CITY OF NORTH LITTLE ROCK, ARKANSAS
DIRECTOR OF COMMERCE
AND GOVERNMENT AFFAIRS
Mary Beth Bowman, Director
Amy Smith, Assistant Director for Procurement
Crystal Willis, Admin. Sect./Assistant Purchasing Agent

120 MAIN STREET, NORTH LITTLE ROCK, AR 72114
P.O. BOX 5757, NORTH LITTLE ROCK, AR 72119
501-975-8881 Phone
501-975-8885 Fax

INVITATION TO BID

Bid Number: 15-3357 Date Issued: August 20, 2015

Date & Time Bid Opening: Thursday, September 17, 2015 at 10:30 a.m.

The City of North Little Rock is requesting bids from licensed asbestos removal contractors for asbestos abatement at:

Total Project Bid Price

2225 Fendley Drive $_____
Lot 10 Block 3 Pike Plaza Heights
Parcel 33N2390003000

2800 John Ashley $_____
Lot 21 Block 2 Pike Plaza Heights
Parcel 33N2390002200
Pike Plaza Hgts rep 4 thru 8

Gloryland Baptist Church $_____
522 West 22nd Street
Lot 12 Block 3 Rose Hill Subdivision
ROSE HILL PT LOTS 12-13-14-15 BEG AT NW COR OF LOT 15 TH S ALONG W LINE OF SAID LOT 15-61.6FT TH E PARALLEL TO N LINE OF SAID LOT 15-89.5FT TO THE INTERS. OF W R/W LINE OF MOP. RY TH NW'RLY ALONG SAID R/W 67.8FT TO A PT ON N LINE OF LOT 13 TH W ALONG N LINE OF LOT 13-14 & 15 TO PT OF BEG. 3
Parcel 33N2540003900

Plans, specifications, proposal forms and other contract documents may be examined at the following locations:

- Department of Commerce and Government Affairs, 120 Main Street, North Little Rock, AR 72114
- www.northlittlerock.ar.gov

→ A five percent (5%) bid bond is required with the bid.

→ Bidder should include a current copy of their asbestos removal license with bidding documents.

For directions and/or questions regarding the properties listed, please contact
Felecia McHenry at 501-791-8581.

The City of North Little Rock encourages participation of small, minority, and woman own business enterprises in the procurement of goods, services, professional services, and construction, either as a general contractor or sub-contractor. It is further requested that whenever possible, majority contractors who require sub-contractors, seek qualified small, minority, and woman businesses to partner with them.

If you are obtaining this bid from our website, please be reminded that addendums may occur. It is therefore advisable that you review our listings for attachments including any changes to the bid.

Note: FAILURE TO FILL OUT AND SIGN THE INVITATION TO BID SHEET WILL RESULT IN REJECTION OF THE BID.

EXECUTION OF BID

Upon signing this page, the organization certifies that they have read and agree to the requirements set forth in this bid including conditions set forth and pertinent information requests.

Name of Firm:_____ Phone No.: _____

Arkansas Tax Permit No.:_____

Business Address: _____

Signature of Authorized Person: _____

Title:_____ Date: _____, 2015

UNSIGNED BID COVER SHEET WILL BE REJECTED.

TERMS AND STANDARD CONDITIONS
CITY OF NORTH LITTLE ROCK, ARKANSAS

PLEASE READ CAREFULLY

1. When submitting an "Invitation to Bid," the bidder warrants that the commodities covered by the bid shall be free from defects in material and workmanship under normal use and service. In addition, bidder must deliver new commodities of the latest design and model, unless otherwise specified in the "Invitation to Bid."

2. Prices quoted are to be net process, and when an error is made in extending total prices, the City may accept the bid for the lesser amount whether reflected by extension or by the correct multiple of the unit price.

3. Discounts offered will be taken when the City qualifies for such. The beginning date for computing discounts will be the date of invoice or the date of delivery and acceptance, whichever is later.

4. When bidding other than the brand and/or model specified in the "Invitation to Bid," the brand and/or model number must be stated by that item in the "Invitation to Bid," and descriptive literature be submitted with the bid.

5. The City reserves the right to reject any and all bids.

6. The Purchasing office reserves the right to award items, all or none, or by line item(s).

7. Quality, time and probability of performance may be factors in making an award.

8. Bid quotes submitted will remain firm for 30 calendar days from bid opening date; however, the prices may remain firm for a longer period of time if mutually agreeable between bidder and the Commerce Department..

9. Bidder must submit a completed signed copy of the front page of the "Invitation to Bid" and must submit any other information required in the "Invitation to Bid."

10. In the event a contract is entered into pursuant to the "Invitation to Bid," the bidder shall not discriminate against any qualified employee or qualified applicant for employment because of race, sex, color, creed, national origin or ancestry. The bidder must include in any and all subcontracts a provision similar to the above.

11. Sales or use tax is not to be included in the bid price, but is to be added by the vendor to the invoice billing to the City. Although use tax is not to be included in this bid, vendors are to register and pay tax direct to the Arkansas State Revenue Department.

12. Prices quoted shall be "Free on Board" (F.O.B.) to destination at designated facility in North Little Rock. Charges may not be added after the bid is opened.

13. In the event of two or more identical low bids, the contract may be awarded arbitrarily or for any reason to any of such bidders or split in any proportion between them at the discretion of the Commerce Department.

14. Specifications furnished with this Invitation are intended to establish a desired quality or performance level, or other minimum dimensions and capacities, which will provide the best product available at the lowest possible price. Other than designated brands and/or models approved as equal to designated products shall receive an equal consideration.

15. Samples of items when required, must be furnished free, and, if not called for within 30 days from date of bid opening, will become property of the City.

16. Bids will not be considered if they are: 1. Submitted after the bid's opening time. 2. Submitted electronically or faxed I (unless authorized by Purchasing Agent).

17. Guarantees and warranties should be submitted with the bid, as they may be a consideration in making an award.

18. **CONSTRUCTION**

A. Contractor is to supply the City with evidence of having and maintaining proper and complete insurance, specifically Workman's Compensation Insurance in accordance with the laws of the State of Arkansas, Public Liability and Property Damage. All premiums and cost shall be paid by the Contractor. In no way will the City be responsible in case of accident.

B. When noted, a Certified check or bid bond in the amount of 5% of total bid shall accompany bid.

C. A Performance Bond equaling the total amount of any bid exceeding $10,000.00 must be provided for any contract for the repair, alteration or erection of any public building, public structure or public improvement (pursuant to Act 351 or 1953 as amended by Act 539 of 1979).

19. **LIQUIDATED DAMAGES** - Liquidated damages shall be assessed beginning on the first day following the maximum delivery or completion time entered on this bid form and/or provided for by the plans and specifications.

20. **AMBIGUITY IN BID** - Any ambiguity in any bid as the result of omission, error, lack of clarity or non-compliance by the bidder with specifications, instructions, and all conditions of bidding shall be construed in the light most favorable to the City.

21. The bid number should be stated on the face of the sealed bid envelope. If it is not, the envelope will have to be opened to identify.

22. Whenever a bid is sought seeking a source of supply for a specified period of time for materials and services, the quantities of usage shown are estimated ONLY. No guarantee or warranty is given or implied by the participants as to the total amount that may or may not be purchased from any resulting contracts. These quantities are for the bidders information ONLY and will be used for tabulation and presentation of bid and the participant reserves the right to increase or decrease quantities as required.

