

CHEROKEE NATION
Environmental Programs



Asbestos Sampling Report

Unit #13437

PREPARED BY: Rylee Roberts DATE: 11/12/25
RYLEE ROBERTS, ENVIRONMENTAL SPECIALIST I

REQUESTED BY: HACN HOUSING REHABILITATION -
JAMIE WALTERS

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I. Site Inspection/Description

Cherokee Nation Environmental Programs (CNEP) has conducted asbestos sampling for the presence of asbestos containing materials (ACM) for the following site:

22279 S. 125th St. E. Muskogee, OK 74455
918-360-3222
Coordinates: 35.43543, -95.16789

The sampling was performed to determine the presence of all ACM from within the affected parts of the structure for EPA's National Emissions of Hazardous Air Pollutants (NESHAP) compliance as well as OSHA worker protection.

The inspector responsible for this project was:

Logan Girty, AHERA Inspector

The sampling was conducted on October 29, 2025 at the request of the Cherokee Nation Housing Rehabilitation Department.

The site is a single family home built in 1940. Sampling was limited to areas that would be affected by the project scope of work (Appendix A) provided by the housing rehabilitation department.

ACM was found at this site. See Section IV for locations.

II. BACKGROUND

The Oklahoma Department of Environmental Quality (ODEQ) has adopted EPA's NESHAP regulation under OAC252:100, 41-15 and has been delegated authority in the state of Oklahoma for its enforcement. Section 61.145(a) of Federal EPA regulation states that prior to commencement of the demolition or renovation of a facility a thorough inspection of the affected part or parts of a facility is required to determine the presence of all asbestos including Category I and Category II non-friable, and friable ACM. ACM is defined by EPA and OSHA as any material that contains greater than 1% asbestos.

III. FIELD PROCEDURES AND ANALYTICAL METHODS

During the on-site inspection, we visually assessed the physical characteristics of suspect asbestos-containing materials (SACM) based on homogeneous areas. Homogeneous areas are areas of asbestos similar in color, texture, and construction, date of application, and in general

appearance. For purposes of renovation and demolition, homogeneous areas of SACM can be further classified according to NESHAPs rules by whether the material is friable, Category I non-friable, or Category II non-friable.

Friable ACM is defined by NESHAPs rules as any material containing more than 1% asbestos as determined by Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

Category I Non-friable ACM is defined by NESHAPs rules as any asbestos-containing packings, gaskets, construction mastics, resilient floor covering (i.e. floor tiles, roll sheet flooring) or asphalt roofing products that contain more than 1% asbestos as determined by PLM.

Category II Non-friable ACM is defined by NESHAPs rules as any material, excluding Category I non-friable ACM, containing more than 1% asbestos as determined by PLM, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Typically, non-friable materials, such as transite (cementitious products) and vinyl floor tiles are not regulated by the State of Oklahoma provided they do not become friable. General deterioration, machine grinding, drilling, sanding, and dry-buffing are all ways of causing non-friable materials to become classified as Regulated Asbestos Containing Materials (RACM). All friable materials are classified RACM. Please note that the following materials, even though classified as non-friable are fully regulated by Oklahoma Department of Labor for removal purposes as friable material: ceiling tiles, roll sheet flooring (linoleum), and joint wall compound when deemed friable

In addition to classification of suspect material into friable and non-friable materials, a determination of current condition was conducted as part of the physical assessment. The condition noted is the representative of the material at the time of inspection. Conditions of materials can change very quickly when disturbed. All suspect material was placed in one of the following categories of condition.

Significantly damaged: Material that is damaged, blistered, deteriorated, water stained over at least 10% of its total area.

Damaged: Material that is damaged, blistered, deteriorated, water stained less than 10% of its total area.

Good: Material that has no visible damage or deterioration.

Guidelines used for the number of samples collected per homogeneous area were determined using the Asbestos Hazard Emergency Response Act (AHERA) protocol promulgated in 40 CFR 763, Appendix E as follows:

Surfacing materials – material that is sprayed or troweled on wall, ceilings, or support columns for fireproofing, acoustical, or even decorative purpose.

- Less than 1000 ft² – Minimum 3 samples
- From 1000-5000 ft² – Minimum 5 samples
- Greater than 5000 ft² – Minimum 7 samples

Thermal System Insulation (TSI) materials – thermal system insulation material applied to tanks, boiler, pipes or other structural component for an insulating purpose.

- May omit areas of fibrous glass, foam glass, rubber, and Styrofoam from sampling. Areas that have mastic on seams or outer jacketing will be sampled.
- At least three samples must be collected from each homogeneous area of TSI.
- Plus an additional sample from each patched area of less than 6 linear feet.
- Fittings require a sufficient amount to determine positive or negative nature.
- Inspector will first collect samples from damaged areas, exposed ends, or areas missing jacketing first.

Miscellaneous materials – all other material that are not thermal system insulation or surfacing materials. This includes gaskets, packings, joint wall compound, cementitious asbestos materials, ceiling tiles resilient flooring materials, construction mastics, etc..

