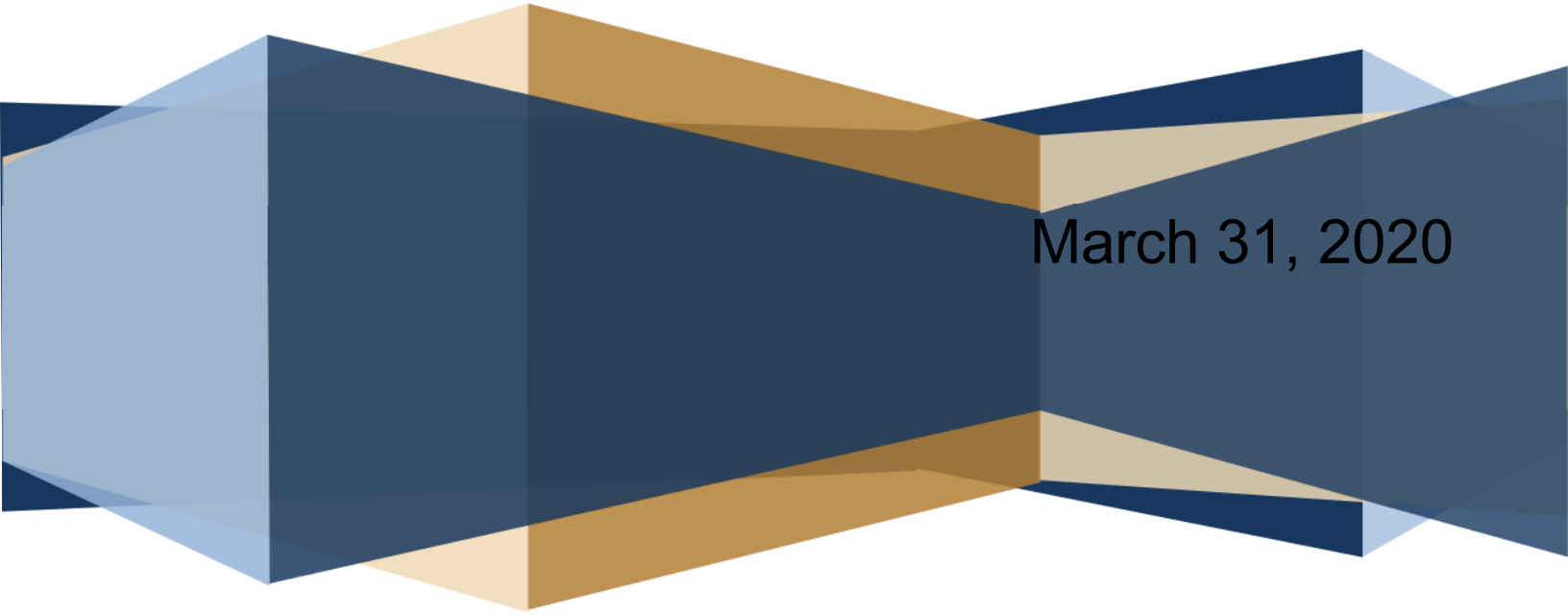
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

360 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1088B



March 31, 2020

MAXIS ENGINEERING

March 31, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
360 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1088B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 360 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,400 square-foot (sq ft), brick-sided residential structure on a partial basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on January 8, 2020, by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt, roofing caulk, window glazing, and brick and mortar; (interior) – floor tile and grout, wall tile and grout, black wall felt, black floor felt, plaster walls, textured ceiling, HVAC tape, and tile and grout from fireplace. A total of thirty-eight (38) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES

is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

360 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2001B36-001A	MM-1	2	Side Door – Brick/mortar	ND	ND
2001B36-002A	MM-2	2	Back Door – Brick/mortar	ND	ND
2001B36-003A	MM-3	1	Black felt behind brick - side	ND	ND
2001B36-004A	MM-4	1	Black felt behind brick – near back door	ND	ND
2001B36-005A	MM-5	2	Roof above Side Door – Shingle/felt	ND	ND
2001B36-006A	MM-6	2	Roof above Back Door – Shingle/felt	ND	ND
2001B36-007A	MM-7	1	Black felt behind pine wall	ND	ND
2001B36-008A	MM-8	1	Black felt behind pine wall	ND	ND
2001B36-009A	**MM-9**	**1**	**Basement – HVAC tape**	**60% (Layer 1)**	**Chrysotile**
2001B36-010A	**MM-10**	**1**	**Basement – HVAC tape**	**60% (Layer 1)**	**Chrysotile**

2001B36-011A	MM-11	1	Basement – Smear from Duct work	ND	ND
2001B36-012A	MM-12	1	Basement – Smear from Duct work	ND	ND
2001B36-013A	MM-13	2	Kitchen – Tan floor tile and grout	ND	ND
2001B36-014A	MM-14	2	Kitchen – Tan floor tile and grout	ND	ND
2001B36-015A	MM-15	2	Kitchen – White back splash tile and grout	ND	ND
2001B36-016A	MM-16	2	Kitchen – White back splash tile and grout	ND	ND
2001B36-017A	MM-17	1	Bedroom #1 – Textured Ceiling	ND	ND
2001B36-018A	MM-18	1	Dining Room – Textured Ceiling	ND	ND
2001B36-019A	MM-19	2	Fireplace – Tile and grout	ND	ND
2001B36-020A	MM-20	2	Fireplace – Tile and grout	ND	ND
2001B36-021A	MM-21	1	Den – Textured ceiling	ND	ND
2001B36-022A	MM-22	2	Den – Plaster wall	ND	ND
2001B36-023A	MM-23	2	Bedroom #1 – Plaster wall	ND	ND
2001B36-024A	MM-24	3	Dining Room – Plaster wall	ND	ND
2001B36-025A	MM-25	2	Bedroom #2 – Plaster wall	ND	ND
2001B36-026A	MM-26	2	Bathroom – Plaster wall	ND	ND
2001B36-027A	MM-27	2	Bathroom – Tan floor tile and grout	ND	ND

2001B36-028A	MM-28	3	Bathroom – Tan floor tile and grout	ND	ND
2001B36-029A	MM-29	3	Bathroom Bath – Tile and grout	ND	ND
2001B36-030A	MM-30	3	Bathroom Bath – Tile and grout	ND	ND
22001B36-031A	**MM-31**	**1**	**Back of Bedroom #1 – Window glaze**	**2% (Layer 1)**	**Chrysotile**
2001B36-032A	**MM-32**	**1**	**Front of Dining Room – Window glaze**	**2% (Layer 1)**	**Chrysotile**
2001B36-033A	MM-33	2	Bathroom – Decorative tile	ND	ND
2001B36-034A	MM-34	2	Bathroom – Decorative tile	ND	ND
2001B36-035A	**MM-35**	**1**	**Chimney on Roof - Caulk**	**5% (Layer 1)**	**Chrysotile**
2001B36-036A	MM-36	1	Chimney on Roof - Caulk	ND	ND
2001B36-037A	MM-37	1	Den – Felt under hardwood floors	ND	ND
2001B36-038A	MM-38	1	Den – Felt under hardwood floors	ND	ND

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, five (5) of the thirty-eight (38) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples						
Material	**Location** (Sample ID)	**Layer**	**Condition of Material**	**Friable Yes/No**	**NESHAP Category****	**Asbestos Content** (Type)
HVAC tape	MM-9 (2001B35-009A)	1	Intact	Yes	RACM	10% (Chrysotile)
HVAC tape	MM-10 (2001B35-010A)	1	Intact	Yes	RACM	10% (Chrysotile)
window glazing	MM-31 (2001B35-031A)	1	Intact	No	CAT II	5% (Chrysotile)
window glazing	MM-32 (2001B35-032A)	1	Intact	No	CAT II	5% (Chrysotile
caulk	MM-35 (2001B35-035A)	1	Intact	No	CAT II	60% (Chrysotile)

Analytical results are included in **Appendix B**. A Sample Location Map has been included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Five (5) of the thirty-seven (38) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated window glazing, HVAC Tape in the basement, and caulk associated with the roof (fireplace).

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

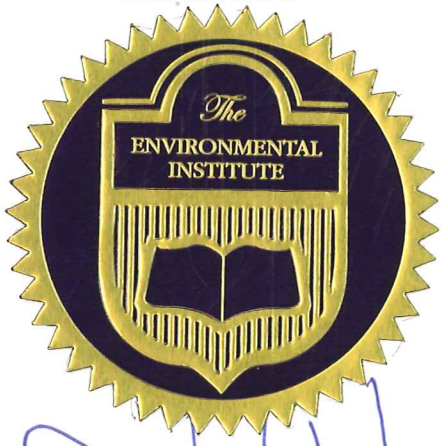
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

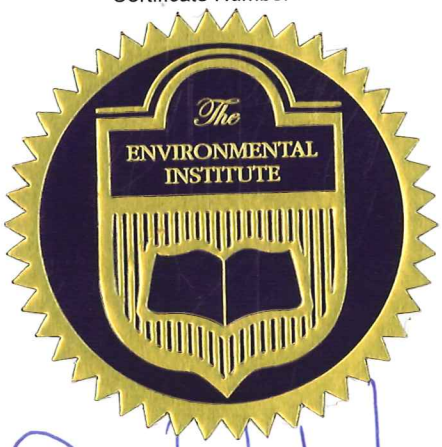
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



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TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B36

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	360 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1.19.1088B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1.8.2020
Contact:	Rebecca Donnelly	Phone #:	770.694.6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1.19.1088B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	[signature]	Date/Time: 1/10/20 8:00
Received by:	[signature]	Date/Time: ~~1/10/20 8:30~~
Relinquished by:	[signature]	Date/Time: ~~1/10/20 2:12~~
Received by:		Date/Time:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: [signature] Date/Time: 1/10/2020 1425 Method of Shipment: CR

Asbestos COC 7.6.18

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B36

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail Suite 110
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie/BJ
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 360 Hammond
Project Number: 1-19-1088B
Sampling Date: 1-8-2020
Phone #: 770-644-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1088B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	ST	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16	mm 36				
17	mm 37				
18	mm 38				
19					
20					

Relinquished by: Ronnie Lister — Date/Time: 1/10/20 8:00
Received by: [signature] — Date/Time: 1-10-20 8:30
Relinquished by: [signature] — Date/Time: 1-10-20 2:15
Received by: — Date/Time:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY
Lab Recipient: [signature] Date/Time: 1/10/2020 1425 Method of Shipment: CR

Asbestos COC 7.6.18

AES
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2001B36-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 2	2001B36-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2001B36-002A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 2	2001B36-002A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 1	2001B36-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	2001B36-004A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM5 Layer: 1	2001B36-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 2	2001B36-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	2001B36-006A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 2	2001B36-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2001B36-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2001B36-008A		ND	ND	ND	ND	ND	ND	

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AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM9 Layer: 1	2001B36-009A		60	ND	ND	ND	ND	ND	
MM10 Layer: 1	2001B36-010A		60	ND	ND	ND	ND	ND	
MM11 Layer: 1	2001B36-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	2001B36-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	2001B36-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 2	2001B36-013A		ND	ND	ND	ND	ND	ND	

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NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM14 Layer: 1	2001B36-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 2	2001B36-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2001B36-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	2001B36-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2001B36-016A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 2	2001B36-016A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM17 Layer: 1	2001B36-017A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM18 Layer: 1	2001B36-018A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM19 Layer: 1	2001B36-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	2001B36-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	2001B36-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	2001B36-020A		ND	ND	ND	ND	ND	ND	

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PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 1	2001B36-021A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM22 Layer: 1	2001B36-022A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM22 Layer: 2	2001B36-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2001B36-023A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM23 Layer: 2	2001B36-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	2001B36-024A		ND	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM24 Layer: 2	2001B36-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 3	2001B36-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	2001B36-025A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM25 Layer: 2	2001B36-025A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 1	2001B36-026A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 2	2001B36-026A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM27 Layer: 1	2001B36-027A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 2	2001B36-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	2001B36-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	2001B36-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 3	2001B36-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	2001B36-029A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM29 Layer: 2	2001B36-029A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 3	2001B36-029A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 1	2001B36-030A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 2	2001B36-030A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 3	2001B36-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	2001B36-031A		2	ND	ND	ND	ND	ND	Paint included as binder

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ND = None Detected

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NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM32 Layer: 1	2001B36-032A		2	ND	ND	ND	ND	ND	Paint included as binder
MM33 Layer: 1	2001B36-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 2	2001B36-033A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 1	2001B36-034A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 2	2001B36-034A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 1	2001B36-035A		5	ND	ND	ND	ND	ND	

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ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B36**
Project Name: **360 HAMMOND**
Project Number: **1-19-1088B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM36 Layer: 1	2001B36-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	2001B36-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	2001B36-038A		ND	ND	ND	ND	ND	ND	

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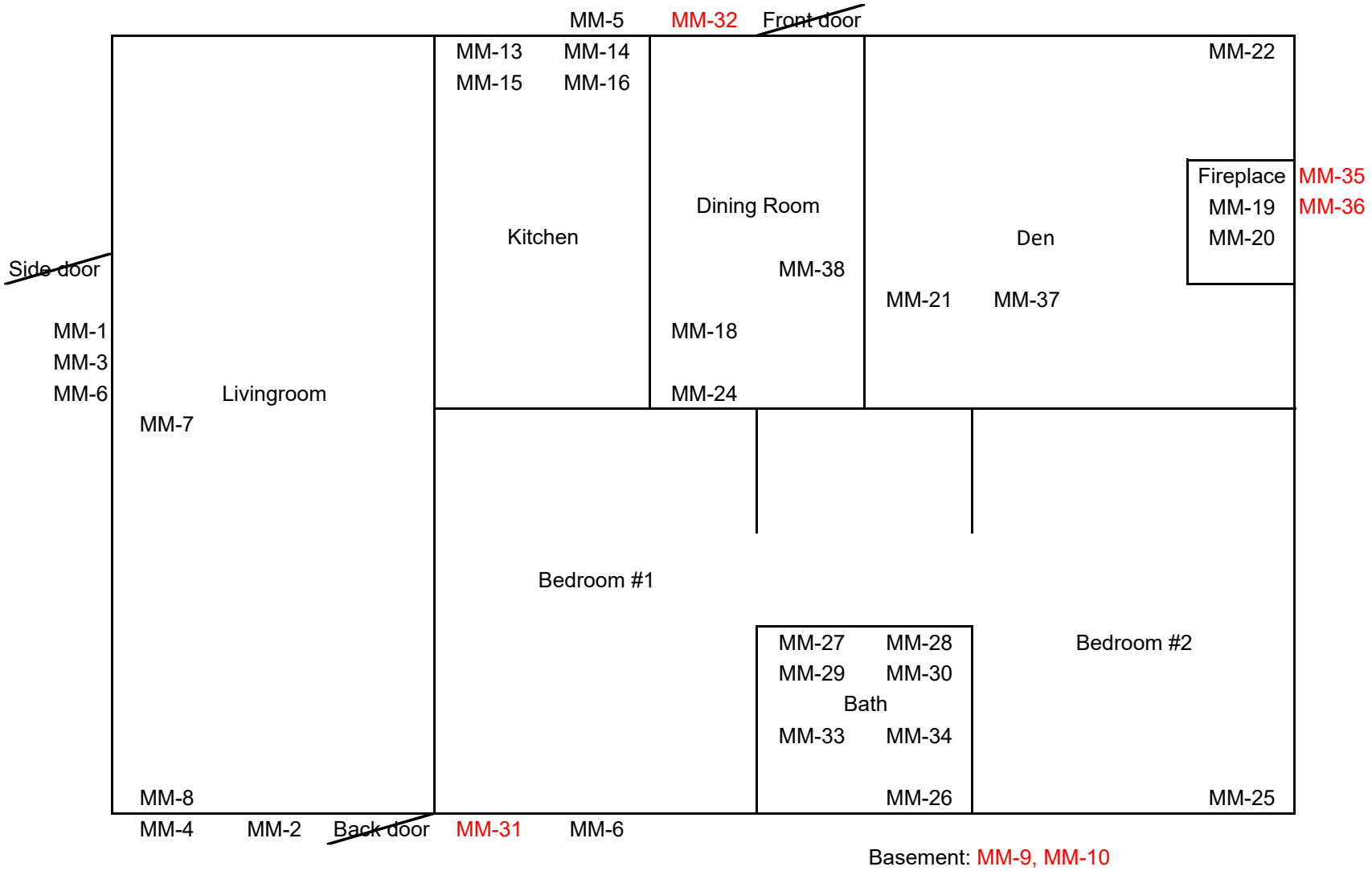
APPENDIX C

Sample Location Map



360 Hammond Drive

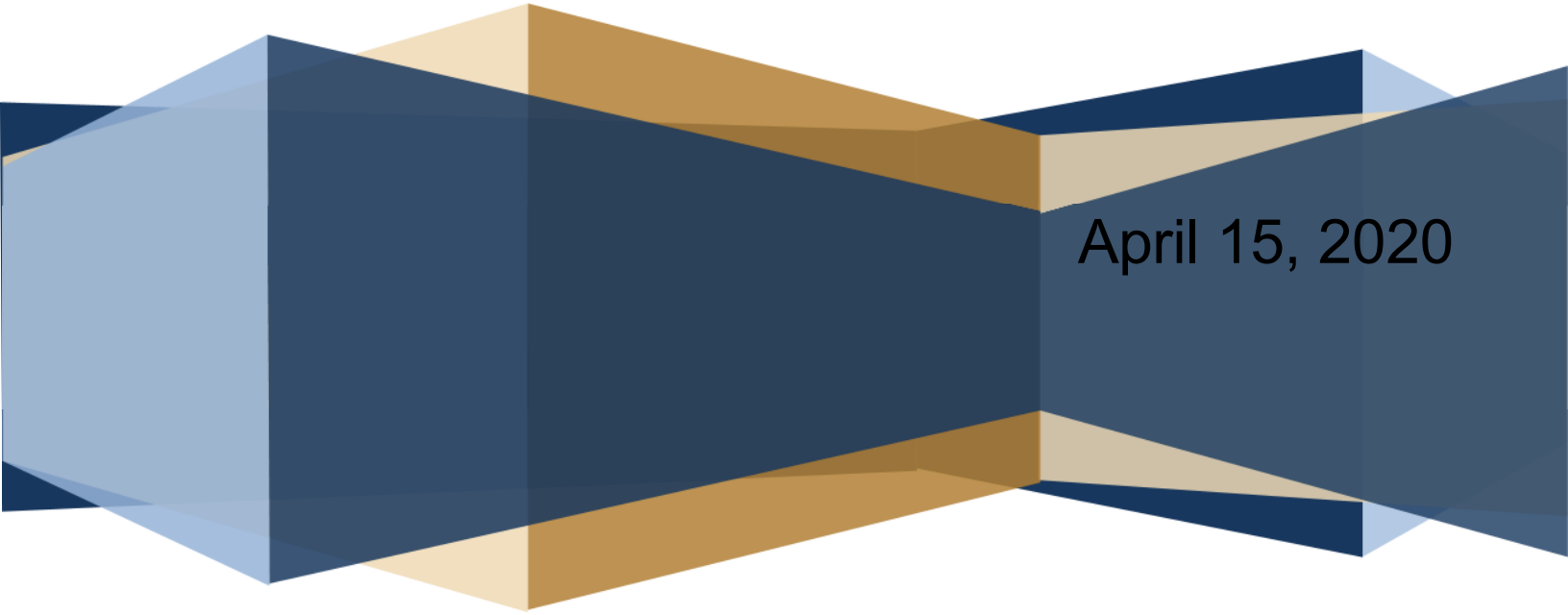
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

390 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1113B



April 15, 2020

MAXIS ENGINEERING

April 15, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
390 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1113B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 390 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,300 square-foot (sq ft), partial brick-sided, residential structure on a partial basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on January 30, 2020 by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (interior) – fireplace brick and mortar, floor and wall tile and grout, joint compound and tape, plaster on walls, vinyl flooring and mastic, black wall felt, HVAC tape; (exterior) – brick and mortar, roofing, window glaze and caulk. A total of forty-two (42) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

390 Hammond Drive

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2002030-001A	MM-1	3	Den Fireplace – Blue tile/grout	ND	ND
2002030-002A	MM-2	3	Den Fireplace – Blue tile/grout	ND	ND
2002030-003A	MM-3	3	Den Fireplace – White tile/grout	ND	ND
2002030-004A	MM-4	3	Den Fireplace – White tile/grout	ND	ND
2002030-005A	MM-5	2	Bathroom – Black border tile/grout wall	ND	ND
2002030-006A	MM-6	2	Bathroom – Black border tile/grout wall	ND	ND
2002030-007A	MM-7	2	Bathroom – White tile/grout wall	ND	ND
2002030-008A	MM-8	2	Bathroom – White tile/grout wall	ND	ND
2002030-009A	MM-9	2	Bathroom – Floor tile grout white and black checkered	ND	ND
2002030-010A	MM-10	2	Bathroom – Floor tile grout white and black checkered	ND	ND
2002030-011A	**MM-11**	1	Kitchen – Brown floor tile/grout	ND	ND

2002030-011B		**2**	**Kitchen – Brown floor tile/grout**	**50% (Layer 2)**	**Chrysotile**
2002030-011C		3	Kitchen – Brown floor tile/grout	ND	ND
2002030-012A	**MM-12**	1	Kitchen – Brown floor tile/grout	ND	ND
2002030-012B		**2**	**Kitchen – Brown floor tile/grout**	**50% (Layer 2)**	**Chrysotile**
2002030-012C		3	Kitchen – Brown floor tile/grout	ND	ND
2002030-013A	MM-13	2	Breakfast Room – Ceiling joint tape compound	ND	ND
2002030-014A	MM-14	2	Breakfast Room – Wall joint tape compound	ND	ND
2002030-015A	MM-15	3	Room off Kitchen to Basement – Wall joint tape compound	ND	ND
2002030-016A	MM-16	2	Room off Kitchen to Basement – Ceiling tape compound	ND	ND
2002030-017A	**MM-17**	**3**	**Room off Kitchen to Basement – Joint tape compound**	**2% (Layer 1)**	**Chrysotile**
2002030-018A	MM-18	2	Dining Room – Plaster wall	ND	ND
2002030-019A	MM-19	2	Den – Plaster wall	ND	ND
2002030-020A	MM-20	2	Front Bedroom – Plaster wall	ND	ND
2002030-021A	MM-21	2	Back Bedroom – Plaster wall	ND	ND
2002030-022A	MM-22	2	Bathroom – Plaster wall	ND	ND
2002030-023A	MM-23	2	Front Bedroom – Behind plaster black paper	ND	ND
2002030-024A	MM-24	2	Den – Behind plaster black paper	ND	ND

2002030-025A	**MM-25**	**1**	**Basement – A/C duct work tape**	**60% (Layer 1)**	**Chrysotile**
2002030-026A	**MM-26**	**1**	**Basement – A/C duct work tape**	**60% (Layer 1)**	**Chrysotile**
2002030-027A	**MM-27**	**2**	**Basement Entrance – Three (3) layers of vinyl tile glued to sub wood flooring**	**5% (Layer 1)**	**Chrysotile**
2002030-027B		2	Basement Entrance – Three (3) layers of vinyl tile glued to sub wood flooring	ND	ND
2002030-028A	**MM-28**	**2**	**Basement Entrance – Three (3) layers of vinyl tile glued to sub wood flooring**	**5% (Layer 1)**	**Chrysotile**
2002030-028B		2	Basement Entrance – Three (3) layers of vinyl tile glued to sub wood flooring	ND	ND
2002030-029A	MM-29	2	Front of House Left side of Garage – Brick and mortar	ND	ND
2002030-030A	MM-30	2	Right of Front Door – Brick and mortar	ND	ND
2002030-031A	**MM-31**	**1**	**Outside Breakfast Room – Window glaze**	**3% (Layer 1)**	**Chrysotile**
2002030-032A	MM-32	1	Window beside Front Door – Window glaze	ND	ND
2002030-033A	MM-33	2	Front of House left of Garage – Felt behind brick	ND	ND
2002030-034A	MM-34	2	Back Patio – Shingle and felt	ND	ND
2002030-035A	MM-35	2	Carport – Shingle and felt	ND	ND
2002030-036A	MM-36	2	Right side of Front Door – Paper/felt behind brick and mortar	ND	ND
2002030-037A	MM-37	1	Chimney on Roof – Caulk	ND	ND
2002030-038A	MM-38	1	Chimney on Roof – Caulk	ND	ND

2002030-039A	MM-39	1	Chimney on Roof – Caulk	ND	ND
2002030-040A	MM-40	1	Vent Pipe on Roof – Caulk	ND	ND
2002030-041A	MM-41	1	Vent Pipe on Roof – Caulk	ND	ND
2002030-042A	MM-42	1	Base of Chimney on Roof - Caulk	ND	ND

Note:

ND = No Asbestos Detected

- Breakfast room and room off of the kitchen are sheet rock walls and ceiling. All other rooms are plaster walls and ceilings.

RESULTS

Based on the laboratory analytical results, eight (8) of the forty-two (42) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category	Asbestos Content (Type)
Backing	MM-11 (2002030-011B)	2	Intact	No	CAT II	50% (Chrysotile)
Backing	MM-12 (2002030-012B)	2	Intact	No	CAT II	50% (Chrysotile)
Joint Compound	MM-17 (2002030-017A)	1	Intact	No	CAT II	2% (Chrysotile)
HVAC tape	MM-25 (2002030-025A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC tape	MM-26 (2002030-026A)	1	Intact	Yes	RACM	60% (Chrysotile)
Yellow vinyl	MM-27 (2002030-027A)	1	Intact	No	CAT I	5% (Chrysotile)

Yellow vinyl	MM-28 (2002030-028A)	1	Intact	No	CAT I	5% (Chrysotile)
Window gazing	MM-31 (2002030-031A)	1	Intact	No	CAT II	3% (Chrysotile)

Analytical results are included in **Appendix B**. A Sample Location Map is included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Eight (8) of the forty-two (42) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with flooring in the kitchen, joint compound in the room off the kitchen, HVAC Tape in the basement, flooring in the basement entrance, and window glazing.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

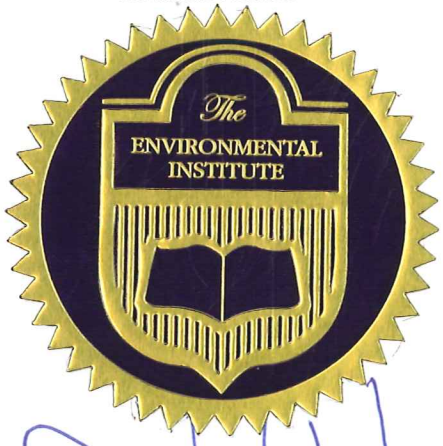
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
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EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

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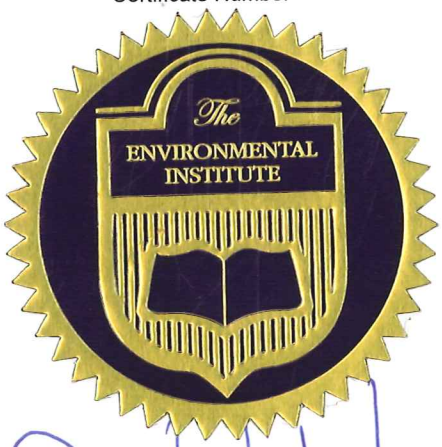
September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2002030

Page 1 of 3

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	390 Hammond
Address:	501 Hickory Ridge Trail	Project Number:	1-19-1113B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-30-20
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BT	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1113B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lesta	Date/Time:	1-30-20 14:00
Received by:		Date/Time:	1-31-20 12:15
Relinquished by:		Date/Time:	1-31-20 3:30
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: | Date/Time: 1/31/2020 1530 | Method of Shipment: CR

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

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3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2002030

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	390 Hammond
Address:	501 Hickory Ridge Trail	Project Number:	1-19-1113B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-30-20
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BT	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1113B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		~~ACM~~	5T	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16	mm 36				
17	mm 37				
18	mm 38				
19	mm 39				
20	mm 40				

Relinquished by:	Ronnie Lester	Date/Time:	1-30-20 14:00
Received by:		Date/Time:	1-31-20 12:15
Relinquished by:		Date/Time:	1-31-20 3:30
Received by:		Date/Time:	

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Work Order: 2002030

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie / BJ
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 390 Hammond
Project Number: 1-19-1113B
Sampling Date: 1-30-20
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1113B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 41		Acm	ST	
2	mm 42		1	1	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Relinquished by: Ronnie Lesta — Date/Time: 1-30-20 14:00
Received by: [signature] — Date/Time: 1-31-20 12:57
Relinquished by: [signature] — Date/Time: 1-31-20 3:30
Received by: — Date/Time:

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FOR LAB USE ONLY

Lab Recipient: [signature] Date/Time: 1/31/2020 1530 Method of Shipment: CR

Analytical Environmental Services, Inc

Date: 7-Feb-20

Client: Maxis Engineering, LLC
Project: 390 HAMMOND
Lab ID: 2002030

Case Narrative

Samples 2002030-011A; 2002030-012A had three types of flooring each;
Samples 2002030-027A; 2002030-028A had two types of flooring each.
Client will be charged for 6 extra samples.