23. The City of North Little Rock reserves the right to reject any and all bids, to accept in whole or in part, to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications in those cases where efficiency of operation will not be impaired, and unless otherwise specified by the bidder, to accept any item in the bid. If unit prices and extensions thereof do not coincide, the City of North Little Rock may accept the bid for the lesser amount whether reflected by the extension or by the correct multiple of the unit price.

24. Additional information or bid forms may be obtained from:
COMMERCE DEPARTMENT, 120 Main Street, P.O. Box 5757, North Little Rock, Arkansas 72119 (501) 975-8881 www.nlr.ar.gov

Bidding documents must be submitted on or before the bid's opening date and time. Unless noted, sealed bids must be submitted to the Commerce Department at 120 Main Street, North Little Rock, AR 72114 or PO Box 5757, North Little Rock, AR 72119

Pre-Renovation/Pre-Demolition
United States EPA NESHAP
Limited Asbestos Inspection

for

2 Apartment Buildings
2800 John Ashley
North Little Rock, AR 72114

Prepared for

City of North Little Rock
701 West 29th
North Little Rock, AR 72114

by

ATOKA, Inc. - Project Reference Number 13-245-6

Inspection Date: July 22, 2015

Report Date: August 12, 2015

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ASBESTOS SURVEY REPORT
Limited Inspection
2800 John Ashley
North Little Rock, AR 72114

SUMMARY

ATOKA, Inc.'s approach to this assessment was to physically and visually inspect all of the building components, to identify Suspect Asbestos Containing Materials (SACM) and collect bulk samples of those suspect materials to determine if those materials contain more than 1% asbestos.

This assessment found Asbestos Containing Materials (ACM) in the ceilings, walls and floors. An ACM is a material that contains greater than 1% asbestos by weight or volume as determined via Polarized Light Microscopy (PLM) methods.

The information in this assessment should be incorporated into the asbestos abatement design document but should not take the place of an abatement design specification. A written asbestos abatement design document should be developed before soliciting competitive bids from licensed Arkansas Asbestos Abatement Contractors to remove the ACM. The Arkansas Department of Environmental Quality (ADEQ) Asbestos Abatement Regulation 21 requires that in the event greater than three (3) square feet of RACM will be abated from a regulated structure(s) then it is necessary to retain an Arkansas Asbestos Designer.

PURPOSE OF SURVEY

ATOKA, Inc. was retained by the City of North Little Rock to inspect the referenced structures for the presence of asbestos containing materials prior to renovation. ATOKA, Inc. visited the structure on July 22, 2015, for the purpose of inspecting, sampling and quantifying ACM. ATOKA, Inc. inspected these areas to identify suspect asbestos containing material (SACM), which is classified into two categories. Those materials which can be reduced to powder or crumbled under light hand pressure are referred to as "friable" ACM (e.g., ceiling textures and ceiling tiles, thermal system insulation, etc.). Those materials that cannot be easily crumbled are referred to as "non-friable" ACM (e.g., resilient flooring, roofing, mastics, etc.).

The inspection was conducted by Angela Ward of ATOKA, Inc. Mrs. Ward is an Environmental Protection Agency (EPA) accredited and licensed Arkansas Asbestos Inspector (License #012717) who has been trained to survey, sample, and assess the conditions of SACM. Multiple samples of suspect friable and non-friable ACM were collected during the inspection. However, no roofing material samples were taken.

ATOKA, Inc. is an ADEQ licensed Asbestos Consultant in good standing (License #000242).

SAMPLING AND ANALYSIS

ATOKA, Inc. conducted an asbestos assessment in general accordance with EPA NESHAP protocol requiring that a sufficient number of bulk samples be collected that represent each homogeneous SACM.

ATOKA, Inc. identified suspect asbestos containing materials (SACM) and characterized these materials into distinct homogeneous areas during the site visit inspection. This information was then used to establish a sampling plan during the course of the inspection.

The samples of SACM collected from the building were obtained by physically removing a small portion (approximately one square inch) of the material using a sharp instrument. All layers of the material samples were penetrated and registered as separate samples. Disturbance of adjacent material was kept to a minimum during the sampling program.

Each sample was placed into a separate labeled container, which was then sealed. The sampling instrument was cleaned to remove materials that could cross-contaminate the next sample. Each sample was labeled with the sample number and location and logged onto the floor plan. All samples collected during the site investigation are listed in Appendix A.

Four (4) different SACMs were identified, sampled and analyzed for asbestos using the EPA "Interim Method for Determination of Asbestos in Bulk Insulation Samples" [40 CFR Part 763, Appendix E, Subpart E, improved (EPA-600/R-93/116)], by Crisp Laboratory, a NVLAP Polarized Light Microscopy (PLM) accredited laboratory. The ACM as determined by PLM examination are those materials which contain greater than 1% asbestos by weight or volume.

The asbestos content determined for a bulk sample represents only the amount of asbestos at the point where the sample was taken. The amount of asbestos found in a material may vary depending on the sample location. Consequently, confidence limits are calculated for the same data to allow a more conservative estimate of the asbestos content of the suspect material or area. The upper confidence limit is taken as the most probable value which represents the maximum asbestos content that would be observed from a sample taken from the suspect material or area.

REPORT OF FINDINGS

Presumed Asbestos Containing Materials (PACM) are those materials not sampled but are highly suspected and likely to contain asbestos and are considered to be ACM until proven otherwise. All readily accessible and visible suspect asbestos containing materials in identified areas were sampled during this assessment. There were no additional materials presumed to contain asbestos.

Asbestos containing materials identified in the Apartment Buildings located at 2800 John Ashley, North Little Rock, Arkansas are summarized in the table below. All footages provided are approximate and should be field verified.

Sample #	F/NF	Material Description	Location	Asbestos	Approximate Quantity ft^2	Condition
24	NF	White Linoleum over Tan Floor Tile & Black Mastic	Upstairs Bathroom	4% Chrysotile	100 s.f. per Apartment	Good
25	F	Ceiling Surfacing	Living Room	3% Chrysotile	13,000	Good
26	F	Ceiling Surfacing	Above Stairs	3% Chrysotile	13,000	Good
27	F	Sheetrock, Mud & Tape	Living Room	3% Chrysotile	23,000	Good
28	NF	Black Mastic	Kitchen	3% Chrysotile	150 s.f. per Apartment	Good
29	F	Sheetrock Wall	Dining Room	2% Chrysotile	23,000	Good
30	F	Sheetrock Walls w/Surfacing	Kitchen	3% Chrysotile	23,000	Good
31	F	Sheetrock Ceiling	Living Room	3% Chrysotile	13,000	Good

NF = Non-Friable F- Friable

The laboratory report for bulk samples PLM analysis are found in Appendix "A" of this document.

RECOMMENDATIONS

ATOKA, Inc., recommends that this report and all records should be kept by the building owner as long as the building is in existence. All information concerning this property should be forwarded to all future property owners and made available to outside contractors that may disturb the materials identified to contain asbestos.

ATOKA, Inc. recommends that any other suspect materials encountered during the renovation or demolition process that were not found and identified during this assessment be tested for asbestos prior to disturbance, handling and disposal.

ATOKA, Inc. recommends that the mandatory ten (10) day Notice of Intent (NOI) to remove regulated quantities of asbestos containing materials from a structure(s) be filed with the Arkansas Department of Environmental Quality (ADEQ) as required by EPA NESHAP regulations and Arkansas Asbestos Abatement Regulation # 21 effective 1997.

ATOKA, Inc., recommends that all friable and non-friable ACM be removed prior to demolition or disturbance of RACM from the structure.

