
ASBESTOS SURVEY FOR DEMOLITION

1559 H Road
Delta, Colorado 81416

Prepared for:

GMUG NFs
Attn: Linda Lanham
2250 Highway 50
Delta, Colorado 81416

Prepared by:

Azura Lakin
Colorado State Certified Asbestos Building Inspector #16611

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PLATEAU, INC.
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
ASBESTOS CONSULTING FIRM # ACF-14973



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ACRONYMS

Commonly Used Acronyms

ACBM	Asbestos Containing Building Materials
ACM	Asbestos Containing Materials
AHERA	Asbestos Hazard Emergency Response Act
CDPHE	Colorado Department of Public Health and Environment
EPA	Environmental Protection Agency
HA	Homogeneous Area
HEPA	High Efficiency Particulate Air
HVAC	Heating Ventilation and Air Conditioning
NESHAP	National Emission Standards for Hazardous Air Pollutants
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PCM	Phase Contrast Microscopy
PLM	Polarized Light Microscopy
RBM	Regulated Building Material
TEM	Transmission Electron Microscopy
TSI	Thermal System Insulation

1.0 INTRODUCTION

Plateau, Inc. was retained by GMUG NF's Linda Lanham to perform an asbestos survey for the purpose of demolition of two commercial structures located at 1559 H Road, Delta, Colorado. The main structure is utilized as administrative offices and the other is a storage garage. Azura Lakin, certified by the EPA and CDPHE, retains certification in accordance with regulatory guidelines and is identified by CDPHE as Asbestos Inspector #16611. The inspection was conducted in accordance with applicable EPA, OSHA and CDPHE regulations and was performed on August 16, 2017.

For identification purposes, the main building is brown/tan and the storage shed is green in color.

2.0 ASBESTOS METHODOLOGY

The purpose of the asbestos inspection was to identify friable and Category II non-friable asbestos material. Only accessible materials were inspected and tested in accordance with Colorado Reg. 8, Part B. During the asbestos materials survey, Plateau, Inc. performed the following tasks:

- Inspected accessible areas for suspected asbestos materials;
- Developed a sampling plan for each material based on the homogeneous material type, friability, accessibility, and material locations;
- Collected samples of suspected homogeneous and non-homogeneous materials in accordance of Colorado Reg. 8, Part B and submitted them for laboratory analysis by Polarized Light Microscopy (PLM); and,
- Documented findings and inspection protocol in accordance with accepted industry standards.

3.0 ASBESTOS INSPECTION PROCEDURE

Asbestos sampling is conducted by segregating building materials into sampling units call homogeneous areas. A homogeneous area is defined as a material that is uniform in texture and color and appears identical in every other respect. Homogeneous suspect asbestos materials were identified by visually inspecting and sampling the following systems:

- Surface System - Various textures
- Miscellaneous
 - Block
 - Mortar
 - Bricks
 - Concrete
 - Window Glazing
 - Pain
 - Roofing Underlayment

3.1 Asbestos Sample Collection

The EPA and CDPHE regulate the minimum number of samples to be collected of each suspect material as outlined on Table 1, Sampling Minimums.

TABLE 1 – SAMPLING MINIMUMS

MATERIAL	HOMOGENEOUS AREA SIZE	UNITS	MINIMUM SAMPLE AMOUNT
SURFACING	LESS THAN 1,000	SF	3
SURFACING	1,000 TO 5,000	SF	5
SURFACING	MORE THAN 5,000	SF	7
THERMAL SYSTEM INSULATION		LF/ SF/EA	3
MISCELLANEOUS MATERIALS		LF/SF/EA	2

SF – Square Feet LF – Linear Feet EA – Each

Ms. Lakin collected bulk samples of the suspected friable and non-friable asbestos materials in a random and representative manner as defined by the U.S. Environmental Protection Agency (EPA) statistical sampling methods. The collected samples were packaged in sealed baggies and labeled appropriately.

3.2 Asbestos Sample Analysis

The bulk samples of suspected asbestos materials were submitted under chain of custody to an independent laboratory for analysis. The National Voluntary Laboratory Accreditation Program (NVLAP) (Lab Code 200828-0) accredits EMSL Analytical Inc. Individual layers of the samples were analyzed by PLM (Polarized Light Microscopy), a bulk sample analysis method established by the National Voluntary Laboratory Accreditation Program (NVLAP), to determine asbestos type and content. Bulk samples were analyzed using EPA Method 600/R-93/116. Unused portions of the samples are archived for 60 days, unless the client requests special handling.