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2002030-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 2	2002030-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 3	2002030-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2002030-002A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 2	2002030-002A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 3	2002030-002A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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QC Analyst: Yelena Khanina

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NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM3 Layer: 1	2002030-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 2	2002030-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 3	2002030-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	2002030-004A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 2	2002030-004A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 3	2002030-004A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

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AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM5 Layer: 1	2002030-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 2	2002030-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	2002030-006A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 2	2002030-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2002030-007A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 2	2002030-007A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

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Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM8 Layer: 1	2002030-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 2	2002030-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2002030-009A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 2	2002030-009A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 1	2002030-010A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 2	2002030-010A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

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NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM11 Layer: 1	2002030-011A		ND	ND	ND	ND	ND	ND	Brown/Black vinyl
MM11 Layer: 1	2002030-011B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM11 Layer: 2	2002030-011B		50	ND	ND	ND	ND	ND	Backing
MM11 Layer: 1	2002030-011C		ND	ND	ND	ND	ND	ND	Yellow vinyl
MM11 Layer: 2	2002030-011C		ND	ND	ND	ND	ND	ND	Backing
MM11 Layer: 3	2002030-011C		ND	ND	ND	ND	ND	ND	Wood

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM12 Layer: 1	2002030-012A		ND	ND	ND	ND	ND	ND	Brown/Black vinyl
MM12 Layer: 1	2002030-012B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM12 Layer: 2	2002030-012B		50	ND	ND	ND	ND	ND	Backing
MM12 Layer: 1	2002030-012C		ND	ND	ND	ND	ND	ND	Yellow vinyl
MM12 Layer: 2	2002030-012C		ND	ND	ND	ND	ND	ND	Backing
MM12 Layer: 3	2002030-012C		ND	ND	ND	ND	ND	ND	Wood

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NVLAP LAB CODE 102082-0

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM13 Layer: 1	2002030-013A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM13 Layer: 2	2002030-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	2002030-014A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM14 Layer: 2	2002030-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2002030-015A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM15 Layer: 2	2002030-015A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM15 Layer: 3	2002030-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2002030-016A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM16 Layer: 2	2002030-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	2002030-017A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM17 Layer: 2	2002030-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 3	2002030-017A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM18 Layer: 1	2002030-018A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM18 Layer: 2	2002030-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	2002030-019A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM19 Layer: 2	2002030-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	2002030-020A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM20 Layer: 2	2002030-020A		ND	ND	ND	ND	ND	ND	

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AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 1	2002030-021A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM21 Layer: 2	2002030-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	2002030-022A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM22 Layer: 2	2002030-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2002030-023A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM23 Layer: 2	2002030-023A		ND	ND	ND	ND	ND	ND	Paint included as binder

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM24 Layer: 1	2002030-024A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM24 Layer: 2	2002030-024A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM25 Layer: 1	2002030-025A		60	ND	ND	ND	ND	ND	
MM26 Layer: 1	2002030-026A		60	ND	ND	ND	ND	ND	
MM27 Layer: 1	2002030-027A		5	ND	ND	ND	ND	ND	Yellow vinyl
MM27 Layer: 2	2002030-027A		ND	ND	ND	ND	ND	ND	Felt

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM27 Layer: 1	2002030-027B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM27 Layer: 2	2002030-027B		ND	ND	ND	ND	ND	ND	Backing
MM28 Layer: 1	2002030-028A		5	ND	ND	ND	ND	ND	Yellow vinyl
MM28 Layer: 2	2002030-028A		ND	ND	ND	ND	ND	ND	Felt
MM28 Layer: 1	2002030-028B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM28 Layer: 2	2002030-028B		ND	ND	ND	ND	ND	ND	Backing

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM29 Layer: 1	2002030-029A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 2	2002030-029A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 1	2002030-030A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 2	2002030-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	2002030-031A		3	ND	ND	ND	ND	ND	Paint included as binder
MM32 Layer: 1	2002030-032A		ND	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM33 Layer: 1	2002030-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 2	2002030-033A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 1	2002030-034A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 2	2002030-034A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 1	2002030-035A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 2	2002030-035A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM36 Layer: 1	2002030-036A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM36 Layer: 2	2002030-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	2002030-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	2002030-038A		ND	ND	ND	ND	ND	ND	
MM39 Layer: 1	2002030-039A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 1	2002030-040A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Feb-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2002030**
Project Name: **390 HAMMOND**
Project Number: **1-19-1113B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM41 Layer: 1	2002030-041A		ND	ND	ND	ND	ND	ND	
MM42 Layer: 1	2002030-042A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
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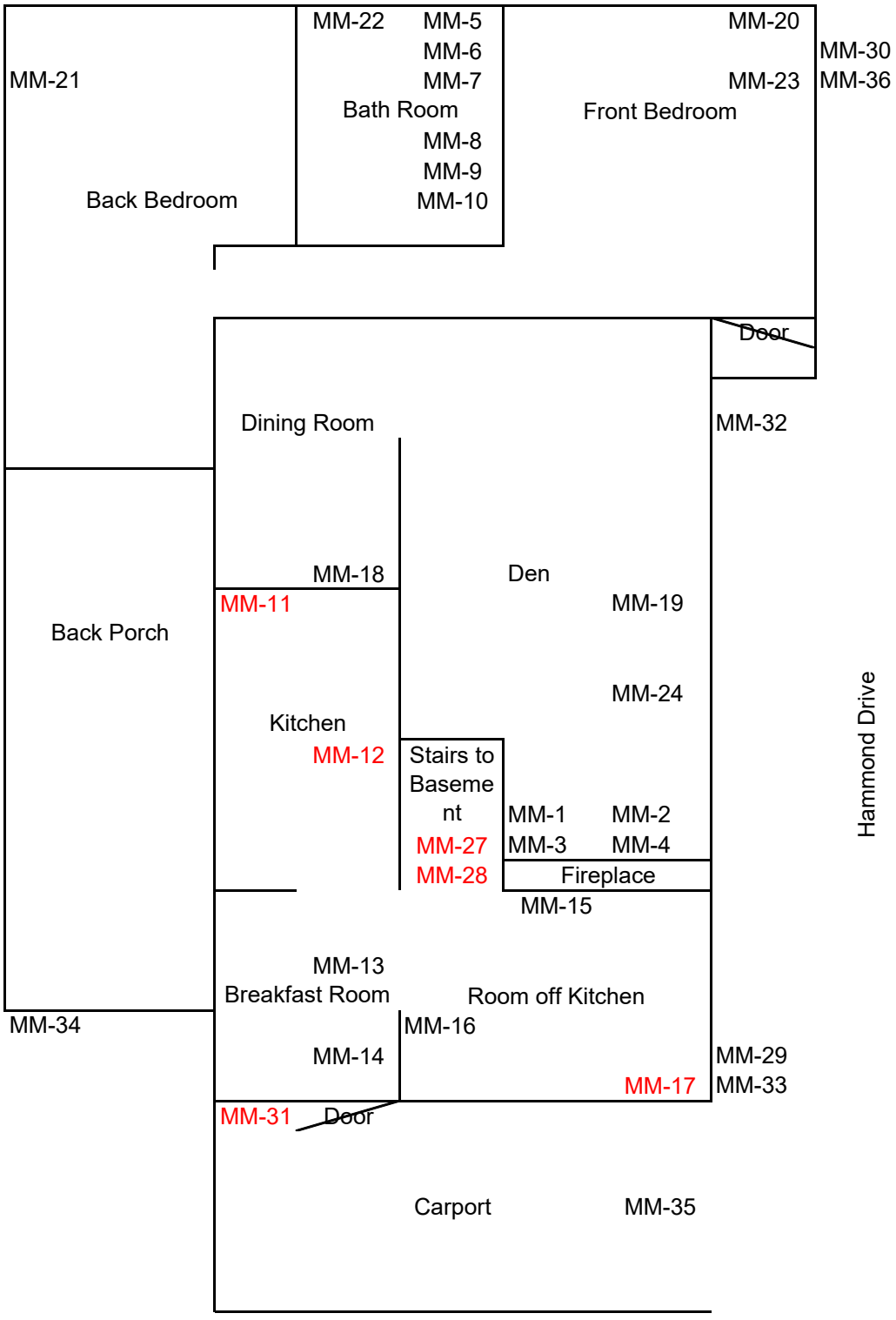
End of Report

APPENDIX C

Sample Location Map



Note: MM-25 and MM-26 were collected in the basement
MM-37 through MME-42 were collected on the roof

390 Hammond Drive

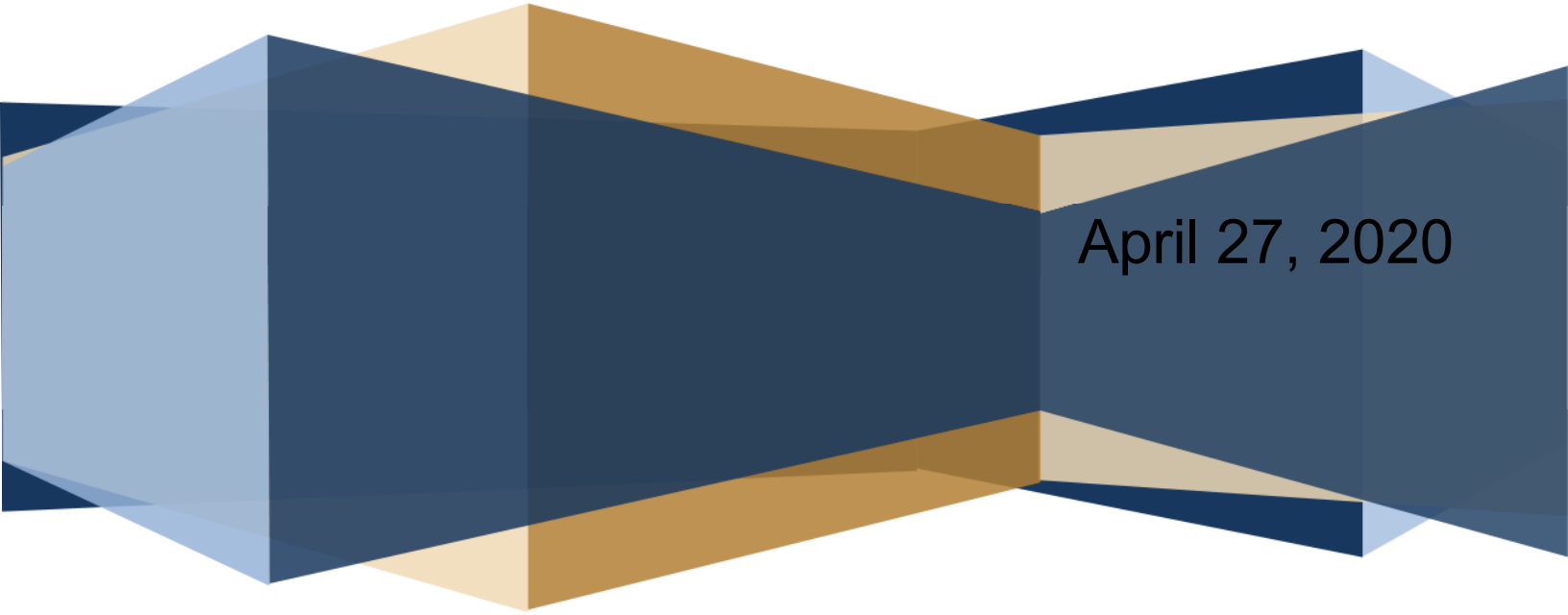
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

446 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1087B



April 27, 2020

MAXIS ENGINEERING

April 27, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
446 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1087B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 446 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 2,200 square-foot (sq-ft), partial brick-sided, residential structure on a full basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on November 19, 2019, by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (interior) – floor tile and mastic, floor tile and grout, wall tile and grout, joint compound and tape, HVAC tape and black wall felt; (exterior) – siding, brick and mortar, roofing, window glaze and caulk. A total of forty-two (42) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary

Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

446 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
1911N26-001A	MM-1	1	Kitchen – vinyl floor	ND	ND
1911N26-002A	MM-2	1	Kitchen – vinyl floor	ND	ND
1911N26-003A	**MM-3**	**3**	**Front door – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-004A	**MM-4**	**3**	**Living room – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-005A	**MM-5**	**3**	**Dining room ceiling – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-006A	**MM-6**	**3**	**Upstairs landing outside bedroom – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-007A	**MM-7**	**3**	**Attic bedroom – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-008A	**MM-8**	**3**	**Bedroom #1 – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**

1911N26-009A	MM-9	1	Window glaze – living room window	ND	ND
1911N26-010A	**MM-10**	**1**	**Window glaze – upstairs Bedroom #2**	**2%**	**Chrysotile**
1911N26-011A	MM-11	3	Bathroom – tan floor tile and grout	ND	ND
1911N26-012A	MM-12	3	Bathroom – tan floor tile and grout	ND	ND
1911N26-013A	MM-13	2	Bathroom – tan wall tile and grout	ND	ND
1911N26-014A	MM-14	2	Bathroom – tan wall tile and grout	ND	ND
1911N26-015A	MM-15	2	Bathroom – brown trim tile and grout	ND	ND
1911N26-016A	MM-16	1	Bathroom – brown trim tile and grout	ND	ND
1911N26-017A	**MM-17**	**1**	**Siding – front door entry**	**20%**	**Chrysotile**
1911N26-018A	**MM-18**	**1**	**Siding – side of house**	**20%**	**Chrysotile**
1911N26-019A	MM-19	1	Black felt – front door entry	ND	ND
1911N26-020A	MM-20	1	Black felt – side of house	ND	ND
1911N26-021A	MM-21	2	Brick and mortar – garage front	ND	ND
1911N26-022A	MM-22	2	Brick and mortar - step entrance	ND	ND
1911N26-023A	MM-23	2	Shingle and felt – front door entrance	ND	ND
1911N26-024A	MM-24	2	Shingle and felt – right front of house	ND	ND

1911N26-025A	MM-25	1	Felt - behind brick	ND	ND
Basement					
1911N26-026A	**MM-26**	**2**	**Red floor tile and mastic**	**10% (Layer 1)**	**Chrysotile**
1911N26-027A	**MM-27**	**2**	**Red floor tile and mastic**	**10 % (Layer 1)**	**Chrysotile**
1911N26-028A	**MM-28**	**2**	**Tan floor tile and mastic**	**10% (Layer 1)**	**Chrysotile**
1911N26-029A	**MM-29**	**2**	**Tan floor tile and mastic**	**10% (Layer 1)**	**Chrysotile**
1911N26-030A	MM-30	2	Bathroom – shower - decorative wall tile and grout	ND	ND
1911N26-031A	MM-31	2	Bathroom – shower - decorative wall tile and grout	ND	ND
1911N26-032A	MM-32	3	Bathroom – shower - floor tile and grout	ND	ND
1911N26-033A	MM-33	2	Bathroom – shower – floor tile and grout	ND	ND
1911N26-034A	MM-34	2	Bathroom – floor tile and grout	ND	ND
1911N26-035A	MM-35	2	Bathroom – floor tile and grout	ND	ND
1911N26-036A	MM-36	1	Bathroom – wall tile and grout	ND	ND
1911N26-037A	MM-37	1	Bathroom – wall tile and grout	ND	ND
1911N26-038A	**MM-38**	**3**	**Hallway from bathroom to shower**	**2% (Layer 1)**	**Chrysotile**

1911N26-039A	**TSI-1**	**1**	**HVAC tape - garage**	**60%**	**Chrysotile**
1911N26-040A	**TSI-2**	**1**	**HVAC tape – Air handler**	**60%**	**Chrysotile**
1911N26-041A	**MM-39**	**3**	**Bottom of steps to the right – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N26-042A	MM-40	1	Bottom of steps to the left – joint compound and tape	ND	ND

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, seventeen (17) of the forty-two (42) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category**	Asbestos Content (Type)
Joint compound	MM-3 (1911N26-003A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-4 (1911N26-004A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM- 5 (1911N26-005A)	1	Intact	No	CAT II	40% (Chrysotile)
Joint compound	MM-6 (1911N26-006A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-7 (1911N26-007A)	1	Intact	No	CAT II	2% (Chrysotile)

Joint compound	MM-8 (1911N26-008A)	1	Intact	No	CAT II	2% (Chrysotile)
Window glaze/caulk	MM-10 (1911N26-010A)	1	Intact	No	CAT II	2% (Chrysotile)
Siding	MM-17 (1911N26-017A)	1	Intact	No	CAT II	20% (Chrysotile)
Siding	MM-18 (1911N26-018B)	1	Intact	No	CAT II	20% (Chrysotile)
Floor tile	MM-26 (1911N26-026A)	1	Not-Intact	No	CAT I	10% (Chrysotile)
Floor tile	MM-27 (1911N26-027A)	1	Not-Intact	No	CAT I	10% (Chrysotile)
Floor tile	MM-28 (1911N26-028A)	1	Not-Intact	No	CAT I	10% (Chrysotile)
Floor tile	MM-29 (1911N26-029A)	1	Not-Intact	No	CAT I	10% (Chrysotile)
Joint compound	MM-38 (1911N26-038A	1	Intact	No	CAT II	2% (Chrysotile)
HVAC Tape	TSI-1 (1911N26-039A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC Tape	TSI-2 (1911N25-040A)	1	Intact	Yes	RACM	60% (Chrysotile)
Joint compound	MM-39 (1911N26-041A)	1	Intact	No	CAT II	2% (Chrysotile)

Analytical results are included in **Appendix B**. Sample locations are included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Seventeen (17) of the forty-two (42) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with joint compound throughout the house, window glazing, siding, floor tile in the basement, and HVAC tape.

The ACMs were found to be in good condition with the exception of the floor tile in the basement; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

Peter G. Milewski, P.G.
Principal

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

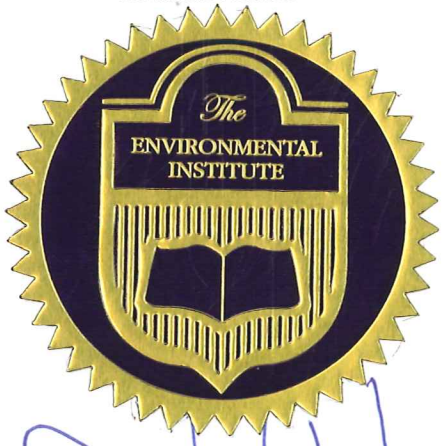
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

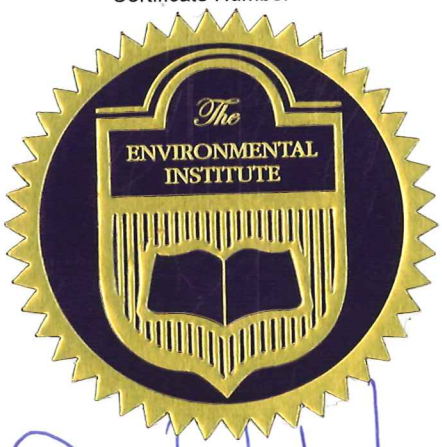
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



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Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N26

Page 1 of 2

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	446 Hammond
Address:	501 Hickory Ridge Trail	Project Number:	1-19-1087B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	11-19-19
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie / BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1087B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		Acm		
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lark	Date/Time:	11/20/19 1500
Received by:	BJ	Date/Time:	11-21 1225
Relinquished by:	BJ	Date/Time:	11-21 218
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: [signature] Date/Time: 11/21/19 1418 Method of Shipment: CR

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N26

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	446 Hammond
Address:	501 Hickory Ridge Trail	Project Number:	1-19-1087B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	11-19-19
Contact:	Rebecca Donnelly	Phone #:	770.694.6178
Sampler's Name:	Ronnie | BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1087B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	MM 21		ACM		
2	MM 22				
3	MM 23				
4	MM 24				
5	MM 25				
6	MM 26				
7	MM 27				
8	MM 28				
9	MM 29				
10	MM 30				
11	MM 31				
12	MM 32				
13	MM 33				
14	MM 34				
15	MM 35				
16	MM 36				
17	MM 37				
18	MM 38				
19	TSI 1				
20	TSI 2				

Relinquished by:	Ronnie Lee	Date/Time:	11/20/19 1500
Received by:		Date/Time:	11-21 1225
Relinquished by:		Date/Time:	11-21 215
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: | Date/Time: 11/21/19 1418 | Method of Shipment: CR

Asbestos COC 7.6.18

2

Client: Maxis Engineering, LLC
Project: 446 HAMMOND
Lab ID: 1911N26

Case Narrative

Sample Receiving Nonconformance:

Samples MM39 and MM40 were present but not listed on Chain of Custody (COC). Laboratory proceeded to analyze the additional samples at the request of Rebecca Donnelly via email on 11/22/19.

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	1911N26-001A		ND	ND	ND	ND	ND	ND	Vinyl with glue
MM2 Layer: 1	1911N26-002A		ND	ND	ND	ND	ND	ND	Vinyl with glue
MM3 Layer: 1	1911N26-003A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM3 Layer: 2	1911N26-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 3	1911N26-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	1911N26-004A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM4 Layer: 2	1911N26-004A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 3	1911N26-004A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 1	1911N26-005A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM5 Layer: 2	1911N26-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 3	1911N26-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	1911N26-006A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM6 Layer: 2	1911N26-006A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 3	1911N26-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	1911N26-007A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM7 Layer: 2	1911N26-007A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 3	1911N26-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	1911N26-008A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM8 Layer: 2	1911N26-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 3	1911N26-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	1911N26-009A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM10 Layer: 1	1911N26-010A		2	ND	ND	ND	ND	ND	Paint included as binder
MM11 Layer: 1	1911N26-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 2	1911N26-011A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM11 Layer: 3	1911N26-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	1911N26-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 2	1911N26-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 3	1911N26-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	1911N26-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 2	1911N26-013A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM14 Layer: 1	1911N26-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 2	1911N26-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	1911N26-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	1911N26-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	1911N26-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	1911N26-017A		20	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM18 Layer: 1	1911N26-018A		20	ND	ND	ND	ND	ND	Paint included as binder
MM19 Layer: 1	1911N26-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	1911N26-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	1911N26-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	1911N26-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	1911N26-022A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM22 Layer: 2	1911N26-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	1911N26-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 2	1911N26-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	1911N26-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 2	1911N26-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	1911N26-025A		ND	ND	ND	ND	ND	ND	

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM26 Layer: 1	1911N26-026A		10	ND	ND	ND	ND	ND	Floor tile
MM26 Layer: 2	1911N26-026A		ND	ND	ND	ND	ND	ND	Black mastic
MM27 Layer: 1	1911N26-027A		10	ND	ND	ND	ND	ND	Floor tile
MM27 Layer: 2	1911N26-027A		ND	ND	ND	ND	ND	ND	Black mastic
MM28 Layer: 1	1911N26-028A		10	ND	ND	ND	ND	ND	Floor tile
MM28 Layer: 2	1911N26-028A		ND	ND	ND	ND	ND	ND	Black mastic

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM29 Layer: 1	1911N26-029A		10	ND	ND	ND	ND	ND	Floor tile
MM29 Layer: 2	1911N26-029A		ND	ND	ND	ND	ND	ND	Black mastic
MM30 Layer: 1	1911N26-030A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 2	1911N26-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	1911N26-031A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 2	1911N26-031A		ND	ND	ND	ND	ND	ND	

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Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM32 Layer: 1	1911N26-032A		ND	ND	ND	ND	ND	ND	Ceramic tile
MM32 Layer: 2	1911N26-032A		ND	ND	ND	ND	ND	ND	Grout
MM32 Layer: 3	1911N26-032A		ND	ND	ND	ND	ND	ND	Black mastic
MM33 Layer: 1	1911N26-033A		ND	ND	ND	ND	ND	ND	Ceramic tile
MM33 Layer: 2	1911N26-033A		ND	ND	ND	ND	ND	ND	Grout
MM34 Layer: 1	1911N26-034A		ND	ND	ND	ND	ND	ND	

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For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM34 Layer: 2	1911N26-034A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 1	1911N26-035A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 2	1911N26-035A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 1	1911N26-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	1911N26-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	1911N26-038A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM38 Layer: 2	1911N26-038A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 3	1911N26-038A		ND	ND	ND	ND	ND	ND	
TSI1 Layer: 1	1911N26-039A		60	ND	ND	ND	ND	ND	
TSI2 Layer: 1	1911N26-040A		60	ND	ND	ND	ND	ND	
MM39 Layer: 1	1911N26-041A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM39 Layer: 2	1911N26-041A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N26**
Project Name:	**446 HAMMOND**	Project Number:	**1-19-1087B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM39 Layer: 3	1911N26-041A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 1	1911N26-042A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

