



SIERRA ENVIRONMENTAL GROUP, INC.

September 22, 2015

Mr. Dennis Zimmer
City of Dayton
Department of Building Services/Division of Housing Inspection
P.O. Box 22
371 West 2nd Street, Room 324
Dayton, OH 45402

Re: Comprehensive Pre-Demolition Asbestos Inspection
Vacant Residence
201 Fernwood Avenue
Dayton, Ohio 45405
Sierra Project Number: MCLB.001

Dear Mr. Zimmer:

On September 11, 2015, Mr. Chuck Callahan and Mr. Todd Taylor (Ohio Department of Health Certified Asbestos Hazard Evaluation Specialists #ES31960, #ES32139 respectively) of Sierra Environmental Group, Inc. (Sierra) visited the vacant residence located at 201 Fernwood Avenue in Dayton, Ohio. The purpose of this visit was to conduct a comprehensive asbestos inspection of the specified residence scheduled for demolition. This inspection process includes a visual inspection, as well as, the collection and analyses of samples from suspect asbestos-containing materials.

During the survey, the samples were collected utilizing sampling methods outlined in current EPA Guidance Documents. Each sample was collected and placed in a clean, sealable container and labeled with a unique sample identification number. Pertinent information was recorded on a Bulk Sample Log Sheet, including sample identification number, date of inspection, name of inspector, building name, a brief description and location of the sample, and the type of material sampled (e.g., thermal insulation, fireproofing, acoustical plaster). The samples were submitted to an analytical laboratory and analyzed for asbestos content by polarized-light microscopy (PLM) and dispersion staining (Method Reference: EPA-600/R-93/116). This analytical method, which the EPA currently recommends for the determination of asbestos in bulk samples of suspect materials, can be used for qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite asbestos.

The method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percentage) within the range of 0 to 100. The result of the bulk sample analysis is reported in a standard written laboratory report. This report includes the client's name, the project number, the laboratory identification number, the sample number assigned to the bulk sample upon receipt at the laboratory, and the field number assigned to the bulk sample upon collection on site. If the bulk sample contains more than one distinct layer of material, each layer is analyzed separately. The composition of the bulk sample is reported in percentages of asbestos (i.e., chrysotile, amosite, or other) and non-asbestos (i.e., cellulose, fiberglass, or other) components. The results of the sample analyses can be found on the laboratory report enclosed and Table 1.

Sierra collected samples from wall and ceiling systems, flooring materials, roofing materials, window glaze and duct insulation. Two (2) asbestos-containing materials were identified within the residence scheduled for demolition (Table -2 Asbestos Inventory). The cost to remove the Regulated Asbestos-Containing Materials (RACM) from this site prior to demolition would be \$30,475.00. These costs have been estimated and are based on local wage rates and do not include prevailing wage rates. These costs do not include specifications, permits, contractor oversight or third party monitoring.

Sierra made every effort to locate suspect asbestos-containing materials that may be concealed; however, suspect asbestos-containing materials which may be located behind hard plaster walls or ceilings, hard walled chases, under flooring or sub-flooring, under building contents, etc., were not assessed or quantified. If through demolition suspect materials are discovered

that were not sampled during the initial site visit; Sierra should be notified to document any additional samples that may be required and handled accordingly.

This report is prepared to assist the Montgomery County Land Reutilization Corporation, City of Dayton, construction managers and asbestos abatement contractors in locating asbestos-containing materials. This report is not intended as a bidding document or project specifications.

Enclosed are the following Sierra documents: 1) Table 1-Bulk Sample Data Summary; 2) Table 2-Asbestos Inventory; 3) Table 3-Cost Estimate; 4) Laboratory Report; 5) Site Photographs; 6) Inspector's Certification. If we can be of further assistance on this or any other project, do not hesitate to call us at (513) 542-5323.

Sincerely,

SIERRA ENVIRONMENTAL GROUP, INC.