ATOKA, Inc., recommends that the removal of all RACM & ACM be performed by an Arkansas licensed Asbestos Abatement Contractor and in compliance with Arkansas Asbestos Abatement Regulation 21.

LIMITATIONS

This report was prepared for the exclusive use of the City of North Little Rock and/or its assignees to aid in the identification and management of ACM located in the two Apartment Buildings at 2800 John Ashley, North Little Rock, Arkansas.

Report prepared by

Angela Ward, Asbestos Inspector
ATOKA, Inc.

APPENDIX "A"

LABORATORY REPORTS

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Atoka, Inc.

2695 Airport Road
Hot Springs, AR 71913

Customer Project: 13-245-6, 2800 John Ashley
Reference #: CAL15075571CB Date: 7/23/2015

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-6, 2800 John Ashley **CA Labs Project #:** CAL15075571CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
24	*24-5*	*tan floor tile*	***4% Chrysotile***	***tan floor tile***
	24-6	*black mastic*	***3% Chrysotile***	***black mastic***
25	*25-1*	***Ceiling Surfacing****/ white textured surfacing*	***3% Chrysotile***	***white textured surfacing***
	25-2	*white compound (beneath tape)*	***2% Chrysotile***	***white compound (beneath tape)***
26	*26-1*	***Ceiling Surfacing****/ white textured surfacing*	***3% Chrysotile***	***white surfaced white compound***
27	*27-1*	***Sheetrock Mud & Tape Surfacing****/ white textured surfacing*	***3% Chrysotile***	
	27-2	*white compound (beneath tape)*	***2% Chrysotile***	
28	*28-1*	***Black Mastic****/ black mastic*	***3% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

CA Labs
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1929 Old Denton Road
Carrollton, TX 75006
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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-6, 2800 John Ashley **CA Labs Project #:** CAL15075571CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
29	*29-1*	***Wall Corner Sheetrock/*** *white surfaced white compound*	***2% Chrysotile***	
	29-2	*white compound (beneath tape)*	***2% Chrysotile***	
30	*30-1*	***Sheetrock Wall/*** *white surfaced white compound*	***3% Chrysotile***	
	30-2	*white compound (beneath tape)*	***2% Chrysotile***	
31	*31-1*	***Sheetrock Joint Compound/*** *white textured surfacing*	***3% Chrysotile***	
	31-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Phone # 501-623-1121
Fax # 501-623-2769

Customer Project:
13-245-6, 2800 John Ashley
Turnaround Time:
4 Hours

CA Labs Project #:
CAL15075571CB

Date: 7/23/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
24		24-1	***Linoleum Tile w/Black Mastic/*** *white linoleum*	*y*	***None Detected***	23% ce	77% gy,ma
		24-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		24-3	*tan linoleum*	*y*	***None Detected***	22% ce	78% gy,ma
		24-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		24-5	*tan floor tile*	*y*	***4% Chrysotile***		96% qu,ca
		24-6	*black mastic*	*y*	***3% Chrysotile***		97% gy,bi
25		25-1	***Ceiling Surfacing/*** *white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1 Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2 Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4 Layer not analyzed - attached to previous positive layer and contamination is suspected
5 Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7 Contamination suspected from other building materials
8 Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10 TEM analysis suggested

CA Labs
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Atoka, Inc.
2695 Airport Road
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Phone # 501-623-1121
Fax # 501-623-2769

Customer Project:
13-245-6, 2800 John Ashley
Turnaround Time:
4 Hours

CA Labs Project #:
CAL15075571CB

Date: 7/23/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		25-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
26		*26-1*	***Ceiling Surfacing/*** *white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca
27		*27-1*	***Sheetrock Mud & Tape Surfacing/*** *white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca
		27-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		27-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce	82% qu,gy
28		*28-1*	***Black Mastic/*** *black mastic*	*y*	***3% Chrysotile***		97% gy,bi
29		*29-1*	***Wall Corner Sheetrock/*** *white surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1 Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2 Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4 Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6 Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8 Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10 TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Phone # 501-623-1121
Fax # 501-623-2769

Customer Project:
13-245-6, 2800 John Ashley
Turnaround Time:
4 Hours

CA Labs Project #:
CAL15075571CB

Date: 7/23/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		29-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		29-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce	81% qu,gy
30		*30-1*	***Sheetrock Wall/ white surfaced white compound***	*n*	***3% Chrysotile***		97% mi,bi,ca
		30-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		30-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
31		*31-1*	***Sheetrock Joint Compound/ white textured surfacing***	*y*	***3% Chrysotile***		97% mi,bi,ca
		31-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
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Phone # 501-623-1121
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Customer Project:
13-245-6, 2800 John Ashley
Turnaround Time:
4 Hours

CA Labs Project #:
CAL15075571CB

Date: 7/23/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		31-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
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8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

11701 I-30, Bldg. 1, Ste. 119
Little Rock, AR. 72209

ATOKA, INC. CALI507551

CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

Office: 501-455-1700
Fax: 501-455-1864

ATOKA PROJECT NO.	CLIENT/OWNER	SAMPLE LOCATIONS
13-2456	Name: City of North Little Rock	Name: Apartments
	Address: 101 W. 29th	Address: 2800 John Ashby
	City, State, ZIP: NLR, AR 72114	City, State, ZIP: North Little Rock, AR 72114
	Phone #: 501-791-8515 Fax #	E-mail: fmchenry@nlr.ar.gov

SAMPLERS SIGNATURE	SAMPLE TYPE PLM - Asbestos	SAMPLE CONDITION:	TURN AROUND TIME
Angela Ward	Bulk ☑ Air ☐ Food ☐ Soil ☐ Water ☐ Swab ☐ Other ☐	☐ Satisfactory _____ Temp °C. ☐ Unsatisfactory ☐ Rejected - Reason _____	☐ 24 hours 5 days ☐ Standard (3-5 days) ☐ Std Protocol
Printed: Angela Ward	Air: Micro-5 ☐ Air-O-Cell ☐ Cyclex-D ☐ Biotest ☐ Plate ☐ Surface: Sponge ☐ Cotton Tip ☐ Tape Lift ☐ Other ☐		

FIELD SAMPLE #	DATE COLLECTED	TIME	SAMPLE LOCATION/DESCRIPTION:	TEST REQUESTED	ATOKA LAB ID #
24	7/22/15	11:30am	Upstairs Bathroom on wood cabinetry over tile w/ black mastic	Asbestos	
25			Ceiling Surfacing		
26			" "		
27			Sheetrock Mud & Tape Surfacing		
28			Black Mastic Kitchen		
29			Wall Corner Sheetrock		
30			Kitchen Sheetrock wall		
31			Sheetrock Joint Comp.		