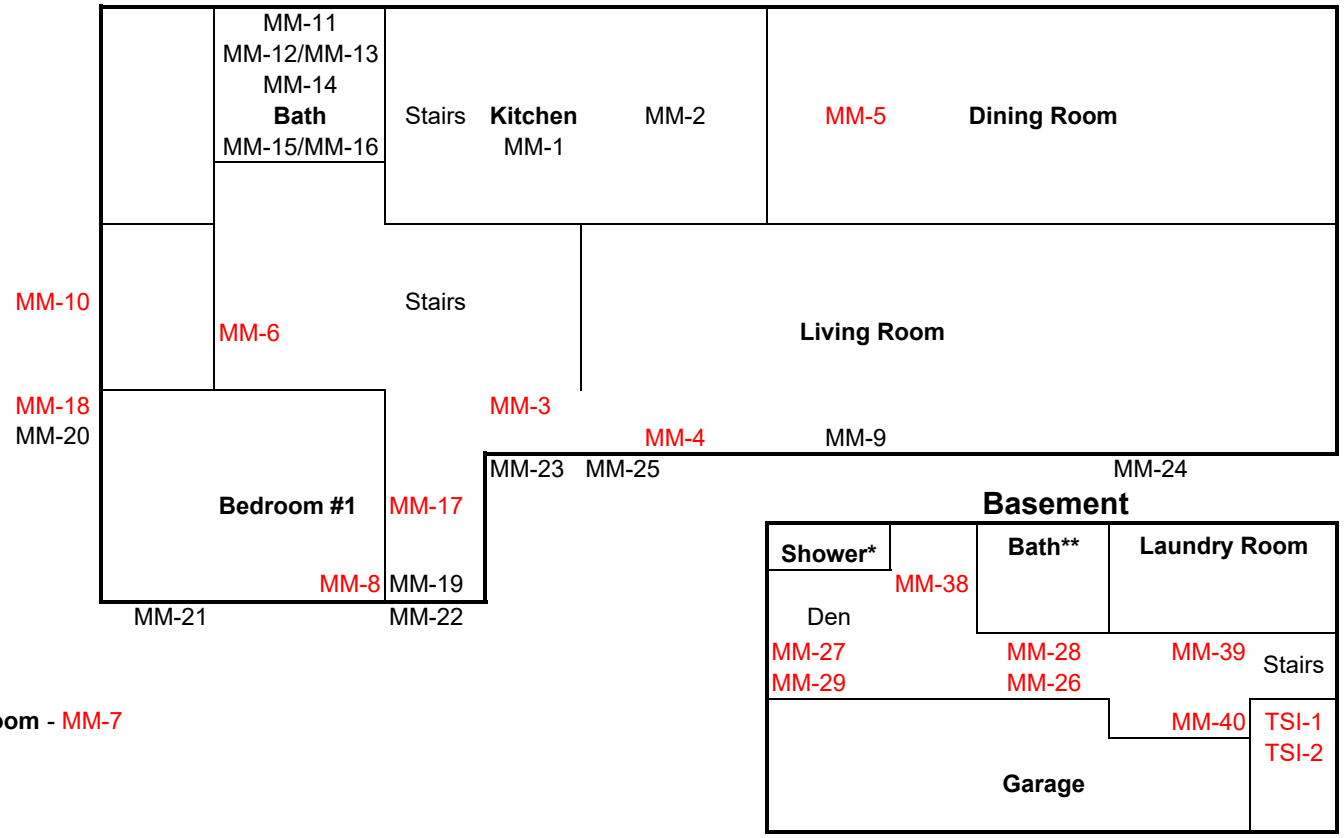
Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

APPENDIX C

Sample Locations

Main Floor



Basement

Attic Bedroom - MM-7

* MM-30 MM-33
MM-31
MM-32

** MM-34
MM-35
MM-36
MM-37

446 Hammond Drive

MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

524 Hammond Drive
Sandy Springs, Fulton County, Georgia
Maxis Project No. 1-19-1064B

September 16, 2019

MAXIS ENGINEERING

September 16, 2019

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
524 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1064B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 524 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,800 square-foot, one story, brick-sided structure on a full basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on August 22, 2019, by a certified asbestos inspector; the current certification has been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt/shingles, and brick and mortar; (interior) – Floor tile and grout, wall tile and grout, joint compound and tape, black wall felt, window glaze and caulk. A total of forty-three (43) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia

for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

524 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
1908P14-001A	MM-1	3	Bedroom 3 – joint compound and tape	ND	ND
1908P14-002A	MM-2	1	Bedroom 3 – floor tile and grout	ND	ND
1908P14-003A	MM-3	2	Bedroom 3 – floor tile and grout	ND	ND
1908P14-004A	MM-4	1	Bedroom 3 – ceiling joint compound and tape	ND	ND
1908P14-005A	MM-5	1	Woodshed – felt /shingle	ND	ND
1908P14-006A	MM-6	4	Kitchen – floor tile and grout	ND	ND
1908P14-007A	MM-7	4	Kitchen – floor tile and grout	ND	ND
1908P14-008A	MM-8	3	Kitchen – countertop tile and grout	ND	ND
1908P14-009A	MM-9	3	Kitchen – countertop tile and grout	ND	ND
1908P14-010A	MM-10	2	Kitchen – rectangle tile and grout	ND	ND

1908P14-011A	MM-11	2	Kitchen – rectangle tile and grout	ND	ND
1908P14-012A	MM-12	2	Kitchen – square (dark) tile and grout	ND	ND
1908P14-013A	MM-13	2	Kitchen – square (dark) tile and grout	ND	ND
1908P14-014A	MM-14	2	Kitchen – joint tape and compound	ND	ND
1908P14-015A	MM-15	2	Back of house - roofing felt/shingle	ND	ND
1908P14-016A	MM-16	2	Front of house - roofing felt/shingle	ND	ND
1908P14-017A	MM-17	2	Restroom 1 – baseboard tile and grout	ND	ND
1908P14-018A	MM-18	2	Restroom 1 – baseboard tile and grout	ND	ND
1908P14-019A	MM-19	1	Living room – wall felt	ND	ND
1908P14-020A	MM-20	1	Bedroom 1 – wall felt	ND	ND
1908P14-021A	MM-21	1	Front of house – brick and mortar	ND	ND
1908P14-022A	MM-22	1	Back of house – brick and mortar	ND	ND
1908P14-023A	MM-23	2	Restroom 1 – floor tile and grout	ND	ND
1908P14-024A	MM-24	2	Restroom 1 – floor tile and grout	ND	ND
1908P14-025A	MM-25	2	Restroom 1 – wall tile and grout	ND	ND
1908P14-026A	MM-26	2	Restroom 1 – wall tile and grout	ND	ND
1908P14-027A	MM-27	2	Bedroom 1 – joint tape and compound	ND	ND

1908P14-028A	MM-28	2	Master bedroom – joint tape and compound	ND	ND
1908P14-029A	MM-29	2	Bedroom 2 – joint tape and compound	ND	ND
1908P14-030A	MM-30	2	Restroom 2 – yellow shower tile and grout	ND	ND
1908P14-031A	MM-31	2	Restroom 2 – yellow shower tile and grout	ND	ND
1908P14-032A	MM-32	2	Restroom 2 – grey shower tile and grout	ND	ND
1908P14-033A	MM-33	2	Restroom 2 – floor tile and grout	ND	ND
1908P14-034A	MM-34	2	Restroom 2 – floor tile and grout	ND	ND
1908P14-035A	MM-35	2	Restroom 2 – brown wall tile and grout	ND	ND
1908P14-036A	MM-36	2	Restroom 2 – brown wall tile and grout	ND	ND
1908P14-037A	**MM-37**	**2**	**Kitchen – window glaze**	**3%**	**ND**
1908P14-038A	**MM-38**	**1**	**Front of house – window glaze**	**3%**	**ND**
1908P14-039A	MM-39	1	Livingroom – joint tape and compound	ND	ND
1908P14-040A	MM-40	2	Master bedroom – baseboard caulk	ND	ND
1908P14-041A	**MM-41**	**3**	**Bedroom 1 – textured ceiling**	**2%**	**ND**
1908P14-042A	**MM-42**	**3**	**Bedroom 2 – textured ceiling**	**2%**	**ND**
1908P14-043A	**MM-43**	**3**	**Master bedroom – textured ceiling**	**2%**	**ND**

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, five (5) of the forty-three (43) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category**	Asbestos Content (Type)
Window glaze	MM-37	2	Intact	No	CAT II	3% (Chrysotile)
Window glaze	MM-38	1	Intact	No	CAT II	3% (Chrysotile)
Textured ceiling	MM- 41	2	Intact	Yes	RACM	2% (Chrysotile)
Textured ceiling	MM-42	2	Intact	Yes	RACM	2% (Chrysotile)
Textured ceiling	MM-43	2	Intact	Yes	RACM	2% (Chrysotile)

Analytical results are included in **Appendix B**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Five (5) of the forty-three (43) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with window glazing and textured ceiling the bedrooms.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

Barry D. Holbert, P.E., C.E.M
Principal

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry J. Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

Asbestos in Buildings: Inspector Refresher

September 18, 2018
Course Date

September 18, 2018
Examination Date

September 17, 2019
Expiration Date

17015
Certificate Number

Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

Asbestos in Buildings: Inspector Refresher

September 18, 2018
Course Date

September 18, 2018
Examination Date

September 17, 2019
Expiration Date

17018
Certificate Number

Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1908P14

Date: 8/23/19 Page 1 of 4

COMPANY: MAXIS Engineering
ADDRESS: 501 Hickory Ridge Trail Woodstock, GA 30188 Suite #110
PHONE: 678-350-5584
EMAIL: bjholbert@maxisengineering.com
SAMPLED BY: B.J. Holbert
SIGNATURE:

ANALYSIS REQUESTED: Total ACM

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)	REMARKS	Number of Containers
1	MM-1	8/22/19		X		O	X		1
2	MM-2								1
3	MM-3								1
4	MM-4								1
5	MM-5								1
6	MM-6								1
7	MM-7								1
8	MM-8								1
9	MM-9								1
10	MM-10								1
11	MM-11								1
12	MM-12								1
13	MM-13								1
14	MM-14								1

RELINQUISHED BY: DATE/TIME:
1. 8/23/19 5:00pm
2.
3.

RECEIVED BY: DATE/TIME:
1. 8-24-19 1203
2.
3.

SPECIAL INSTRUCTIONS/COMMENTS:
Matrix = O = solid miscellaneous materials
Sampled → 8/22/19

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
(client) FedEx UPS US mail courier
other:

PROJECT INFORMATION
PROJECT NAME: 524 Hammond Dr
PROJECT #:
SITE ADDRESS: Sandy Springs, GA
SEND REPORT TO: bdonnelley@maxisengineering.com
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: PO#:

RECEIPT
Total # of Containers: 14/43

Turnaround Time (TAT) Request
- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush **(auth req.)**
- [ ] Other

STATE PROGRAM (if any):
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1908P14

Date: 8/23/19 Page 2 of 4

COMPANY: Maxis Engineering	ADDRESS: 501 Hickory Ridge Trail Woodstock, GA 30188
PHONE: 678-350-5584	EMAIL: bjholbert@maxisengineering.com
SAMPLED BY: B.J. Holbert	SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	ANALYSIS REQUESTED: Tot Fe / ACM	PRESERVATION (see codes)	REMARKS	Number of Containers
1	MM-15	8/22/19		X		O	X			1
2	MM-16									1
3	MM-17									1
4	MM-18									1
5	MM-19									1
6	MM-20									1
7	MM-21									1
8	MM-22									1
9	MM-23									1
10	MM-24									1
11	MM-25									1
12	MM-26									1
13	MM-27									1
14	MM-28									1

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	8/23/19 5:00pm	1.	8.20.19 1203
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
(client) FedEx UPS US mail courier
other: _____

PROJECT INFORMATION
PROJECT NAME: 524 Harmand Dr
PROJECT #:
SITE ADDRESS: Sandy Springs, GA
SEND REPORT TO: bdonnelly@maxisengineering.com
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 28/43

Turnaround Time (TAT) Request
- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1908P14

Date: 8/23/19 Page 3 of 4

COMPANY:	ADDRESS:
PHONE:	EMAIL:
SAMPLED BY:	SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	Total # of Containers	PRESERVATION (see codes)	REMARKS	Number of Containers
1	MM-29	8/23/19		X		O	X			1
2	MM-30									1
3	MM-31									1
4	MM-32									1
5	MM-33									1
6	MM-34									1
7	MM-35									1
8	MM-36									1
9	MM-37									1
10	MM-38									1
11	MM-39									1
12	MM-40									1
13	MM-41									1
14	MM-42									1

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	8/23/19 5:00pm	1.	8-26-19 1203
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT: / / VIA:

IN: / / VIA:

(client) FedEx UPS US mail courier

other: _____

PROJECT INFORMATION

PROJECT NAME: 524 Hammond Dr.

PROJECT #:

SITE ADDRESS: Sandy Springs, GA

SEND REPORT TO: bdonnelly@maxiseng.com

INVOICE TO (IF DIFFERENT FROM ABOVE):

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers: 42/43

Turnaround Time (TAT) Request

- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush **(auth req.)**
- [ ] Other _____

STATE PROGRAM (if any): _____

E-mail? ☐ Fax? ☐

DATA PACKAGE: I ○ II ○ III ○ IV ○

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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1908P14

Date: 8/25/19 Page 4 of 4

COMPANY:	ADDRESS:
PHONE:	EMAIL:
SAMPLED BY:	SIGNATURE:

#	SAMPLE ID	SAMPLED: DATE	SAMPLED: TIME	GRAB	COMPOSITE	MATRIX (see codes)	ANALYSIS REQUESTED: Total ACM	PRESERVATION (see codes)	REMARKS	Number of Containers
1	MM-43	8/23/19		X		O	X			1
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	8/25/19 5:00pm	1.	8-26-19 1203
2.		2.	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier
other: _____

PROJECT INFORMATION
PROJECT NAME: 524 Hammond Dr.
PROJECT #:
SITE ADDRESS: //
SEND REPORT TO: //
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers: 43

Turnaround Time (TAT) Request
- [x] Standard
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

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White Copy - Original; Yellow Copy - Client

Client: Maxis Engineering, LLC
Project: 524 HAMMOND DR
Lab ID: 1908P14

Case Narrative

Sample bags 1908P14-006A and 1908P14-007A contained 2 different materials each. Client will be charged for 2 extra samples.

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-1 Layer: 1	1908P14-001A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-1 Layer: 2	1908P14-001A		ND	ND	ND	ND	ND	ND	
MM-1 Layer: 3	1908P14-001A		ND	ND	ND	ND	ND	ND	
MM-2 Layer: 1	1908P14-002A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-3 Layer: 1	1908P14-003A		ND	ND	ND	ND	ND	ND	
MM-3 Layer: 2	1908P14-003A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-4 Layer: 1	1908P14-004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-5 Layer: 1	1908P14-005A		ND	ND	ND	ND	ND	ND	
MM-6 Layer: 1	1908P14-006A		ND	ND	ND	ND	ND	ND	Ceramic tile
MM-6 Layer: 2	1908P14-006A		ND	ND	ND	ND	ND	ND	Grout
MM-6 Layer: 3	1908P14-006A		ND	ND	ND	ND	ND	ND	Black compound
MM-6 Layer: 1	1908P14-006B		ND	ND	ND	ND	ND	ND	Panel

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Lab Code 102082-0

30-Aug-19

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-7 Layer: 1	1908P14-007A		ND	ND	ND	ND	ND	ND	Ceramic tile
MM-7 Layer: 2	1908P14-007A		ND	ND	ND	ND	ND	ND	Grout
MM-7 Layer: 3	1908P14-007A		ND	ND	ND	ND	ND	ND	Black compound
MM-7 Layer: 1	1908P14-007B		ND	ND	ND	ND	ND	ND	Panel
MM-8 Layer: 1	1908P14-008A		ND	ND	ND	ND	ND	ND	
MM-8 Layer: 2	1908P14-008A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-8 Layer: 3	1908P14-008A		ND	ND	ND	ND	ND	ND	
MM-9 Layer: 1	1908P14-009A		ND	ND	ND	ND	ND	ND	
MM-9 Layer: 2	1908P14-009A		ND	ND	ND	ND	ND	ND	
MM-9 Layer: 3	1908P14-009A		ND	ND	ND	ND	ND	ND	
MM-10 Layer: 1	1908P14-010A		ND	ND	ND	ND	ND	ND	
MM-10 Layer: 2	1908P14-010A		ND	ND	ND	ND	ND	ND	

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Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-11 Layer: 1	1908P14-011A		ND	ND	ND	ND	ND	ND	
MM-11 Layer: 2	1908P14-011A		ND	ND	ND	ND	ND	ND	
MM-12 Layer: 1	1908P14-012A		ND	ND	ND	ND	ND	ND	
MM-12 Layer: 2	1908P14-012A		ND	ND	ND	ND	ND	ND	
MM-13 Layer: 1	1908P14-013A		ND	ND	ND	ND	ND	ND	
MM-13 Layer: 2	1908P14-013A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-14 Layer: 1	1908P14-014A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-14 Layer: 2	1908P14-014A		ND	ND	ND	ND	ND	ND	
MM-15 Layer: 1	1908P14-015A		ND	ND	ND	ND	ND	ND	
MM-15 Layer: 2	1908P14-015A		ND	ND	ND	ND	ND	ND	
MM-16 Layer: 1	1908P14-016A		ND	ND	ND	ND	ND	ND	
MM-16 Layer: 2	1908P14-016A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-17 Layer: 1	1908P14-017A		ND	ND	ND	ND	ND	ND	
MM-17 Layer: 2	1908P14-017A		ND	ND	ND	ND	ND	ND	
MM-18 Layer: 1	1908P14-018A		ND	ND	ND	ND	ND	ND	
MM-18 Layer: 2	1908P14-018A		ND	ND	ND	ND	ND	ND	
MM-19 Layer: 1	1908P14-019A		ND	ND	ND	ND	ND	ND	
MM-20 Layer: 1	1908P14-020A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-21 Layer: 1	1908P14-021A		ND	ND	ND	ND	ND	ND	
MM-22 Layer: 1	1908P14-022A		ND	ND	ND	ND	ND	ND	
MM-23 Layer: 1	1908P14-023A		ND	ND	ND	ND	ND	ND	
MM-23 Layer: 2	1908P14-023A		ND	ND	ND	ND	ND	ND	
MM-24 Layer: 1	1908P14-024A		ND	ND	ND	ND	ND	ND	
MM-24 Layer: 2	1908P14-024A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-25 Layer: 1	1908P14-025A		ND	ND	ND	ND	ND	ND	
MM-25 Layer: 2	1908P14-025A		ND	ND	ND	ND	ND	ND	
MM-26 Layer: 1	1908P14-026A		ND	ND	ND	ND	ND	ND	
MM-26 Layer: 2	1908P14-026A		ND	ND	ND	ND	ND	ND	
MM-27 Layer: 1	1908P14-027A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-27 Layer: 2	1908P14-027A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-28 Layer: 1	1908P14-028A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-28 Layer: 2	1908P14-028A		ND	ND	ND	ND	ND	ND	
MM-29 Layer: 1	1908P14-029A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-29 Layer: 2	1908P14-029A		ND	ND	ND	ND	ND	ND	
MM-30 Layer: 1	1908P14-030A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-30 Layer: 2	1908P14-030A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-31 Layer: 1	1908P14-031A		ND	ND	ND	ND	ND	ND	
MM-31 Layer: 2	1908P14-031A		ND	ND	ND	ND	ND	ND	
MM-32 Layer: 1	1908P14-032A		ND	ND	ND	ND	ND	ND	
MM-32 Layer: 2	1908P14-032A		ND	ND	ND	ND	ND	ND	
MM-33 Layer: 1	1908P14-033A		ND	ND	ND	ND	ND	ND	
MM-33 Layer: 2	1908P14-033A		ND	ND	ND	ND	ND	ND	

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Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-34 Layer: 1	1908P14-034A		ND	ND	ND	ND	ND	ND	
MM-34 Layer: 2	1908P14-034A		ND	ND	ND	ND	ND	ND	
MM-35 Layer: 1	1908P14-035A		ND	ND	ND	ND	ND	ND	
MM-35 Layer: 2	1908P14-035A		ND	ND	ND	ND	ND	ND	
MM-36 Layer: 1	1908P14-036A		ND	ND	ND	ND	ND	ND	
MM-36 Layer: 2	1908P14-036A		ND	ND	ND	ND	ND	ND	

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-37 Layer: 1	1908P14-037A		ND	ND	ND	ND	ND	ND	
MM-37 Layer: 2	1908P14-037A		3	ND	ND	ND	ND	ND	Paint included as binder
MM-38 Layer: 1	1908P14-038A		3	ND	ND	ND	ND	ND	Paint included as binder
MM-39 Layer: 1	1908P14-039A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-40 Layer: 1	1908P14-040A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-40 Layer: 2	1908P14-040A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-41 Layer: 1	1908P14-041A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-41 Layer: 2	1908P14-041A		2	ND	ND	ND	ND	ND	Paint included as binder
MM-41 Layer: 3	1908P14-041A		ND	ND	ND	ND	ND	ND	
MM-42 Layer: 1	1908P14-042A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-42 Layer: 2	1908P14-042A		2	ND	ND	ND	ND	ND	Paint included as binder
MM-42 Layer: 3	1908P14-042A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

30-Aug-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1908P14**
Project Name:	**524 HAMMOND DR**	Project Number:	**1-17-857A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM-43 Layer: 1	1908P14-043A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM-43 Layer: 2	1908P14-043A		2	ND	ND	ND	ND	ND	Paint included as binder
MM-43 Layer: 3	1908P14-043A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

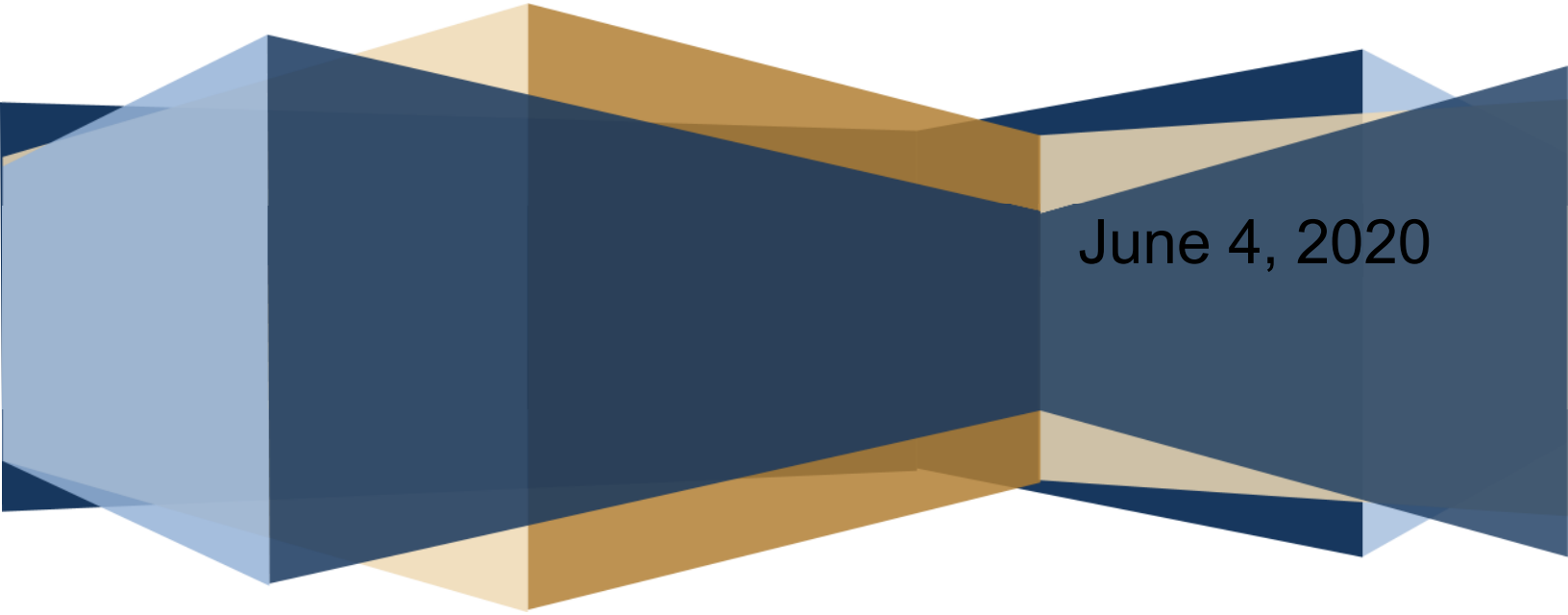
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

600 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1133B



June 4, 2020

MAXIS ENGINEERING

June 4, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
600 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1133B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 600 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,700 square-foot (sq ft), brick-sided residential structure.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on April 1, 2020, by a certified asbestos inspector; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt and shingles, roofing caulk, and brick and mortar; (interior) –floor tile and grout, wall tile and grout, joint compound and tape, textured ceiling, and black wall felt. A total of thirty-five (35) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E (Method). This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

600 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2004084-001A	MM-1	3	Living room – joint compound and tape	ND	ND
2004084-002A	MM-2	3	Front door entrance – joint compound and tape	ND	ND
2004084-003A	MM-3	3	Sunroom – joint compound and tape	ND	ND
2004084-004A	MM-4	3	Master bedroom – joint compound and tape	ND	ND
2004084-005A	MM-5	3	End room on right – joint compound and tape	ND	ND
2004084-006A	MM-6	2	Kitchen/Dining room – floor tile and grout	ND	ND
2004084-007A	MM-7	2	Kitchen/Dining room – floor tile and grout	ND	ND
2004084-008A	MM-8	2	Sunroom – floor tile and grout	ND	ND
2004084-009A	MM-9	2	Sunroom – floor tile and grout	ND	ND
2004084-010A	MM-10	2	Bathroom – floor tile and grout	ND	ND
2004084-011A	MM-11	2	Bathroom – floor tile and grout	ND	ND

2004084-012A	MM-12	3	Kitchen – Popcorn ceiling	ND	ND
2004084-013A	MM-13	3	Hallway – Popcorn ceiling	ND	ND
2004084-014A	MM-14	2	Master bathroom – floor tile and grout	ND	ND
2004084-015A	MM-15	2	Master bathroom – floor tile and grout	ND	ND
2004084-016A	MM-16	2	Master bathroom – wall tile and grout	ND	ND
2004084-017A	MM-17	2	Master bathroom – wall tile and grout	ND	ND
2004084-018A	MM-18	2	Sunroom – brick and mortar	ND	ND
2004084-019A	MM-19	2	Front of house – brick and mortar	ND	ND
2004084-020A	MM-20	2	Garage roof – roof shingle and felt	ND	ND
2004084-021A	MM-21	2	Garage roof – roof shingle and felt	ND	ND
2004084-022A	MM-22	1	Garage side of house – siding	ND	ND
2004084-023A	MM-23	1	Garage side of house – siding	ND	ND
2004084-024A	MM-24	2	Front of house – felt behind brick	ND	ND
2004084-025A	MM-25	1	Back of house - felt behind brick	ND	ND
2004084-026A	MM-26	1	Roof – vent pipe caulk	ND	ND
2004084-027A	MM-27	1	Roof – pipe above kitchen caulk	ND	ND
2004084-028A	MM-28	2	Sunroom roof – roofing material	ND	ND

2004084-029A	MM-29	2	Sunroom roof – roofing material	ND	ND
2004084-030A	MM-30	1	Roof – caulk from PVC vent	ND	ND
2004084-031A	MM-31	1	Bathroom roof – caulk from metal vent pipe	ND	ND
2004084-032A	**MM-32**	**2**	**Roof – black caulk from chimney**	**10% (Layer 1)**	**Chrysotile**
2004084-033A	**MM-33**	**2**	**Roof – black caulk from chimney**	**10% (Layer 1)**	**Chrysotile**
2004084-034A	MM-34	1	Roof – caulk from chimney cap	ND	ND
2004084-035A	MM-35	1	Roof – caulk from chimney cap	ND	ND

Notes:

ND = No Asbestos Detected

Sub-flooring is located beneath carpet; no felt was observed on the subflooring.

It appears the sunroom was an addition to the house.