- May assume and document as such
- A sufficient amount of samples to determine negative or positive nature. A minimum or one per suspect homogeneous area.
- Collect samples from inconspicuous locations.
- Material such as cementitious asbestos or vibration dampening cloths should not be sampled and will be assumed ACM unless instructed by client to collect these samples.

Bulk samples of suspect ACM were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Methods 600R-93/116. All samples were sent to a NVLAP accredited laboratory for analysis. QuanTEM Laboratories, LLC (NVLAP # 101959-0) in Oklahoma City, OK analyzed the samples. A copy of the full laboratory report and chain of custody can be found in Appendix B.

IV. SUMMARY OF FINDINGS

A total of 25 samples were analyzed from 8 homogeneous areas due to multi-layers of material within some homogeneous sample areas. All accessible and observable areas within the renovation area were sampled for ACM. Samples were not taken of suspect materials that may have placed the inspector at risk of injury (i.e. electrical panel boxes). Any suspect ACM that have not been tested and/or found positive for asbestos must be assumed ACM until they are analyzed. Upon review of laboratory analysis, the following asbestos containing materials can be found in Table 1. All suspect ACM samples that were analyzed and did not contain asbestos can be found in Table 2.

Table 1. Asbestos Containing Materials					
Sample #	Material Description	Locations	Friability (Friable, NF Cat I NF Cat II)	Condition	Sample Results (% Asbestos)
02-01 02-02 02-03	Ceiling texture	Living Room	Friable	D	2

Table 2. Non – Asbestos Containing Materials				
Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
01-01	RSF	Kitchen	D	NA
03-01	Wallpaper	Bedroom 1	D	NA
04-01	RSF	Laundry Room	D	NA
05-01	Textured Drywall	Bedroom 2	D	NA
05-02	Textured Drywall	Bedroom 3	D	NA
05-03	Textured Drywall	Bedroom 2	D	NA
06-01 06-02 06-03	Popcorn Ceiling	Bedroom 2 and 3	D	NA
07-01	Concrete Foundation	Throughout	D	NA
08-01	Mortar Texture	Throughout Ext	D	NA

V. CONCLUSIONS

Asbestos is not always an immediate hazard. Intact and undisturbed ACM does not pose a health risk. They may, however become a health hazard if they are damaged, disturbed, or deteriorate over time and release fibers into the air. There are no federal, state, or Tribal laws mandating asbestos removal. It is only when the material can no longer be maintained in good condition and/or airborne concentrations of asbestos are measured and found to be above a permissible exposure limit (PEL), or when the building is to be demolished or renovated, that removal may become necessary. Any renovation/demolition work which may impact these positive materials should be conducted in accordance with all applicable Federal, state, and local regulations.



7021 W. Wilshire Blvd, Ste. B / Oklahoma City, OK 73132 / 405-755-7272

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 384425

Account Number: C162

Date Received: 10/31/2025

Received By: Baylie Puga

Date Analyzed: 11/04/2025

Analyzed By: Tanner Smith

Methodology: EPA/600/R-93/116

Client: Cherokee Nation Environmental Programs
Rylee Roberts

Unit #13437
Project Location: Muskogee
Project Number: N/A

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	Tan Sheet Vinyl	Asbestos Not Present	Cellulose 20 Glass Fiber 5	Vinyl CaCO ₃
002	02-01	Layered	White Texture	Asbestos Not Present	NA	CaCO ₃ Paint
002a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 2	NA	CaCO ₃
002b		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
003	02-02	Layered	White Texture	Asbestos Not Present	NA	CaCO ₃ Paint
003a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 2	NA	CaCO ₃
003b		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis. Quantem is a NVLAP accredited Testing PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA—40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples; and EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory. If submitted samples are inhomogeneous in nature, then subsamples of the components will be analyzed separately. Samples determined to contain asbestos fibers, will have the following acceptable error ranges (1% = 0-3%, 5% = 1-9%, 10% = 5-15%, 20% = 10-30%, 50% = 40-60%, etc.) as specified per EPA Method 600/R-93/116, Table 2-1.



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Project Number: N/A

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
004	02-03	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
004a		Layered	Tan Joint Compound	Asbestos Present Chrysotile 2	NA	CaCO3
005	03-01	Homogeneous	Multi-Color Wall Paper	Asbestos Not Present	Cellulose 40	Binder CaCO3
006	04-01	Homogeneous	Tan Sheet Vinyl	Asbestos Not Present	Cellulose 20 Glass Fiber 5	Vinyl CaCO3
007	05-01	Layered	Pink Texture	Asbestos Not Present	NA	CaCO3 Paint
007a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
008	05-02	Layered	Green Texture	Asbestos Not Present	NA	CaCO3 Paint

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Project Location: Muskogee
Project Number: N/A

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
008a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
009	05-03	Layered	Pink Texture	Asbestos Not Present	NA	CaCO ₃ Paint
009a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
010	06-01	Layered	White Texture	Asbestos Not Present	Cellulose 5	CaCO ₃ Foam Paint
010a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
011	06-02	Layered	White Texture	Asbestos Not Present	Cellulose 5	CaCO ₃ Foam Paint
011a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum

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Methodology: EPA/600/R-93/116

Unit # 13437
Project Location: Muskogee
Project Number: N/A

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	06-03	Layered	White Texture	Asbestos Not Present	Cellulose	5 CaCO ₃ Foam Paint
012a		Layered	White Drywall	Asbestos Not Present	Cellulose	10 Gypsum
013	07-01	Homogeneous	Gray Concrete	Asbestos Not Present	NA	CaCO ₃ Sand Gravel
014	08-01	Homogeneous	Dark Gray Mortar	Asbestos Not Present	NA	CaCO ₃ Sand Binder

Tanner Smith, Laboratory Analyst

11/4/2025

Date of Report

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ASBESTOS CHAIN OF CUSTODY

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www.QuanTEM.com

For Lab Use Only	
Lab No. <u>384425</u>	Accept <input checked="" type="checkbox"/> Reject <input type="checkbox"/>

Report Results (check one box)	
<input type="checkbox"/> Quantem Website	
<input checked="" type="checkbox"/> Email <u>rylee-roberts@quantem.org</u>	
<input type="checkbox"/> Other _____	

Contact Information	
Company: Cherokee Nation Environmental Programs	Phone: (918) 453-5092
Contact: Rylee Roberts	Cell Phone: (918) 871-9373
Account #: C 162	E-mail: <u>rylee-roberts@cherokee.org</u>
SAMPLED BY: Name: Logan Girty	Date: 10/29/2025
Project Information	
Project Name: <u>#13437</u>	Project Location: Muskogee
Project ID:	PO Number: 916621

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<u>Rylee Roberts</u>	10/29/2025 @ 5PM	FedEx	<u>[Signature]</u>	10/31/25 1:40

REQUESTED SERVICES (Please check the Appropriate Boxes)

	PLM	PLM		TEM		TEM		TURNAROUND TIME
		Bulk Analysis **	Vermiculite Attic Insulation (EPA 600/R-04/004)	Air- AHRA	Bulk- Presence / Absence EPA600/R-93/116	Bulk- Quantitative [weight%]- Chatfield	Dust- Presence / Absence	
<input checked="" type="checkbox"/>	400 Point Count	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rush
<input type="checkbox"/>	1000 Point Count	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same Day
<input type="checkbox"/>	Gravimetric Preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24 - Hour
<input type="checkbox"/>	Particle ID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 - Day
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5 - Day

No.	Sample ID (10 Characters Max)	To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	01-01	<input checked="" type="checkbox"/>	Tan	RSF		Entry Kitchen
2	02-01	<input checked="" type="checkbox"/>	White	Ceiling Texture		Living Room
3	02-02	<input checked="" type="checkbox"/>	White	Ceiling Texture		Living Room
4	02-03	<input checked="" type="checkbox"/>	White	Ceiling Texture		Living Room
5	03-01	<input checked="" type="checkbox"/>	Multi	Wallpaper		Bed 1
6	04-01	<input checked="" type="checkbox"/>	Tan	RSF		Laundry
7	05-01	<input checked="" type="checkbox"/>	Pink	Textured Drywall		Bed 2
8	05-02	<input checked="" type="checkbox"/>	Green	Textured Drywall		Bed 3
9	05-03	<input checked="" type="checkbox"/>	Pink	Textured Drywall		Bed 2
10	06-01	<input checked="" type="checkbox"/>	White	Popcorn Ceiling		Bed 2 and 3

SATURDAY FEDEX SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup" Please Note - UPS and USPS are NOT available for Saturday **PLM Bulk Analysis (EPA 40-CFR Appendix E to Subpart E of Part 763 and EPA 600/R-93/116 Methods)



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LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only

Lab No. 384428

Accept

Reject

Project Information				Project Name: #13437	Project Location: Muskogee	
Company: Cherokee Nation Environmental Programs						
No.	Sample ID (10 Characters Max)	To Be Analyzed <input checked="" type="checkbox"/>	Color	Description	Volume / Area (as applicable)	Comments / Notes
11	06-02	<input checked="" type="checkbox"/>	White	Popcorn Ceiling		Bed 2 and 3
12	06-03	<input checked="" type="checkbox"/>	White	Popcorn Ceiling		Bed 2 and 3
13	07-01	<input checked="" type="checkbox"/>	Grey	Concrete Foundation		Throughout
14	08-01	<input checked="" type="checkbox"/>	Grey	Mortar Txt		Throughout Ext
15		<input type="checkbox"/>				
16		<input type="checkbox"/>				
17		<input type="checkbox"/>				
18		<input type="checkbox"/>				
19		<input type="checkbox"/>				
20		<input type="checkbox"/>				
21		<input type="checkbox"/>				
22		<input type="checkbox"/>				
23		<input type="checkbox"/>				
24		<input type="checkbox"/>				
25		<input type="checkbox"/>				
26		<input type="checkbox"/>				
27		<input type="checkbox"/>				
28		<input type="checkbox"/>				
29		<input type="checkbox"/>				
30		<input type="checkbox"/>				