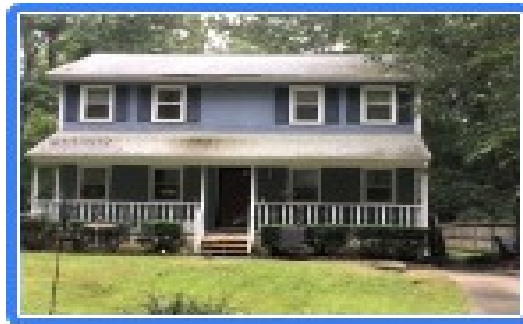




Focus Asbestos Survey for Demolition of

**Residential Dwelling,
2303 Cardinal Dr., Durham, N.C.
North Carolina**

Prepared by Harry William Boyd, A1 Consulting Group for the City of Durham,
North Carolina



Submitted by:

A1 Consulting Group, Inc.

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Asbestos Inspection Report

Introduction

Scope of the Investigation

This report documents the focus asbestos inspection and survey of the residential dwelling located at 2303 Cardinal Dr., Durham, North Carolina conducted on Sept. 24, 2020 by Harry William Boyd of A1 Consulting Group, Inc.

Background

The structure is an approximately 1800 sq. ft. two story residential dwelling over a crawl space. The structure is wood frame with drywall interior walls and wood exterior walls and a shingle roof. Ceilings are drywall with spray texture. Floors are largely carpet over wood, with wood laminate over 12” parquet pattern floor tiles in the kitchen and dining room. One upstairs bathroom has a laminate floor over wood. The attic contains flexible ducts and fibrous insulation. The crawl space is insulated with fiberglass (labelled), and all ducts and plumbing in the crawl space are uninsulated.

Description of study

Investigation

The structure was visually inspected for suspected asbestos containing materials (ACM) by a North Carolina accredited inspector. Bulk samples of all suspect ACM were collected. This report details ACM as identified at the time of inspection only. A focused inspection was conducted for the presence of asbestos containing building materials (ACBM). **Laboratory results indicated that ASBESTOS WAS NOT DETECTED.**

EMSL Analytical, Inc. analyzed the bulk samples. The laboratory is accredited by the National Voluntary Laboratory Accredited Program (NVLAP Accreditation sponsored by the National Institute of Standards and Technology (NIST)). A Copy of their accreditation certificate is included in Appendix A. The samples were analyzed by the accepted method of polarized light microscopy (PLM) using EPA’s “Method for the Determination of Asbestos in Bulk Building Materials”, EPA/600/R-93/116. The laboratory analytical report is included in Appendix .

In compliance with the AHERA regulations, material is considered an Asbestos Containing Material (ACM) when it contains greater than one percent asbestos. Likewise, in this report, any material containing concentrations greater than one percent asbestos will be considered “positive”. Occasionally, materials containing less than one percent asbestos, or not sampled, are assumed to be a “positive” asbestos containing material at the discretion of the inspectors. A narrative discussion of the AHERA ACM types (i.e., thermal systems insulation, miscellaneous and surfacing materials) found in the structure is included in this report where relevant. Bulk



sample information estimated quantities of individual asbestos containing materials, material characterization of asbestos containing materials appears on Inspection Form.

Conclusions

ASBESTOS-CONTAINING MATERIAL WAS NOT DETECTED

The structure may be demolished according to applicable North Carolina regulations and disposed of as construction waste.

Harry William Boyd
NC Inspector 10788

Asbestos Containing Building Materials Inspection Form

Building Name: Occupied Residence

Building Number: 2303 Cardinal St., Durham, NC

Page 1 of 1

Inspector: H. W. Boyd

Inspection Date: 9/24/2020

Homogeneous Area	ACBM Type	Sample #s	Friable	Est. Quantity	Quant. Unit	Accessibility	Disturbance/Damage Assessment	% Dmg.	Asbestos/Comments
F1 -12" wood pattern floor tiles	M1	F1-1a,b	NF	375	sf	NR	PD	<1	NAD
glue/mastic		F1-2a,b							under wood floor, kitchen and dining room
WB1 -gypsum wallboard	M	WB1-1	NF	4,500	sf	WR	PD	<1	NAD
		WB1-2							walls and ceilings throughout
A11 -fibrous attic insulation	M	A11-1	F	875	sf	NR	PD	<1	NAD
		A11-2							throughout attic
F2 - stone pattern flooring	M	F2-1a,b	NF	35	sf	WR	PD	<1	NAD
glue/mastic		F2-2a,b							upstairs bathroom
R1 - roofing shingles	M1	R1-1	NF	2,500	sf	NR	PD	<1	NAD
glue/mastic		R1-2							throughout roof
DS1 - ceiling texture	S	S1-1	F	1,750	sf	NR	PD	<1	NAD
		S1-2							ceilings throughout
		S1-3							

ACBM Type
 S=Surfacing
 T=Thermal Insulation
 M=Miscellaneous
 M1=Category I Nonfriable Misc.
 M2=Category II Nonfriable Misc.