RESULTS

Based on the laboratory analytical results, two (2) of the thirty-five (35) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category**	Asbestos Content (Type)
Black mastic	MM-32 (2004084-032A)	1	Intact	No	CAT II	10% (Chrysotile)
Black mastic	MM-33 (2004084-033A)	1	Intact	Yes	CAT II	10% (Chrysotile)

Analytical results are included in **Appendix B**. Sample Locations are included in **Appendix C**.

**NESHAP Category Classification Information:
CAT I – Category I non-friable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (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 submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Two (2) of the thirty-five (35) bulk samples collected had an asbestos content greater than 1%; black mastic on the chimney.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

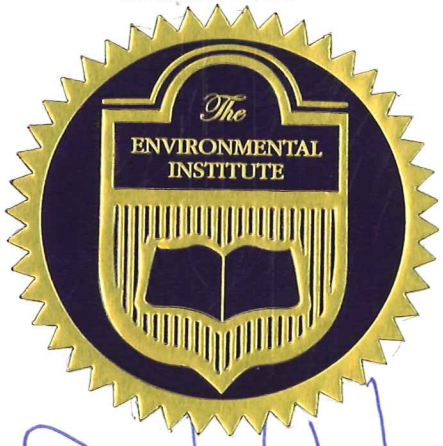
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

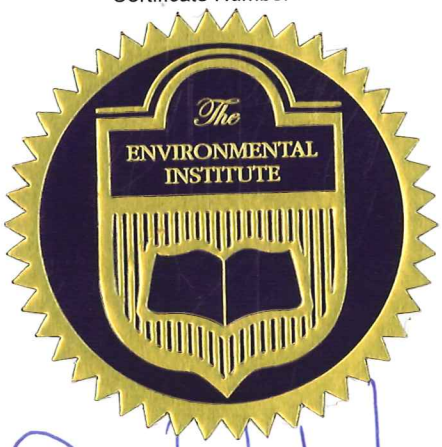
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



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(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2004084

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	600 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1133B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	4.1.20
Contact:	Rebecca Donnelly	Phone #:	770.694.6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	SAME
Report To Email(s):	"	PO #:	1-19-1133B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lott	Date/Time:	4/1/20 1200
Received by:		Date/Time:	
Relinquished by:		Date/Time:	
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: J Date/Time: 4/1/2020 1444 Method of Shipment: Client

Asbestos COC 7.6.18

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2004084

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	600 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1133B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	4-1-20
Contact:	Rebecca Donnelly	Phone #:	770.694.6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	SAME
Report To Email(s):	"	PO #:	1-19-1133B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	ST	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16					
17					
18					
19					
20					

Relinquished by:	Ronnie Lusto	Date/Time:	4/1/20 1200
Received by:		Date/Time:	
Relinquished by:		Date/Time:	
Received by:		Date/Time:	

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FOR LAB USE ONLY

Lab Recipient: J Date/Time: 4/1/2020 1444 Method of Shipment: Client

Asbestos COC 7.6.18

AES
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Apr-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2004084-001A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM1 Layer: 2	2004084-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 3	2004084-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2004084-002A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM2 Layer: 2	2004084-002A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 3	2004084-002A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Apr-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM3 Layer: 1	2004084-003A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM3 Layer: 2	2004084-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 3	2004084-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	2004084-004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM4 Layer: 2	2004084-004A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 3	2004084-004A		ND	ND	ND	ND	ND	ND	

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QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Apr-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM5 Layer: 1	2004084-005A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM5 Layer: 2	2004084-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 3	2004084-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	2004084-006A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 2	2004084-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2004084-007A		ND	ND	ND	ND	ND	ND	

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 7-Apr-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM7 Layer: 2	2004084-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2004084-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 2	2004084-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2004084-009A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 2	2004084-009A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 1	2004084-010A		ND	ND	ND	ND	ND	ND	

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Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM10 Layer: 2	2004084-010A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 1	2004084-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 2	2004084-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	2004084-012A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM12 Layer: 2	2004084-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 3	2004084-012A		ND	ND	ND	ND	ND	ND	

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Report Date: 7-Apr-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM13 Layer: 1	2004084-013A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM13 Layer: 2	2004084-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 3	2004084-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	2004084-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 2	2004084-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2004084-015A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM15 Layer: 2	2004084-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2004084-016A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 2	2004084-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	2004084-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 2	2004084-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	2004084-018A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
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Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM18 Layer: 2	2004084-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	2004084-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	2004084-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	2004084-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	2004084-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	2004084-021A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 2	2004084-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	2004084-022A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM23 Layer: 1	2004084-023A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM24 Layer: 1	2004084-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 2	2004084-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	2004084-025A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM26 Layer: 1	2004084-026A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 1	2004084-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	2004084-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	2004084-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	2004084-029A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 2	2004084-029A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM30 Layer: 1	2004084-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	2004084-031A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 1	2004084-032A		10	ND	ND	ND	ND	ND	Black mastic
MM32 Layer: 2	2004084-032A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 1	2004084-033A		10	ND	ND	ND	ND	ND	Black mastic
MM33 Layer: 2	2004084-033A		ND	ND	ND	ND	ND	ND	

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AES Job Number: **2004084**
Project Name: **600 HAMMOND**
Project Number: **1-19-1133B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM34 Layer: 1	2004084-034A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 1	2004084-035A		ND	ND	ND	ND	ND	ND	

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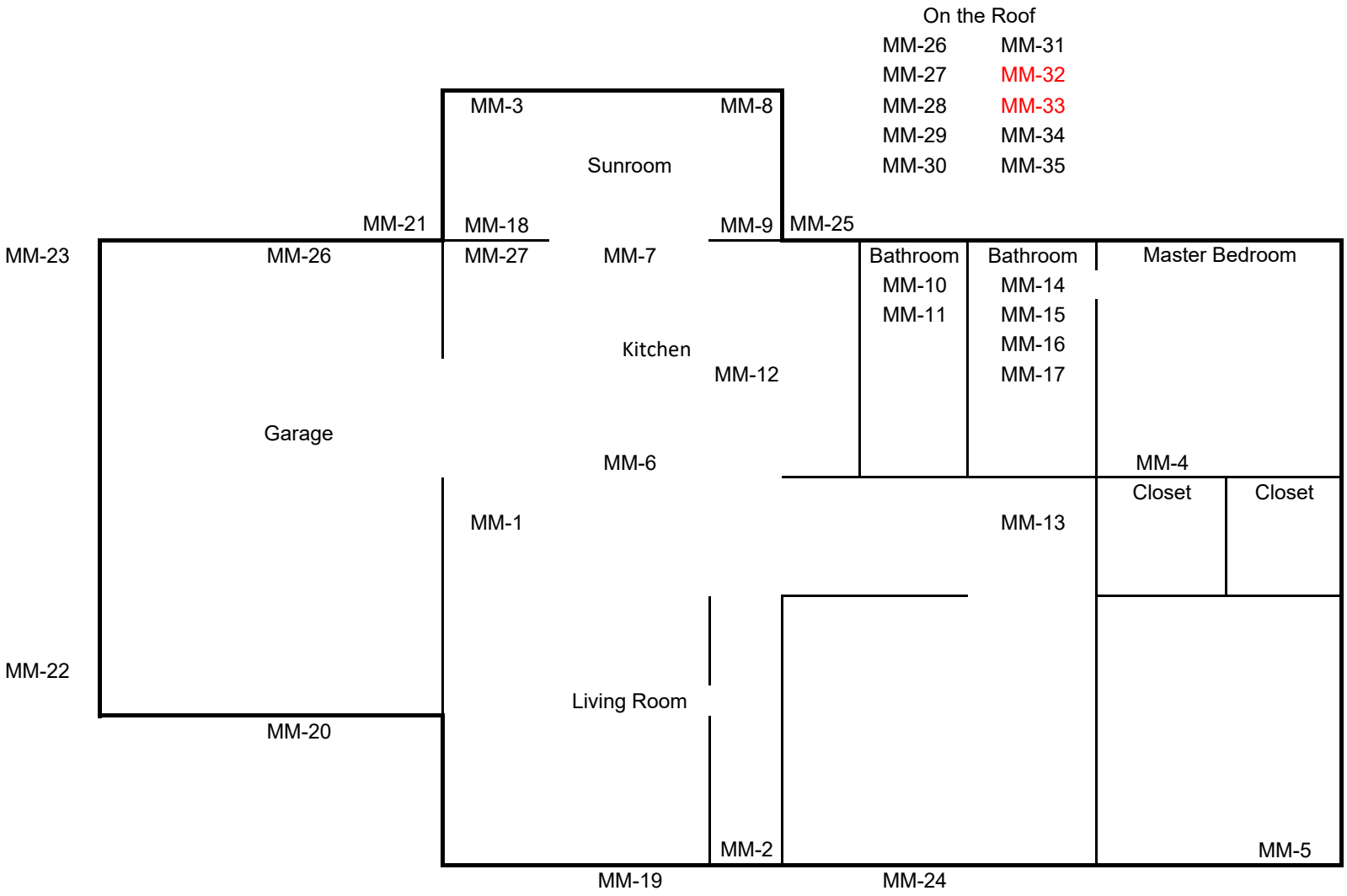
End of Report

APPENDIX C

Sample Locations



600 Hammond Drive

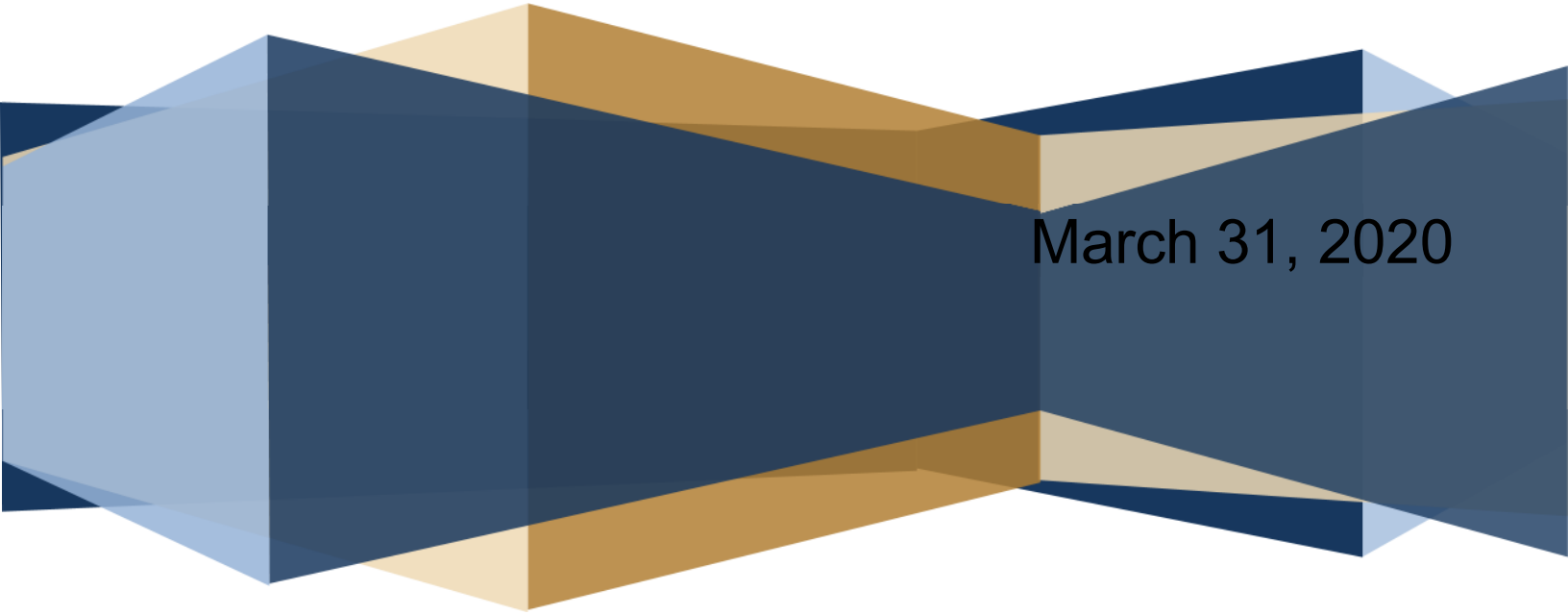
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

630 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1004C



March 31, 2020

MAXIS ENGINEERING

March 31, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
630 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1004C

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 630 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,800 square-foot (sq ft), brick-sided residential structure on a full basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on January 9, 2020, by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt, roofing caulk, and brick and mortar; (interior) – fireplace brick and mortar, floor tile and grout, wall tile and grout, joint compound and tape, black wall felt and black floor felt. A total of thirty-two (32) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

630 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2001B37-001A	MM-1	3	Den by Patio door – joint tape/compound	ND	ND
2001B37-002A	MM-2	2	Kitchen – joint tape/compound	ND	ND
2001B37-003A	MM-3	2	Front door foyer – joint tape/compound	ND	ND
2001B37-004A	MM-4	2	Bedroom #3 – joint tape/compound	ND	ND
2001B37-005A	MM-5	2	Bedroom #2 – joint tape/compound	ND	ND
2001B37-006A	MM-6	2	Bedroom #1 - joint tape/compound	ND	ND
2001B37-007A	MM-7	2	Hallway – joint tape/compound	ND	ND
2001B37-008A	MM-8	2	Living Room – Black paper behind sheet rock	ND	ND
2001B37-009A	MM-9	2	Dining Room – Black paper behind sheet rock	ND	ND
2001B37-010A	MM-10	2	Dining Room – Black paper behind brick	ND	ND
2001B37-011A	MM-11	2	Bedroom #3 – Black paper behind brick	ND	ND

2001B37-012A	MM-12	3	Bathroom – Floor tile/grout yellow/white	ND	ND
2001B37-013A	MM-13	3	Bathroom – Floor tile/grout yellow/white	ND	ND
2001B37-014A	MM-14	3	Bathroom – yellow wall tile/grout	ND	ND
2001B37-015A	MM-15	3	Bathroom – yellow wall tile/grout	ND	ND
2001B37-016A	MM-16	3	Kitchen – white tile/grout back splash	ND	ND
2001B37-017A	MM-17	3	Kitchen – white tile/grout back splash	ND	ND
2001B37-018A	**MM-18**	**4**	**Bathroom in Bedroom #3 – Green border tile/grout**	**2% (Layer 4)**	**Chrysotile**
2001B37-019A	**MM-19**	**4**	**Bathroom in Bedroom #3 – Green border tile/grout**	**2% (Layer 4)**	**Chrysotile**
2001B37-020A	MM-20	3	Bathroom in Bedroom #3 – Green wall tile/grout	ND	ND
2001B37-021A	MM-21	3	Bathroom in Bedroom #3 – Green wall tile/grout	ND	ND
2001B37-022A	MM-22	2	Bathroom in Bedroom #3 – Green wall tile/grout	ND	ND
2001B37-023A	MM-23	3	Bathroom in Bedroom #3 – Green wall tile/grout	ND	ND
2001B37-024A	**MM-24**	**1**	**Basement – Duct work tape**	**50% (Layer 1)**	**Chrysotile**
2001B37-025A	**MM-25**	**1**	**Basement – Duct work tape**	**50% (Layer 1)**	**Chrysotile**
2001B37-026A	MM-26	2	Outside back of kitchen – Brick/mortar	ND	ND
2001B37-027A	MM-27	2	Front dining room – Brick/mortar	ND	ND

2001B37-028A	MM-28	2	Back House – Roof shingle/felt	ND	ND
2001B37-029A	MM-29	2	Front House – Roof shingle/felt	ND	ND
2001B37-030A	MM-30	1	Back of Kitchen/Den – Behind brick	ND	ND
2001B37-031A	MM-31	1	Dining Room – Felt underneath hardwood floor	ND	ND
2001B37-032A	MM-32	1	Den – Felt underneath hardwood floor	ND	ND

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, four (4) of the thirty-two (32) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category**	Asbestos Content (Type)
Border tile and grout	MM-18 (2001B37-018A)	4	Intact	No	CAT II	2% (Chrysotile)
Border tile and grout	MM-19 (2001B37-019A)	4	Intact	No	CAT II	2% (Chrysotile)
Duct work tape	MM-24 (2001B37-024A)	1	Intact	Yes	RACM	50% (Chrysotile)
Duct work tape	MM-25 (2001B37-025A)	1	Intact	Yes	RACM	50% (Chrysotile)

Analytical results are included in **Appendix B**. A Sample Location Map has been included in **Appendix C**.

**NESHAP Category Classification Information:
CAT I – Category I non-friable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (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 submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Four (4) of the thirty-two (32) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with border tile and grout in Bathroom associated with Bedroom #3 and tape associated with the HVAC duct work in the basement.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

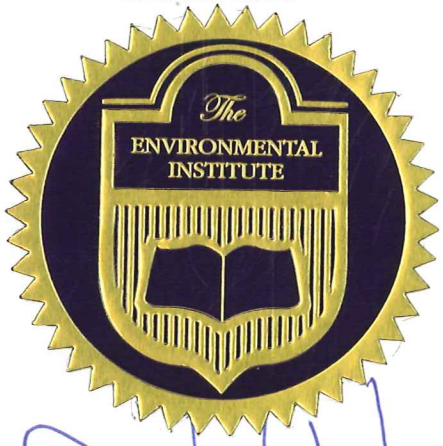
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

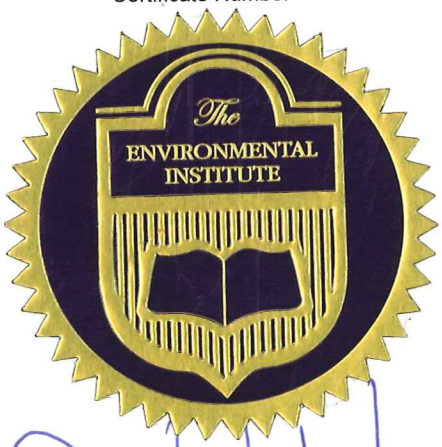
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



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TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B27

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	630 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1004C
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-9-2020
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1004C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lentz	Date/Time:	1/10/20 8:00
Received by:		Date/Time:	1-10-20 8:30
Relinquished by:		Date/Time:	1-10-20 2:10
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: J Date/Time: 1/10/2020 1425 Method of Shipment: CR

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001837

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	630 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1004C
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-9-2020
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1004C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	ST	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13					
14					
15					
16					
17					
18					
19					
20					

Relinquished by:	Ronnie Lott	Date/Time:	1/10/20 800
Received by:		Date/Time:	1-10-20 8:30
Relinquished by:		Date/Time:	1-10-20 1:25
Received by:		Date/Time:	

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FOR LAB USE ONLY

Lab Recipient: | Date/Time: 1/10/2020 1425 | Method of Shipment: CR

Asbestos COC 7.6.18

AES
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2001B37-001A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM1 Layer: 2	2001B37-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 3	2001B37-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2001B37-002A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM2 Layer: 2	2001B37-002A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 1	2001B37-003A		ND	ND	ND	ND	ND	ND	Paint included as binder

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Penka Topuzova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM3 Layer: 2	2001B37-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	2001B37-004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM4 Layer: 2	2001B37-004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM5 Layer: 1	2001B37-005A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM5 Layer: 2	2001B37-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	2001B37-006A		ND	ND	ND	ND	ND	ND	Paint included as binder

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM6 Layer: 2	2001B37-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2001B37-007A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM7 Layer: 2	2001B37-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2001B37-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 2	2001B37-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2001B37-009A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM9 Layer: 2	2001B37-009A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 1	2001B37-010A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 2	2001B37-010A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 1	2001B37-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 2	2001B37-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	2001B37-012A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM12 Layer: 2	2001B37-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 3	2001B37-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	2001B37-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 2	2001B37-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 3	2001B37-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	2001B37-014A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM14 Layer: 2	2001B37-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 3	2001B37-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2001B37-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	2001B37-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 3	2001B37-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2001B37-016A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM16 Layer: 2	2001B37-016A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 3	2001B37-016A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM17 Layer: 1	2001B37-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 2	2001B37-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 3	2001B37-017A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM18 Layer: 1	2001B37-018A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
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ND = None Detected

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Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM18 Layer: 2	2001B37-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 3	2001B37-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 4	2001B37-018A		2	ND	ND	ND	ND	ND	Joint compound
MM19 Layer: 1	2001B37-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	2001B37-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 3	2001B37-019A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM19 Layer: 4	2001B37-019A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM20 Layer: 1	2001B37-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	2001B37-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 3	2001B37-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	2001B37-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	2001B37-021A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Penka Topuzova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 3	2001B37-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	2001B37-022A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 2	2001B37-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2001B37-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 2	2001B37-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 3	2001B37-023A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
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Atlanta,GA 30340
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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM24 Layer: 1	2001B37-024A		50	ND	ND	ND	ND	ND	
MM25 Layer: 1	2001B37-025A		50	ND	ND	ND	ND	ND	
MM26 Layer: 1	2001B37-026A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 2	2001B37-026A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 1	2001B37-027A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 2	2001B37-027A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
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Microanalyst: Penka Topuzova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM28 Layer: 1	2001B37-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	2001B37-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	2001B37-029A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 2	2001B37-029A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 1	2001B37-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	2001B37-031A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Penka Topuzova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B37**
Project Name: **630 HAMMOND**
Project Number: **1-19-1004C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM32 Layer: 1	2001B37-032A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

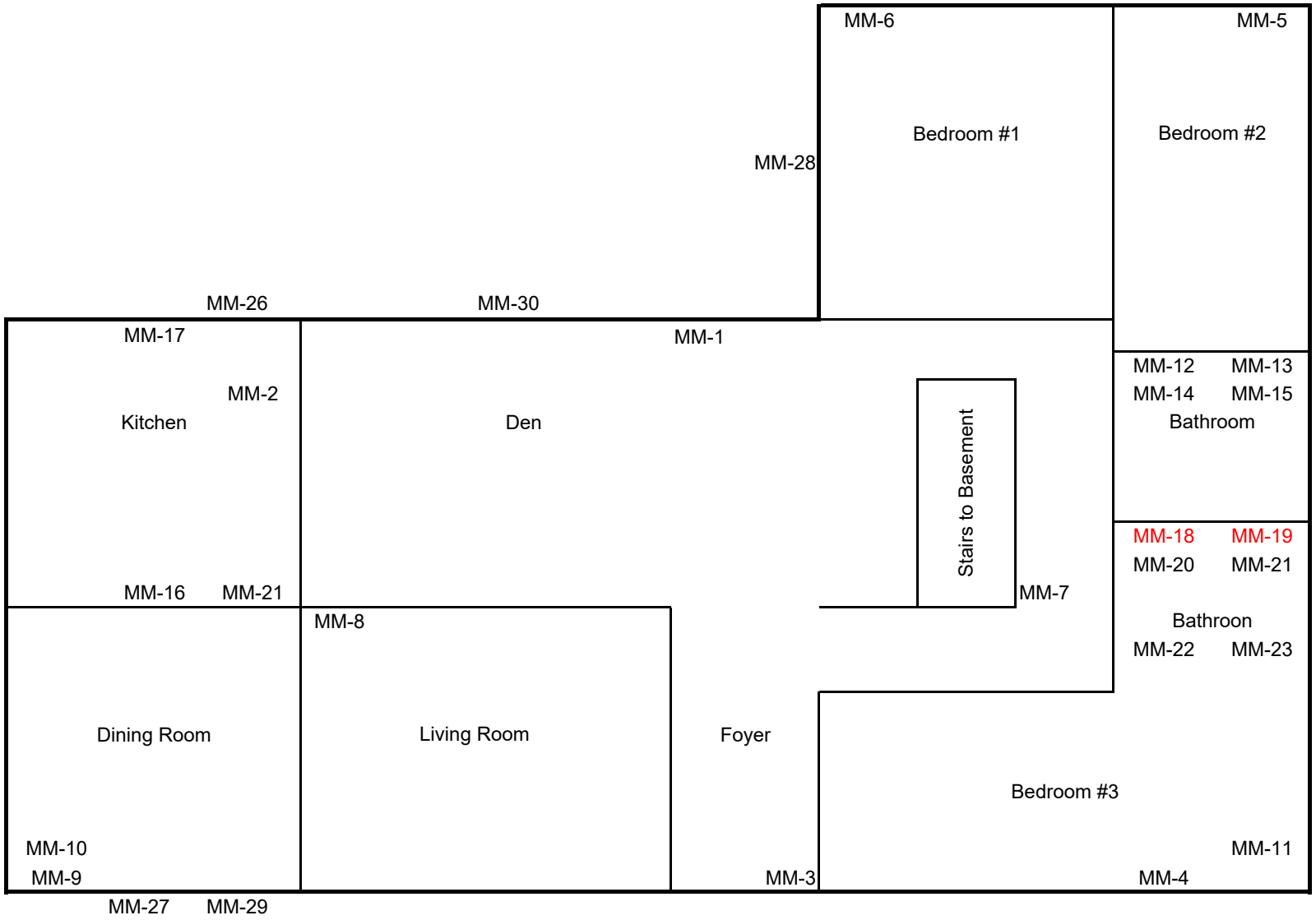
AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Penka Topuzova

QC Analyst: Yelena Khanina

APPENDIX C

Sample Location Map



630 Hammond Drive

Basement Samples: MM-24 and MM-25

Roofing Samples: MM-31 and MM-32

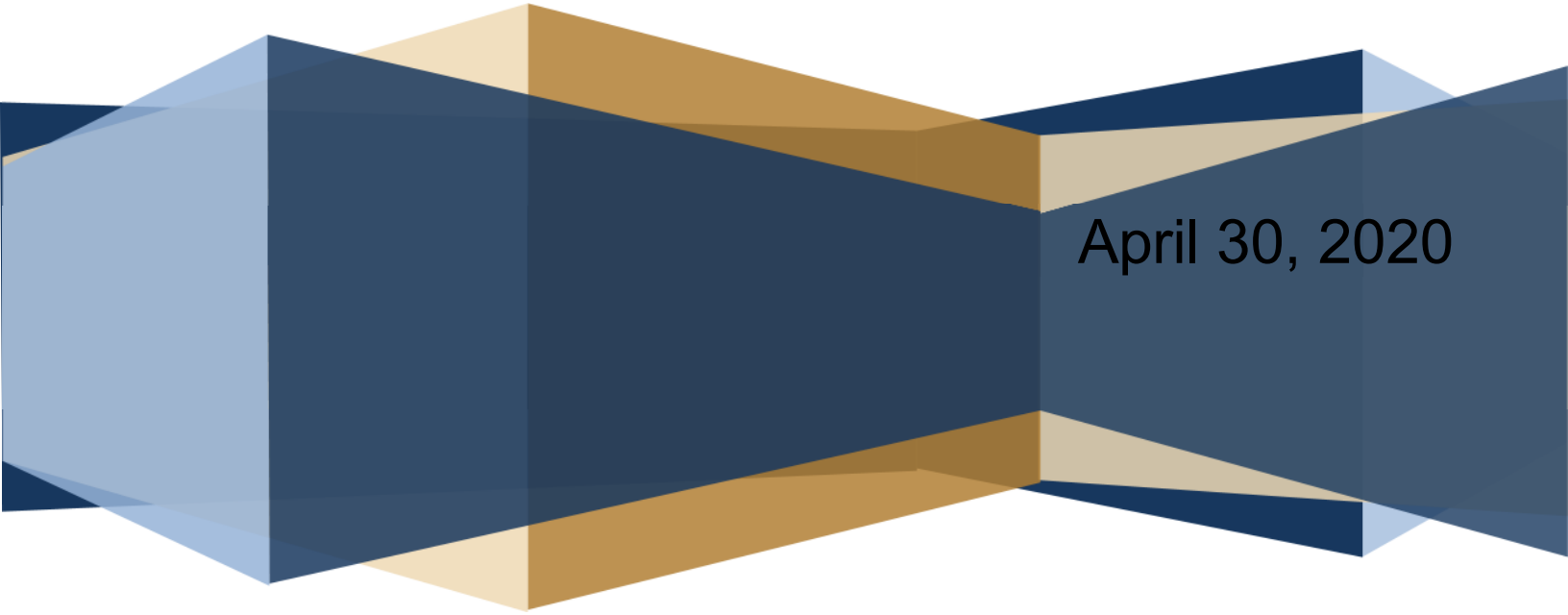
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

