CHEROKEE NATION
Environmental Programs

Asbestos Sampling Report

PARTICIPANT: #10221

PREPARED BY: _____ **DATE:** 6/30/2025
TIMOTHY MILLER, ENVIRONMENTAL SPECIALIST I

REQUESTED BY: HACN HOUSING REHABILITATION –
JAMIE WALTERS

TABLE OF CONTENTS

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:

15396 W. Meadow View Ln. Tahlequah, OK 74464
405-777-6643
Coordinates: 35.84526, -95.03105

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:

Timothy Miller, AHERA Inspector

The sampling was conducted on June 23, 2025 at the request of the Cherokee Nation Housing Rehabilitation Department.

The site is a single family home built in 1978. 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 (cementious 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 form 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, cementious 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 cementious 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 29 samples were analyzed from 14 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/ 02-03	Ceiling Texture	Bathroom 1	Friable	Significantly Damaged	4
12-01	White Caulk	Exterior Window South Side	Friable	Significant Damaged	5
14-01	Gray Caulk	Exterior Window NE Bedroom	NF Cat II	Damaged	10

Table 2. Non – Asbestos Containing Materials				
Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
01-01/ 01-03	White Joint Compound	Bathroom 1	Damaged	<1
03-01	Red Wall Tile	Bathroom 1	Good	None Detected
04-01	Brown Flooring	Bathroom 1	Damaged	None Detected
05-01	White & Red/Black Flooring	Bathroom 1	Damaged	None Detected
06-01	White Caulk	Bathroom 1	Damaged	None Detected
07-01	White Caulk	Bathroom 1	Damaged	None Detected
08-01	Black Wall Tile	Bathroom 1	Good	None Detected
09-01	Blue Drywall	Bathroom 1 Above Shower	Damaged	None Detected
10-01	White Caulk	Living Room French Doors	Damaged	None Detected
11-01	Red Brick	Front Steps	Significant Damage	None Detected
13-01	White Caulk	Living Room Door Exterior	Significant Damage	None Detected

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

QUANTEM LABORATORIES
2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 380397
Account Number: C162

Client: Cherokee Nation Environmental Programs
Timothy Miller

Date Received: 06/25/2025
Received By: Charlie Johnson
Date Analyzed: 06/26/2025
Analyzed By: Tanner Smith
Methodology: EPA/600/R-93/116

Project: #10221
Project Location: Tahlequah
Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	White Joint Compound	Asbestos Present Chrysotile <1	NA	CaCO3
002	01-02	Layered	White Joint Compound	Asbestos Present Chrysotile <1	NA	CaCO3
002a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
003	01-03	Layered	White Joint Compound	Asbestos Present Chrysotile <1	NA	CaCO3
003a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
004	02-01	Homogeneous	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Foam Paint
005	02-02	Homogeneous	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Foam Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Project: #10221
Project Location: Tahlequah
Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
006	02-03	Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Foam Paint
006a		Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
006b		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
007	03-01	Layered	Red Tile	Asbestos Not Present	NA	Clay Sand
007a		Layered	White Grout	Asbestos Not Present	NA	CaCO3 Binder
007b		Layered	Tan Mastic	Asbestos Not Present	NA	Glue

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QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
008	04-01	Homogeneous	Brown Flooring	Asbestos Not Present	NA	Vinyl CaCO3 Foam
009	05-01	Layered	White Flooring	Asbestos Not Present	Cellulose 20 Synthetic 5	Binder CaCO3
009a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue
009b		Layered	Red/Black Flooring	Asbestos Not Present	Cellulose 20 Glass Fiber 5	Binder CaCO3
009c		Layered	Tan Mastic	Asbestos Not Present	NA	Glue Binder
010	06-01	Homogeneous	White Caulk	Asbestos Not Present	NA	Glue Binder
011	07-01	Homogeneous	White Caulk	Asbestos Not Present	NA	Glue Binder

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Polarized Light Microscopy Asbestos Analysis Report

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Timothy Miller

Date Received: 06/25/2025
Received By: Charlie Johnson
Date Analyzed: 06/26/2025
Analyzed By: Tanner Smith
Methodology: EPA/600/R-93/116

Project: #10221
Project Location: Tahlequah
Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	08-01	Layered	Black Tile	Asbestos Not Present	NA	Clay Sand
012a		Layered	White Grout	Asbestos Not Present	NA	CaCO3 Binder
013	09-01	Homogeneous	Blue Drywall	Asbestos Not Present	Cellulose 10 Glass Fiber 2	Gypsum
014	10-01	Homogeneous	White Caulk	Asbestos Not Present	NA	Glue Binder
015	11-01	Layered	Red Brick	Asbestos Not Present	NA	Clay
015a		Layered	Gray Mortar	Asbestos Not Present	NA	CaCO3 Sand