4.0 ASBESTOS REGULATORY CRITERIA

According to the Occupational Safety and Health Administration (OSHA), the EPA, and the Colorado Department of Public Health and Environment (CDPHE), samples with asbestos concentrations greater than 1 percent are classified as asbestos containing and are a regulated material. If a building structure is scheduled for renovation or demolition, samples that contain a “trace” amount of asbestos (less than 1 percent) must be further analyzed by a more accurate point-count analysis to determine if they surpass the 1 percent threshold, or the materials must be assumed to contain asbestos and be classified as a regulated material.

The EPA and OSHA distinguish between friable and non-friable forms of asbestos materials. Friable materials can be crumbled or reduced to powder by hand pressure when dry versus non-friable materials that cannot be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friable materials are more likely to be released into the air, especially if impacted or damaged during normal use, renovation, or demolition of a building. Therefore, the distinction between friable and non-friable asbestos materials is important. The EPA further segregates non-friable asbestos materials into Category I or Category II. Category I non-friable asbestos materials include floor tiles and roofing felts. Removal of these asbestos materials is not required prior to demolition as long as they are in good condition. Category II asbestos materials are all other non-friable asbestos materials and must be removed prior to normal demolition or renovation.

Whether removed or remaining in a structure during demolition, the confirmed or presumed asbestos materials are subject to EPA National Emission Standards for Hazardous Air

Pollutants (NESHAP) and OSHA regulations. In 40CFR61.145, NESHAP requires that each owner or operator of a demolition activity provide the administrator with written notice of intent. The CDPHE has implemented the NESHAP program. A demolition permit application is not included with this report.

5.0 ASBESTOS INSPECTION RESULTS

Results of the asbestos analyses for the homogeneous material collected from the structures are summarized below and in Table 2. Table 2 presents Plateau, Inc.'s homogeneous material identifier and laboratory results for asbestos content. Laboratory reports for the samples are presented in Appendix B.

1559 H Road, Delta, Colorado

A multitude of different surfacing and miscellaneous construction components were identified during inspection. Plateau, Inc. collected and shipped under chain of custody thirty-six (36) samples of suspect building materials from the structures. Two materials are identified as regulated asbestos containing materials:

- **Texturing on Gypsum Wall Board located on the walls and ceilings in the Brown Tan Garage with Office**
- **Window Glazing on all windows located in the Brown Tan Garage with Office**

These materials require asbestos abatement according to Colorado Reg. 8, Part B. Upon completion of abatement, Plateau will return for final visual inspection and air monitoring as required by regulations. Upon successful air monitoring results as defined by regulations, Plateau will sign the demolition permit application required by CDPHE for completion of demolition.

A list of licensed abatement contractors is available and can be viewed on the CDPHE website – <https://www.colorado.gov/pacific/cdphe/certified-individuals-consulting-firms-laboratories-and-disposal-sites-asbestos>

Please contact Plateau prior to the start date of your abatement to secure timely air monitoring services.

The green storage garage samples were non-detect for asbestos.

PLEASE REFERENCE TABLE 2 – ASBESTOS RESULTS FOR HOMOGENEOUS MATERIALS

6.0 CONCLUSIONS AND RECOMMENDATIONS

Asbestos containing materials are regulated by the Colorado Department of Public Health and Environment (CDPHE), the U.S. Environmental Protection Agency (EPA), and the Occupational Safety and Health Administration (OSHA). Colorado Reg. 8, Part B requires demolition permits for projects that require the removal of any load-bearing member. A demolition permit application is not included with this report. Only upon asbestos abatement and final air clearances can Plateau sign the demolition permit application. Please contact Plateau when you are ready to proceed with your project.

7.0 LIMITATIONS

This report was prepared for the use of assessing the potential asbestos building materials that will be impacted during demolition activities of commercial structures located at 1559 H Road, Delta, Colorado. Observations made were not intrusive and limited to readily visible or exposed building material within the structure. Our services were performed with no destruction for sampling; thus, our services are not intended to guarantee or certify the absence of asbestos.