640 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1102B



April 30, 2020

MAXIS ENGINEERING

April 30, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
640 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1102B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 640 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,300 square-foot (sq ft), brick-sided residential structure on a partial basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on November 19, 2019, by a certified asbestos inspector; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt and shingles, roofing caulk, window glaze, and brick and mortar; (interior) – vinyl floor tile and mastic, floor tile and grout, wall tile and grout, joint compound and tape, black wall felt, fireplace brick and mortar, and HVAC tape. A total of thirty-nine (39) bulk samples were collected and recorded on a chain-of-custody form and submitted

to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

640 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
1911N27-001A	MM-1	2	Breakfast room – tan green vinyl flooring	ND	ND
1911N27-001B		2		ND	ND
1911N27-002A	MM-2	2	Kitchen – tan and green vinyl flooring	ND	ND
1911N27-002B		2		ND	ND
1911N27-003A	MM-3	2	Breakfast room – joint compound and tape	ND	ND
1911N27-004A	MM-4	2	Kitchen – joint compound and tape	ND	ND
1911N27-005A	MM-5	2	Dining room – joint compound and tape	ND	ND
1911N27-006A	MM-6	2	Living room – joint compound and tape	ND	ND
1911N27-007A	MM-7	2	Bedroom #1 – joint compound and tape	ND	ND
1911N27-008A	**MM-8**	**3**	**Bathroom #2 – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**

1911N27-009A	MM-9	2	Master bedroom – joint compound and tape	ND	ND
1911N27-010A	MM-10	2	Breakfast room – black felt behind wall	ND	ND
1911N27-011A	MM-11	2	Front of house – brick and mortar	ND	ND
1911N27-012A	MM-12	2	Back of house – brick and mortar	ND	ND
1911N27-013A	MM-13	2	Fireplace in den – brick and mortar	ND	ND
1911N27-014A	MM-14	2	Fireplace in den- brick and mortar	ND	ND
1911N27-015A	MM-15	2	Bathroom #2– dark pink border tile and grout	ND	ND
1911N27-016A	MM-16	2	Bathroom #2– dark pink border tile and grout	ND	ND
1911N27-017A	MM-17	2	Bathroom #2– pink wall tile and grout	ND	ND
1911N27-018A	MM-18	2	Bathroom #2– pink wall tile and grout	ND	ND
1911N27-019A	MM-19	2	Front of house – black felt behind brick	ND	ND
1911N27-020A	MM-20	2	Bathroom #2– pink floor tile and grout	ND	ND
1911N27-021A	MM-21	2	Bathroom #2– Pink floor tile and grout	ND	ND
1911N27-022A	MM-22	1	Front of house – window glaze	ND	ND
1911N27-023A	MM-23	1	Back of house – window glaze	ND	ND
1911N27-024A	MM-24	2	Shingle and felt above garage	ND	ND
1911N27-025A	MM-25	2	Shingle and felt from behind fireplace	ND	ND

1911N27-026A	MM-26	1	Caulk from roof at fireplace	ND	ND
1911N27-027A	MM-27	1	Caulk from outside roof vent pipe	ND	ND
1911N27-028A	MM-28	2	Master bathroom – green/white floor tile and grout	ND	ND
1911N27-029A	MM-29	2	Master bathroom – green/white floor tile and grout	ND	ND
1911N27-030A	MM-30	1	Master bathroom – green wall tile and grout	ND	ND
1911N27-031A	MM-31	2	Master bathroom – green wall tile and grout	ND	ND
1911N27-032A	MM-32	2	Master bathroom – dark green border tile and grout	ND	ND
1911N27-033A	MM-33	2	Master bathroom – dark green border tile and grout	ND	ND
1911N27-034A	**MM-34**	**1**	**Basement – HVAC tape**	**60%**	**Chrysotile**
1911N27-035A	**MM-35**	**1**	**Basement – HVAC tape**	**60%**	**Chrysotile**
1911N27-036A	**MM-36**	**2**	**Rubber runners on basement steps**	**2% (Layer 2)**	**Chrysotile**
1911N27-037A	**MM-37**	**2**	**Rubber runners on basement steps**	**2% (Layer 2)**	**Chrysotile**
1911N27-038A	**MM-38**	**3**	**Stairway to basement – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**
1911N27-039A	**MM-39**	**3**	**Stairway to basement – joint compound and tape**	**2% (Layer 1)**	**Chrysotile**

Note:

ND = No Asbestos Detected

Hardwood flooring is beneath carpet.

Basement is concrete floors, block walls, carboard ceiling acoustical tile.

Fiberglass insulation is located around the duct work, but joints have paper tape (asbestos containing).

RESULTS

Based on the laboratory analytical results, seven (7) of the thirty-nine (39) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category	Asbestos Content (Type)
Joint compound	MM-8 (1911N27-008A)	1	Intact	No	CAT II	2% (Chrysotile)
HVAC tape	MM-34 (1911N27-034A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC tape	MM-35 (1911N27-035A)	1	Intact	Yes	RACM	60% (Chrysotile)
Glue	MM-36 (1911N27-0036A)	2	Intact	No	CAT II	2% (Chrysotile)
Glue	MM-37 (1911N27-037A)	2	Intact	No	CAT II	2% (Chrysotile
Joint compound	MM-38 (1911N27-038A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-39 (1911N27-039A)	1	Intact	No	CAT II	2% (Chrysotile)

Analytical results are included in **Appendix B**. Sample Locations are included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include

asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Seven (7) of the thirty-nine (39) bulk samples collected had an asbestos content greater than 1%; joint compound and tape in Bathroom #2 and in the stairwell to the basement, HVAC tape in the basement, and the glue on the rubber runners on the basement steps.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

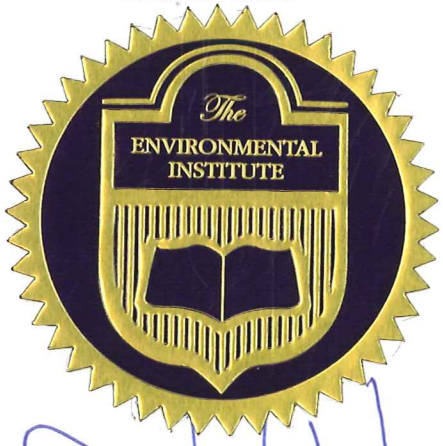
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

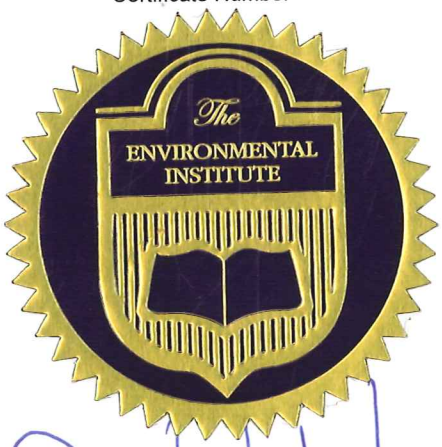
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N27

Page 1 of 2

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	640 Hammond
Address:	501 Hickory Ridge	Project Number:	1-19-1102B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	11-19-19
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie / BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1102B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		Acm		
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lee B	Date/Time:	11/20/19 1500
Received by:		Date/Time:	11-21 1225
Relinquished by:		Date/Time:	11-21 218
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: J Date/Time: 11/21/19 1418 Method of Shipment: CR

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N27

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Mavis Engineering
Address: 501 Hickory Ridge
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie / BJ
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 640 Hammond
Project Number: 1-19-1102B
Sampling Date: 11-19-19
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1102B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	MM 21		ACM		
2	MM 22				
3	MM 23				
4	MM 24				
5	MM 25				
6	MM 26				
7	MM 27				
8	MM 28				
9	MM 29				
10	MM 30				
11	MM 31				
12	MM 32				
13	MM 33				
14	MM 34				
15	MM 35				
16	MM 36				
17	MM 37				
18	MM 38				
19	MM 39				
20					

Relinquished by: Kevin Lee — Date/Time: 11/20/19 1500
Received by: [signature] — Date/Time: 11-21 1225
Relinquished by: [signature] — Date/Time: 11-21 215
Received by: — Date/Time:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY
Lab Recipient: [signature] Date/Time: 11/21/19 1418 Method of Shipment: CR

Asbestos COC 7.6.18

Analytical Environmental Services, Inc

Date: 27-Nov-19

Client: Maxis Engineering, LLC
Project: 640 HAMMOND
Lab ID: 1911N27

Case Narrative

Samples # 1911N27-001A and 1911N27-002A have 2 floorings in each bag. Client will be charged for 2 extra samples.

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	1911N27-001A		ND	ND	ND	ND	ND	ND	Green vinyl
MM1 Layer: 2	1911N27-001A		ND	ND	ND	ND	ND	ND	Pad
MM1 Layer: 1	1911N27-001B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM1 Layer: 2	1911N27-001B		ND	ND	ND	ND	ND	ND	Backing
MM2 Layer: 1	1911N27-002A		ND	ND	ND	ND	ND	ND	Green vinyl
MM2 Layer: 2	1911N27-002A		ND	ND	ND	ND	ND	ND	Pad

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Svetlana Arkhipov

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM2 Layer: 1	1911N27-002B		ND	ND	ND	ND	ND	ND	Beige vinyl
MM2 Layer: 2	1911N27-002B		ND	ND	ND	ND	ND	ND	Backing
MM3 Layer: 1	1911N27-003A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM3 Layer: 2	1911N27-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	1911N27-004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM4 Layer: 2	1911N27-004A		ND	ND	ND	ND	ND	ND	

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Lab Code 102082-0

27-Nov-19

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Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM5 Layer: 1	1911N27-005A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM5 Layer: 2	1911N27-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	1911N27-006A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM6 Layer: 2	1911N27-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	1911N27-007A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM7 Layer: 2	1911N27-007A		ND	ND	ND	ND	ND	ND	

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM8 Layer: 1	1911N27-008A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM8 Layer: 2	1911N27-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 3	1911N27-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	1911N27-009A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM9 Layer: 2	1911N27-009A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 1	1911N27-010A		ND	ND	ND	ND	ND	ND	

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM10 Layer: 2	1911N27-010A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 1	1911N27-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 2	1911N27-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	1911N27-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 2	1911N27-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	1911N27-013A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM13 Layer: 2	1911N27-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	1911N27-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 2	1911N27-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	1911N27-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	1911N27-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	1911N27-016A		ND	ND	ND	ND	ND	ND	

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM16 Layer: 2	1911N27-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	1911N27-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 2	1911N27-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	1911N27-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 2	1911N27-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	1911N27-019A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM19 Layer: 2	1911N27-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	1911N27-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	1911N27-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	1911N27-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	1911N27-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	1911N27-022A		ND	ND	ND	ND	ND	ND	Paint included as binder

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27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM23 Layer: 1	1911N27-023A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM24 Layer: 1	1911N27-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 2	1911N27-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	1911N27-025A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 2	1911N27-025A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 1	1911N27-026A		ND	ND	ND	ND	ND	ND	

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Lab Code 102082-0

27-Nov-19

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Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM27 Layer: 1	1911N27-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	1911N27-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	1911N27-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	1911N27-029A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 2	1911N27-029A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 1	1911N27-030A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

Lab Code 102082-0

27-Nov-19

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Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM31 Layer: 1	1911N27-031A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 2	1911N27-031A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 1	1911N27-032A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 2	1911N27-032A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 1	1911N27-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 2	1911N27-033A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM34 Layer: 1	1911N27-034A		60	ND	ND	ND	ND	ND	
MM35 Layer: 1	1911N27-035A		60	ND	ND	ND	ND	ND	
MM36 Layer: 1	1911N27-036A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 2	1911N27-036A		2	ND	ND	ND	ND	ND	Glue
MM37 Layer: 1	1911N27-037A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 2	1911N27-037A		2	ND	ND	ND	ND	ND	Glue

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NVLAP Lab Code 102082-0

27-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N27**
Project Name:	**640 HAMMOND**	Project Number:	**1-19-1102 B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM38 Layer: 1	1911N27-038A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM38 Layer: 2	1911N27-038A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 3	1911N27-038A		ND	ND	ND	ND	ND	ND	
MM39 Layer: 1	1911N27-039A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM39 Layer: 2	1911N27-039A		ND	ND	ND	ND	ND	ND	
MM39 Layer: 3	1911N27-039A		ND	ND	ND	ND	ND	ND	

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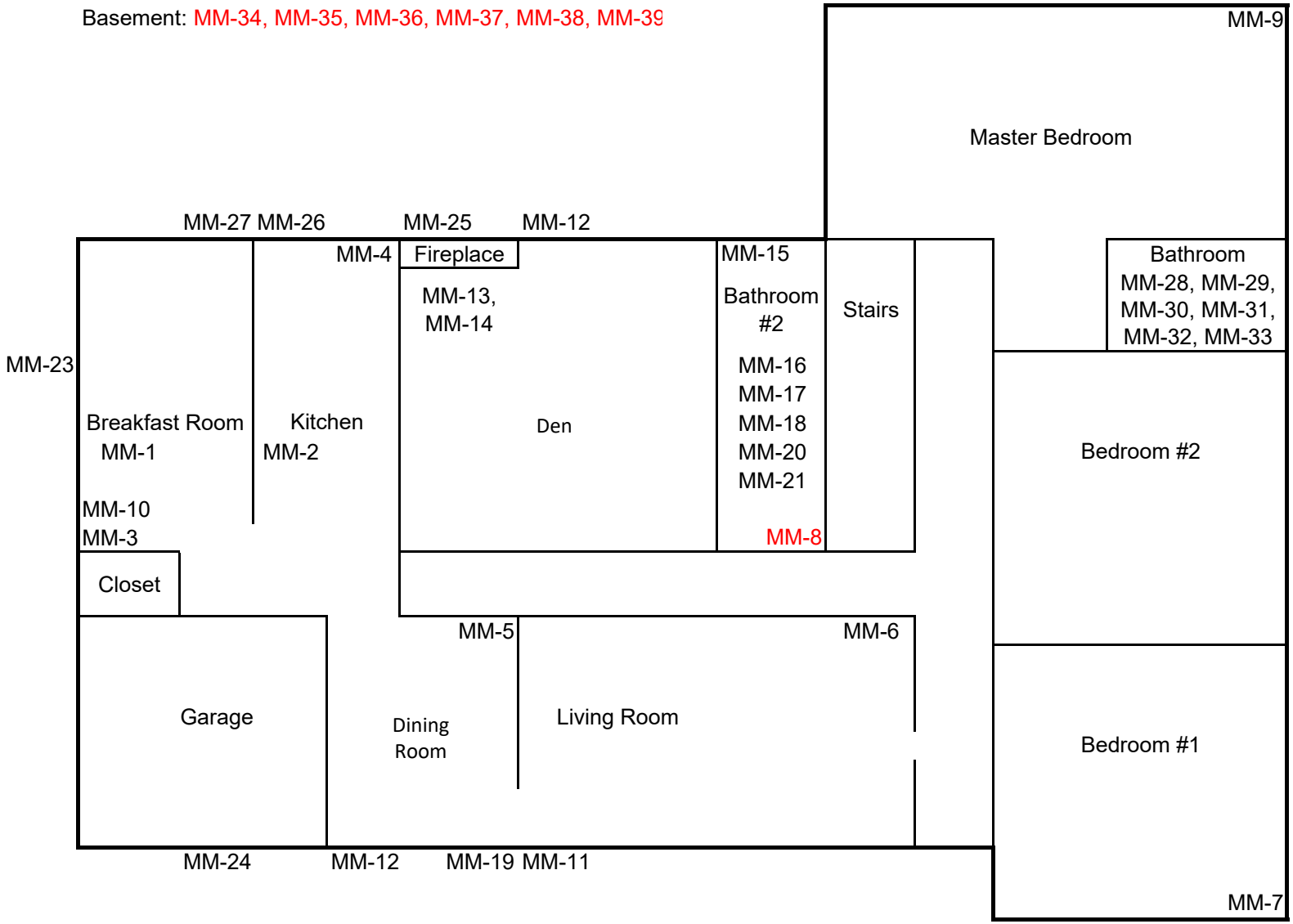
APPENDIX C

Sample Locations



640 Hammond Drive, NE

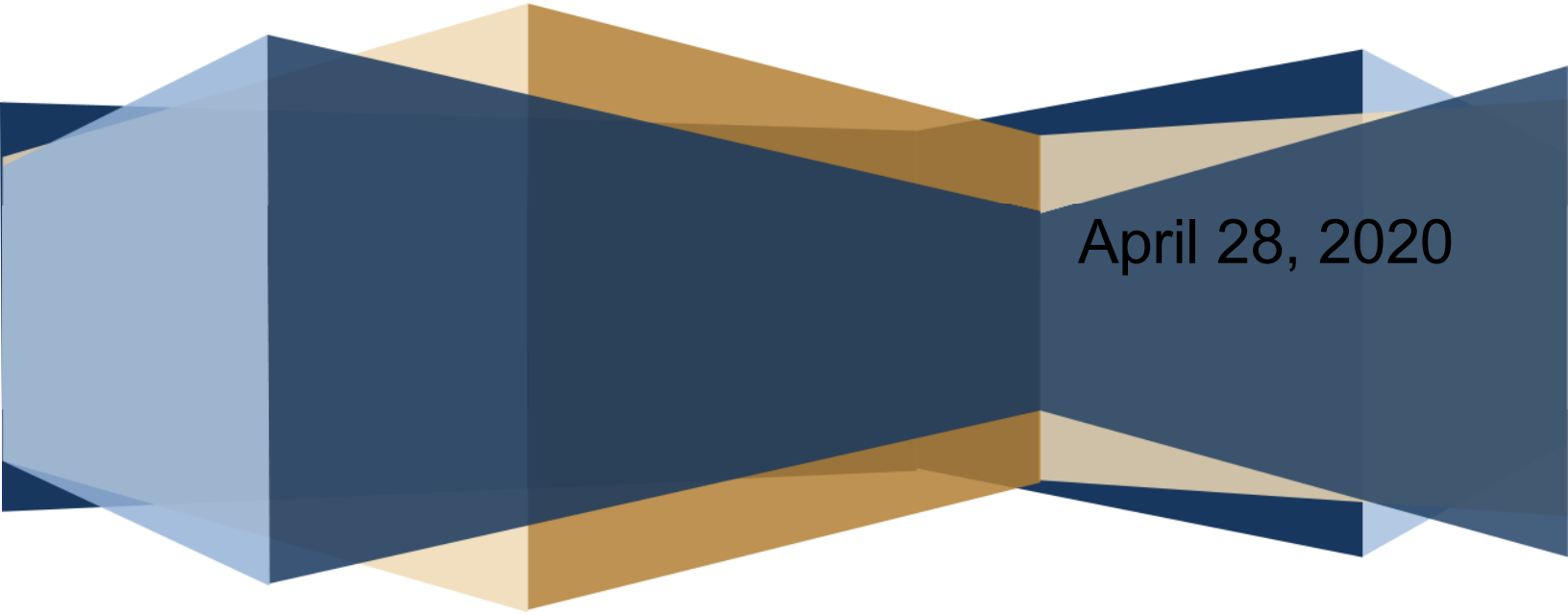
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

660 Hammond Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1097B



April 28, 2020

MAXIS ENGINEERING

April 29, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
660 Hammond Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1097B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 660 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 2,000 square-foot (sq ft), brick-sided residential structure on a partial basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on January 8, 2020, by a certified asbestos inspector; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt and shingles, roofing caulk and brick and mortar; (interior) – vinyl floor tile and mastic, floor tile and grout, wall tile and grout, plaster walls, black wall felt, black floor felt, and duct work smear. A total of thirty-seven (37) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical

Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

660 Hammond Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2001B35-001A	MM-1	1	Roof above Garage – Shingle/felt	ND	ND
2001B35-002A	MM-2	1	Roof above Front Door – Shingle/felt	ND	ND
2001B35-003A	MM-3	1	Roof – Caulk around fireplace	ND	ND
2001B35-004A	MM-4	1	Roof – Caulk around fireplace	ND	ND
2001B35-005A	MM-5	2	Outside Garage Area – Brick and mortar	ND	ND
2001B35-006A	MM-6	1	Garage Area – Felt behind brick	ND	ND
2001B35-007A	MM-7	2	Front of House – Brick and mortar	ND	ND
2001B35-008A	MM-8	1	Front of House – Felt behind brick and mortar	ND	ND
2001B35-009A	**MM-9**	**1**	**Kitchen – Tan floor tile/mastic**	**10% (Layer 1)**	**Chrysotile**

2001B35-009B	**MM-9**	**3**	**Kitchen – Tan floor tile/mastic**	**10% (Layer 1)**	**Chrysotile**
				5% (Layer 2)	**Chrysotile**
2001B35-010A	**MM-10**	**3**	**Kitchen – floor tile/mastic**	**10% (Layer 2)**	**Chrysotile**
				5% (Layer 3)	**Chrysotile**
2001B35-011A	MM-11	2	Kitchen – Tan floor tile/grout	ND	ND
2001B35-012A	MM-12	2	Kitchen – Tan floor tile/grout	ND	ND
2001B35-013A	MM-13	2	Master Bathroom – Green floor tile/grout	ND	ND
2001B35-014A	MM-14	2	Master Bathroom – Green floor tile/grout	ND	ND
2001B35-015A	MM-15	2	Master Bathroom – Green wall tile/grout	ND	ND
2001B35-016A	MM-16	2	Master Bathroom – Green wall tile/grout	ND	ND
2001B35-017A	MM-17	2	Shower – White tile/grout	ND	ND
2001B35-018A	MM-18	2	Shower – White tile/grout	ND	ND
2001B35-019A	MM-19	2	Shower – Green floor tile grout	ND	ND
2001B35-020A	MM-20	2	Shower – Green floor tile grout	ND	ND
2001B35-021A	MM-21	2	Guest Bedroom – Pink floor tile/grout	ND	ND
2001B35-022A	MM-22	2	Guest Bedroom – Pink floor tile/grout	ND	ND

2001B35-023A	MM-23	2	Guest Bedroom – Pink wall tile/grout	ND	ND
2001B35-024A	MM-24	2	Guest Bedroom – Pink wall tile/grout	ND	ND
2001B35-025A	MM-25	2	Bedroom #3 – wall/ceiling plaster	ND	ND
2001B35-026A	MM-26	2	Pink Bathroom – Plaster wall	ND	ND
2001B35-027A	MM-27	2	Office off Kitchen – Plaster wall	ND	ND
2001B35-028A	MM-28	2	Bedroom #4 – Plaster wall	ND	ND
2001B35-029A	MM-29	2	Bedroom #1 – Plaster wall	ND	ND
2001B35-030A	MM-30	2	Bedroom #1 – Plaster wall	ND	ND
2001B35-031A	MM-31	2	Kitchen – Plaster wall	ND	ND
2001B35-032A	**MM-32**	**2**	**Basement Bottom of Steps – Green floor tile**	**5% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B35-033A	**MM-33**	**2**	**Basement – Green floor tile**	**5% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B35-034A	**MM-34**	**2**	**Basement – Duct work smear**	**60% (Layer 2)**	**Chrysotile**
2001B35-035A	MM-35	1	Basement - Green floor tile	ND	ND
2001B35-036A	MM-36	1	Office Area – Black felt under Hardwood	ND	ND

2001B35-037A	MM-37	1	Bedroom #4 – Black felt under Hardwood	ND	ND

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, five (5) of the thirty-seven (37) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category	Asbestos Content (Type)
Tan Floor Tile	MM-9 (2001B35-009A)	1	Intact	No	CAT I	10% (Chrysotile)
Beige Floor Tile	MM-9 (2001B35-009B)	1	Intact	No	CAT I	10% (Chrysotile)
Black Mastic		2	Intact	No	CAT I	5% (Chrysotile)
Floor Tile	MM-10 (2001B35-010A)	2	Intact	No	CAT I	10% (Chrysotile)
Black Mastic		3	Intact	No	CAT I	5% (Chrysotile)
Floor Tile	MM-32 (2001B35-032A)	1	Intact	No	CAT I	5% (Chrysotile)
Black Mastic		2	Intact	No	CAT I	3% (Chrysotile)
Floor Tile	MM-33 (2001B35-033A)	1	Intact	No	CAT I	5% (Chrysotile
Black Mastic		2	Intact	No	CAT I	3% (Chrysotile
Smear	MM-34 (2001B35-034A)	2	Intact	No	CAT II	60% (Chrysotile)

Analytical results are included in **Appendix B**. Sample Locations are included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Five (5) of the thirty-seven (37) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with the small areas of floor tile and mastic in the kitchen, smear associated with HVAC duct work, and floor tile/mastic in the basement.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

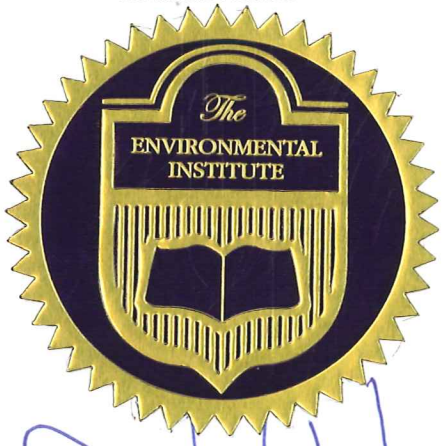
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

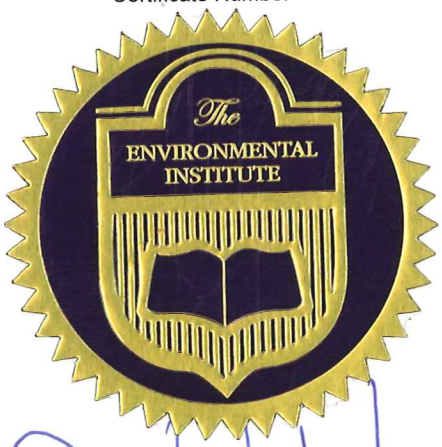
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

AES | ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B35

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail Suite 110
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie/BJ
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 1-19-1097B
Project Number: 660 Hammond
Sampling Date: 1-8-2020
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1097B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by: [signature] Date/Time: 1/10/20 8:00
Received by: [signature] Date/Time: 1-10-20 8:30
Relinquished by: [signature] Date/Time: 1-10-20 2:25
Received by: Date/Time:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY
Lab Recipient: [signature] Date/Time: 1/10/2020 1425 Method of Shipment: CR

Asbestos COC 7.6.18

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001835

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	660 Hammond
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1097 B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-8-2020
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1097 B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	5T	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16	mm 36				
17	mm37				
18					
19					
20					

Relinquished by:	Ronnie Lott	Date/Time:	1/10/2020 8:00
Received by:		Date/Time:	1-10-20 8:30
Relinquished by:		Date/Time:	1-10-20 12:12
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: J Date/Time: 1/10/20 1425 Method of Shipment: UPS

Asbestos COC 7.6.18

Client: Maxis Engineering, LLC
Project: 660 HAMMOND
Lab ID: 2001B35

Case Narrative

Sample 2001B35-009A had two types of flooring. Client will be charged for 1 extra sample.