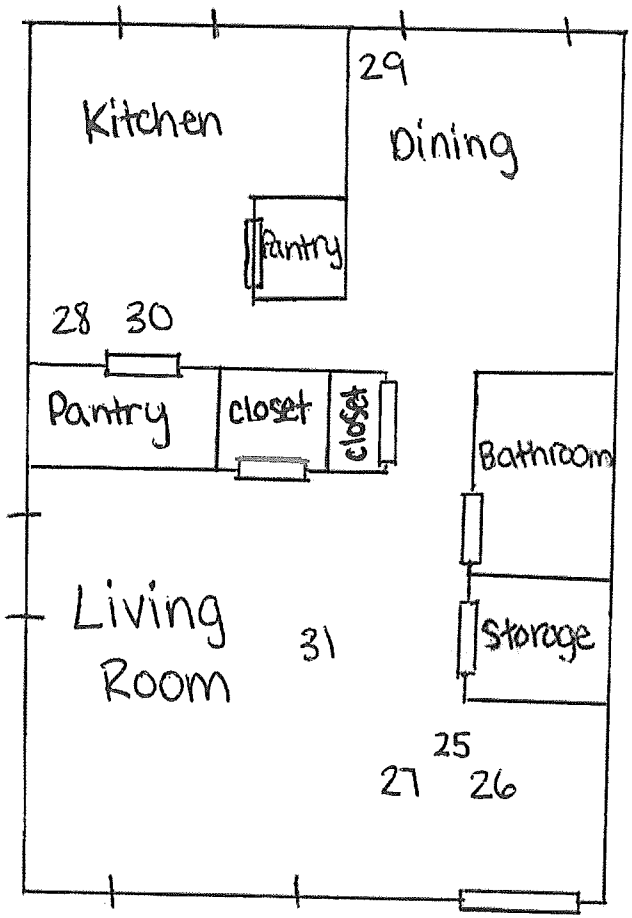
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	RELINQUISHED BY	DATE/TIME
Angela Ward	7/22/15 1:30pm				
PRINTED: Angela Ward		PRINTED		PRINTED	

RECEIVED BY	DATE/TIME	RECEIVED BY LABORATORY	DATE/TIME	SPECIAL INSTRUCTIONS
			7/23/15 10:30am	4 hours 'n Rush
PRINTED		PRINTED: Eudy		

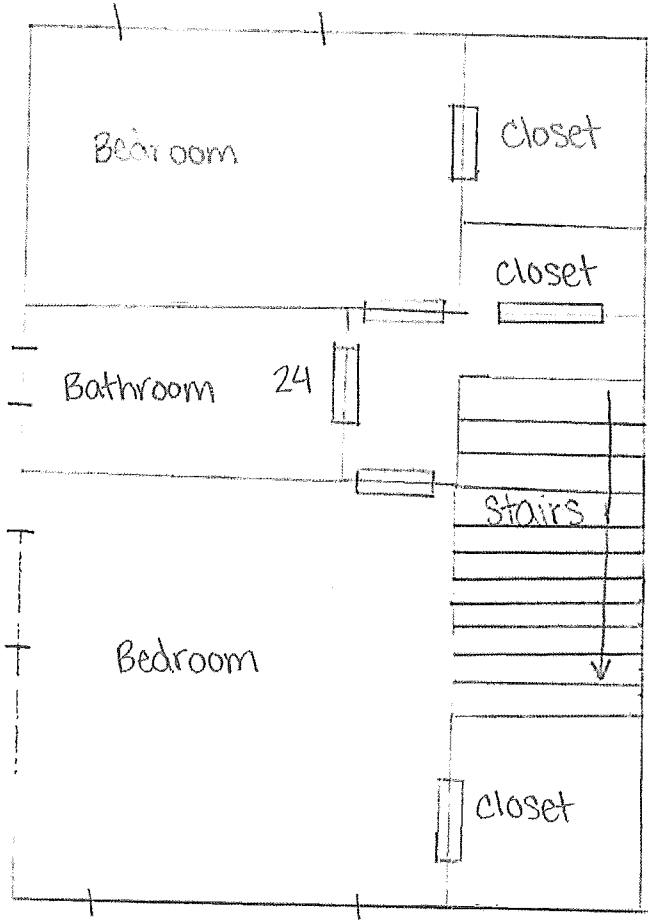
One Apartment

31 x 98
x2 Buildings
Zed Brick
2 Story

Downstairs



Upstairs



APPENDIX "B"

QUALIFICATIONS

Arkansas Department of Environmental Quality

ATOKA, INC.

is a licensed

Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.

License Number: 000242
Issue Date: 2014 December 10
Expire Date: 2015 December 10

J. Ryan Benefield, P.E.
ADEQ Interim Director

Arkansas Department of Environmental Quality

012717 ANGELA WARD

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 5/31/2016

Management Planner 5/31/2016

Contractor/Supervisor 5/31/2016

Inspector 5/31/2016

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

Issue Date:01-Jun-2015

Becky W. Keogh
ADEQ Director

Pre-Renovation/Pre-Demolition
United States EPA NESHAP
Limited Asbestos Inspection

for

Fire & Water Damaged Apartments
2225 Fendley Drive
West Wing
North Little Rock, AR 72114

Prepared for

City of North Little Rock
701 West 29th
North Little Rock, AR 72114

by

ATOKA, Inc. - Project Reference Number 13-245-7

Inspection Date: July 22, 2015

Report Date: August 7, 2015

Table of Contents

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Limitations	6
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Appendix B - Qualifications	16

ASBESTOS SURVEY REPORT
for
Fire & Water Damaged Apartments
2225 Fendley Drive, West Wing
North Little Rock, Arkansas 72114

SUMMARY

ATOKA, Inc.'s approach to this assessment was to physically and visually inspect all of the building components, to identify Suspect Asbestos Containing Materials (SACM) and collect bulk samples of those suspect materials to determine if those materials contain more than 1% asbestos.

The structure contained fire, water, & smoke damaged floors, ceilings and walls throughout the entire structure. This assessment found several Asbestos Containing Materials (ACM). Any and all ACM identified in this assessment would be considered Regulated Asbestos Containing Materials (RACM). An ACM is a material that contains greater than 1% asbestos by weight or volume as determined via Polarized Light Microscopy (PLM) methods.

The information in this assessment should be incorporated into the asbestos abatement design document but should not take the place of an abatement design specification. A written asbestos abatement design document should be developed before soliciting competitive bids from licensed Arkansas Asbestos Abatement Contractors to remove the ACM. The Arkansas Department of Environmental Quality (ADEQ) Asbestos Abatement Regulation 21 requires that in the event greater than three (3) square feet of RACM will be abated from a regulated structure(s) then it is necessary to retain an Arkansas Asbestos Designer.

PURPOSE OF SURVEY

ATOKA, Inc. was retained by the City of North Little Rock to inspect the referenced structural areas for the presence of asbestos containing materials prior to renovation or demolition. ATOKA, Inc. visited the structure on July 22, 2015, for the purpose of inspecting, sampling and quantifying ACM. ATOKA, Inc. inspected these areas to identify suspect asbestos containing material (SACM), which is classified into two categories. Those materials which can be reduced to powder or crumbled under light hand pressure are referred to as "friable" ACM (e.g., ceiling textures and ceiling tiles, thermal system insulation, etc.). Those materials that cannot be easily crumbled are referred to as "non-friable" ACM (e.g., resilient flooring, roofing, mastics, etc.).

The inspection was conducted by Angela Ward of ATOKA, Inc. Mrs. Ward is an Environmental Protection Agency (EPA) accredited and licensed Arkansas Asbestos Inspector (License #012717) who has been trained to survey, sample, and assess the conditions of SACM. Multiple samples of suspect friable and non-friable ACM were collected during the inspection.

ATOKA, Inc. is an ADEQ licensed Asbestos Consultant in good standing (License #000242).

SAMPLING AND ANALYSIS

ATOKA, Inc. conducted an asbestos assessment in general accordance with EPA NESHAP protocol requiring that a sufficient number of bulk samples be collected that represent each homogeneous SACM.

ATOKA, Inc. identified suspect asbestos containing materials (SACM) and characterized these materials into distinct homogeneous areas during the site visit inspection. This information was then used to establish a sampling plan during the course of the inspection.

The samples of SACM collected from the building were obtained by physically removing a small portion (approximately one square inch) of the material using a sharp instrument. All layers of the material samples were penetrated and registered as separate samples. Disturbance of adjacent material was kept to a minimum during the sampling program.