Todd Taylor
Operations Manager

Attachments



TABLE 1: BULK SAMPLE DATA SUMMARY

SAMPLE DESCRIPTION (Material Type)	SAMPLE LOCATION	HOMO AREA #	SAMPLE I.D. NO.	ASBESTOS CONTENT	FRIABLE/ NONFRIABLE
The following samples were collected from the vacant residence located at 201 Fernwood Avenue, Dayton, Ohio.					
Window glaze (Miscellaneous)	Exterior	1	1-1	None Detected	Friable
Window glaze (Miscellaneous)	Exterior	1	1-2	None Detected	Friable
Skim coat of hard wall plaster (Surfacing, >5,000 sf)	Living room	2	2-1	None Detected	Nonfriable
Skim coat of hard ceiling plaster (Surfacing, >5,000 sf)	Living room	2	2-2	None Detected	Nonfriable
Skim coat of hard wall plaster (Surfacing, >5,000 sf)	Dining room	2	2-3	None Detected	Nonfriable
Skim coat of hard ceiling plaster (Surfacing, >5,000 sf)	Dining room	2	2-4	None Detected	Nonfriable
Skim coat of hard wall plaster (Surfacing, >5,000 sf)	Bathroom 2nd floor	2	2-5	None Detected	Nonfriable
Skim coat of hard ceiling plaster (Surfacing, >5,000 sf)	Bathroom 2nd floor	2	2-6	None Detected	Nonfriable
Skim coat of hard wall plaster (Surfacing, >5,000 sf)	Bedroom #2	2	2-7	None Detected	Nonfriable
Brown coat of hard wall plaster (Surfacing, >5,000 sf)	Living room	3	3-1	*2.1% Chrysotile	Nonfriable
Brown coat of hard ceiling plaster (Surfacing, >5,000 sf)	Living room	3	3-2	Stopped Analysis	Nonfriable
Brown coat of hard wall plaster (Surfacing, >5,000 sf)	Dining room	3	3-3	Stopped Analysis	Nonfriable
Brown coat of hard ceiling plaster (Surfacing, >5,000 sf)	Dining room	3	3-4	Stopped Analysis	Nonfriable
Brown coat of hard wall plaster (Surfacing, >5,000 sf)	Bathroom 2nd floor	3	3-5	Stopped Analysis	Nonfriable
Brown coat of hard ceiling plaster (Surfacing, >5,000 sf)	Bathroom 2nd floor	3	3-6	Stopped Analysis	Nonfriable
Brown coat of hard wall plaster (Surfacing, >5,000 sf)	Bedroom #2	3	3-7	Stopped Analysis	Nonfriable
Drywall (Miscellaneous)	Living room	4	4-1	None Detected	Nonfriable

Table 1-1

TABLE 1: BULK SAMPLE DATA SUMMARY

SAMPLE DESCRIPTION (Material Type)	SAMPLE LOCATION	HOMO AREA #	SAMPLE I.D. NO.	ASBESTOS CONTENT	FRIABLE/ NONFRIABLE
Drywall (Miscellaneous)	Kitchen	4	4-2	None Detected	Nonfriable
Joint compound (Miscellaneous)	Living room	5	5-1	None Detected	Nonfriable
Joint compound (Miscellaneous)	Kitchen	5	5-2	None Detected	Nonfriable
12"x12" White sticky back floor tile (Miscellaneous)	Kitchen	6	6-1	None Detected	Nonfriable
12"x12" White sticky back floor tile (Miscellaneous)	Kitchen	6	6-2	None Detected	Nonfriable
Grey paper under 12" white sticky back floor tile (Miscellaneous)	Kitchen	7	7-1	None Detected	Friable
Grey paper under 12" white sticky back floor tile (Miscellaneous)	Kitchen	7	7-2	None Detected	Friable
Duct insulation (Thermal System Insulation)	Bedroom #3	8	8-1	60% Chrysotile	Friable
2'x2' Suspended ceiling tile (Miscellaneous)	Basement	9	9-1	None Detected	Friable
2'x2' Suspended ceiling tile (Miscellaneous)	Basement	9	9-2	None Detected	Friable
2'x2' Suspended ceiling tile (Miscellaneous)	Basement	9	9-3	None Detected	Friable
Grey linoleum (Miscellaneous)	Basement stairwell	10	10-1	None Detected	Nonfriable
Grey linoleum (Miscellaneous)	Basement stairwell	10	10-2	None Detected	Nonfriable
Green asphalt roof shingle (Miscellaneous)	Exterior	11	11-1	None Detected	Nonfriable
Green asphalt roof shingle (Miscellaneous)	Exterior	11	11-2	None Detected	Nonfriable

*Quantified By PLM Point Count Method

TABLE 2 - ASBESTOS INVENTORY

Location	Type ACM	Material Description	Amt. of Material (approx.)
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The following asbestos-containing materials are located in the vacant residence located at 201 Fernwood Avenue, Dayton.