AES
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2001B35-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2001B35-002A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 1	2001B35-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	2001B35-004A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 1	2001B35-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 2	2001B35-005A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM6 Layer: 1	2001B35-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2001B35-007A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 2	2001B35-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2001B35-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2001B35-009A		10	ND	ND	ND	ND	ND	Gray floor tile
MM9 Layer: 1	2001B35-009B		10	ND	ND	ND	ND	ND	Beige floor tile

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM9 Layer: 2	2001B35-009B		5	ND	ND	ND	ND	ND	Black mastic
MM9 Layer: 3	2001B35-009B		ND	ND	ND	ND	ND	ND	Felt
MM10 Layer: 1	2001B35-010A		ND	ND	ND	ND	ND	ND	Felt
MM10 Layer: 2	2001B35-010A		10	ND	ND	ND	ND	ND	Floor tile
MM10 Layer: 3	2001B35-010A		5	ND	ND	ND	ND	ND	Black mastic
MM11 Layer: 1	2001B35-011A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM11 Layer: 2	2001B35-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	2001B35-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 2	2001B35-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	2001B35-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 2	2001B35-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	2001B35-014A		ND	ND	ND	ND	ND	ND	

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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QC Analyst: Yelena Khanina

AES
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM14 Layer: 2	2001B35-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2001B35-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	2001B35-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2001B35-016A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 2	2001B35-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	2001B35-017A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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QC Analyst: Yelena Khanina

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Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM17 Layer: 2	2001B35-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	2001B35-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 2	2001B35-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	2001B35-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	2001B35-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	2001B35-020A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM20 Layer: 2	2001B35-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	2001B35-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	2001B35-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	2001B35-022A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 2	2001B35-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2001B35-023A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM23 Layer: 2	2001B35-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	2001B35-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 2	2001B35-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	2001B35-025A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM25 Layer: 2	2001B35-025A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 1	2001B35-026A		ND	ND	ND	ND	ND	ND	Paint included as binder

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ND = None Detected

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Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM26 Layer: 2	2001B35-026A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 1	2001B35-027A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM27 Layer: 2	2001B35-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	2001B35-028A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM28 Layer: 2	2001B35-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	2001B35-029A		ND	ND	ND	ND	ND	ND	Paint included as binder

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ND = None Detected

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM29 Layer: 2	2001B35-029A		ND	ND	ND	ND	ND	ND	
MM30 Layer: 1	2001B35-030A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM30 Layer: 2	2001B35-030A		ND	ND	ND	ND	ND	ND	
MM31 Layer: 1	2001B35-031A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM31 Layer: 2	2001B35-031A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 1	2001B35-032A		5	ND	ND	ND	ND	ND	Floor tile

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM32 Layer: 2	2001B35-032A		3	ND	ND	ND	ND	ND	Black mastic
MM33 Layer: 1	2001B35-033A		5	ND	ND	ND	ND	ND	Floor tile
MM33 Layer: 2	2001B35-033A		3	ND	ND	ND	ND	ND	Black mastic
MM34 Layer: 1	2001B35-034A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 2	2001B35-034A		60	ND	ND	ND	ND	ND	
MM35 Layer: 1	2001B35-035A		ND	ND	ND	ND	ND	ND	

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Report Date: 16-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B35**
Project Name: **660 HAMMOND**
Project Number: **1-19-1097B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM36 Layer: 1	2001B35-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	2001B35-037A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
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ND = None Detected

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APPENDIX C

Sample Locations

Roof caulk around MM-3
fireplace MM-4

MM-6
MM-1 MM-5

Garage	**Den**	**Bedroom #4** MM-28 MM-37	MM-13 MM-16 MM-14 MM-17 MM-15 MM-18 MM-19 **Master Bathroom** MM-20	**Bedroom #1** MM-29 MM-30
MM-9 MM-11 MM-10 MM-12 **Kitchen** MM-31	MM-27 **Office** MM-36	**Bedroom #3** MM-25	MM-21 MM23 MM-22 MM-24 **Guest Bathroom** MM-26	**Bedroom #2**

MM-2 MM-7
MM-8

Basement: MM-32
MM-33
MM-34
MM-35

660 Hammond Drive

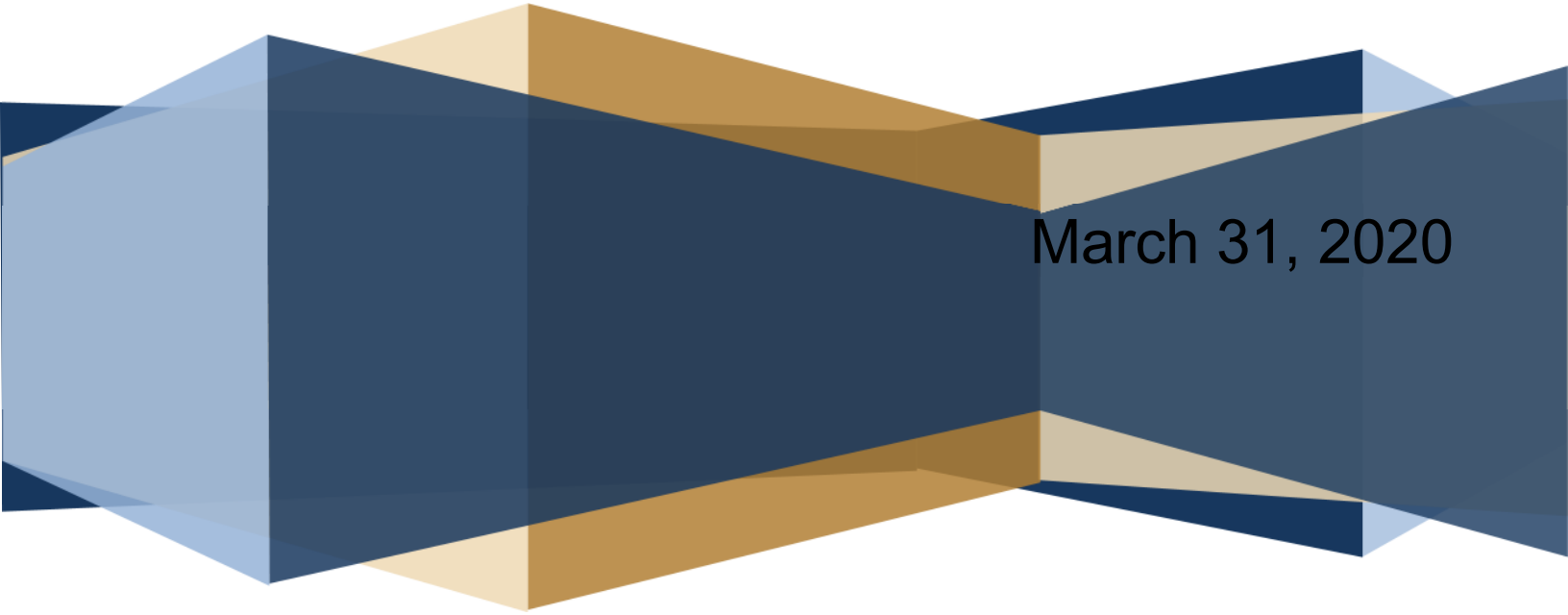
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

6038 Harleston Road, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1070B



March 31, 2020

MAXIS ENGINEERING

March 31, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
6038 Harleston Road,
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1070B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 6038 Harleston Road, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,200 square-foot, one story, brick-sided structure on a full basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on January 7, 2020, by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (exterior) roofing felt, roofing caulk, and brick and mortar; (interior) – fireplace brick and mortar, floor tile and grout, wall tile and grout, joint compound and tape, black wall felt and black floor felt. A total of forty-two (42) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary

Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

6038 Harleston Road

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2001B34-001A	MM-1	2	Living Room – Plaster wall	ND	ND
2001B34-002A	MM-2	2	Living Room – Plaster wall	ND	ND
2001B34-003A	**MM-3**	**3**	**Kitchen – Vinyl floor tan**	**50% (Layer 2)**	**Chrysotile**
2001B34-004A	**MM-4**	**3**	**Dining Room – Vinyl floor tan**	**50% (Layer 2**	**Chrysotile**
2001B34-005A	MM-5	2	Dining Room – Plaster ceiling with texture	ND	ND
2001B34-006A	MM-6	2	Dining Room – Plaster ceiling with texture	ND	ND
2001B34-007A	MM-7	2	Back of House – Brick and mortar	ND	ND
2001B34-008A	MM-8	3	Bathroom Floor – Tan/red tile with grout	ND	ND
2001B34-009A	MM-9	3	Bathroom Floor – Tan/red tile with grout	ND	ND
2001B34-010A	MM-10	2	Bathroom – Pink wall tile/grout	ND	ND

2001B34-011A	MM-11	2	Bathroom – Pink wall tile/grout	ND	ND
2001B34-012A	MM-12	2	Bathroom – Brown wall tile/grout border tile	ND	ND
2001B34-013A	MM-13	2	Bathroom – Brown wall tile/grout border tile	ND	ND
2001B34-014A	MM-14	2	Front Bedroom – plaster wall	ND	ND
2001B34-015A	MM-15	2	Back Bedroom – plaster wall	ND	ND
2001B34-016A	MM-16	2	Bedroom – Back plaster wall	ND	ND
2001B34-017A	MM-17	2	Living Room – Black felt behind plaster	ND	ND
2001B34-018A	MM-18	2	Back Bedroom – Black felt behind plaster	ND	ND
2001B34-019A	MM-19	2	Front of House – Brick and mortar	ND	ND
2001B34-020A	MM-20	3	Front Bedroom Bathroom – Floor tile/grout	ND	ND
2001B34-021A	MM-21	3	Front Bedroom Bathroom – Floor tile/grout	ND	ND
2001B34-022A	MM-22	2	Front Bedroom Bathroom – Blue wall tile/grout	ND	ND
2001B34-023A	MM-23	2	Front Bedroom Bathroom – Blue wall tile/grout	ND	ND
2001B34-024A	MM-24	1	Front Bedroom Bathroom – Blue wall tile/grout	ND	ND
2001B34-025A	MM-25	1	Front Bedroom Bathroom – Blue wall tile/grout	ND	ND
2001B34-026A	**MM-26**	**1**	**Basement – AC duct work tape**	**60% (Layer 1)**	**Chrysotile**
2001B34-027A	**MM-27**	**1**	**Basement – AC duct work tape**	**60% (Layer 1)**	**Chrysotile**

2001B34-028A	**MM-28**	**2**	**Basement – Tile floor/mastic**	**50% (Layer 2)**	**Chrysotile**
2001B34-028B		**2**	**Basement – Tile floor/mastic**	**10% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B34-029A	**MM-29**	**2**	**Basement – Tile floor/mastic**	**50% (Layer 2)**	**Chrysotile**
2001B34-029B		**2**	**Basement – Tile floor/mastic**	**10% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B34-030A	**MM-30**	**2**	**Basement – Tan floor tile/mastic**	**10% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B34-031A	**MM-31**	**2**	**Basement – Tan floor tile/mastic**	**10% (Layer 1)**	**Chrysotile**
				3% (Layer 2)	**Chrysotile**
2001B34-032A	MM-32	3	Basement – Joint tape/compound	ND	ND
2001B34-033A	MM-33	3	Basement – Joint tape/compound	ND	ND
2001B34-034A	MM-34	3	Basement – Joint tape/compound	ND	ND
2001B34-035A	MM-35	2	Roof Above Garage – Roof shingle and felt from garage	ND	ND
2001B34-036A	MM-36	2	Roof Above Living Room - Roof shingle and felt	ND	ND
2001B34-037A	MM-37	1	Roof – Black caulk from roof vent pipe	ND	ND
2001B34-038A	MM-38	1	Roof – Black caulk from roof vent pipe	ND	ND

2001B34-039A	MM-39	2	Behind Brick Garage - Felt	ND	ND
2001B34-040A	MM-40	2	Outside Front Bedroom – Felt	ND	ND
2001B34-041A	MM-41	1	Living Room – Felt under hardwood floor	ND	ND
2001B34-042A	MM-42	1	Basement Steps - Felt	ND	ND

Note:

ND = No Asbestos Detected

RESULTS

Based on the laboratory analytical results, eight (8) of the forty-two (42) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, "<1%". "None Detected" indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples

Material	Location (Sample ID)	Layer	Condition of Material	Friable Yes/No	NESHAP Category**	Asbestos Content (Type)
Floor backing	MM-3 (2001B34-003A)	2	Intact	No	CAT I	50% (Chrysotile)
Floor backing	MM-4 (2001B34-004A)	2	Intact	No	CAT I	50% (Chrysotile)
HVAC tape	MM-26 (2001B34-026A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC tape	MM-27 (2001B34-027A)	1	Intact	Yes	RACM	60% (Chrysotile)
Floor backing	MM-28 (2001B34-028A)	2	Intact	No	CAT I	50% (Chrysotile)
Floor tile	MM-28 (2001B34-028B)	1	Intact	No	CAT I	10% (Chrysotile)

Mastic		2	Intact	No	CAT I	3% (Chrysotile)
Floor backing	MM-29 (2001B34-029A)	2	Intact	No	CAT I	50% (Chrysotile)
Floor tile	MM-29 (2001B34-029B)	1	Intact	No	CAT I	10% (Chrysotile)
Mastic		2	Intact	No	CAT I	3% (Chrysotile)
Floor tile	MM-30 (2001B34-030A)	1	Intact	No	CAT I	10% (Chrysotile)
Mastic		2	Intact	No	CAT I	3% (Chrysotile)
Floor tile	MM-31 (2001B34-031A)	1	Intact	No	CAT I	10% (Chrysotile)
Mastic		2	Intact	No	CAT I	3% (Chrysotile

Analytical results are included in **Appendix B**. A Sample Location Map has been included in **Appendix C**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Eight (8) of the forty-two (42) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with the flooring in the kitchen and dining room, flooring in the basement, and tape associated with the HVAC duct work.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

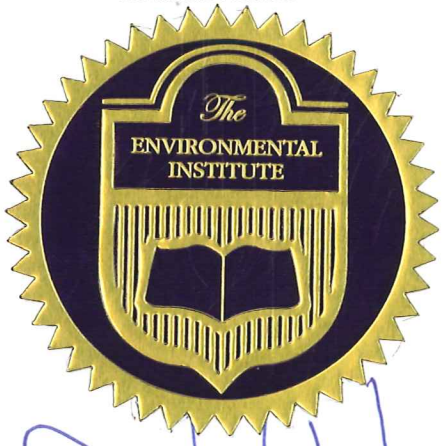
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

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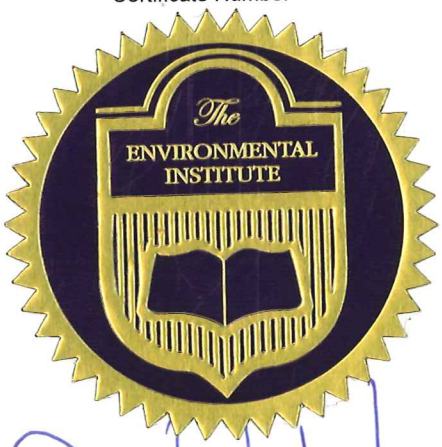

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APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B34

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	6038 Harkston Road
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1070B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-7-2020
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1070B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		ACM	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lott	Date/Time: 1-7-2020 1500
Received by:		Date/Time: 1-10-20 8:30
Relinquished by:		Date/Time: 1-10-20 2:25
Received by:		Date/Time:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: | Date/Time: 1/10/2020 1425 | Method of Shipment: CR

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2001B34

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	6038 Harkston Road
Address:	501 Hickory Ridge Trail Suite 10	Project Number:	1-19-1070B
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	1-7-2020
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie/BJ	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1070B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	ST	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16	mm 36				
17	mm 37				
18	mm 38				
19	mm 39				
20	mm 40				

Relinquished by:	Ronnie Lott	Date/Time:	1-7-2020 1500
Received by:		Date/Time:	1-10-20 8:35
Relinquished by:		Date/Time:	1-10-20 2:25
Received by:		Date/Time:	

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FOR LAB USE ONLY

Lab Recipient: | Date/Time: 1/10/2020 1425 | Method of Shipment: CR

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AES

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Work Order: 2001B34

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail Suite 110
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie/BJ
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 6038 Hardeston Road
Project Number: 1-19-1070B
Sampling Date: 1-7-2020
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1070B

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 41		ACM	ST	
2	mm 42		1	1	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Relinquished by: Ronnie Lott — Date/Time: 1-7-2020 1500
Received by: — Date/Time: 1-10-20 1:30
Relinquished by: — Date/Time: 1-10-20 2:25
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FOR LAB USE ONLY
Lab Recipient: — Date/Time: 1/10/2020 1425 — Method of Shipment: CR

Client: Maxis Engineering, LLC
Project: 6038 HARLESTON ROAD
Lab ID: 2001B34

Case Narrative

Samples 2001B34-028A; 2001B34-029A had two types of flooring each. Client will be charged for 2 extra samples.

AES
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Atlanta,GA 30340
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Fax:(770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2001B34-001A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM1 Layer: 2	2001B34-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2001B34-002A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM2 Layer: 2	2001B34-002A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 1	2001B34-003A		ND	ND	ND	ND	ND	ND	Vinyl
MM3 Layer: 2	2001B34-003A		50	ND	ND	ND	ND	ND	Backing

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

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Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM3 Layer: 3	2001B34-003A		ND	ND	ND	ND	ND	ND	Glue
MM4 Layer: 1	2001B34-004A		ND	ND	ND	ND	ND	ND	Vinyl
MM4 Layer: 2	2001B34-004A		50	ND	ND	ND	ND	ND	Backing
MM4 Layer: 3	2001B34-004A		ND	ND	ND	ND	ND	ND	Glue
MM5 Layer: 1	2001B34-005A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM5 Layer: 2	2001B34-005A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM6 Layer: 1	2001B34-006A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM6 Layer: 2	2001B34-006A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 1	2001B34-007A		ND	ND	ND	ND	ND	ND	
MM7 Layer: 2	2001B34-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2001B34-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 2	2001B34-008A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM8 Layer: 3	2001B34-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2001B34-009A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 2	2001B34-009A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 3	2001B34-009A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 1	2001B34-010A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 2	2001B34-010A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

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NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM11 Layer: 1	2001B34-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 2	2001B34-011A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 1	2001B34-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 2	2001B34-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	2001B34-013A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 2	2001B34-013A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM14 Layer: 1	2001B34-014A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM14 Layer: 2	2001B34-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2001B34-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	2001B34-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2001B34-016A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 2	2001B34-016A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM17 Layer: 1	2001B34-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 3	2001B34-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	2001B34-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 3	2001B34-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	2001B34-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	2001B34-019A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM20 Layer: 1	2001B34-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	2001B34-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 3	2001B34-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	2001B34-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	2001B34-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 3	2001B34-021A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM22 Layer: 1	2001B34-022A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 2	2001B34-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2001B34-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 2	2001B34-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	2001B34-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	2001B34-025A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM26 Layer: 1	2001B34-026A		60	ND	ND	ND	ND	ND	
MM27 Layer: 1	2001B34-027A		60	ND	ND	ND	ND	ND	
MM28 Layer: 1	2001B34-028A		ND	ND	ND	ND	ND	ND	Blue vinyl
MM28 Layer: 2	2001B34-028A		50	ND	ND	ND	ND	ND	Backing
MM28 Layer: 1	2001B34-028B		10	ND	ND	ND	ND	ND	Beige floor tile
MM28 Layer: 2	2001B34-028B		3	ND	ND	ND	ND	ND	Black mastic

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM29 Layer: 1	2001B34-029A		ND	ND	ND	ND	ND	ND	Blue vinyl
MM29 Layer: 2	2001B34-029A		50	ND	ND	ND	ND	ND	Backing
MM29 Layer: 1	2001B34-029B		10	ND	ND	ND	ND	ND	Beige floor tile
MM29 Layer: 2	2001B34-029B		3	ND	ND	ND	ND	ND	Black mastic
MM30 Layer: 1	2001B34-030A		10	ND	ND	ND	ND	ND	Floor tile
MM30 Layer: 2	2001B34-030A		3	ND	ND	ND	ND	ND	Black mastic

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM31 Layer: 1	2001B34-031A		10	ND	ND	ND	ND	ND	Floor tile
MM31 Layer: 2	2001B34-031A		3	ND	ND	ND	ND	ND	Black mastic
MM32 Layer: 1	2001B34-032A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM32 Layer: 2	2001B34-032A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 3	2001B34-032A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 1	2001B34-033A		ND	ND	ND	ND	ND	ND	Paint included as binder

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM33 Layer: 2	2001B34-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 3	2001B34-033A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 1	2001B34-034A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM34 Layer: 2	2001B34-034A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 3	2001B34-034A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 1	2001B34-035A		ND	ND	ND	ND	ND	ND	

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AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM35 Layer: 2	2001B34-035A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 1	2001B34-036A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 2	2001B34-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	2001B34-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	2001B34-038A		ND	ND	ND	ND	ND	ND	
MM39 Layer: 1	2001B34-039A		ND	ND	ND	ND	ND	ND	

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NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 15-Jan-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2001B34**
Project Name: **6038 HARLESTON ROAD**
Project Number: **1-19-1070B**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM39 Layer: 2	2001B34-039A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 1	2001B34-040A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 2	2001B34-040A		ND	ND	ND	ND	ND	ND	
MM41 Layer: 1	2001B34-041A		ND	ND	ND	ND	ND	ND	
MM42 Layer: 1	2001B34-042A		ND	ND	ND	ND	ND	ND	

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ND = None Detected

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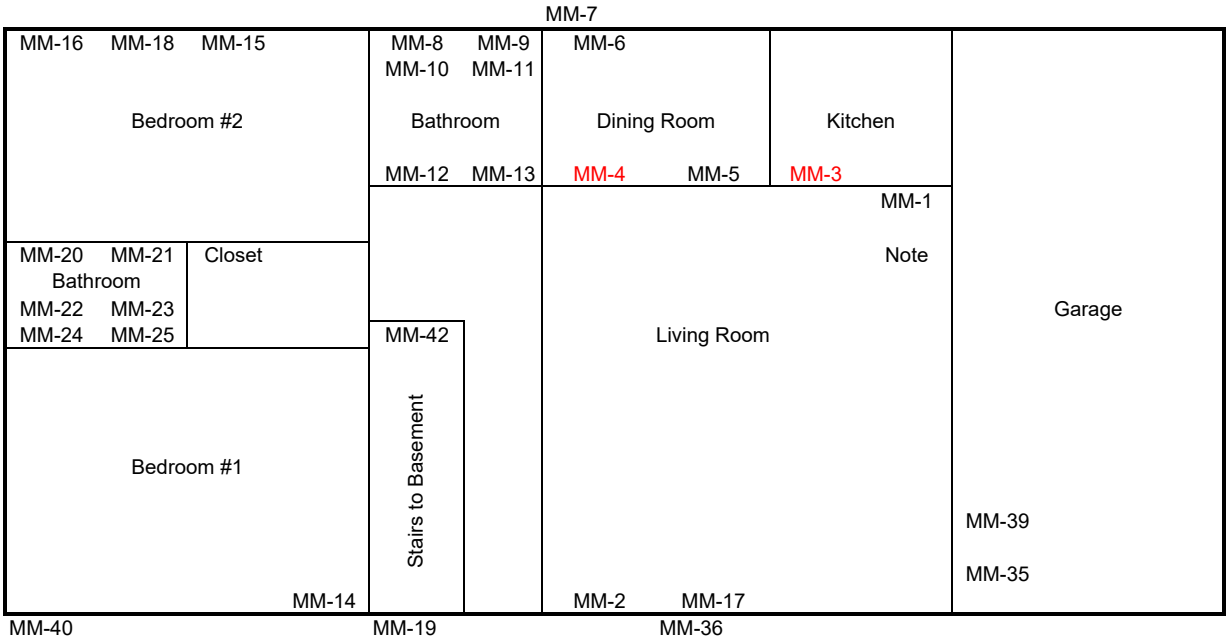
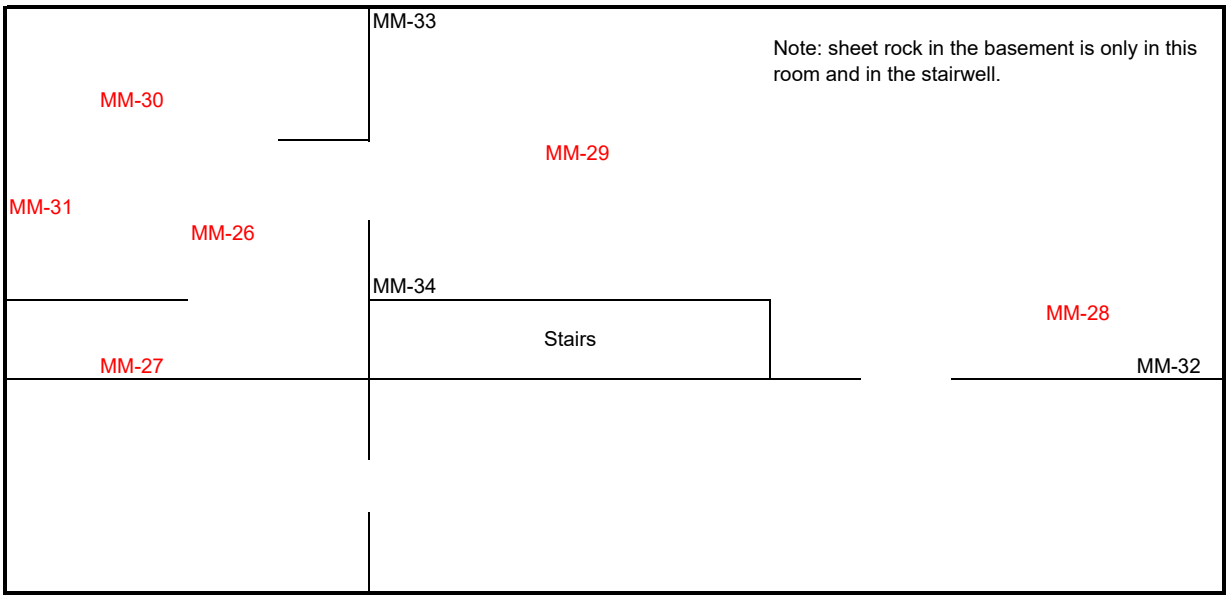
APPENDIX C