The accuracy and reliability of environmental studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited to and dependent upon the resources expended. An independent laboratory performed laboratory analysis. Plateau, Inc. is not responsible for the accuracy of data presented by others.

Plateau, Inc. performed the survey in a manner consistent with the level of care and expertise exercised by members of the asbestos inspection and assessment profession. Plateau, Inc. does not imply or guarantee that every suspect asbestos material on or in the building has been identified or sampled. Historically, asbestos has been used extensively in the United States. This inspection is intended to identify those components that are reasonably suspect and hence most likely to be asbestos materials in quantities subject to regulation based on existing industry and regulatory standards. If additional asbestos materials or asbestos-suspect materials are encountered, work should be stopped and an additional asbestos inspection performed.

Thank you for your business. If we can be of further service, please do not hesitate to call us, 970.252.1363.

Sincerely,

Plateau, Inc.
Azura Lakin
Colorado Certified Asbestos Building Inspector # 16611

SUMMARY OF FEDERAL AND STATE ASBESTOS REGULATIONS

OSHA: U.S. Department of Labor, Occupational Safety, and Health Administration, including but not limited to:

- Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite;
- Final Rules Title 29, Part 1910, Section 1325 and Part 1926, Section 1101 of the Code of Federal Regulations;
- Respiratory Protection Standard Title 29, Part 1910, Section 134 of the Code of Federal Regulations;
- Construction Industry Title 29, Part 1926, of the Code of Federal Regulations;
- Access to Employee Exposure and Medical Records Title 29, Part 1910, Section 2 of the Code of Federal Regulations;
- Hazard Communication Title 29, Part 1926 Section 59 of the Code of Federal Regulations; and
- Specifications for Accident Prevention Signs and Tags Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

DOT: U.S. Department of Transportation, including but not limited to:

- Hazardous Substances Title 29, Part 171 and 172 of the Code of Federal Regulations.

EPA: U.S. Environmental Protection Agency, including but not limited to:

- Asbestos Hazard Emergency Response Act (AHERA) Regulation;
- Asbestos Containing Materials in Schools Final Rule & Notice Title 40, Part 763 Sub-part E of the Code of Federal Regulations;
- Training Requirements of (AHERA) Regulation;
- Asbestos Containing Materials in Schools Final Rule & Notice Title 40, Part 763, Sub-part E, Appendix C of the Code of Federal Regulations;

- National Emission Standard for Hazardous Air Pollutants (NESHAPS); and
- National Emission Standard for Asbestos Title 40, Part 61, Sub-part A, Sub-part M (Revised Sub-part B) of the Code of Federal Regulations.

CDPHE: Colorado Department of Public Health and Environment, including but not limited to:

- Air Quality Control Commission, Regulation No. 8, Part B “Emissions Standards for Asbestos”; and
- Hazardous Materials and Waste Management Division, 6 CCR 1007-2, Section 5 “Asbestos Waste Management.”

TABLE 2

ASBESTOS RESULTS FOR HOMOGENEOUS MATERIALS

KEY - RED INK = COLORADO REGULATED MATERIAL

BLUE INK = OSHA/EPA REGULATED MATERIAL

BLACK INK = NON REGULATED MATERIAL

SAMPLE/MATERIAL	LAB RESULT	LOCATION OF MATERIAL	LOCATION OF SAMPLE
MAIN BUILDING WITH OFFICE			
1. BM-1, EXTERIOR BLOCK	NON-DETECT	EXTERIOR	WEST SIDE
2. BM-1, EXTERIOR BLOCK	NON-DETECT	EXTERIOR	WEST SIDE
3. BM-1A, EXTERIOR BLOCK MORTAR	NON-DETECT	EXTERIOR	WEST SIDE
4. BM-1A, EXTERIOR BLOCK MORTAR	NON-DETECT	EXTERIOR	WEST SIDE
5. BM-2, SMALLER EXTERIOR BRICKS	NON-DETECT	EXTERIOR	SOUTH SIDE RIGHT OF GARAGE DOOR
6. BM-2, SMALLER EXTERIOR BRICKS	NON-DETECT	EXTERIOR	SOUTH SIDE RIGHT OF GARAGE DOOR
7. F-1, FOUNDATION, CONCRETE SLAB	NON-DETECT	FOUNDATION	GARAGE, SW SECTION
8. F-1, FOUNDATION, CONCRETE SLAB	NON-DETECT	FOUNDATION	NORTH GARAGE, MID
9. WG-1, WINDOW GLAZING	5% CHRYSOTILE	MULTI PANED WINDOWS THROUGHOUT	SOUTH WINDOW
10. WG-1, WINDOW GLAZING	NON-DETECT	MULTI PANED WINDOWS THROUGHOUT	NORTH WINDOW
11. MISC-1, PAINTED CONCRETE WALLS	NON-DETECT	EXTERIOR WALLS	GARAGE WALL, SOUTH