Each sample was placed into a separate labeled container, which was then sealed. The sampling instrument was cleaned to remove materials that could cross-contaminate the next sample. Each sample was labeled with the sample number and location and logged onto the floor plan. All samples collected during the site investigation are listed in Appendix A.

Three (3) different SACMs were identified, sampled and analyzed for asbestos using the EPA "Interim Method for Determination of Asbestos in Bulk Insulation Samples" [40 CFR Part 763, Appendix E, Subpart E, improved (EPA-600/R-93/116)], by Crisp Laboratory, a NVLAP Polarized Light Microscopy (PLM) accredited laboratory. The ACM as determined by PLM examination are those materials which contain greater than 1% asbestos by weight or volume.

The asbestos content determined for a bulk sample represents only the amount of asbestos at the point where the sample was taken. The amount of asbestos found in a material may vary depending on the sample location. Consequently, confidence limits are calculated for the same data to allow a more conservative estimate of the asbestos content of the suspect material or area. The upper confidence limit is taken as the most probable value which represents the maximum asbestos content that would be observed from a sample taken from the suspect material or area.

REPORT OF FINDINGS

Presumed Asbestos Containing Materials (PACM) are those materials not sampled but are highly suspected and likely to contain asbestos and are considered to be ACM until proven otherwise.
All readily accessible and visible suspect asbestos containing materials in identified areas were sampled during this assessment. There were no additional materials presumed to contain asbestos.

Asbestos containing materials identified in the structures West Wing at 2225 Fendley Drive, North Little Rock, are summarized in the table below. All footages provided are approximate and should be field verified.

Sample #	F/NF	Material Description	Location	Asbestos	Approximate Quantity ft^2	Condition
15	F	Ceiling Surfacing	Living Room -1st Floor	2% Chrysotile	4,200	Poor
16	F	Ceiling Surfacing	Bedroom-1st Floor	2% Chrysotile	4,200	Poor
17	F	Sheetrock Wall	Bedroom-1st Floor	2% Chrysotile	6,440	Poor
18	F	Core Ceiling Material	Kitchen-1st Floor	2% Chrysotile	4,200	Poor
19	F	Sheetrock Wall	Kitchen-Behind Paneling	2% Chrysotile	4,200	Poor
20	F	Sheetrock Wall	Living Room-1st Floor	2% Chrysotile	6,440	Poor
21	F	Ceiling Sheetrock	Bedroom-2nd Floor	2% Chrysotile	4,200	Poor
22	F	Ceiling Surfacing	Bedroom-2nd Floor	2% Chrysotile	4,200	Poor
23	F	Sheetrock Wall	Living Room-2nd Floor	2% Chrysotile	6,440	Poor

NF = non-friable F- friable

The laboratory report for bulk samples PLM analysis are found in Appendix "A" of this document.

RECOMMENDATIONS

ATOKA, Inc., recommends that this report and all records should be kept by the building owner as long as the building is in existence. All information concerning this property should be forwarded to all future property owners and made available to outside contractors that may disturb the materials identified to contain asbestos.

ATOKA, Inc. recommends that any other suspect materials encountered during the demolition or renovation process that were not found and identified during this assessment be tested for

asbestos prior to disturbance, handling and disposal.

The RACM must be removed prior to renovation or demolition, ATOKA, Inc. recommends that a Renovation Notice of Intent to remove asbestos containing materials be filed with ADEQ. ATOKA, Inc. recommends that the mandatory ten (10) day Notice of Intent (NOI) to remove regulated quantities of asbestos containing materials from a structure(s) be filed with the Arkansas Department of Environmental Quality (ADEQ) as required by EPA NESHAP regulations and Arkansas Asbestos Abatement Regulation # 21 effective 1997.

ATOKA, Inc., recommends that all friable and non-friable RACM be removed prior to demolition or disturbance of RACM from the structure.

ATOKA, Inc., recommends that the removal of all RACM & ACM be performed by an Arkansas licensed Asbestos Abatement Contractor and in compliance with Arkansas Asbestos Abatement Regulation 21.

LIMITATIONS

This report was prepared for the exclusive use of the City of North Little Rock and/or its assignees to aid in the identification and management of ACM located at 2225 Fendley Drive, West Wing, North Little Rock, Arkansas.

Report prepared by

Angela Ward, Asbestos Inspector
ATOKA, Inc.

APPENDIX "A"

LABORATORY REPORTS

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Customer Project: 13-245-7, 2225 Fendley Drive
Reference #: CAL15075583CB Date: 7/28/2015

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

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1929 Old Denton Road
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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-7, 2225 Fendley Drive **CA Labs Project #:** CAL15075583CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
15	15-1	***Ceiling Surfacing/*** *tan textured surfacing*	***2% Chrysotile***	***tan textured surfacing***
16	16-1	***Ceiling Surfacing/*** *tan textured surfacing*	***2% Chrysotile***	***tan surfaced white compound***
17	17-1	***Sheetrock Wall/*** *tan surfaced white compound*	***2% Chrysotile***	***white compound (beneath tape)***
	17-2	*white compound (beneath tape)*	***2% Chrysotile***	***tan compound***
18	18-1	***Ceiling Core/*** *tan surfaced white compound*	***2% Chrysotile***	***tan compound (beneath tape)***
19	19-1	***Sheetrock behind Wood Paneling/*** *tan compound*	***2% Chrysotile***	
20	20-1	***Sheetrock Corner/*** *white compound*	***2% Chrysotile***	
21	21-1	***Ceiling Sheetrock/*** *tan compound*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ol - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
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Fax 972-242-2798

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12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-7, 2225 Fendley Drive **CA Labs Project #:** CAL15075583CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
	21-2	*tan compound (beneath tape)*	***2% Chrysotile***	
22	*22-1*	***Ceiling Surfacing**/ tan textured surfacing*	***3% Chrysotile***	
23	*23-1*	***Wall Sheetrock**/ tan surfaced white compound*	***2% Chrysotile***	
	23-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Phone # 501-623-1121
Fax # 501-623-2769

Customer Project:
13-245-7, 2225 Fendley Drive
Turnaround Time:
3 Days

CA Labs Project #:
CAL15075583CB
Date: 7/28/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
13		13-1	***Roof Shingle/*** *black roofing shingle with brown gravel and tar*	*n*	***None Detected***	12% fg	88% qu,bi
14		14-1	***Fiber Board Insulation/*** *brown fibrous paneling*	*y*	***None Detected***	100% ce	
15		15-1	***Ceiling Surfacing/*** *tan textured surfacing*	*y*	***2% Chrysotile***		98% mi,bi,ca
16		16-1	***Ceiling Surfacing/*** *tan textured surfacing*	*y*	***2% Chrysotile***		98% mi,bi,ca
17		17-1	***Sheetrock Wall/*** *tan surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		17-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,bi,ca
		17-3	*white drywall with brown paper*	*n*	***None Detected***	15% ce 1% fg	84% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jimmie Webster
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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Hot Springs, AR 71913

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Fax # 501-623-2769

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13-245-7, 2225 Fendley Drive
Turnaround Time:
3 Days