Sample Location Map

Main Floor



Basement



6038 Harleston Road

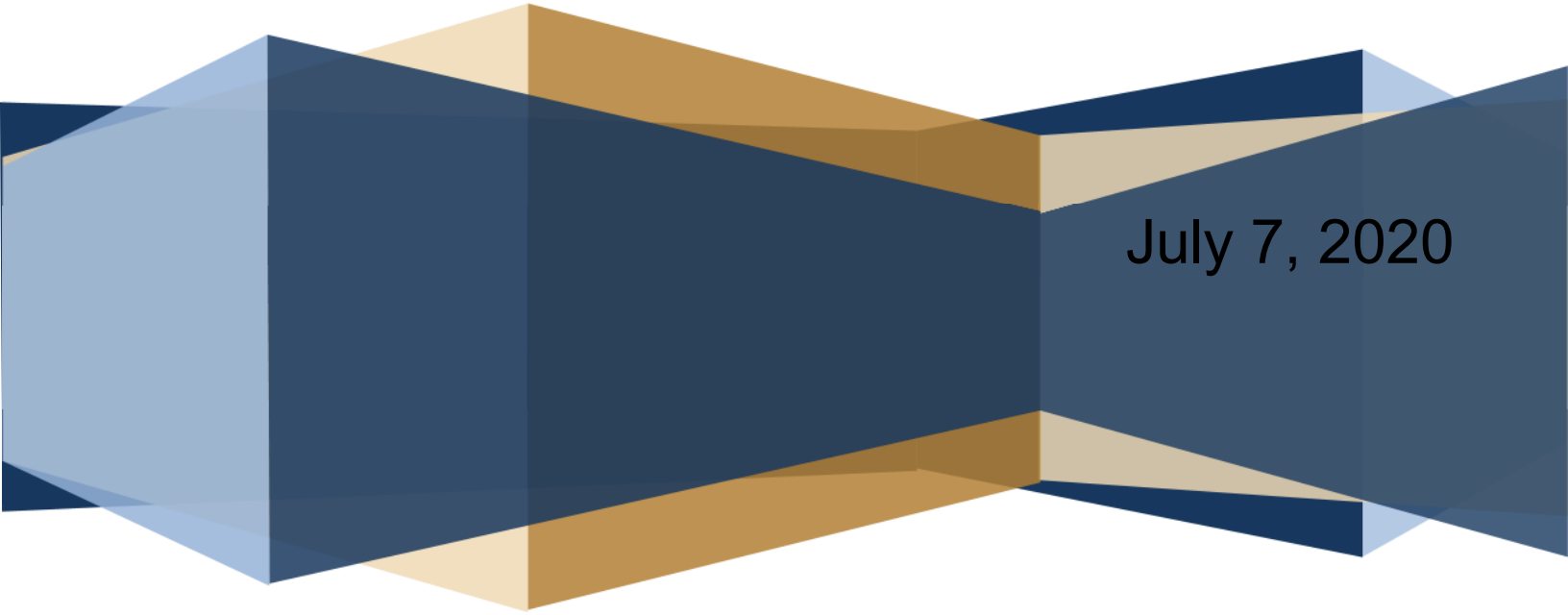
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

6017 Kayron Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-17-875B



July 7, 2020

MAXIS ENGINEERING

July 7, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
6017 Kayron Drive
Sandy Springs, Fulton Co., Georgia
Project No.: 1-17-875B

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 6017 Kayron Drive, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 1,300 square-foot (sq ft), partial brick-sided, two (2) story residential structure on a partial basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on May 14, 2020 by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (interior) – fireplace brick and mortar, floor and wall tile and grout, joint compound and tape, black wall felt, and sub-floor felt (exterior) – brick and mortar, roofing, and caulk. A total of thirty-eight (38) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

6017 Kayron Drive

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
2005E93-001A	MM-1	2	Kitchen – Tan tile and grout	ND	ND
2005E93-002A	MM-2	2	Kitchen – Tan tile and grout	ND	ND
2005E93-003A	MM-3	2	Kitchen – Brown tile and grout	ND	ND
2005E93-004A	MM-4	2	Kitchen – Brown tile and grout	ND	ND
2005E93-005A	MM-5	2	Kitchen – Dark brown tile back splash	ND	ND
2005E93-006A	MM-6	2	Kitchen – Dark brown tile back splash	ND	ND
2005E93-007A	MM-7	2	Kitchen – Joint tape and compound	ND	ND
2005E93-008A	MM-8	2	Fireplace Kitchen side – Brick and mortar	ND	ND
2005E93-009A	MM-9	2	Fireplace den side – Brick and mortar	ND	ND
2005E93-010A	**MM-10**	**3**	**Den – Joint tape and compound**	**2% (Layer 1)**	**Chrysotile**
2005E93-011A	**MM-11**	**3**	**Front Door Foyer – Joint tape and compound**	**2% (Layer 1)**	**Chrysotile**

2005E93-012A	**MM-12**	**3**	**Downstairs Bathroom – Joint tape and compound**	**2% (Layer 1)**	**Chrysotile**
2005E93-013A	**MM-13**	**4**	**Downstairs Bedroom – Joint tape and compound**	**2% (Layer 2)**	**Chrysotile**
2005E93-014A	MM-14	2	Downstairs Bathroom Floor – Tan tile and grout	ND	ND
2005E93-015A	MM-15	2	Downstairs Bathroom Floor – Tan tile and grout	ND	ND
2005E93-016A	MM-16	2	Downstairs Bathroom Floor – Black/gold tile and grout	ND	ND
2005E93-017A	MM-17	2	Downstairs Bathroom Floor – Black/gold tile and grout	ND	ND
2005E93-018A	MM-18	3	Stair Landing Upstairs – Joint tape and compound	ND	ND
2005E93-019A	MM-19	3	Upstairs Master Bathroom – Joint tape and compound	ND	ND
2005E93-020A	MM-20	3	Upstairs Master Bedroom – Joint tape and compound	ND	ND
2005E93-021A	MM-21	2	Upstairs Master Bathroom – Beige tile and grout	ND	ND
2005E93-022A	MM-22	2	Upstairs Master Bathroom – Beige tile/grout	ND	ND
2005E93-023A	MM-23	3	Upstairs Master Bathroom – Brown décor tile and grout	ND	ND
2005E93-024A	MM-24	3	Upstairs Master Bathroom – Brown décor tile and grout	ND	ND
2005E93-025A	MM-25	3	Upstairs Master Bathroom – Beige tile and grout	ND	ND
2005E93-026A	MM-26	3	Upstairs Master Bathroom – Beige tile and grout	ND	ND
2005E93-027A	MM-27	3	Bathroom Bath Edge – Tan/brown tile décor	ND	ND
2005E93-028A	MM-28	3	Bathroom Shower Wall – Tan/brown tile décor	ND	ND

2005E93-029A	**MM-29**	**1**	**Basement – Duct tape**	**60% (Layer 1)**	**Chrysotile**
2005E93-030A	**MM-30**	**1**	**Den – Duct tape**	**60% (Layer 1)**	**Chrysotile**
2005E93-031A	MM-31	1	Den – Black backing on insulation or press wood behind brick	ND	ND
2005E93-032A	MM-32	1	Upstairs Master Bedroom – Black Backing on insulation or press wood behind brick	ND	ND
2005E93-033A	MM-33	2	Above Garage Front of House – Shingle/felt	ND	ND
2005E93-034A	MM-34	2	Back of House above Den – Shingle/felt	ND	ND
2005E93-035A	MM-35	1	Roof around Chimney – Black caulk	ND	ND
2005E93-036A	MM-36	1	Roof Vent Pipe – Black caulk	ND	ND
2005E93-037A	MM-37	1	Bottom Bedroom #1 – Black felt under subfloor	ND	ND
2005E93-038A	MM-38	1	Bedroom #2 – Black felt under subfloor	ND	ND

Note:

ND = No Asbestos Detected

- Breakfast room and room off of the kitchen are sheet rock walls and ceiling. All other rooms are plaster walls and ceilings.

RESULTS

Based on the laboratory analytical results, six (6) of the thirty-eight (38) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, “<1%”. “None Detected” indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples						
Material	**Location (Sample ID)**	**Layer**	**Condition of Material**	**Friable Yes/No**	**NESHAP Category**	**Asbestos Content (Type)**
Joint compound	MM-10 (2005E930-010A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-11 (2005E930-011A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-12 (2005E930-012A)	1	Intact	No	CAT II	2% (Chrysotile)
Joint compound	MM-13 (2005E930-013A)	2	Intact	No	CAT II	2% (Chrysotile)
HVAC tape	MM-29 (2005E930-29A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC tape	MM-30 (2005E960-030A)	1	Intact	Yes	RACM	60% (Chrysotile)

Analytical results are included in **Appendix B**. A Sample Location Map is included in **Appendix C**.

**NESHAP Category Classification Information:
CAT I – Category I non-friable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (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 submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Six (6) of the thirty-eight (38) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with joint compound in the den, foyer, downstairs bathroom and bedroom and with duct tape in the basement and den.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

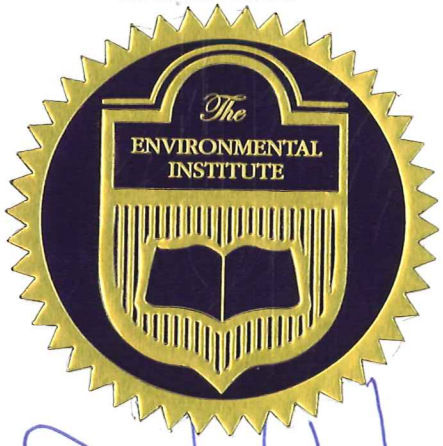
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

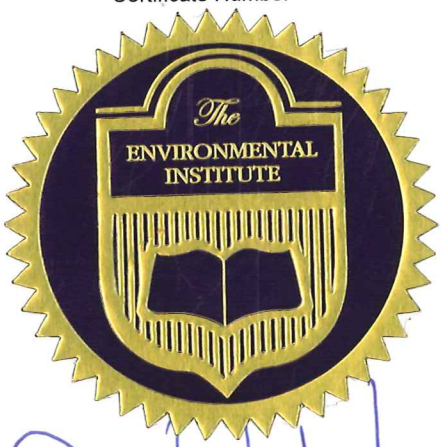
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2005E93

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	6017 Kayron Dr
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-20-133A
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	5-14-20
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie Lester	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	SAME
Report To Email(s):		PO #:	1-20-133A

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 1		Acm	ST	
2	mm 2				
3	mm 3				
4	mm 4				
5	mm 5				
6	mm 6				
7	mm 7				
8	mm 8				
9	mm 9				
10	mm 10				
11	mm 11				
12	mm 12				
13	mm 13				
14	mm 14				
15	mm 15				
16	mm 16				
17	mm 17				
18	mm 18				
19	mm 19				
20	mm 20				

Relinquished by:	Ronnie Lester	Date/Time:	5/14/20 1300
Received by:		Date/Time:	5-15-20 10:53
Relinquished by:		Date/Time:	5-15-20 12:43
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: Mef Date/Time: 5/15/20 12:43 Method of Shipment: Courier

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 2005E93

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail Suite110
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie Lester
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 6017 Kayron Dr.
Project Number: 1-20-133A
Sampling Date: 5-14-20
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s): SAME
PO #: 1-20-133A

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 21		ACM	ST	
2	mm 22				
3	mm 23				
4	mm 24				
5	mm 25				
6	mm 26				
7	mm 27				
8	mm 28				
9	mm 29				
10	mm 30				
11	mm 31				
12	mm 32				
13	mm 33				
14	mm 34				
15	mm 35				
16	mm 36				
17	mm 37				
18	mm 38				
19					
20					

Relinquished by: Ronnie Lester — Date/Time: 5/14/20 1300
Received by: [signature] — Date/Time: 5/15/20 10:15
Relinquished by: [signature] — Date/Time: 5/15/20 12:43
Received by: — Date/Time:

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Lab Recipient: [signature] Date/Time: 5/15/20 12:43 Method of Shipment: Courier

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Atlanta,GA 30340
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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	2005E93-001A		ND	ND	ND	ND	ND	ND	
MM1 Layer: 2	2005E93-001A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 1	2005E93-002A		ND	ND	ND	ND	ND	ND	
MM2 Layer: 2	2005E93-002A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 1	2005E93-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 2	2005E93-003A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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QC Analyst: Yelena Khanina

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NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM4 Layer: 1	2005E93-004A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 2	2005E93-004A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 1	2005E93-005A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 2	2005E93-005A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 1	2005E93-006A		ND	ND	ND	ND	ND	ND	
MM6 Layer: 2	2005E93-006A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

Report Date: 22-May-20

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AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM7 Layer: 1	2005E93-007A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM7 Layer: 2	2005E93-007A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 1	2005E93-008A		ND	ND	ND	ND	ND	ND	
MM8 Layer: 2	2005E93-008A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 1	2005E93-009A		ND	ND	ND	ND	ND	ND	
MM9 Layer: 2	2005E93-009A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

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NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM10 Layer: 1	2005E93-010A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM10 Layer: 2	2005E93-010A		ND	ND	ND	ND	ND	ND	
MM10 Layer: 3	2005E93-010A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 1	2005E93-011A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM11 Layer: 2	2005E93-011A		ND	ND	ND	ND	ND	ND	
MM11 Layer: 3	2005E93-011A		ND	ND	ND	ND	ND	ND	

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Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM12 Layer: 1	2005E93-012A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM12 Layer: 2	2005E93-012A		ND	ND	ND	ND	ND	ND	
MM12 Layer: 3	2005E93-012A		ND	ND	ND	ND	ND	ND	
MM13 Layer: 1	2005E93-013A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM13 Layer: 2	2005E93-013A		2	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM13 Layer: 3	2005E93-013A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM13 Layer: 4	2005E93-013A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 1	2005E93-014A		ND	ND	ND	ND	ND	ND	
MM14 Layer: 2	2005E93-014A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 1	2005E93-015A		ND	ND	ND	ND	ND	ND	
MM15 Layer: 2	2005E93-015A		ND	ND	ND	ND	ND	ND	
MM16 Layer: 1	2005E93-016A		ND	ND	ND	ND	ND	ND	

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Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM16 Layer: 2	2005E93-016A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 1	2005E93-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 2	2005E93-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	2005E93-018A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM18 Layer: 2	2005E93-018A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 3	2005E93-018A		ND	ND	ND	ND	ND	ND	

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NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM19 Layer: 1	2005E93-019A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM19 Layer: 2	2005E93-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 3	2005E93-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	2005E93-020A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM20 Layer: 2	2005E93-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 3	2005E93-020A		ND	ND	ND	ND	ND	ND	

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Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 1	2005E93-021A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 2	2005E93-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	2005E93-022A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 2	2005E93-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	2005E93-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 2	2005E93-023A		ND	ND	ND	ND	ND	ND	

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Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM23 Layer: 3	2005E93-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	2005E93-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 2	2005E93-024A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 3	2005E93-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	2005E93-025A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 2	2005E93-025A		ND	ND	ND	ND	ND	ND	

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Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM25 Layer: 3	2005E93-025A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 1	2005E93-026A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 2	2005E93-026A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 3	2005E93-026A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 1	2005E93-027A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 2	2005E93-027A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM27 Layer: 3	2005E93-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	2005E93-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	2005E93-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 3	2005E93-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	2005E93-029A		60	ND	ND	ND	ND	ND	
MM30 Layer: 1	2005E93-030A		60	ND	ND	ND	ND	ND	

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM31 Layer: 1	2005E93-031A		ND	ND	ND	ND	ND	ND	
MM32 Layer: 1	2005E93-032A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 1	2005E93-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 2	2005E93-033A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 1	2005E93-034A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 2	2005E93-034A		ND	ND	ND	ND	ND	ND	

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For comments on the samples, see the individual analysis sheets.
ND = None Detected

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Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive
Atlanta,GA 30340
Tel :(770) 457-8177
Fax:(770) 457-8188

Bulk Sample Summary Report

NVLAP TESTING
NVLAP LAB CODE 102082-0

Report Date: 22-May-20

Client Name: **Maxis Engineering, LLC**
AES Job Number: **2005E93**
Project Name: **6017 KAYRON DR**
Project Number: **1-20-133A**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM35 Layer: 1	2005E93-035A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 1	2005E93-036A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 1	2005E93-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	2005E93-038A		ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.
These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

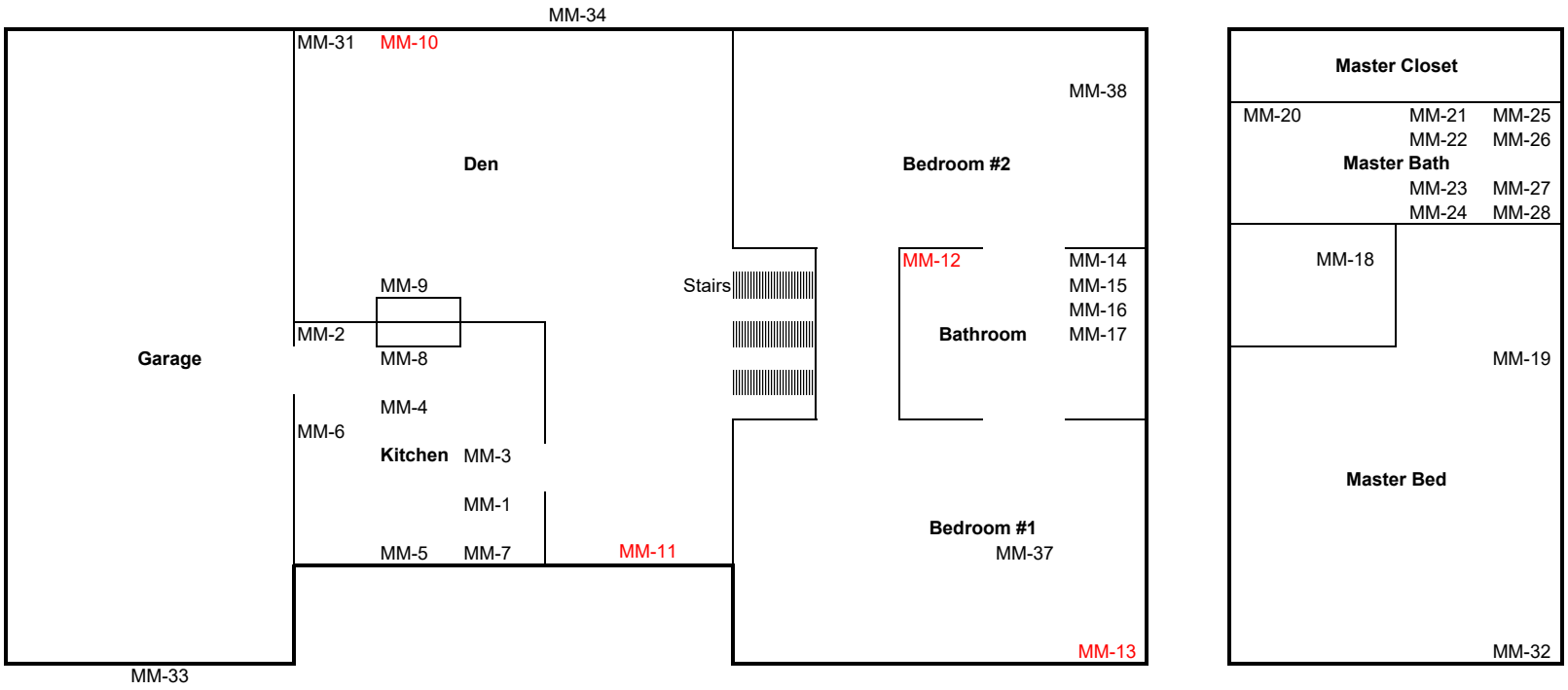
Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

End of Report

APPENDIX C

Sample Locations



2nd Floor

Basement: MM-29, MM-30

Roof: MM-35 and MM-36

6017 Kayron Drive

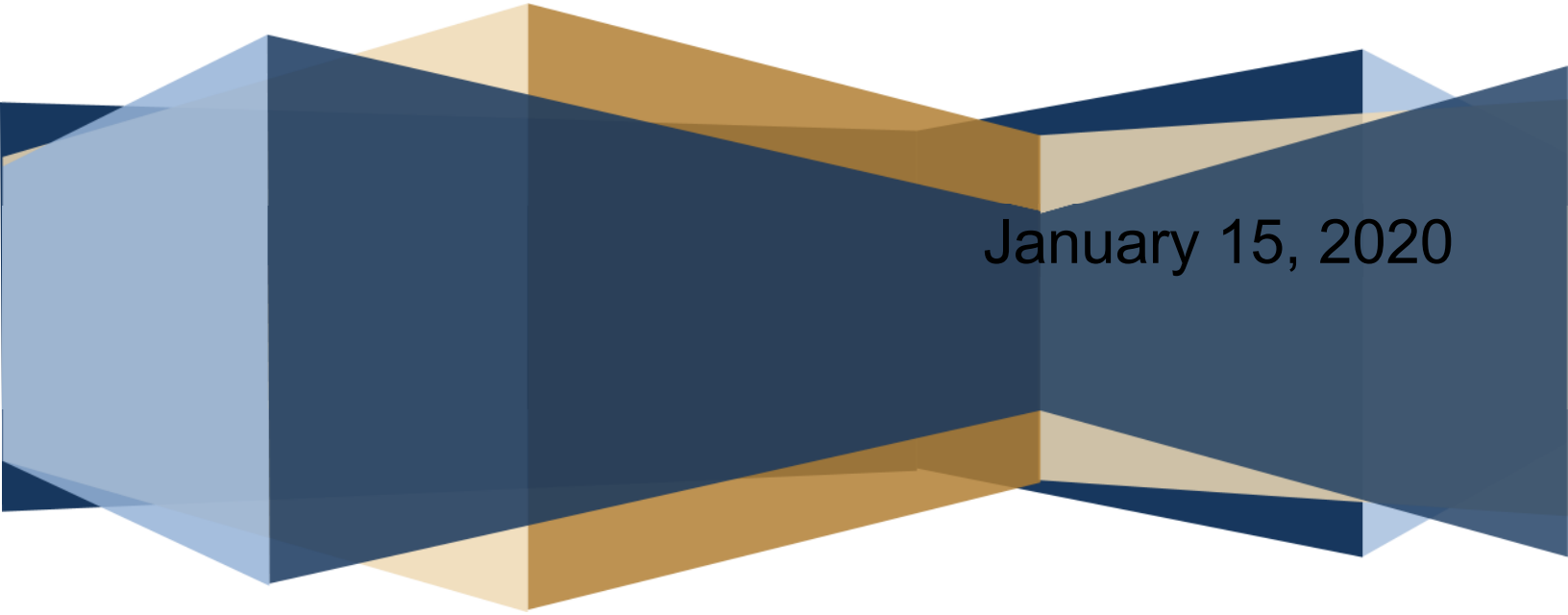
MAXIS ENGINEERING

Limited Asbestos Survey Report

Residential Property

6020 Glenridge Drive, NE
Sandy Springs, Fulton County, Georgia

Maxis Project No. 1-19-1087C



January 15, 2020

MAXIS ENGINEERING

January 15, 2020

City of Sandy Springs
1 Galambos Way
Sandy Springs, Georgia 30328

Attention: Mr. Dave Wells

Reference: **Limited Asbestos Survey**
6020 Glenridge Drive, NE
Sandy Springs, Fulton Co., Georgia
Project No.: 1-19-1087C

Dear Mr. Wells,

Maxis Engineering, LLC (Maxis) is pleased to submit this Limited Asbestos Survey for the above-referenced property. The purpose of this asbestos survey was to identify asbestos containing materials (ACMs) associated with the structure located on the referenced property prior to demolition activities.

INTRODUCTION

Maxis was retained by the City of Sandy Springs to complete a Limited Asbestos Survey for a residential structure located at 600 Hammond Drive, NE, in Sandy Springs, Georgia, hereafter referred to as "subject property." Based on a site reconnaissance performed by Maxis, the subject property appears to be currently improved with an approximately 2,800 square-foot (sq ft), partial brick-sided, residential structure on a full basement.

Maxis understands that you plan to demolish the building on the subject property; thus, per the Environmental Protection Agency (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations, ACMs must be identified and categorized based on friability prior to disturbance.

INVESTIGATIVE PROCEDURES

The asbestos survey was performed on November 20, 2019, and December 11, 2019, by two certified asbestos inspectors; the current certifications have been included in **Appendix A**. The survey involved performing a walk-through of the structure, grouping suspect ACMs into "homogeneous materials" (similar color, texture or time of installation), describing location and extent of material, and collecting bulk samples.

The survey for suspect ACMs included sampling and laboratory analysis of the following: (interior) – Vinyl flooring and mastic, floor tile and grout, wall tile and grout, joint compound and tape, plaster on walls and black wall felt; (exterior) – brick and mortar, roofing, window glaze and caulk. A total of fifty-eight (58) bulk samples were collected and recorded on a chain-of-custody form and submitted to Analytical Environmental Services (AES) laboratory in Atlanta, Georgia for analysis. AES is accredited by the National Voluntary

Laboratory Accreditation Program, which is administered by the National Institute of Standards and Technology.