Entire residence	RACM	Hard wall and ceiling plaster	4,575 sf
Basement	RACM	Duct insulation	45 sf
Basement stairwell	RACM	Duct insulation	10 sf
Basement to 2nd floor	RACM	Duct insulation (concealed behind hard wall and ceiling plaster)	75 sf

TABLE 3 - COST ESTIMATE

Location	Type ACM	Material Description	Cost for abatement (approx.)
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The following asbestos-containing materials are located in the vacant residence located at 201 Fernwood Avenue, Dayton, Ohio.

Entire residence	RACM	Hard wall and ceiling plaster	\$27,450.00
Basement	RACM	Duct insulation	\$900.00
Basement stairwell	RACM	Duct insulation	\$250.00
Basement to 2nd floor	RACM	Duct insulation (concealed behind hard wall and ceiling plaster)	\$1,875.00

Table 3-1

CERTIFICATE OF ANALYSIS

Client: Sierra Environmental Group Inc
1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736843 **Description / Location:** White Glazing
Client No.: 1-1

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736844 **Description / Location:** White Glazing
Client No.: 1-2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736845 **Description / Location:** White Plaster
Client No.: 2-1

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

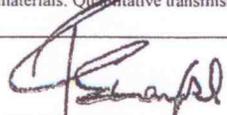
Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: T. Lowe

Approved By: 

Date: 9/16/2015

Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Sierra Environmental Group Inc
1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736846	Description / Location: White Plaster			
Client No.: 2-2				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736846	Description / Location: White Texture			Layer No.: 2
Client No.: 2-2				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736847	Description / Location: White Plaster			
Client No.: 2-3				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736848	Description / Location: White Plaster			
Client No.: 2-4				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analysis Performed By: T. Lowe

Date: 9/16/2015

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Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736849	Description / Location: White Plaster			
Client No.: 2-5				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736850	Description / Location: White Plaster			
Client No.: 2-6				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736851	Description / Location: White Plaster			
Client No.: 2-7				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736852	Description / Location: Grey Plaster			
Client No.: 3-1				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 2.1	Chrysotile	1	Hair	PC 96.9

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Analysis Performed By: T. Lowe

Date: 9/16/2015

CERTIFICATE OF ANALYSIS

Client: Sierra Environmental Group Inc
1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736853	Description / Location: Sample Not Analyzed			
Client No.: 3-2				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Lab No.: 5736854	Description / Location: Sample Not Analyzed			
Client No.: 3-3				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Lab No.: 5736855	Description / Location: Sample Not Analyzed			
Client No.: 3-4				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Lab No.: 5736856	Description / Location: Sample Not Analyzed			
Client No.: 3-5				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	Description / Location:				
5736857	Sample Not Analyzed				
Client No.: 3-6					
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
Sample Not Analyzed			Sample Not Analyzed		

Lab No.: 5736858	Sample Not Analyzed				
Client No.: 3-7					
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
Sample Not Analyzed			Sample Not Analyzed		

Lab No.: 5736859	White Sheetrock				
Client No.: 4-1					
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	5	Cellulose	95	

Lab No.: 5736860	White Sheetrock				
Client No.: 4-2					
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	5	Cellulose	95	

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

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Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	Description / Location:				
Client No.:					
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
5736861	White Joint Compound				
5-1					
None Detected	None Detected	None Detected	None Detected	100	

5736862	White Joint Compound				
5-2					
None Detected	None Detected	None Detected	None Detected	100	

5736863	White Floor Tile				
6-1					
None Detected	None Detected	None Detected	None Detected	100	

5736864	White Floor Tile				
6-2					
None Detected	None Detected	None Detected	None Detected	100	

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.I where applicable)