CA Labs Project #:
CAL15075583CB

Date: 7/28/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
18		18-1	***Ceiling Core/*** *tan surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		18-2	*white drywall with brown paper*	*n*	***None Detected***	16% ce 2% fg	82% qu,gy
19		19-1	***Sheetrock behind Wood Paneling/*** *tan compound*	*y*	***2% Chrysotile***		98% qu,ca
		19-2	*white drywall with brown paper*	*n*	***None Detected***	21% ce 1% fg	78% qu,gy
20		20-1	***Sheetrock Corner/*** *white compound*	*y*	***2% Chrysotile***		98% qu,ca
		20-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
21		21-1	***Ceiling Sheetrock/*** *tan compound*	*y*	***2% Chrysotile***		98% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Jimmie Webster
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
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8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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Hot Springs, AR 71913

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Fax # 501-623-2769

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13-245-7, 2225 Fendley Drive
Turnaround Time:
3 Days

CA Labs Project #:
CAL15075583CB

Date: 7/28/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		21-2	*tan compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,ca
		21-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce 2% fg	78% qu,gy
22		*22-1*	***Ceiling Surfacing/*** *tan textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca
23		*23-1*	***Wall Sheetrock/*** *tan surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		23-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,ca
		23-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce 2% fg	78% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116). *All samples received in good condition unless noted.*
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gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Technical Manager
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10. TEM analysis suggested

11701 I-30, Bldg. 1, Ste. 119
Little Rock, AR. 72209

ATOKA, INC. CAL1507 5583

CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

Office: 501-455-1700
Fax: 501-455-1864

ATOKA PROJECT NO.	CLIENT/OWNER	SAMPLE LOCATIONS
13-2457	Name City of North Little Rock	Name Apartments
	Address 701 W. 29th	Address 2225 Fendley Drive
	City, State, ZIP North Little Rock, AR 72114	City, State, ZIP North Little Rock, AR 72114
	Phone # 501-791-8565 Fax #	E-mail: fmchenry@NLR.ar.gov

SAMPLERS SIGNATURE	SAMPLE TYPE PLM Asbestos	SAMPLE CONDITION:	TURN AROUND TIME
Angela Ward	Bulk ☑ Air ☐ Food ☐ Soil ☐ Water ☐ Swab ☐ Other ☐	☐ Satisfactory _____ Temp °C. ☐ Unsatisfactory ☐ Rejected Reason _____	☐ 4 hours ☐ 2 days ☐ Standard (3-5 days) ☑ Std Protocol
Printed Angela Ward	Air: Micro-5 ☐ Air-O-Cell ☐ Cyclex-D ☐ Biotest ☐ Plate ☐ Surface: Sponge ☐ Cotton Tip ☐ Tape Lift ☐ Other ☐		

FIELD SAMPLE #	DATE COLLECTED	TIME	SAMPLE LOCATION/DESCRIPTION:	TEST REQUESTED	ATOKA LAB ID #
13	7/22/15	11Am	Roof Shingle Apt. #8	Asbestos	
14			Fiber Board Insulation outside [Exterior]		
15			Ceiling Surfacing		
16			Surfacing Ceiling Surfacing Bedroom		
17			Sheetrock wall		
18			Kitchen Ceiling Core Sample		
19			Sheetrock behind wood paneling		
20			Sheetrock corner		

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	RELINQUISHED BY	DATE/TIME
Angela Ward	7/22/15	Justin			
PRINTED Angela Ward	2pm	PRINTED		PRINTED	

RECEIVED BY	DATE/TIME	RECEIVED BY LABORATORY	DATE/TIME	SPECIAL INSTRUCTIONS
		Justin	7/23/15	
PRINTED		PRINTED Euds	10:30am	

11701 I-30, Bldg. 1, Ste. 119
Little Rock, AR. 72209

ATOKA, INC. CAL15075583

CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

Office: 501-455-1700
Fax: 501-455-1864

ATOKA PROJECT NO.	CLIENT/OWNER	SAMPLE LOCATIONS
13-2457	Name: City of North Little Rock	Name: Apartments - Upstairs
	Address: 701 W. 29th	Address: 2225 Fendley Drive
	City, State, ZIP: North Little Rock, AR 72114	City, State, ZIP: North Little Rock, AR 72114
	Phone #: 501-791-8565 Fax #	E-mail: fmcberry@NLR.ar.gov

SAMPLERS SIGNATURE	SAMPLE TYPE	SAMPLE CONDITION:	TURN AROUND TIME
Angela Ward	PLM Asbestos	☐ Satisfactory _____ Temp °C.	☐ 4 hours
Printed: Angela Ward	Bulk ☑ Air ☐ Food ☐ Soil ☐ Water ☐ Swab ☐ Other ☐	☐ Unsatisfactory	☐ 2 days
	Air: Micro-5 ☐ Air-O-Cell ☐ Cyclex-D ☐ Biotest ☐ Plate ☐	☐ Rejected - Reason _____	☐ Standard (3-5 days)
	Surface: Sponge ☐ Cotton Tip ☐ Tape Lift ☐ Other ☐		☑ Std Protocol

FIELD SAMPLE #	DATE COLLECTED	TIME	SAMPLE LOCATION/DESCRIPTION:	TEST REQUESTED	ATOKA LAB ID #
21	7/22/15	11AM	Ceilling Sheetrock Apt 11	Asbestos	
22	"	"	Ceiling surfacing	"	
23	"	"	Wall Sheetrock	"	

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	RELINQUISHED BY	DATE/TIME
Angela Ward	7/22/15				
PRINTED: Angela Ward	2pm	PRINTED		PRINTED	

RECEIVED BY	DATE/TIME	RECEIVED BY LABORATORY	DATE/TIME	SPECIAL INSTRUCTIONS
			7/23/15	
PRINTED		PRINTED: Eades	10:30am	

APPENDIX "B"

QUALIFICATIONS

Arkansas Department of Environmental Quality

ATOKA, INC.

is a licensed

Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.

License Number: 000242
Issue Date: 2014 December 10
Expire Date: 2015 December 10

J. Ryan Benefield, P.E.
ADEQ Interim Director

Arkansas Department of Environmental Quality

012717 ANGELA WARD

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 5/31/2016

Management Planner 5/31/2016

Contractor/Supervisor 5/31/2016

Inspector 5/31/2016

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

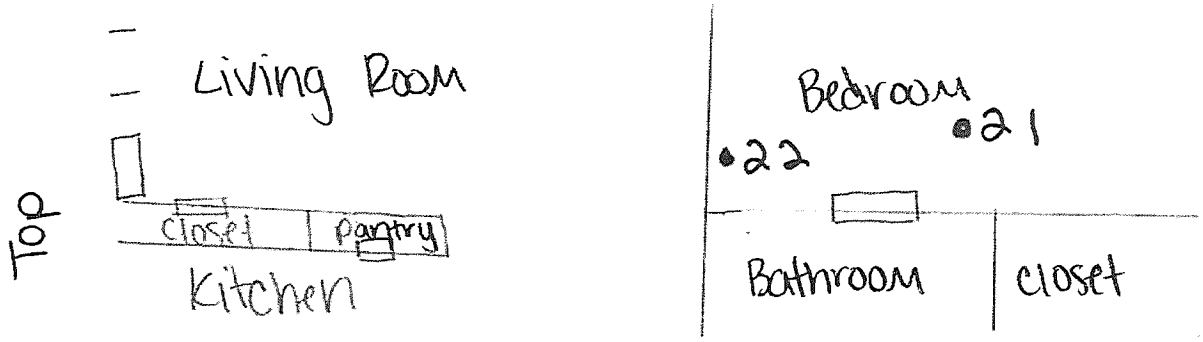
Issue Date:01-Jun-2015

Becky W. Keogh
ADEQ Director

Concrete Floors covered in ceramic tile / carpet

Surfacing is only on ceilings

(Inacessable)



(Unacessable)

Pre-Renovation/Pre-Demolition
United States EPA NESHAP
Limited Asbestos Inspection

for

2 Apartment Buildings
2800 John Ashley
North Little Rock, AR 72114

Prepared for

City of North Little Rock
701 West 29th
North Little Rock, AR 72114

by

ATOKA, Inc. - Project Reference Number 13-245-6

Inspection Date: July 22, 2015

Report Date: August 12, 2015

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ASBESTOS SURVEY REPORT
Limited Inspection
2800 John Ashley
North Little Rock, AR 72114

SUMMARY

ATOKA, Inc.'s approach to this assessment was to physically and visually inspect all of the building components, to identify Suspect Asbestos Containing Materials (SACM) and collect bulk samples of those suspect materials to determine if those materials contain more than 1% asbestos.