The bulk samples were analyzed by Polarized Light Microscopy (PLM) techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I, Part 763, Subpart E-Appendix E. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sing 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 within the specific bulk material/sample. The EPA and Occupational Safety and Health Administration (OSHA) define materials as asbestos containing if the asbestos content detected in a representative sample is greater than one percent (>1%). The following bulk samples were collected at the subject property:

6020 Glenridge Drive, NE

Lab ID	Sample ID	Layers	Sample Location	Total % Asbestos	Asbestos Mineral
Main Floor					
1911N25-001A	MM-1	3	Kitchen – vinyl floor	ND	ND
1911N25-002A	MM-2	4	Kitchen – vinyl floor	ND	ND
1911N25-003A	**MM-3**	**3**	**Kitchen – black subfloor felt**	**10% (Layer 1)**	**Chrysotile**
1911N25-004A	**MM-4**	**3**	**Kitchen – black subfloor felt**	**10% (Layer 1)**	**Chrysotile**
1911N25-005A	**MM-5**	**2**	**Kitchen/den – green flooring**	**40% (Layer 2)**	**Chrysotile**
1911N25-006A	**MM-6**	**2**	**Den (beneath carpet) – light orange tile and mastic**	**5% (Layer 1 and 2)**	**Chrysotile**
1911N25-007A	**MM-7**	**2**	**Den (beneath carpet) – light orange tile and mastic**	**5% (Layer 1 and 2)**	**Chrysotile**

1911N25-008A	**MM-8**	**2**	**Den (beneath carpet) – dark orange tile and mastic**	**5% (Layer 1 and 2)**	**Chrysotile**
1911N25-009A	**MM-9**	**2**	**Den (beneath carpet) – dark orange tile and mastic**	**5% (Layer 1 and 2)**	**Chrysotile**
1911N25-010A	**MM-10**	1	**Room off Kitchen (with red carpet) - white vinyl tile with black felt**	ND	ND
1911N25-010B		**2**		**2% (Layer 2)**	**Chrysotile**
1911N25-011A	**MM-11**	1	**Room off Kitchen (with red carpet) - white vinyl tile with black felt**	ND	ND
1911N25-011B		**2**		**2% (Layer 2)**	**Chrysotile**
1911N25-012A	**MM-12**	**2**	**Garage Entrance area (beneath red carpet) – red tile and mastic**	**2% (Layer 1 and 2)**	**Chrysotile**
1911N25-013A	**MM-13**	**2**	**Garage Entrance area (beneath red carpet) – red tile and mastic**	**2% (Layer 1 and 2)**	**Chrysotile**
1911N25-014A	**MM-14**	**2**	**Garage Entrance area (beneath red carpet) – white tile and mastic**	**2% (Layer 2)**	**Chrysotile**
1911N25-015A	**MM-15**	**2**	**Garage Entrance area (beneath red carpet) – white tile and mastic**	**2% (Layer 2)**	**Chrysotile**
1911N25-016A	**MM-16**	**2**	**Laundry room – vinyl flooring**	**40% (Layer 2)**	**Chrysotile**
1911N25-017A	MM-17	2	Bathroom off laundry – white tile and grout	ND	ND
1911N25-018A	MM-18	2	Bathroom off laundry – white tile and grout	ND	ND
1911N25-019A	MM-19	2	Kitchen – brick and mortar	ND	ND

1911N25-020A	MM-20	2	Kitchen – brick and mortar	ND	ND
1911N25-021A	MM-21	2	Den – fireplace brick and mortar	ND	ND
1911N25-022A	MM-22	2	Den – fireplace brick and mortar	ND	ND
1911N25-023A	MM-23	2	Blue bathroom – blue floor tile and grout (same as wall)	ND	ND
1911N25-024A	MM-24	2	Blue bathroom – blue wall tile and grout (same as floor)	ND	ND
1911N25-025A	MM-25	3	Pink bathroom – pink wall tile and grout	ND	ND
1911N25-026A	MM-26	3	Pink bathroom – pink wall tile and grout	ND	ND
1911N25-027A	MM-27	3	Pink bathroom – pink floor tile and grout	ND	ND
1911N25-028A	MM-28	3	Pink bathroom – pink floor tile and grout	ND	ND
Basement					
1911N25-029A	**MM-29**	**1**	**HVAC tape**	**60%**	**Chrysotile**
1911N25-030A	**MM-30**	**1**	**HVAC tape**	**60%**	**Chrysotile**
1911N25-031A	MM-31	2	Kitchen white and blue vinyl flooring	ND	ND
1911N25-032A	MM-32	2	Kitchen white and blue vinyl flooring	ND	ND
1911N25-033A	MM-33	3	Kitchen – ceiling joint compound and tape	ND	ND
1911N25-034A	MM-34	2	Kitchen – wall joint compound and tape	ND	ND

1911N25-035A	MM-35	3	Hallway - joint compound and tape	ND	ND
1911N25-036A	MM-36	3	Area off kitchen – joint compound and tape	ND	ND
1911N25-037A	MM-37	3	Blue room with fireplace – joint compound and tape	ND	ND
1911N25-038A	MM-38	2	Blue room - fireplace brick and mortar	ND	ND
1911N25-039A	MM-39	2	Blue room - fireplace brick and mortar	ND	ND
*1912H67-001A	MM-52	3	Red carpet room off Kitchen – plaster walls	ND	ND
*1912H67-002A	MM-53	3	Red carpet room off Kitchen – plaster walls	ND	ND
*1912H67-003A	MM-54	2	Livingroom – plaster walls	ND	ND
*1912H67-004A	MM-55	2	Bedroom – plaster walls	ND	ND
*1912H67-005A	MM-56	2	Bedroom – plaster walls	ND	ND
*1912H67-006A	MM-57	2	Bedroom – plaster walls	ND	ND
*1912H67-007A	MM-58	3	Bedroom- plaster walls	ND	ND
Exterior					
1911N25-040A	MM-40	3	Garage - brick and mortar	ND	ND
1911N25-041A	MM-41	4	Patio – brick and mortar	ND	ND
1911N25-042A	MM-42	1	Patio window glaze	ND	ND

1911N25-043A	MM-43	1	Garage window glaze	ND	ND
1911N25-044A	MM-44	2	Roofing	ND	ND
1911N25-045A	MM-45	2	Roofing	ND	ND
1911N25-046A	MM-46	1	Fireplace caulk	ND	ND
1911N25-047A	**MM-47**	**2**	**Fireplace caulk**	**2% (Layer 2)**	**Chrysotile**
1911N25-048A	**MM-48**	**3**	**Vent pipe caulk**	**3% (Layer 2)**	**Chrysotile**
1911N25-049A	MM-49	1	Vent pipe caulk	ND	ND
1911N25-050A	MM-50	2	Felt paper behind brick	ND	ND
1911N25-051A	MM-51	2	Felt paper behind brick	ND	ND

Note:

ND = No Asbestos Detected

*-Samples collected on December 11, 2019.

RESULTS

Based on the laboratory analytical results, eighteen (18) of the fifty-eight (58) bulk samples tested positive for ACMs. NESHAP 40 CFR 61 Part M, defines positive ACMs as any material which contain >1% asbestos content. Additionally, samples for which asbestos is detected at <1% are reported as trace, “<1%”. “None Detected” indicates that no asbestos fibers were observed via the PLM laboratory process. Positive results are summarized below:

Table 1: Positive/Trace ACM Bulk Samples						
Material	**Location (Sample ID)**	**Layer**	**Condition of Material**	**Friable Yes/No**	**NESHAP Category**	**Asbestos Content (Type)**
Black subfloor felt	MM-3 (1911N25-003A)	1	Intact	Yes	RACM	10% (Chrysotile)
Black subfloor felt	MM-4 (1911N25-004A)	1	Intact	Yes	RACM	10% (Chrysotile)
Green flooring - backing	MM- 5 (1911N25-005A)	2	Intact	No	CAT I	40% (Chrysotile)
Floor tile	MM-6 (1911N25-006A)	1	Intact	No	CAT I	5% (Chrysotile)
Mastic		2				5% (Chrysotile)
Floor tile	MM-7 (1911N25-007A)	1	Intact	No	CAT I	5% (Chrysotile)
Mastic		2				5% (Chrysotile)
Floor tile	MM-8 (1911N25-008A)	1	Intact	No	CAT I	5% (Chrysotile)
Mastic		2				5% (Chrysotile)
Floor tile	MM-9 (1911N25-009A)	1	Intact	No	CAT I	5% (Chrysotile)
Mastic		2				5% (Chrysotile)
Flooring glue	MM-10 (1911N25-010B)	2	Intact	No	CAT II	2% (Chrysotile)
Flooring glue	MM-11 (1911N25-011B)	2	Intact	No	CAT II	2% (Chrysotile)
Vinyl Flooring	MM-12 (1911N25-012A)	1	Intact	No	CAT I	2% (Chrysotile)
Flooring glue		2			CAT II	2% (Chrysotile)
Vinyl Flooring	MM-13 (1911N25-013A)	1	Intact	No	CAT I	2% (Chrysotile)

Flooring glue		2			CAT II	2% (Chrysotile)
Flooring glue	MM-14 (1911N25-014A)	2	Intact	No	CAT II	2% (Chrysotile)
Flooring glue	MM-15 (1911N25-015A)	2	Intact	No	CAT II	2% (Chrysotile)
Backing	MM-16 (1911N25-016A	2	Intact	No	CAT II	40% (Chrysotile)
HVAC Tape	MM-29 (1911N25-029A)	1	Intact	Yes	RACM	60% (Chrysotile)
HVAC Tape	MM-30 (1911N25-030A)	1	Intact	Yes	RACM	60% (Chrysotile)
Caulk	MM-47 (1911N25-047A)	2	Intact	No	CAT II	2% (Chrysotile)
Mastic	MM-48 (1911N25-048A)	2	Intact	No	CAT II	2% (Chrysotile)

Analytical results are included in **Appendix B**.

**NESHAP Category Classification Information:

CAT 1 – Category I nonfriable asbestos containing materials (ACMs) means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more that 1 percent asbestos as determined by the Method. This is non-friable material that is not expected to release significant amounts of asbestos fibers during normal demolition/renovation activities; however, Georgia EPD requires that they be removed prior to demolition/renovation activities.

CAT II – Category II non-friable ACM means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined by the Method, that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. These materials include asbestos-cement products, drywall or plaster that is expected to release significant amounts of asbestos fibers during normal demolition/renovation activities.

RACM – Regulated asbestos containing material (RACM) (a) friable asbestos material, (b) Category I non-friable AMC that has become friable, (c) Category I non-friable AMC that will be or has been submitted 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 regulated by this subpart.

CONCLUSIONS AND RECOMMENDATIONS

Eighteen (18) of the fifty-eight (58) bulk samples collected had an asbestos content greater than 1%; the positive samples were associated with flooring on the main floor, HVAC Tape in the basement, and caulk associated with the roof.

The ACMs were found to be in good condition; however, due to likelihood of disturbance during demolition/renovation, the material must be abated prior to any demolition/renovation activities. The identified ACM must be removed by a Georgia certified asbestos abatement contractor prior to renovation or demolition. A copy of this

report should be provided to the selected abatement contractor to ensure compliance with applicable State and Federal regulations.

The possibility exists that additional suspect ACMs may be present in inaccessible areas such as pipe chases, wall voids, flooring overlays, etc. If additional suspect materials are discovered at a later date during demolition activities, bulk samples should be collected and analyzed for asbestos content.

The Georgia Department of Natural Resources Environmental Protection Division, Asbestos Program requires notification prior to renovation or demolition activities regardless of the presence of asbestos.

CLOSING

Maxis appreciates the opportunity to conduct this Limited Asbestos Survey for this project. Please contact us at (770) 694-6178 if you have any questions regarding the information contained in this report.

Sincerely,

Maxis Engineering, LLC

Rebecca K. Donnelly
Senior Project Manager

Barry D. Holbert, P.E., C.E.M
Principal

APPENDIX A

Asbestos Inspector Certification

The Environmental Institute

Barry Holbert, Jr.

Social Security Number - XXX-XX-6865

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

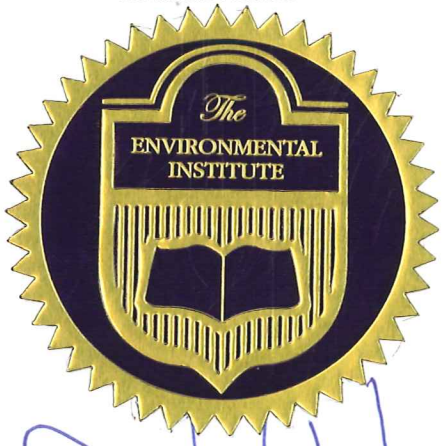
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17567
Certificate Number



Thomas G. Laubenthal - Principal Instructor

Rachel G. McCain - Exam Administrator

David W. Hogue - Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067
Phone: 770-427-3600 - Website: www.tei-atl.com

The Environmental Institute

Ronnie Lester

Social Security Number - XXX-XX-4150

Maxis Engineering, LLC - 501 Hickory Ridge Trail, Suite 110 - Woodstock, Georgia 30188

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

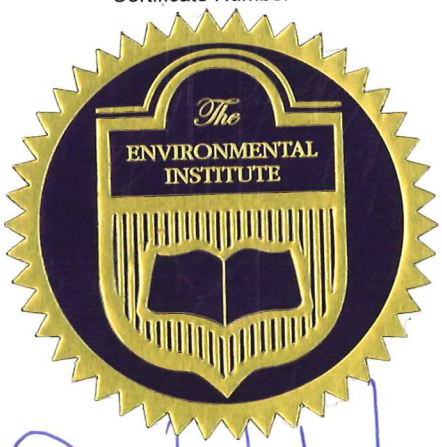
Asbestos in Buildings: Inspector Refresher

September 17, 2019
Course Date

September 17, 2019
Examination Date

September 16, 2020
Expiration Date

17570
Certificate Number



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(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067

Phone: 770-427-3600 - Website: www.tei-atl.com

APPENDIX B

Laboratory Analytical Results and COC

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N25

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	6020 Glenn Ridge
Address:	501 Hickory Ridge Trail	Project Number:	1-19-1087C
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	11-20-19
Contact:	Rebecca Donnelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie Lester	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1087C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	MM 1				
2	MM 2				
3	MM 3				
4	MM 4				
5	MM 5				
6	MM 6				
7	MM 7				
8	MM 8				
9	MM 9				
10	MM 10				
11	MM 11				
12	MM 12				
13	MM 13				
14	MM 14				
15	MM 15				
16	MM 16				
17	MM 17				
18	MM 18				
19	MM 19				
20	MM 20				

Relinquished by:	Ronnie Lester	Date/Time:	11/20/19 1500
Received by:	BP	Date/Time:	11-21 1725
Relinquished by:	BP	Date/Time:	11-21 1218
Received by:		Date/Time:	

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FOR LAB USE ONLY

Lab Recipient: [signature] Date/Time: 11/21/19 1418 Method of Shipment: CR

Asbestos COC 7.6.18

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1911N25

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Maxis Engineering
Address: 501 Hickory Ridge Trail
City, State, Zip: Woodstock, GA 30188
Contact: Rebecca Donnelly
Sampler's Name: Ronnie Lester
Report To: Rebecca Donnelly
Report To Email(s):

Project Name: 6020 Glenn Ridge
Project Number: 1-19-1087C
Sampling Date: 11-20-19
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1087C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	MM 21				
2	MM 22				
3	MM 23				
4	MM 24				
5	MM 25				
6	MM 26				
7	MM 27				
8	MM 28				
9	MM 29				
10	MM 30				
11	MM 31				
12	MM 32				
13	MM 33				
14	MM 34				
15	MM 35				
16	MM 36				
17	MM 37				
18	MM 38				
19	MM 39				
20	MM 40				

Relinquished by: Ronnie Lester — Date/Time: 11/20/19 1500
Received by: BPowell — Date/Time: 11-21 1225
Relinquished by: BPowell — Date/Time: 11-21 [illegible]
Received by: — Date/Time:

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FOR LAB USE ONLY
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Asbestos COC 7.6.18

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Sampling Date: 11-20-19
Phone #: 770-694-6178
Invoice To: SAME
Invoice To Email(s):
PO #: 1-19-1087C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	MM 41		ACM		
2	MM 42				
3	MM 43				
4	MM 44				
5	MM 45				
6	MM 46				
7	MM 47				
8	MM 48				
9	MM 49				
10	MM 50				
11	MM 51				
12					
13					
14					
15					
16					
17					
18					
19					
20					

Relinquished by: Ronnie Lester — Date/Time: 11/20/19 1500
Received by: — Date/Time: 11-21 1225
Relinquished by: — Date/Time: 11-21 218
Received by: — Date/Time:

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FOR LAB USE ONLY
Lab Recipient: — Date/Time: 11/21/19 1418 — Method of Shipment: CR

Asbestos COC 7.6.18

Analytical Environmental Services, Inc

Date: 29-Nov-19

Client: Maxis Engineering, LLC
Project: 6020 GLENN RIDGE
Lab ID: 1911N25

Case Narrative

Sample Receiving Nonconformance:

The first two pages of COCs for work order 1911N25 did not indicate analysis. Lab proceeded with ACM per the last page of the COC.

Samples 1911N25-010A and 1911N25-011A had two types of flooring each. Client will be charged for 2 extra samples.

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM1 Layer: 1	1911N25-001A		ND	ND	ND	ND	ND	ND	Vinyl
MM1 Layer: 2	1911N25-001A		ND	ND	ND	ND	ND	ND	Backing
MM1 Layer: 3	1911N25-001A		ND	ND	ND	ND	ND	ND	Leveling compound
MM2 Layer: 1	1911N25-002A		ND	ND	ND	ND	ND	ND	Vinyl
MM2 Layer: 2	1911N25-002A		ND	ND	ND	ND	ND	ND	Backing
MM2 Layer: 3	1911N25-002A		ND	ND	ND	ND	ND	ND	Glue

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Svetlana Arkhipov

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM2 Layer: 4	1911N25-002A		ND	ND	ND	ND	ND	ND	Wood
MM3 Layer: 1	1911N25-003A		10	ND	ND	ND	ND	ND	
MM3 Layer: 2	1911N25-003A		ND	ND	ND	ND	ND	ND	
MM3 Layer: 3	1911N25-003A		ND	ND	ND	ND	ND	ND	
MM4 Layer: 1	1911N25-004A		10	ND	ND	ND	ND	ND	
MM4 Layer: 2	1911N25-004A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM4 Layer: 3	1911N25-004A		ND	ND	ND	ND	ND	ND	
MM5 Layer: 1	1911N25-005A		ND	ND	ND	ND	ND	ND	Vinyl
MM5 Layer: 2	1911N25-005A		40	ND	ND	ND	ND	ND	Backing
MM6 Layer: 1	1911N25-006A		5	ND	ND	ND	ND	ND	Floor tile
MM6 Layer: 2	1911N25-006A		5	ND	ND	ND	ND	ND	Black mastic
MM7 Layer: 1	1911N25-007A		5	ND	ND	ND	ND	ND	Floor tile

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM7 Layer: 2	1911N25-007A		5	ND	ND	ND	ND	ND	Black mastic
MM8 Layer: 1	1911N25-008A		5	ND	ND	ND	ND	ND	Floor tile
MM8 Layer: 2	1911N25-008A		5	ND	ND	ND	ND	ND	Black mastic
MM9 Layer: 1	1911N25-009A		5	ND	ND	ND	ND	ND	Floor tile
MM9 Layer: 2	1911N25-009A		5	ND	ND	ND	ND	ND	Black mastic
MM10 Layer: 1	1911N25-010A		ND	ND	ND	ND	ND	ND	Beige floor tile with glue

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM10 Layer: 1	1911N25-010B		ND	ND	ND	ND	ND	ND	Tan vinyl
MM10 Layer: 2	1911N25-010B		2	ND	ND	ND	ND	ND	Glue
MM11 Layer: 1	1911N25-011A		ND	ND	ND	ND	ND	ND	Beige floor tile with glue
MM11 Layer: 1	1911N25-011B		ND	ND	ND	ND	ND	ND	Tan vinyl
MM11 Layer: 2	1911N25-011B		2	ND	ND	ND	ND	ND	Glue
MM12 Layer: 1	1911N25-012A		2	ND	ND	ND	ND	ND	Vinyl

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Bulk Sample Summary Report

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29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM12 Layer: 2	1911N25-012A		2	ND	ND	ND	ND	ND	Glue
MM13 Layer: 1	1911N25-013A		2	ND	ND	ND	ND	ND	Vinyl
MM13 Layer: 2	1911N25-013A		2	ND	ND	ND	ND	ND	Glue
MM14 Layer: 1	1911N25-014A		ND	ND	ND	ND	ND	ND	Vinyl
MM14 Layer: 2	1911N25-014A		2	ND	ND	ND	ND	ND	Glue
MM15 Layer: 1	1911N25-015A		ND	ND	ND	ND	ND	ND	Vinyl

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29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM15 Layer: 2	1911N25-015A		2	ND	ND	ND	ND	ND	Glue
MM16 Layer: 1	1911N25-016A		ND	ND	ND	ND	ND	ND	Vinyl
MM16 Layer: 2	1911N25-016A		40	ND	ND	ND	ND	ND	Backing
MM17 Layer: 1	1911N25-017A		ND	ND	ND	ND	ND	ND	
MM17 Layer: 2	1911N25-017A		ND	ND	ND	ND	ND	ND	
MM18 Layer: 1	1911N25-018A		ND	ND	ND	ND	ND	ND	

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29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM18 Layer: 2	1911N25-018A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 1	1911N25-019A		ND	ND	ND	ND	ND	ND	
MM19 Layer: 2	1911N25-019A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 1	1911N25-020A		ND	ND	ND	ND	ND	ND	
MM20 Layer: 2	1911N25-020A		ND	ND	ND	ND	ND	ND	
MM21 Layer: 1	1911N25-021A		ND	ND	ND	ND	ND	ND	

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM21 Layer: 2	1911N25-021A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 1	1911N25-022A		ND	ND	ND	ND	ND	ND	
MM22 Layer: 2	1911N25-022A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 1	1911N25-023A		ND	ND	ND	ND	ND	ND	
MM23 Layer: 2	1911N25-023A		ND	ND	ND	ND	ND	ND	
MM24 Layer: 1	1911N25-024A		ND	ND	ND	ND	ND	ND	

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Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM24 Layer: 2	1911N25-024A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 1	1911N25-025A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 2	1911N25-025A		ND	ND	ND	ND	ND	ND	
MM25 Layer: 3	1911N25-025A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 1	1911N25-026A		ND	ND	ND	ND	ND	ND	
MM26 Layer: 2	1911N25-026A		ND	ND	ND	ND	ND	ND	

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM26 Layer: 3	1911N25-026A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 1	1911N25-027A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 2	1911N25-027A		ND	ND	ND	ND	ND	ND	
MM27 Layer: 3	1911N25-027A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 1	1911N25-028A		ND	ND	ND	ND	ND	ND	
MM28 Layer: 2	1911N25-028A		ND	ND	ND	ND	ND	ND	

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29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM28 Layer: 3	1911N25-028A		ND	ND	ND	ND	ND	ND	
MM29 Layer: 1	1911N25-029A		60	ND	ND	ND	ND	ND	
MM30 Layer: 1	1911N25-030A		60	ND	ND	ND	ND	ND	
MM31 Layer: 1	1911N25-031A		ND	ND	ND	ND	ND	ND	Vinyl
MM31 Layer: 2	1911N25-031A		ND	ND	ND	ND	ND	ND	Backing
MM32 Layer: 1	1911N25-032A		ND	ND	ND	ND	ND	ND	Vinyl

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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Microanalyst: Svetlana Arkhipov

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM32 Layer: 2	1911N25-032A		ND	ND	ND	ND	ND	ND	Backing
MM33 Layer: 1	1911N25-033A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM33 Layer: 2	1911N25-033A		ND	ND	ND	ND	ND	ND	
MM33 Layer: 3	1911N25-033A		ND	ND	ND	ND	ND	ND	
MM34 Layer: 1	1911N25-034A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM34 Layer: 2	1911N25-034A		ND	ND	ND	ND	ND	ND	

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Lab Code 102082-0

29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM35 Layer: 1	1911N25-035A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM35 Layer: 2	1911N25-035A		ND	ND	ND	ND	ND	ND	
MM35 Layer: 3	1911N25-035A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 1	1911N25-036A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM36 Layer: 2	1911N25-036A		ND	ND	ND	ND	ND	ND	
MM36 Layer: 3	1911N25-036A		ND	ND	ND	ND	ND	ND	

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NVLAP Lab Code 102082-0

29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM37 Layer: 1	1911N25-037A		ND	ND	ND	ND	ND	ND	Joint compound. Paint included as binder
MM37 Layer: 2	1911N25-037A		ND	ND	ND	ND	ND	ND	
MM37 Layer: 3	1911N25-037A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 1	1911N25-038A		ND	ND	ND	ND	ND	ND	
MM38 Layer: 2	1911N25-038A		ND	ND	ND	ND	ND	ND	
MM39 Layer: 1	1911N25-039A		ND	ND	ND	ND	ND	ND	

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29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM39 Layer: 2	1911N25-039A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 1	1911N25-040A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 2	1911N25-040A		ND	ND	ND	ND	ND	ND	
MM40 Layer: 3	1911N25-040A		ND	ND	ND	ND	ND	ND	
MM41 Layer: 1	1911N25-041A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM41 Layer: 2	1911N25-041A		ND	ND	ND	ND	ND	ND	

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29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM41 Layer: 3	1911N25-041A		ND	ND	ND	ND	ND	ND	
MM41 Layer: 4	1911N25-041A		ND	ND	ND	ND	ND	ND	
MM42 Layer: 1	1911N25-042A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM43 Layer: 1	1911N25-043A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM44 Layer: 1	1911N25-044A		ND	ND	ND	ND	ND	ND	
MM44 Layer: 2	1911N25-044A		ND	ND	ND	ND	ND	ND	

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29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM45 Layer: 1	1911N25-045A		ND	ND	ND	ND	ND	ND	
MM45 Layer: 2	1911N25-045A		ND	ND	ND	ND	ND	ND	
MM46 Layer: 1	1911N25-046A		ND	ND	ND	ND	ND	ND	Caulk. Paint included as binder
MM47 Layer: 1	1911N25-047A		ND	ND	ND	ND	ND	ND	Caulk. Paint included as binder
MM47 Layer: 2	1911N25-047A		2	ND	ND	ND	ND	ND	Glazing. Paint included as binder
MM48 Layer: 1	1911N25-048A		ND	ND	ND	ND	ND	ND	Caulk. Paint included as binder

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29-Nov-19

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Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM48 Layer: 2	1911N25-048A		3	ND	ND	ND	ND	ND	Black mastic
MM48 Layer: 3	1911N25-048A		ND	ND	ND	ND	ND	ND	Glazing. Paint included as binder
MM49 Layer: 1	1911N25-049A		ND	ND	ND	ND	ND	ND	
MM50 Layer: 1	1911N25-050A		ND	ND	ND	ND	ND	ND	
MM50 Layer: 2	1911N25-050A		ND	ND	ND	ND	ND	ND	
MM51 Layer: 1	1911N25-051A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

Lab Code 102082-0

29-Nov-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1911N25**
Project Name:	**6020 GLENN RIDGE**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM51 Layer: 2	1911N25-051A		ND	ND	ND	ND	ND	ND	

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.
AES

Analytical Environmental Services, Inc.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

Work Order: 1912H07

Page 1 of 1

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name:	Maxis Engineering	Project Name:	6020 Glenridge Dr.
Address:	501 Hickory Ridge Trail Suite 110	Project Number:	1-19-1087C
City, State, Zip:	Woodstock, GA 30188	Sampling Date:	12/11/19
Contact:	Rebecca Donelly	Phone #:	770-694-6178
Sampler's Name:	Ronnie Lester	Invoice To:	SAME
Report To:	Rebecca Donnelly	Invoice To Email(s):	
Report To Email(s):		PO #:	1-19-1087C

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time (TAT)	Comments
1	mm 52		Asm	STD	
2	mm 53				
3	mm 54				
4	mm 55				
5	mm 56				
6	mm 57				
7	mm 58				
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Relinquished by:	Ronnie Lester	Date/Time:	12/12/19 12:37
Received by:		Date/Time:	
Relinquished by:		Date/Time:	
Received by:		Date/Time:	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT.

FOR LAB USE ONLY

Lab Recipient: [signature] Date/Time: 12/12/19 12:37 Method of Shipment: C

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

NVLAP Lab Code 102082-0

18-Dec-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1912H67**
Project Name:	**6020 GLENRIDGE DR**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM52 Layer: 1	1912H67 -001A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM52 Layer: 2	1912H67 -001A		ND	ND	ND	ND	ND	ND	
MM52 Layer: 3	1912H67 -001A		ND	ND	ND	ND	ND	ND	
MM53 Layer: 1	1912H67 -002A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM53 Layer: 2	1912H67 -002A		ND	ND	ND	ND	ND	ND	
MM53 Layer: 3	1912H67 -002A		ND	ND	ND	ND	ND	ND	

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Bulk Sample Summary Report

NVLAP Lab Code 102082-0

18-Dec-19

Client Name:	**Maxis Engineering, LLC**	AES Job Number:	**1912H67**
Project Name:	**6020 GLENRIDGE DR**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM54 Layer: 1	1912H67 -003A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM54 Layer: 2	1912H67 -003A		ND	ND	ND	ND	ND	ND	
MM55 Layer: 1	1912H67 -004A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM55 Layer: 2	1912H67 -004A		ND	ND	ND	ND	ND	ND	
MM56 Layer: 1	1912H67 -005A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM56 Layer: 2	1912H67 -005A		ND	ND	ND	ND	ND	ND	

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18-Dec-19

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Project Name:	**6020 GLENRIDGE DR**	Project Number:	**1-19-1087C**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
MM57 Layer: 1	1912H67 -006A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM57 Layer: 2	1912H67 -006A		ND	ND	ND	ND	ND	ND	
MM58 Layer: 1	1912H67 -007A		ND	ND	ND	ND	ND	ND	Paint included as binder
MM58 Layer: 2	1912H67 -007A		ND	ND	ND	ND	ND	ND	
MM58 Layer: 3	1912H67 -007A		ND	ND	ND	ND	ND	ND	

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