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Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736865	Description / Location: Clear Mastic			
Client No.: 7-1				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736865	Description / Location: Grey Fibrous			Layer No.: 2
Client No.: 7-1				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	90	Cellulose	10

Lab No.: 5736866	Description / Location: Clear Mastic			
Client No.: 7-2				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736866	Description / Location: Grey Fibrous			Layer No.: 2
Client No.: 7-2				
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	90	Cellulose	10

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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1041 Straight Street
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Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
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BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	Client No.:	Description / Location:	% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
5736867	8-1	White Fibrous	60	Chrysotile	30	Cellulose	10
5736868	9-1	White Ceiling Tile	None Detected	None Detected	40	Cellulose	20
					40	Fibrous Glass	
5736869	9-2	White Ceiling Tile	None Detected	None Detected	40	Cellulose	20
					40	Fibrous Glass	
5736870	9-3	White Ceiling Tile	None Detected	None Detected	40	Cellulose	20
					40	Fibrous Glass	

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government
This report shall not be reproduced except in full, without written approval of the laboratory.*

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: T. Lowe

Date: 9/16/2015

CERTIFICATE OF ANALYSIS

Client: Sierra Environmental Group Inc
1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736871 **Description / Location:** Blue Vinyl Sheet Flooring
Client No.: 10-1

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	30	Cellulose	70

Lab No.: 5736871 **Description / Location:** Brown Mastic **Layer No.:** 2
Client No.: 10-1

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5736872 **Description / Location:** Blue Vinyl Sheet Flooring
Client No.: 10-2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	30	Cellulose	70

Lab No.: 5736872 **Description / Location:** Brown Mastic **Layer No.:** 2
Client No.: 10-2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: T. Lowe

Date: 9/16/2015

CERTIFICATE OF ANALYSIS

Client: Sierra Environmental Group Inc
1041 Straight Street
Cincinnati OH 45214

Report Date: 9/16/2015
Report No.: 373963
Project: 201 Fernwood
Project No.: MCLB.001

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5736873 **Description / Location:** Black Shingle
Client No.: 11-1

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	80

Lab No.: 5736874 **Description / Location:** Black Shingle
Client No.: 11-2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	80

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

*This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government
This report shall not be reproduced except in full, without written approval of the laboratory.*

Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: T. Lowe

Date: 9/16/2015

Chain of Custody

-Bulk Asbestos -

Contact Information

Client Company: <u>Sierra</u> Office Address: <u>1041 Straight St.</u> City, State, Zip: <u>Cinci, OH 45214</u> Fax Number: _____ Email Address: <u>tt sierra@hsc.net</u>	Project Number: <u>MCLB.001</u> Project Name: <u>201 Fernwood</u> Primary Contact: <u>T. Taylor</u> Office Phone: _____ Cell Phone: _____
--	--

PLM Instructions:

- PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009

- PLM: Point Counting
 - PC: via ELAP 198.1
 - PC: 400 Points
 - PC: 800 Points *
 - PC: 1600 Points *
- PLM: Instructions for Multi-Layered Samples
 - Analyze and Report All Separable Layers per EPA 600
 - Report Composite for Drywall Systems per NESHAP
 - Report All Layers and Composite Where Applicable
 - Only Analyze and Report Specifically Noted Layer
- PLM: Analyze Until Positive (Positive Stop)
 - AUP: by Homogenous Area as Noted
 - AUP: by Material Type as Noted
 - PLM: NOB via 198.6
 - PLM: Friable via EPA 600 2.3
 - If <1% by PLM, to TEM via 198.4 *
 - If <1% by PLM, Hold for Instructions
- PLM: Non-Building Material *** (Dust, Wipe, Tape)
 - Soil or Vermiculite Analysis
 - CARB 435

E-MAILED
09/11/15

Special Instructions: _____

* Additional charge and turnaround may be required ** Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

Turnaround Time

Preliminary Results Requested Date: _____ Verbal Email Fax 32

Specific date / time

10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization): <u>Mc Graw Hill</u>	Date: <u>9-11-15</u>	Time: _____	
Received (Name / iATL): _____	Date: _____	Time: _____	
Sample Login (Name / iATL): _____	Date: <u>9/14/15</u>	Time: _____	
Analysis (Name(s) / iATL): <u>Sierra LLC</u>	Date: <u>9-16-15</u>	Time: _____	
QA/QC Review (Name / iATL): _____	Date: <u>9-17-15</u>	Time: _____	
Archived / Released: _____	QA/QC InterLAB Use: _____	Date: _____	Time: _____