This assessment found Asbestos Containing Materials (ACM) in the ceilings, walls and floors. An ACM is a material that contains greater than 1% asbestos by weight or volume as determined via Polarized Light Microscopy (PLM) methods.

The information in this assessment should be incorporated into the asbestos abatement design document but should not take the place of an abatement design specification. A written asbestos abatement design document should be developed before soliciting competitive bids from licensed Arkansas Asbestos Abatement Contractors to remove the ACM. The Arkansas Department of Environmental Quality (ADEQ) Asbestos Abatement Regulation 21 requires that in the event greater than three (3) square feet of RACM will be abated from a regulated structure(s) then it is necessary to retain an Arkansas Asbestos Designer.

PURPOSE OF SURVEY

ATOKA, Inc. was retained by the City of North Little Rock to inspect the referenced structures for the presence of asbestos containing materials prior to renovation. ATOKA, Inc. visited the structure on July 22, 2015, for the purpose of inspecting, sampling and quantifying ACM. ATOKA, Inc. inspected these areas to identify suspect asbestos containing material (SACM), which is classified into two categories. Those materials which can be reduced to powder or crumbled under light hand pressure are referred to as "friable" ACM (e.g., ceiling textures and ceiling tiles, thermal system insulation, etc.). Those materials that cannot be easily crumbled are referred to as "non-friable" ACM (e.g., resilient flooring, roofing, mastics, etc.).

The inspection was conducted by Angela Ward of ATOKA, Inc. Mrs. Ward is an Environmental Protection Agency (EPA) accredited and licensed Arkansas Asbestos Inspector (License #012717) who has been trained to survey, sample, and assess the conditions of SACM. Multiple samples of suspect friable and non-friable ACM were collected during the inspection. However, no roofing material samples were taken.

ATOKA, Inc. is an ADEQ licensed Asbestos Consultant in good standing (License #000242).

SAMPLING AND ANALYSIS

ATOKA, Inc. conducted an asbestos assessment in general accordance with EPA NESHAP protocol requiring that a sufficient number of bulk samples be collected that represent each homogeneous SACM.

ATOKA, Inc. identified suspect asbestos containing materials (SACM) and characterized these materials into distinct homogeneous areas during the site visit inspection. This information was then used to establish a sampling plan during the course of the inspection.

The samples of SACM collected from the building were obtained by physically removing a small portion (approximately one square inch) of the material using a sharp instrument. All layers of the material samples were penetrated and registered as separate samples. Disturbance of adjacent material was kept to a minimum during the sampling program.

Each sample was placed into a separate labeled container, which was then sealed. The sampling instrument was cleaned to remove materials that could cross-contaminate the next sample. Each sample was labeled with the sample number and location and logged onto the floor plan. All samples collected during the site investigation are listed in Appendix A.

Four (4) different SACMs were identified, sampled and analyzed for asbestos using the EPA "Interim Method for Determination of Asbestos in Bulk Insulation Samples" [40 CFR Part 763, Appendix E, Subpart E, improved (EPA-600/R-93/116)], by Crisp Laboratory, a NVLAP Polarized Light Microscopy (PLM) accredited laboratory. The ACM as determined by PLM examination are those materials which contain greater than 1% asbestos by weight or volume.

The asbestos content determined for a bulk sample represents only the amount of asbestos at the point where the sample was taken. The amount of asbestos found in a material may vary depending on the sample location. Consequently, confidence limits are calculated for the same data to allow a more conservative estimate of the asbestos content of the suspect material or area. The upper confidence limit is taken as the most probable value which represents the maximum asbestos content that would be observed from a sample taken from the suspect material or area.

REPORT OF FINDINGS

Presumed Asbestos Containing Materials (PACM) are those materials not sampled but are highly suspected and likely to contain asbestos and are considered to be ACM until proven otherwise. All readily accessible and visible suspect asbestos containing materials in identified areas were sampled during this assessment. There were no additional materials presumed to contain asbestos.

Asbestos containing materials identified in the Apartment Buildings located at 2800 John Ashley, North Little Rock, Arkansas are summarized in the table below. All footages provided are approximate and should be field verified.

Sample #	F/NF	Material Description	Location	Asbestos	Approximate Quantity ft^2	Condition
24	NF	White Linoleum over Tan Floor Tile & Black Mastic	Upstairs Bathroom	4% Chrysotile	100 s.f. per Apartment	Good
25	F	Ceiling Surfacing	Living Room	3% Chrysotile	13,000	Good
26	F	Ceiling Surfacing	Above Stairs	3% Chrysotile	13,000	Good
27	F	Sheetrock, Mud & Tape	Living Room	3% Chrysotile	23,000	Good
28	NF	Black Mastic	Kitchen	3% Chrysotile	150 s.f. per Apartment	Good
29	F	Sheetrock Wall	Dining Room	2% Chrysotile	23,000	Good
30	F	Sheetrock Walls w/Surfacing	Kitchen	3% Chrysotile	23,000	Good
31	F	Sheetrock Ceiling	Living Room	3% Chrysotile	13,000	Good

NF = Non-Friable F- Friable

The laboratory report for bulk samples PLM analysis are found in Appendix "A" of this document.

RECOMMENDATIONS

ATOKA, Inc., recommends that this report and all records should be kept by the building owner as long as the building is in existence. All information concerning this property should be forwarded to all future property owners and made available to outside contractors that may disturb the materials identified to contain asbestos.

ATOKA, Inc. recommends that any other suspect materials encountered during the renovation or demolition process that were not found and identified during this assessment be tested for asbestos prior to disturbance, handling and disposal.

ATOKA, Inc. recommends that the mandatory ten (10) day Notice of Intent (NOI) to remove regulated quantities of asbestos containing materials from a structure(s) be filed with the Arkansas Department of Environmental Quality (ADEQ) as required by EPA NESHAP regulations and Arkansas Asbestos Abatement Regulation # 21 effective 1997.

ATOKA, Inc., recommends that all friable and non-friable ACM be removed prior to demolition or disturbance of RACM from the structure.

ATOKA, Inc., recommends that the removal of all RACM & ACM be performed by an Arkansas licensed Asbestos Abatement Contractor and in compliance with Arkansas Asbestos Abatement Regulation 21.

LIMITATIONS

This report was prepared for the exclusive use of the City of North Little Rock and/or its assignees to aid in the identification and management of ACM located in the two Apartment Buildings at 2800 John Ashley, North Little Rock, Arkansas.

Report prepared by

Angela Ward, Asbestos Inspector
ATOKA, Inc.