12. MISC-1, PAINTED CONCRETE WALLS	NON-DETECT	EXTERIOR WALLS	NORTH GARAGE, EAST WALL
13. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	<0.25% CHRYSOTILE	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	SOUTH GARAGE, CEILING, WEST END
14. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	<0.25% CHRYSOTILE	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	SOUTH GARAGE, NORTH WALL, RIGHT OF NO GARAGE ENTRY
15. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, SOUTH WALL
16. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, CEILING, SOUTH END
17. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, PARTITION WALL, NORTH END
18. MISC-1, PAINTED CONCRETE WALLS	NON-DETECT	EXTERIOR WALLS	SOUTH GARAGE, EAST WALL PLASTER COATING
19. MISC-1, PAINTED CONCRETE WALLS	NON-DETECT	EXTERIOR WALLS	NORTH GARAGE, NORTH WALL, PLASTER COATING
20. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	3% CHRYSOTILE	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	SOUTH GARAGE, NORTH WALL, LEFT SIDE
21. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, SOUTH WALL
22. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, CEILING, MID
23. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	SOUTH GARAGE, CEILING, ABOVE WEST ENTRY
24. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD WITH JOINT COMPOUND	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	SOUTH GARAGE, NW CORNER, CEILING
25. WS-1, ROUGH TEXTURE ON GYPSUM WALL BOARD WITH JOINT COMPOUND	NON-DETECT	ALL AREAS EXCEPT BATHROOM, WALLS AND CEILINGS	NORTH GARAGE, CEILING, MID
26. WS-2, SPORRADIC BUMPY TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	BATHROOM WALLS AND CEILING	SOUTH WALL, RIGHT

27. WS-2, SPORRADIC BUMPY TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	BATHROOM WALLS AND CEILING	SOUTH WALL, ABOVE SINK
28. WS-2, SPORRADIC BUMPY TEXTURE ON GYPSUM WALL BOARD	NON-DETECT	BATHROOM WALLS AND CEILING	NORTH WALL
29. WS-2, SPORRADIC BUMPY TEXTURE ON GYPSUM WALL BOARD WITH JOINT COMPOUND	NON-DETECT	BATHROOM WALLS AND CEILING	SOUTH WALL, CORNER AT ENTRY
30. WS-2, SPORRADIC BUMPY TEXTURE ON GYPSUM WALL BOARD WITH JOINT COMPOUND	NON-DETECT	BATHROOM WALLS AND CEILING	SOUTH WALL, MID AT SEAM
31. R-1, ROOFING UNDERLAYMENT	NON-DETECT	ROOF	NORTH SIDE
32. R-1, ROOFING UNDERLAYMENT	NON-DETECT	ROOF	SW CORNER
GREEN SHED BUILDING			
1. F-1, FOUNDATION, CONCRETE SLAB	NON-DETECT	FOUNDATION	EAST MOST ROOM OF SHED, AT ENTRANCE
2. F-1, FOUNDATION, CONCRETE SLAB	NON-DETECT	FOUNDATION	3 RD ROOM FROM EAST AT ENTRANCE
3. WG-1, WINDOW GLAZING	NON-DETECT	SINGLE WINDOW WITH SINGLE LARGE PANE OF GLASS	BOTTOM SILL OF WINDOW
4. WG-1, WINDOW GLAZING	NON-DETECT	SINGLE WINDOW WITH SINGLE LARGE PANE OF GLASS	BOTTOM SILL OF WINDOW