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Project: #10221
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Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
016	12-01	Homogeneous	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3 Binder
017	13-01	Homogeneous	White Caulk	Asbestos Not Present	NA	Glue Binder
018	14-01	Homogeneous	Gray Caulk	Asbestos Present Chrysotile 10	NA	Tar

Tanner Smith

Tanner Smith, Laboratory Analyst

6/26/2025
Date of Report

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 and EPA/600/R-93/116 methods.
This report may not be used to claim product endorsement by NVLAP or any agency of the US Government.

ASBESTOS CHAIN OF CUSTODY

QuanTEM LABORATORIES
www.QuanTEM.com
2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	380397
Accept	Reject

Contact Information			
Company:	Cherokee Nation Environmental Programs	Phone:	(918) 207-4934
Contact:	Timothy Miller	Cell Phone:	(918) 570-9545
Account #:	C 162	E-mail:	timothy-miller@cherokee.org
SAMPLED BY: Name:	Timothy Miller	Date:	06/23/2025

Project Information	
Project Name:	#10221
Project Location:	Tahlequah
Project ID:	
P.O. Number:	896007

Report Results (☑ one box)	
☐	QuanTEM Website
☑	Email timothy-miller@cherokee.org
☐	Other _____

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
Timothy Miller	06/23/25/ 3PM	Fedex		6/25/25 930

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

PLM	
☑	Bulk Analysis (EPA 600/R-93/116)
☐	400 Point Count
☐	1000 Point Count
☐	Gravimetric Preparation
☐	Particle ID

PLM	
☐	Vermiculite Attic Insulation (EPA 600/R-04/004)
☐	Other

PCM	
☐	NIOSH 7400

TEM	
☐	Air- AHERA
☐	Air- NIOSH 7402
☐	Air- ISO 10312
☐	Drinking Water- EPA 100.2
☐	Waste Water- EPA 600/4-83-043

TEM	
☐	Bulk- Presence / Absence EPA600/R-93/116
☐	Bulk- Quantitative [weight%]- Chatfield
☐	Dust- Presence / Absence
☐	Dust- Quantitative [fibers/sq.cm]- ASTM D5755
☐	Other

TURNAROUND TIME	
☐	Rush
☐	Same Day
☐	24 - Hour
☑	3 - Day
☐	5 - Day

No.	Sample ID (10 Characters Max)	☑ To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	01-01	☑	White	Drywall/Joint Compound		Bathroom Walls
2	01-02	☑	White	Drywall/Joint Compound		Bathroom Walls
3	01-03	☑	White	Drywall/Joint Compound		Bathroom Walls
4	02-01	☑	White	Drywall/Joint Compound/Ceiling Texture		Bathroom Ceiling
5	02-02	☑	White	Drywall/Joint Compound/Ceiling Texture		Bathroom Ceiling
6	02-03	☑	White	Drywall/Joint Compound/Ceiling Texture		Bathroom Ceiling
7	03-01	☑	Red	Tile/Grout		Bathroom Walls
8	04-01	☑	Brown	Flooring		Bathroom Floor
9	05-01	☑	White	Roll Sheet Flooring		Bathroom Floor
10	06-01	☑	White	Caulk		Bathroom Vanity

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 Delivery

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LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No. 380397	
Accept	Reject

Project Information

Company: Cherokee Nation Environmental Programs | Project Name: #10231 | Project Location: Tahlequah

No.	Sample ID (10 Characters Max)	☑ To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
11	07-01	☑	White	Caulk		Shower
12	08-01	☑	Black	Tile/Grout		Bathroom Walls
13	09-01	☑	Blue	Drywall		Above Shower
14	10-01	☑	White	Caulk		Living Room French Doors
15	11-01	☑	Red/Gray	Brick/Mortar		Front Steps
16	12-01	☑	White	Caulk		Exterior Window Garage
17	13-01	☑	White	Caulk		Exterior French Door
18	14-01	☑	Gray	Caulk		Exterior Window NE Bedroom
19		☐				
20		☐				
21		☐				
22		☐				
23		☐				
24		☐				
25		☐				
26		☐				
27		☐				
28		☐				
29		☐				
30		☐				

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