RECEIVED
SEP 14 2015

Asbestos Chain-of-Custody

~ For Lab Use Only ~

Company Name: Sierra Environmental Group, Inc. Address: 1041 Straight Street City/State/Zip: Cincinnati, OH 45214
 Phone: (513) 542-5323 Fax: () _____ E-mail: tsierra@fuse.net
 Project Name / Testing Address: MCLB. 001 - 201 Fernwood City/State (Required): _____
 Collected by: Todd Taylor Purchase Order Number _____

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*

_____ 1 - Day _____ 2 - Day _____ 3 - Day _____ Same Day (Must Call Ahead) _____ Weekend (Must Call Ahead)

No.	Client Sample ID	Date Collected	ASBESTOS						AIR			Volume (Total Liters)	COMMENTS	
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM Nv. Protocol	PCM	TEM Graded (Bals)	TEM AHERA (Air)	Time On	Time Off			Flow Rate (L/min)
1	1-1	9-11-15	-									5736843	Sk at 1 st position	
2	1-2	↓	-									5736844	↓	
3	2-1											5736845		Sk at 1 st position
4	2-2											5736846		
5	2-3											5736847		
6	2-4											5736848		
7	2-5											5736849		
8	2-6											5736850		
9	2-7											5736851		
10	3-1											5736852		Sk at 1 st position

Released by: T. Taylor Signature: [Signature] Date/Time: _____
 Received by: _____ Signature: _____ Date/Time: _____

Asbestos Chain-of-Custody

~ For Lab Use Only ~

Company Name: Sierra Environmental Group, Inc. Address: 1041 Straight Street City/State/Zip: Cincinnati, OH 45214

Phone: (513) 542-5323 Fax: () _____ E-mail: tsierra@fuse.net

Project Name / Testing Address: MCLB. 001 - City/State (Required): _____

Collected by: Todd Taylor Purchase Order Number: _____

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*
 1 - Day _____ 2 - Day 2 3 - Day _____ Same Day (Must Call Ahead) _____ Weekend (Must Call Ahead) _____

No.	Client Sample ID	Date Collected	ASBESTOS						AIR				COMMENTS	
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM % Protocol	PCM	TEM Certified (Bulk)	TEM AHERA (Air)	Time On	Time Off	Flow Rate (L/min)		Total Time (minutes)
1	3-2	9-11-15	-									5736853		↓ Sp at 1 st position Sp at 2 nd position
2	3-3		-									5736854		
3	3-4		-									5736855		
4	3-1 st		-									5736856		
5	3-6		-									5736857		
6	3-7		-									5736858		
7	4-1		-									5736859		
8	4-2		-									5736860		
9	5-1		-									5736861		
10	5-2		-									5736862		

Released by: T. Taylor Signature: [Signature] Date/Time: _____
 Received by: _____ Signature: _____ Date/Time: _____

Asbestos Chain-of-Custody

~ For Lab Use Only ~

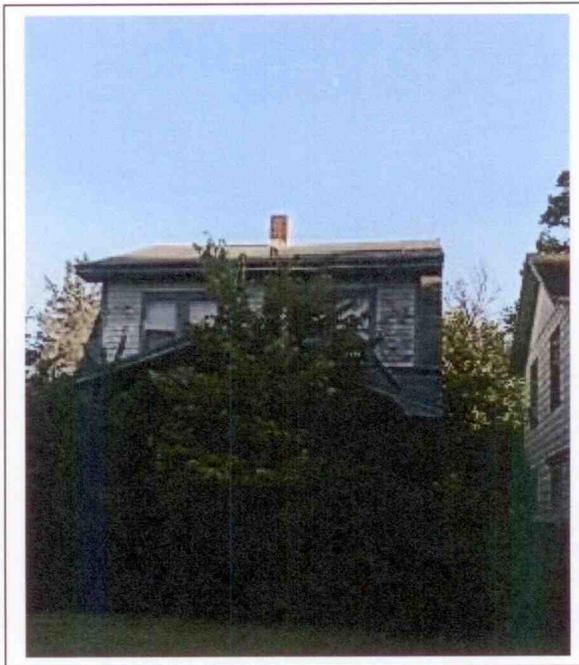
Company Name: Sierra Environmental Group, Inc. Address: 1041 Straight Street City/State/Zip: Cincinnati, OH 45214
 Phone: (513) 542-5323 Fax: () _____ E-mail: tsierra@fuse.net
 Project Name / Testing Address: MCLB.001 - City/State (Required): _____
 Collected by: Todd Taylor Purchase Order Number: _____