Friable
 F = Friable
 NF = Non Friable

Accessibility
 WR = Within Reach
 NR = Not Reachable

Disturbance/Damage Potential
 PD = Potential for Damage
 PSD = Potential for Significant Damage
 D = Damaged
 SD = Significantly Damaged

Asbestos/Comments
 NAD = No Asbestos Detected
 Chrys. = Chrysotile
 Amos. = Amosite
 Trem. = Tremolite
 Croc. = Crocidolite



EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600 Morrisville, NC 27560

Tel/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com> / raleighlab@emsl.com

EMSL Order: 292010020

Customer ID: NFE72

Customer PO:

Project ID:

Attention: Bill Boyd
A1 Consulting Group, Inc.
117 International Drive
Morrisville, NC 27560

Phone: (919) 469-4800

Fax:

Received Date: 09/25/2020 12:00 PM

Analysis Date: 09/28/2020

Collected Date: 09/24/2020

Project: 19-090, Durham FEMA, 2303 Cardinal

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2303-DS1-1 <small>292010020-0001</small>	Ceiling Texture	White/Beige/Gold Non-Fibrous Homogeneous		60% Ca Carbonate 10% Micaceous Flakes 30% Non-fibrous (Other)	None Detected
2303-DS1-2 <small>292010020-0002</small>	Ceiling Texture	White/Beige/Gold Non-Fibrous Homogeneous		60% Ca Carbonate 10% Micaceous Flakes 30% Non-fibrous (Other)	None Detected
2303-DS1-3 <small>292010020-0003</small>	Ceiling Texture	White Non-Fibrous Homogeneous		60% Ca Carbonate 5% Mica 35% Non-fibrous (Other)	None Detected
2303-F1-1-Flooring <small>292010020-0004</small>	Flooring - 1st Floor	Brown Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
2303-F1-1-Mastic <small>292010020-0004A</small>	Flooring - 1st Floor	Tan Fibrous Homogeneous	5% Cellulose 2% Synthetic	10% Ca Carbonate 83% Non-fibrous (Other)	None Detected
2303-F1-2-Flooring <small>292010020-0005</small>	Flooring - 1st Floor	White Non-Fibrous Homogeneous		10% Ca Carbonate 10% Gypsum 80% Non-fibrous (Other)	None Detected
2303-F1-2-Mastic <small>292010020-0005A</small>	Flooring - 1st Floor	Clear Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2303-F2-1 <small>292010020-0006</small>	Flooring - Upstairs Bath	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2303-F2-2 <small>292010020-0007</small>	Flooring - Upstairs Bath	Brown Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
2303-AI1-1 <small>292010020-0008</small>	Attic Ins	Pink Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
2303-AI1-2 <small>292010020-0009</small>	Attic Ins	Pink Fibrous Homogeneous	90% Min. Wool	10% Non-fibrous (Other)	None Detected
2303-WB1-1-Sheetrock <small>292010020-0010</small>	Sheetrock Wallboard System	Brown/Gray Fibrous Homogeneous	20% Cellulose <1% Glass	20% Ca Carbonate 30% Gypsum 30% Non-fibrous (Other)	None Detected
2303-WB1-1-Joint Compound <small>292010020-0010A</small>	Sheetrock Wallboard System	White Non-Fibrous Homogeneous		60% Ca Carbonate 40% Non-fibrous (Other)	None Detected
2303-WB1-2-Drywall <small>292010020-0011</small>	Sheetrock Wallboard System	Brown/Gray Fibrous Homogeneous	15% Cellulose	20% Ca Carbonate 10% Gypsum 55% Non-fibrous (Other)	None Detected
2303-WB1-2-Joint Compound <small>292010020-0011A</small>	Sheetrock Wallboard System	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected

Initial report from: 09/30/2020 09:57:31



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<http://www.EMSL.com> / raleighlab@emsl.com

EMSL Order: 292010020
Customer ID: NFE72
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
2303-R1-1	Roofing Shingle	Black Fibrous Homogeneous	20% Glass	15% Quartz 30% Ca Carbonate 35% Non-fibrous (Other)	None Detected
292010020-0012					
2303-R1-2	Roofing Shingle	Black Fibrous Homogeneous	20% Glass	2% Quartz 78% Non-fibrous (Other)	None Detected
292010020-0013					

Analyst(s) _____

Billy Barnes (8)

Roxsee Stover (9)

Billy Barnes, Asbestos Lab Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from: 09/30/2020 09:57:31

A1 Consulting Group, Inc.
 formerly: NFE Technologies, Inc.
 Planners | Engineers | Designers
 Landscape | Environmental Scientists
 Construction Managers & Special Inspectors



