CHEROKEE NATION
Environmental Programs

Asbestos Sampling Report

SITE: Murray, Kathy

PREPARED BY: Tyler Moore **DATE:** 4/9/2025

TYLER MOORE, ENVIRONMENTAL SPECIALIST I

REQUESTED BY: Housing Authority of the Cherokee Nation

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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:

Kathy Murray
918-607-6428
13788 E Crestview Drive
Claremore, OK 74019
Coordinates: 36.300425, -95.58272
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:

Tyler Moore EPA AHERA Inspector

The sampling was conducted on March 24, 2025, at the request of the Housing Authority of the Cherokee Nation.

The site is a single-family residential structure built in 1979. Sampling was limited to areas that would be affected by the project scope of work (Appendix A) provided by the Housing Authority of the Cherokee Nation.

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 17 samples were analyzed from 13 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	Brown Sheet Vinyl	Flooring Laundry Room	Friable	Damaged	15% Chrysotile

Table 2. Non – Asbestos Containing Materials				
Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
01-01 Thru 01-05	White Texture	Ceiling Throughout	Damaged	Asbestos not Present
03-01	Tan Tile	Kitchen Floor	Damaged	Asbestos not Present
04-01	Tane Tile	Bath 2	Damaged	Asbestos not Present
05-01	Brown Tile	Entry Floor	Damaged	Asbestos not Present
06-01	Grey Mortar	Exterior Brick	Damaged	Asbestos not Present
07-01	Black Shingle	Roof	Damaged	Asbestos not Present
08-01	Grey Concrete	Foundation	Damaged	Asbestos not Present
09-01	Brown Caulking	Exterior Windows	Damaged	Asbestos not Present
10-01	Drywall Tap	Interior Throughout	Damaged	Asbestos not Present
11-01	White Drywall Patch	Kitchen	Damaged	Asbestos not Present
12-01	Brown Caulking	Exterior Wood Siding	Damaged	Asbestos not Present
13-01	Brown Surfacing	Exterior Walls	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.

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

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 377699
Account Number: C162

Client: Cherokee Nation Environmental Programs
Tyler Moore

Date Received: 03/26/2025
Received By: Amanda Bass
Date Analyzed: 03/28/2025
Analyzed By: Cassie Sanborn
Methodology: EPA/600/R-93/116

Project: Kathy Murray
Project Location: Claremore, OK
Project Number: N/A

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)		Non Fibrous
001	01-01	Layered	White Ceiling Texture	Asbestos Not Present	Cellulose	5	CaCO3 Foam Paint
001a		Layered	White Drywall	Asbestos Not Present	Cellulose	10	Gypsum
002	01-02	Layered	White Ceiling Texture	Asbestos Not Present	Cellulose	5	CaCO3 Foam Paint
002a		Layered	White Drywall	Asbestos Not Present	Cellulose	10	Gypsum
003	01-03	Homogeneous	White Ceiling Texture	Asbestos Not Present	Cellulose	5	CaCO3 Foam Paint
004	01-04	Layered	White Ceiling Texture	Asbestos Not Present	Cellulose	5	CaCO3 Foam Paint

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.

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004a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
005	01-05	Layered	White Ceiling Texture	Asbestos Not Present	Cellulose 5	CaCO3 Foam Paint
005a		Layered	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum
006	02-01	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose 5	CaCO3 Vinyl
007	03-01	Layered	Tan Tile	Asbestos Not Present	NA	Clay Sand
007a		Layered	Tan Grout	Asbestos Not Present	NA	CaCO3 Sand
008	04-01	Layered	Tan Tile	Asbestos Not Present	NA	Clay Sand

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2033 Heritage Park Dr, Oklahoma City, OK 73120 1.800.822.1650

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008a		Layered	Tan Grout	Asbestos Not Present	NA	CaCO3 Sand
009	05-01	Layered	Brown Tile	Asbestos Not Present	NA	Clay Sand
009a		Layered	Brown Grout	Asbestos Not Present	NA	CaCO3 Clay
009b		Layered	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
010	06-01	Homogeneous	Gray Mortar	Asbestos Not Present	NA	CaCO3 Sand
011	07-01	Layered	Black Shingle	Asbestos Not Present	Glass Fiber 20	Tar Sand CaCO3

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Project Number: N/A

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011a		Layered	Black Tar	Asbestos Not Present	NA	Tar
012	08-01	Homogeneous	Gray Concrete	Asbestos Not Present	NA	CaCO3 Sand
013	09-01	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
014	10-01	Homogeneous	White Drywall	Asbestos Not Present	Cellulose 10	Gypsum Paint
015	11-01	Homogeneous	White Joint Compound	Asbestos Not Present	NA	CaCO3
016	12-01	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
017	13-01	Homogeneous	Brown Surfacing	Asbestos Not Present	Cellulose 90	Paint

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QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous

Cassie Sanborn, Laboratory Analyst

3/28/2025
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.
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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. 377699
(Accept) Reject

Contact Information			
Company: Cherokee Nation Environmental Programs		Phone: (918) 453-7607	
Contact: Tyler Moore		Cell Phone: (918) 772-8709	
Account #: C 162		E-mail: tyler-moore@cherokee.org	
SAMPLED BY:	Name: Tyler Moore & Logan Girty	Date: 3/24/2025	

Project Information	
Project Name:	Kathy Murray
Project Location:	Claremore, OK
Project ID:	
P.O. Number:	896007

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

RELINQUISHED BY	DATE & TIME	VIA	RECEIVED BY	DATE & TIME
	3/25/25	FedEx		3/26/25 10:15

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 Texture Throughout		
2	01-02	☑	White	Ceiling Texture Throughout		
3	01-03	☑	White	Ceiling Texture Throughout		
4	01-04	☑	White	Ceiling Texture Throughout		
5	01-05	☑	White	Ceiling Texture Throughout		
6		☐				
7		☐				
6 8	02-01	☑	Brown	Vinyl Floor Laundry		
7 9	03-01	☑	Tan	Tile Floor Kitchen		
8 10	04-01	☑	Tan	Tile Floor Bath		

~~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

QUANTEM LABORATORIES
www.QuanTEM.com

ASBESTOS CHAIN OF CUSTODY

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(800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

For Lab Use Only
Lab No. 377699
Accept Reject

Project Information		
Company: Cherokee Nation Environmental Programs	Project Name: Kathy Murray	Project Location: Claremore, OK

	No.	Sample ID (10 Characters Max)	☑ To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
9	11	05-01	☑	Brown	Tile Floor Entry		
10	12	06-01	☑	Grey	Exterior Mortar		
11	13	07-01	☑	Black	Roof Shingle		
12	14	08-01	☑	Grey	Foundation Concrete		
13	15	09-01	☑	Brown	Exterior Window Caulk		
14	16	10-01	☑	White	Drywall Tape and Mud Throughout		
15	17	11-01	☑	White	Drywall Patch in Kitchen		
16	18	12-01	☑	Brown	Exterior Wood Caulk		
17	19	13-01	☑	Brown	Exterior Texture (above Garage)		
	20		☐				
	21		☐				
	22		☐				
	23		☐				
	24		☐				
	25		☐				
	26		☐				
	27		☐				
	28		☐				
	29		☐				
	30		☐				

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