Turn Around Times : *If no TAT is specified, sample(s) will be processed and charged as 3-day TAT.*

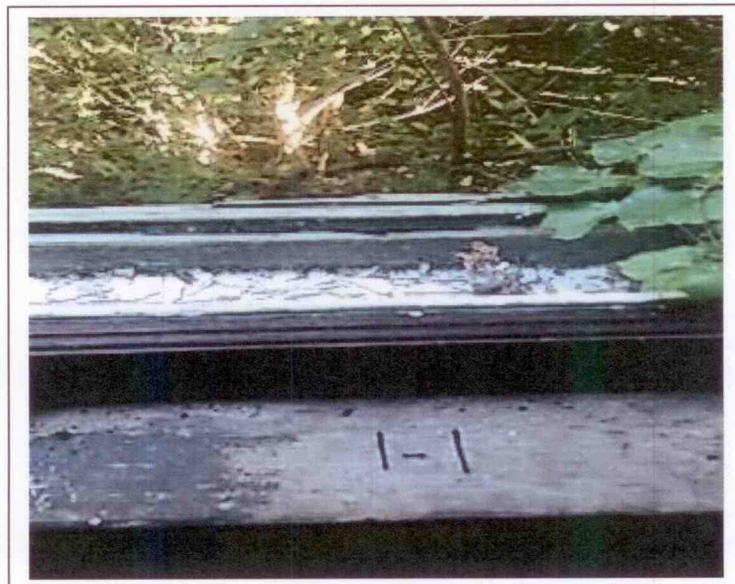
_____ 1 - Day _____ 2 - Day 2 3 - Day _____ Same Day (Must Call Ahead) _____ Weekend (Must Call Ahead)

No.	Client Sample ID	Date Collected	ASBESTOS						AIR			COMMENTS		
			PLM	PLM Point Count 400	PLM Point Count 1000	PLM N/ Protocol	PCM	TEM (Charred) (Bak)	TEM AHERA (Air)	Time On	Time Off		Flow Rate (L/min)	Total Time (minutes)
1	6-1	9-11-15	-									5736863		Sp at 1 st position
2	6-2		-									5736864		Sp at 1 st position
3	7-1		-									5736865		
4	7-2		-									5736866		
5	8-1		-									5736867		
6	9-1		-									5736868		
7	9-2		-									5736869		Sp at 1 st position
8	9-3		-									5736870		
9	10-1		-									5736871		
10	10-2	↓	-									5736872		Sp at 1 st position

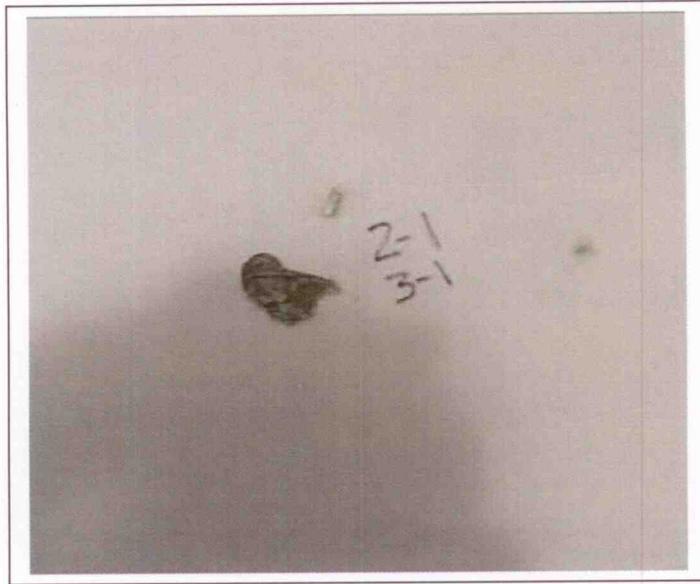
Released by: T. Taylor Signature: [Signature] Date/Time: _____
 Received by: _____ Signature: _____ Date/Time: _____