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 Morrisville, NC 27560
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PLM

SAMPLE CUSTODY RECORD FORM

A1 PROJECT NUMBER: 19-090 SAMPLING DATE: 9/24/20
 NAME OF PROJECT: Durham FEMA
 COLLECTED BY: Bill Boyd / Phillip Payne LABORATORY: EMSL
 SAMPLES LOCATION: 2303 Cardinal SAMPLE LOT NUMBER: _____
 TURN-AROUND TIME REQUESTED ON RESULTS: 72 hr

Sample Number	Laboratory Number	Sample Description	Analysis Requested Comments
2303-DS1-1		Ceiling texture	PLM
-2		"	
-3		"	
2303 F1-1		Flooring - 1 st Floor	PLM
-2		"	
2303 F2-1		Flooring upstairs both	
-2		"	
2303 AE1-1		Asbestos m/s	
-2		"	
2303 WB1-1		Sheetrock wallboard system	
-2		"	

SAMPLES RELINQUISHED BY:
 NAME: Bill Boyd / Phillip Payne DATE AND TIME: 9/25/20
 AFFILIATION: A1 Consulting Group SIGNATURE: *[Signature]*
 SAMPLES TRANSPORTED /SHIPPED BY: Hand
 SHIPPING COMPANY: _____ DATE AND TIME OF SHIPMENT: _____

SAMPLES RECEIVED BY (LABORATORY PERSON):
 NAME: *[Signature]* DATE AND TIME: 9/25/20 12p
 LAB AFFILIATION: _____ SIGNATURE: _____

(Insert or Stamp here Receipt from the Laboratory)

Client: A1 Consulting Group, Inc.	Test: PLM	#Samples: 13
Order: 292010020	Project: 19-090, Durham FEMA, 2303 Cardinal	
Disposition: Discard after 11/24/2020		

A1 Consulting Group, Inc.
formerly: NFE Technologies, Inc.
Planners | Engineers | Designers
Landscape | Environmental Scientists
Construction Managers & Special Inspectors



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www.a1consultinggroup.com

P2052

SAMPLE CUSTODY RECORD FORM

A1 PROJECT NUMBER: 19-090

SAMPLING DATE: 9/24/20

NAME OF PROJECT: Durham FEMA

COLLECTED BY: Bill Boyd / Phillip Payne

LABORATORY: _____

SAMPLES LOCATION: 2303 Cardinal

SAMPLE LOT NUMBER: _____

TURN-AROUND TIME REQUESTED ON RESULTS: 72 hr

Sample Number	Laboratory Number	Sample Description	Analysis Requested Comments
<u>2303 R1-1</u>		<u>Roofing shingle</u>	<u>PLM</u>
<u>2</u>		<u>" "</u>	<u>0</u>

SAMPLES RELINQUISHED BY:
NAME: Bill Boyd / Phillip Payne

DATE AND TIME: 9/25/20

AFFILIATION: A1 Consulting Group

SIGNATURE: [Signature]

SAMPLES TRANSPORTED /SHIPPED BY: Hand

SHIPPING COMPANY: _____

DATE AND TIME OF SHIPMENT: _____

SAMPLES RECEIVED BY (LABORATORY PERSON):

NAME: [Signature]

DATE AND TIME: 9/25/20 12p

LAB AFFILIATION: _____

SIGNATURE: _____

(Insert or Stamp here Receipt from the Laboratory)

A1 Consulting Group, Inc. 19-090, Durham FEMA, 2303 Cardinal 9/25/2020 12:0 PLM	TAT: 72 Hour Bulk	Order ID: 292010020 No Samples: 13 Due: 09/30 12:00 PM Fax:
---	-----------------------------	--

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200671-0

EMSL Analytical, Inc.
Morrisville, NC

*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 17025:2017.
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).*

2020-04-01 through 2021-03-31

Effective Dates



Dana S. Glaman
For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
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Mr. Billy Barnes
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ASBESTOS FIBER ANALYSIS

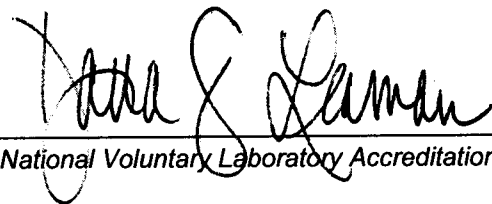
NVLAP LAB CODE 200671-0

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

North Carolina
Asbestos Accreditation



Harry W Boyd
1013 Indian Trail Dr
Raleigh, NC 27609

127428

EXPIRATION			
01-31-2021			
DOB	SEX	HT	WT
10-03-1946	M	5'7"	130
CLASS		#	EXP
INSPECTOR		10788	01-21
MGMT PLANNER		20539	01-21