

CHEROKEE NATION
Environmental Programs



Asbestos Sampling Report

PARTICIPANT: #13806

PREPARED BY: Chris Fulbright **DATE:** 5/1/2026
CHRISTOPHER FULBRIGHT, ENVIRONMENTAL INTERN

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:

-
80 S. State Ave, Tahlequah, OK 74464
918-316-2191
Coordinates: 35.90536 / -94.97851

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:

Rylee Roberts, AHERA Inspector

The sampling was conducted on April 24th, 2026, at the request of the Cherokee Nation Housing Rehabilitation Department.

The site is a single-family home built in 1950. 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 as 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 an NVLAP accredited laboratory for analysis. Pace Analytical (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 16 samples were analyzed from 4 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 has 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 to 02-03	Drywall Texturing	Bath 1	Friable	Damaged	3%

Table 2. Non – Asbestos Containing Materials				
Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
01-01 to 01-02	Rolled Stick Flooring	Kitchen	Damaged	Asbestos Not Present
03-01	Shower Tile	Bath 1	Damaged	Asbestos Not Present
04-01	Mortar	Front Porch	Damaged	Asbestos Not Present

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.



Polarized Light Microscopy Asbestos Analysis Report

Pace Set ID	503891	Client:	Cherokee Nation Environmental Programs
Account Number:	69-000183		PO Box 948
Date Received:	04/28/2026		Tahlequah, OK 74464
Received By:	Baylie Puga	Project:	
Date Analyzed:	04/30/2026	Project Location:	Tahlequah
Analyzed By:	Cassie Sanborn	Project Number:	N/A
Methodology:	EPA/600/R-93/116		

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Layered	Yellow Sheet Vinyl	Asbestos Not Present	Cellulose 20	CaCO3 Vinyl
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002	01-02	Layered	White Sheet Vinyl	Asbestos Not Present	Cellulose 15 Glass Fiber 5	CaCO3 Vinyl
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002b		Layered	Yellow Sheet Vinyl	Asbestos Not Present	Cellulose 20	CaCO3 Vinyl
002c		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
003	02-01	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis. Pace Analytical 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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Date Analyzed:	04/30/2026	Project Location:	Tahlequah
Analyzed By:	Cassie Sanborn	Project Number:	N/A
Methodology:	EPA/600/R-93/116		

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
003a		Layered	Tan Texture	Asbestos Present Chrysotile 3	NA	Gypsum Paint
003b		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
004	02-02	Layered	White Texture	Asbestos Not Present	NA	Paint
004a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
005	02-03	Layered	White Texture	Asbestos Not Present	NA	Paint
005a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
006	03-01	Layered	White Tile	Asbestos Not Present	NA	Clay Sand

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Methodology:	EPA/600/R-93/116		

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
006a		Layered	White Caulk	Asbestos Not Present	NA	Silicone
007	04-01	Homogeneous	Gray Mortar	Asbestos Not Present	NA	CaCO3 Sand Paint

Cassie Sanborn

Cassie Sanborn, Laboratory Analyst

4/30/2026

Date of Report

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



ASBESTOS CHAIN OF CUSTODY

7021 W Wilshire Blvd., Suite B, Oklahoma City, OK 73132
(800) 822-1650 • (405) 755-7272

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only	
Lab No.	<u>503891</u>
<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Reject

Contact Information		Project Information		Report Results (<input checked="" type="checkbox"/> one box)	
Company: Cherokee Nation Environmental Programs	Phone: (918) 453-5092	Project Name:		<input type="checkbox"/> Quantem Website	
Contact: Rylee Roberts	Cell Phone: (918) 871-9373	Project Location: Tahlequah		<input checked="" type="checkbox"/> Email <u>rylee-roberts@cherokee.org</u>	
Account #: 69-000183	E-mail: rylee-roberts@cherokee.org	Project ID:		<input type="checkbox"/> Other _____	
SAMPLED BY: Name: Rylee Roberts	Date: 4/24/2026	P.O. Number: 916621			

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
<i>Rylee Roberts</i>	<i>4/24/26 2:50pm</i>	FedEx	<i>[Signature]</i>	<i>4/28/26 1:10</i>

REQUESTED SERVICES (Please the Appropriate Boxes)

PLM	PLM	TEM	TEM	TURNAROUND TIME
<input checked="" type="checkbox"/> Bulk Analysis **	<input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)	<input type="checkbox"/> Air- AHERA	<input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116	<input type="checkbox"/> Rush
<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Other	<input type="checkbox"/> Air- NIOSH 7402	<input type="checkbox"/> Bulk- Quantitative [weight%]- Chatfield	<input type="checkbox"/> Same Day
<input type="checkbox"/> 1000 Point Count		<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> 24 - Hour
<input type="checkbox"/> Gravimetric Preparation	PCM	<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755	<input checked="" type="checkbox"/> 3 - Day
<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input type="checkbox"/> Other	<input type="checkbox"/> 5 - Day

No.	Sample ID (10 Characters Max)	<input checked="" type="checkbox"/> To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	01-01	<input checked="" type="checkbox"/>	Yellow	RSF		Kitchen
2	01-02	<input checked="" type="checkbox"/>	White	RSF		Kitchen
3	02-01	<input checked="" type="checkbox"/>	White	Drywall TXT		Bath 1
4	02-02	<input checked="" type="checkbox"/>	White	Drywall TXT		Bath 1
5	02-03	<input checked="" type="checkbox"/>	White	Drywall TXT		Bath 1
6	03-01	<input checked="" type="checkbox"/>	White	Shower Tile		Bath 1
7	04-01	<input checked="" type="checkbox"/>	Grey	Mortar		Front Porch
8		<input type="checkbox"/>				
9		<input type="checkbox"/>				
10		<input type="checkbox"/>				

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)