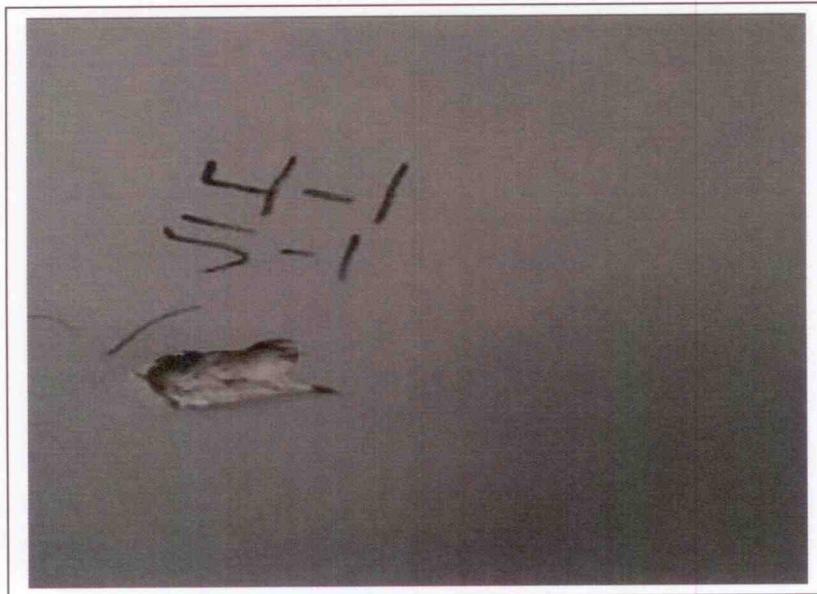
201 Fernwood Avenue, Dayton, Ohio 45405



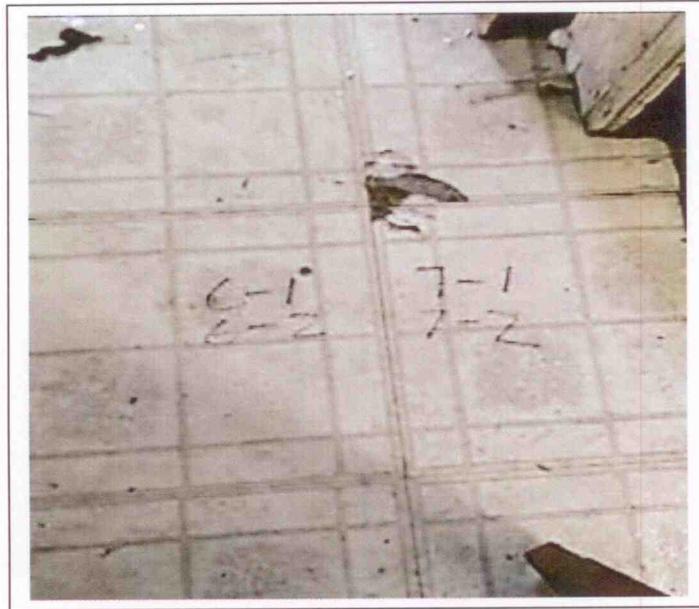
HA #1 – Window glaze



HA #2 & #3 – Hard wall and ceiling plaster



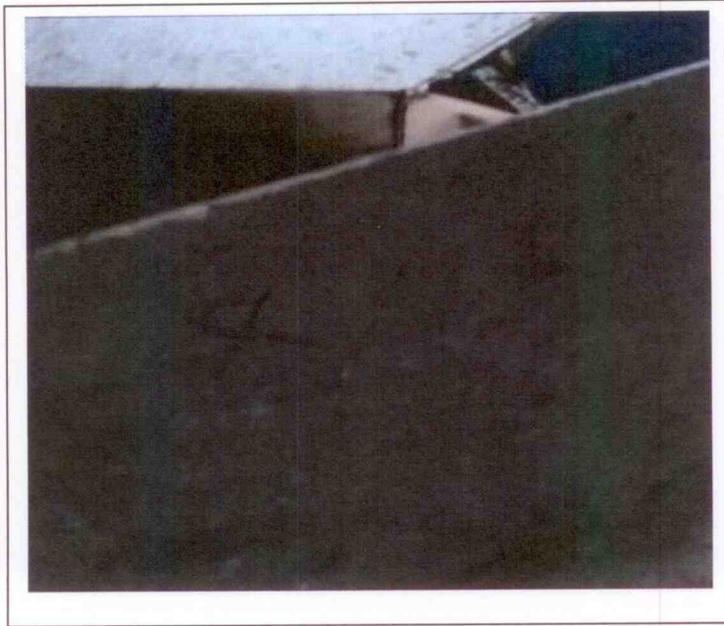
HA #4 – Drywall and associated joint compound



HA #6 & #7 – 12” White sticky back floor tile and grey paper



HA #8 – Duct insulation concealed behind hard wall plaster



HA #9 – 2'x2' Suspended ceiling tile



HA #10 – Grey linoleum



HA #11 – Green and red asphalt roof shingle



OHIO DEPARTMENT OF HEALTH

246 North High Street
Columbus, Ohio 43215

614/466-3543
www.odh.ohio.gov

John R. Kasich/Governor

Richard Hodges/Director of Health

October 23, 2014

Charles F Callahan
Sierra Environmental Group, Inc.
1041 Straight Street
Cincinnati OH 45214

RE: Asbestos Hazard Evaluation Specialist
Certification Number: ES31960
Expiration Date: 10/20/2015

Dear Charles F Callahan:

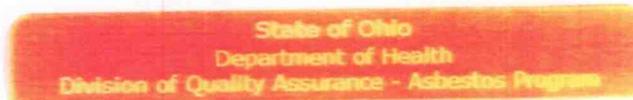
This letter and enclosed certification card approves your request to be certified as an Asbestos Hazard Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of Health for violation of any of the requirements of 3701-34 of the Ohio Administrative Code.

If you have any questions, please call Charlene W. Valentine, Licensure Specialist, at 614-644-0226.

Sincerely,

David Holston, Chief
Environmental Abatement Section
Bureau of Information and Operational Support
Division of Quality Assurance



Asbestos Hazard Evaluation Specialist



Charles F Callahan
Sierra Environmental Group, Inc.
