HOUSING AUTHORITY OF THE CHEROKEE NATION

Environmental Programs

ASBESTOS REPORT

PARTICIPANT #12404

PREPARED BY: Tim Miller **DATE:** 11/13/2026

TIMOTHY MILLER, ENVIRONMENTAL SPECIALIST IV

REVIEWED BY: Brad Ashill **DATE:** 11/13/2026

REQUESTED BY: HOUSING AUTHORITY OF THE CHEROKEE NATION

– JAMIE WALTERS

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I. Site Inspection/Description

The Housing Authority of the Cherokee Nation Environmental Program has conducted asbestos sampling for the presence of asbestos containing materials (ACM) for the following site:

918-410-1018
82959 S. 4617 Rd. Stilwell, OK 74960
35.81383, -94.79470

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 November 09, 2026 at the request of the Cherokee Nation Housing Rehabilitation Department.

The site is a single family home built in 1973. 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. 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 7 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)
01-01	Joint Compound	Hallway and Bedrooms	Friable	Damaged	2
02-01	Vinyl Flooring	Kitchen	NF Cat I	Damaged	20
03-01	Vinyl Flooring	Livingroom and Hallway 1	NF Cat I	Damaged	20
04-01	Vinyl Flooring	Hallway/Laundry	NF Cat I	Damaged	20

Table 2. Non – Asbestos Containing Materials				
Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
05-01	White Wallpaper	HWT Cover	Damaged	Asbestos Not Present
06-01	White Caulk	Soffit	Damaged	Asbestos Not Present
07-01	Clear Caulk	Ext. Doors	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.

Pace© Analytical Services, LLC
7021 W Wilshire Blvd, Ste B
Oklahoma City, OK 73132

Polarized Light Microscopy Asbestos Analysis Report

Pace Set ID 509565
Account Number: 69-000533
Date Received: 11/11/2026
Received By: Charlie Johnson
Date Analyzed: 11/12/2026
Analyzed By: Benjamin Hill
Methodology: EPA/600/R-93/116

Client: Housing Authority of the Cherokee Nation of OK
1500 Hensley Drive
Tahlequah, OK 74464

Project:
Project Location: Stilwell
Project Number: NA

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Layered	White Joint Compound	Asbestos Present Chrysotile 2	NA	CaCO3
001a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10	Gypsum
002	02-01	Layered	Brown Floor Tile	Asbestos Not Present	Synthetic 5	CaCO3 Vinyl
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002b		Layered	Green Sheet Vinyl	Asbestos Not Present	Cellulose 10	Vinyl CaCO3
002c		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
002d		Layered	Multi-Color Sheet Vinyl	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
003	03-01	Layered	Brown Flooring	Asbestos Not Present	Cellulose 90	Binder

- The results detailed in this report pertain solely to the samples tested and as they were received by the laboratory. This report shall not be reproduced, except in full, without the written consent of Pace© Analytical Services, LLC.
- Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.
- Pace© Analytical Services, LLC 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 the 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 U.S. Government.
- If submitted samples are inhomogeneous in nature, then subsamples of the components will be analyzed separately.

Pace© Analytical Services, LLC
7021 W Wilshire Blvd, Ste B
Oklahoma City, OK 73132

Polarized Light Microscopy Asbestos Analysis Report

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Account Number: 69-000533
Date Received: 11/11/2026
Received By: Charlie Johnson
Date Analyzed: 11/12/2026
Analyzed By: Benjamin Hill
Methodology: EPA/600/R-93/116

Client: Housing Authority of the Cherokee Nation of OK
1500 Hensley Drive
Tahlequah, OK 74464

Project:
Project Location: Stilwell
Project Number: NA

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
003a		Layered	Green/White Sheet Vinyl	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
004	04-01	Layered	Gray Sheet Vinyl	Asbestos Not Present	Cellulose 10	Vinyl CaCO3
004a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
004b		Layered	Beige Sheet Vinyl	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
005	05-01	Layered	White Wall Paper	Asbestos Not Present	NA	Vinyl
005a		Layered	Clear Adhesive	Asbestos Not Present	NA	Glue
006	06-01	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder

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Pace© Analytical Services, LLC
7021 W Wilshire Blvd, Ste B
Oklahoma City, OK 73132

Polarized Light Microscopy Asbestos Analysis Report

Pace Set ID	509565	Client:	Housing Authority of the Cherokee Nation of OK 1500 Hensley Drive Tahlequah, OK 74464
Account Number:	69-000533		
Date Received:	11/11/2026		
Received By:	Charlie Johnson		
Date Analyzed:	11/12/2026	Project:	
Analyzed By:	Benjamin Hill	Project Location:	Stilwell
Methodology:	EPA/600/R-93/116	Project Number:	NA

Pace Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007	07-01	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone

Benjamin Hill

Benjamin Hill, Assistant Laboratory Manager

11/12/2026

Date of Report

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ASBESTOS CHAIN OF CUSTODY

QuanTEM LABORATORIES
www.QuanTEM.com
7021 W. Wilshire Blvd, Suite B, Oklahoma City, OK 73132
(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only
Lab No. 509565
Accept Reject

Contact Information			
Company:	Housing Authority of the Cherokee Nation Environmental Programs	Phone:	
Contact:	Timothy Miller	Cell Phone:	(918) 570-9545
Account #:	69-000533	E-mail:	timothy.miller@hacn.org
Sampled By:	Name: Timothy Miller	Date:	11/09/2026

Project Information	
Project Name:	
Project Location:	Stilwell
Project ID:	
P.O. Number:	

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

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
Timothy Miller	11/09/26@4PM	Fedex		11/10/26 925

REQUESTED SERVICES (Please ☑ the Appropriate Boxes)

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

No.	Sample ID (10 Characters Max)	☑ To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	01-01	☑	White	Ceiling J.C.		Hallways & Bedrooms
2	02-01	☑	Brown	Floor Tile		Kitchen
3	03-01	☑	Brown/layered	Flooring		Living Room & Hallway 1
4	04-01	☑	Gray	RSF		Hallway 2
5	05-01	☑	White	Wallpaper		Hallway 2 HWT
6	06-01	☑	White	Caulk		Soffit/Fascia
7	07-01	☑	Clear	Caulk		Exterior Door Side D
8		☐				
9		☐				
10		☐				

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