Analyzed: 32

Samples are analyzed in accordance with "Interim Method for the Determination of Asbestos in Bulk Insulation Samples", EPA 600/M4-82-020, Dec. 1982 and "Method for the Determination of Asbestos in Bulk Building Materials", EPA 600/R-93/116, July 1993. 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 shall not be reproduced, except in full written approval of Triangle Environmental Service Center, Inc. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This test report relates only to the item(s) tested.

NVLAP Lab Code: 200794-0

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

Reviewed By Authorized Signatory:



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

Tuesday, April 07, 2015

Page 4 of 4

TRIANGLE ENVIRONMENTAL SERVICE CENTER, INC.

13509 East Boundary Road, Suite B • Midlothian • VA • 13112
Tel: 804-739-1751 • Fax: 804-739-1753

SUMMARY OF BULK ASBESTOS ANALYSIS BY TRANSMISSION ELECTRON MICROSCOPY

CLIENT: Trident Environmental Services, Inc. TESC LOGIN#: 150407N

500 Oakbrook Lane, Suite E
Summerville, SC 29485

DATE OF RECEIPT: 04/07/15

CLIENT PROJECT#: Summerville Fire Station – 110 Luden St.
Summerville, SC

DATE OF ANALYSIS: 04/09/15

DATE OF REPORT: 04/10/15

ANALYST: J. Mayes

72 Hour Results

TESC SAMPLE #	CLIENT SAMPLE #	SAMPLE WEIGHT(GRAM)	HEAT SENSITIVE ORGANIC %	ACID SOLUBLE INORGANIC %	NON-ASBESTOS INORGANIC %	INSOLUBLE NON-ASBESTOS INORGANIC %	ASBESTOS % BY TEM
1	05-19	0.120	82.6	16.7	0.7		NAD
2	06-22	0.198	75.3	20.4	4.3		NAD
3	08-28	0.215	88.7	10.8	0.5		NAD
4	10-36	0.391	60.4	13.6	26.0		NAD
5	11-39	0.348	63.8	12.9	23.3		NAD

Total Sample(s) Analyzed: 5

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 NVLAP accredited TEM lab, NVLAP Lab ID # 101904-0. TEM analysis by EPA 600/R-93/116 (not covered by NVLAP Bulk accreditation).
LEGEND: NAD= No Asbestos Detected; NA= Not Analyzed; PS= Positive Slop; Trace= < 1%; NVA=No Visual Asbestos

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

Reviewed By: Authorized Signatory:

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 Phone (843) 673-3648
 Fax (843) 621-1767

150407 I

CHAIN OF CUSTODY FORM
Asbestos Bulk Samples

Project Name: Summerville Fire Station Date: 3/31/15
 Location: 110 Luden

DESCRIPTION OF EACH SAMPLE AREA					ASSESSMENT OF MATERIALS			
Homog Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Assess	HAZ Assess
	01	Kitchen	sink coating		X			
	02	↓	↓		X			
	03	↓	↓		X			
	04		Drywall	X				
	05		↓	X				
	06		↓	X				
	07	Kitchen	jt compound	X				
	08		↓	X				
	09		↓	X				
	10		↓	X				
	11		↓	X				
	12	Kitchen	ceiling texture	X				
	13	TU Room	↓	X				
	14	Office	↓	X				
	15	Hall	↓	X				
	16	Bunk Room	↓	X				
	17	Bunk Room	carpet glue		X			
	18	Bunk Room			X			
*	19	2nd Flr			X			
	20	Bunk Room	felt paper		X			
	21	Bunk Room			X			

- 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: [Signature]
 Samples Received by: [Signature]

Date / Time: 4/3/15
 Date / Time: 3/16/15
10:00

TES
 Trident Environmental Services, Inc.
 Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 Phone (843) 873-3848
 Fax (843) 821-1787

150407 I

CHAIN OF CUSTODY FORM
Asbestos Bulk Samples

Project Name: Summerville Fire Station Date: 3/31/15
 Location: 110 Luden Dr - Summerville SC

DESCRIPTION OF EACH SAMPLE AREA				ASSESSMENT OF MATERIALS				
Homeg Area	Sample ID	Location	Description	Friable (+)	Friable (-)	Asbestos Type	COND Assess	HAZ Assess
7	06 22	2 nd Flr	Self paper		X			
	07 23	Bathroom	car tile glue	X				
	24			X				
	25			X				
	08 26	Exterior	windows/doors		X			
8	27				X			
	28				X			
	09 29		stucco finish	X				
	30			X				
	31			X				
10	32			X				
	33			X				
	34	Boop	core		X			
	35				X			
	36				X			
11	37		flashings		X			
	38				X			
	39				X			

- | | | |
|---|---|--|
| 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: Leedy Date / Time: 4/3/15
 Samples Received by: [Signature] Date / Time: 4/10/15
10:00