1041 Straight Street
Cincinnati OH 45214

Certification Number **ES31960** Expiration Date **10/20/2015**

DOB: 11/07/1969
This certification is issued pursuant to Chapter 3710 of the Revised Code and 3701-34 of the Ohio Administrative Code. Certification Card is not valid if altered.

OHIO DEPARTMENT OF HEALTH

240 East Ninth Street

Columbus, Ohio 43215

tel: 614-466-3543

614/466-3543

www.odh.ohio.gov

Richard Hodges/Director of Health

May 12, 2015

Todd E. Taylor
Sierra Environmental Group, Inc.
1041 Straight Street
Cincinnati OH 45214

RE: Asbestos Hazard Evaluation Specialist
Certification Number: ES32139
Expiration Date: 05/19/2016

Dear Todd E Taylor:

This letter and enclosed certification card approves your request to be certified as an Asbestos Hazard Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of Health for violation of any of the requirements of 3701-34 of the Ohio Administrative Code.

If you have any questions, please call Kathy Butcher, Licensure Specialist, at 614-644-0226.

Sincerely,



Bill Robbins, Section Chief
Bureau of Licensure Operations
Office of Health Assurance and Licensing

State of Ohio
Department of Health
Asbestos Program

Asbestos Hazard Evaluation Specialist



Todd E Taylor
Sierra Environmental Group, Inc.
1041 Straight Street
Cincinnati OH 45214

DOB: 07/23/1967 Certification Number: **ES32139** Expiration Date: **05/19/2016**

This certification is issued pursuant to Chapter 3701 of the Revised Code and 3701-34 of the Ohio Administrative Code. Certification Card is not valid if altered.