APPENDIX "A"

LABORATORY REPORTS

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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Customer Project: 13-245-6, 2800 John Ashley
Reference #: CAL15075571CB Date: 7/23/2015

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-6, 2800 John Ashley **CA Labs Project #:** CAL15075571CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
24	*24-5*	*tan floor tile*	***4% Chrysotile***	***tan floor tile***
	24-6	*black mastic*	***3% Chrysotile***	***black mastic***
25	*25-1*	***Ceiling Surfacing/*** *white textured surfacing*	***3% Chrysotile***	***white textured surfacing***
	25-2	*white compound (beneath tape)*	***2% Chrysotile***	***white compound (beneath tape)***
26	*26-1*	***Ceiling Surfacing/*** *white textured surfacing*	***3% Chrysotile***	***white surfaced white compound***
27	*27-1*	***Sheetrock Mud & Tape Surfacing/*** *white textured surfacing*	***3% Chrysotile***	
	27-2	*white compound (beneath tape)*	***2% Chrysotile***	
28	*28-1*	***Black Mastic/*** *black mastic*	***3% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: 13-245-6, 2800 John Ashley **CA Labs Project #:** CAL15075571CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
29	29-1	***Wall Corner Sheetrock/*** *white surfaced white compound*	***2% Chrysotile***	
	29-2	*white compound (beneath tape)*	***2% Chrysotile***	
30	30-1	***Sheetrock Wall/*** *white surfaced white compound*	***3% Chrysotile***	
	30-2	*white compound (beneath tape)*	***2% Chrysotile***	
31	31-1	***Sheetrock Joint Compound/*** *white textured surfacing*	***3% Chrysotile***	
	31-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Atoka, Inc.
2695 Airport Road
Hot Springs, AR 71913

Phone # 501-623-1121
Fax # 501-623-2769

Customer Project:
13-245-6, 2800 John Ashley
Turnaround Time:
4 Hours

CA Labs Project #:
CAL15075571CB

Date: 7/23/2015
Samples Received: 7/23/15 10:30am
Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
24		24-1	***Linoleum Tile w/Black Mastic/*** *white linoleum*	*y*	***None Detected***	23% ce	77% gy,ma
		24-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		24-3	*tan linoleum*	*y*	***None Detected***	22% ce	78% gy,ma
		24-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		24-5	*tan floor tile*	*y*	***4% Chrysotile***		96% qu,ca
		24-6	*black mastic*	*y*	***3% Chrysotile***		97% gy,bi
25		25-1	***Ceiling Surfacing/*** *white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		25-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
26		*26-1*	***Ceiling Surfacing**/ white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca
27		*27-1*	***Sheetrock Mud & Tape Surfacing**/ white textured surfacing*	*y*	***3% Chrysotile***		97% mi,bi,ca
		27-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		27-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce	82% qu,gy
28		*28-1*	***Black Mastic**/ black mastic*	*y*	***3% Chrysotile***		97% gy,bi
29		*29-1*	***Wall Corner Sheetrock**/ white surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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		29-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		29-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce	81% qu,gy
30		*30-1*	***Sheetrock Wall/ white surfaced white compound***	*n*	***3% Chrysotile***		97% mi,bi,ca
		30-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		30-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
31		*31-1*	***Sheetrock Joint Compound/ white textured surfacing***	*y*	***3% Chrysotile***		97% mi,bi,ca
		31-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,bi,ca

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Date Of Sampling: 7/22/15
Purchase Order #:

Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo-geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		31-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM TCEQ# T104704513-15-3 TDH 30-0235

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11701 I-30, Bldg. 1, Ste. 119
Little Rock, AR. 72209

ATOKA, INC. CALI5075571

CHAIN OF CUSTODY/ANALYSIS REQUEST FORM

Office: 501-455-1700
Fax: 501-455-1864

ATOKA PROJECT NO.	CLIENT/OWNER	SAMPLE LOCATIONS
13-245-6	Name City of North Little Rock	Name Apartments
	Address 701 W. 29th	Address 2800 John Ashby
	City, State, ZIP NLR, AR 72114	City, State, ZIP North Little Rock, AR 72114
	Phone # 501-791-8565 Fax #	E-mail: fmchenry@nlr.ar.gov

SAMPLERS SIGNATURE	SAMPLE TYPE PLM - Asbestos	SAMPLE CONDITION:	TURN AROUND TIME
A Ward	Bulk ☑ Air ☐ Food ☐ Soil ☐ Water ☐ Swab ☐ Other ☐	☐ Satisfactory _____ Temp °C. ☐ Unsatisfactory ☐ Rejected - Reason _____	☑ 4 hours days ☐ Standard (3-5 days) ☐ Std Protocol
Printed Angela Ward	Air: Micro-5 ☐ Air-O-Cell ☐ Cyclex-D ☐ Biotest ☐ Plate ☐ Surface: Sponge ☐ Cotton Tip ☐ Tape Lift ☐ Other ☐		

FIELD SAMPLE #	DATE COLLECTED	TIME	SAMPLE LOCATION/DESCRIPTION:	TEST REQUESTED	ATOKA LAB ID #
24	7/22/15	1130am	Upstairs Bathroom on wood linoleum over tile w/ black mastic	Asbestos	
25			Ceiling Surfacing		
26			~~Sheetrock~~ " "		
27			Sheetrock Mud & Tape Surfacing		
28			Black Mastic Kitchen		
29			Wall Corner Sheetrock		
30			Kitchen Sheetrock wall		
31			Sheetrock Joint Comp.		

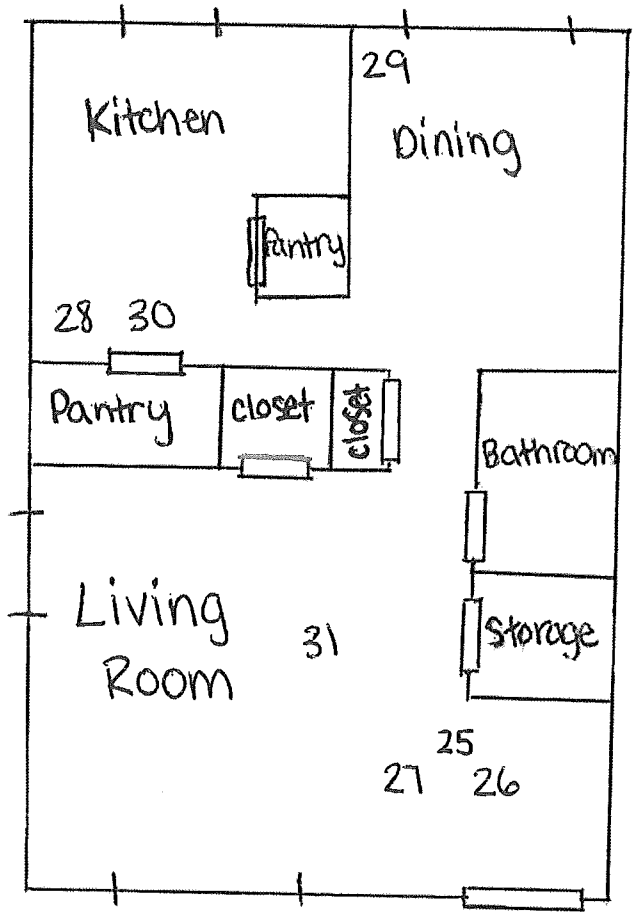
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	RELINQUISHED BY	DATE/TIME
A Ward	7/22/15				
PRINTED Angela Ward	1 30pm	PRINTED		PRINTED	

RECEIVED BY	DATE/TIME	RECEIVED BY LABORATORY	DATE/TIME	SPECIAL INSTRUCTIONS
		[signature]	7/23/15	4 hours Rush
PRINTED		PRINTED Eads	10:30am	

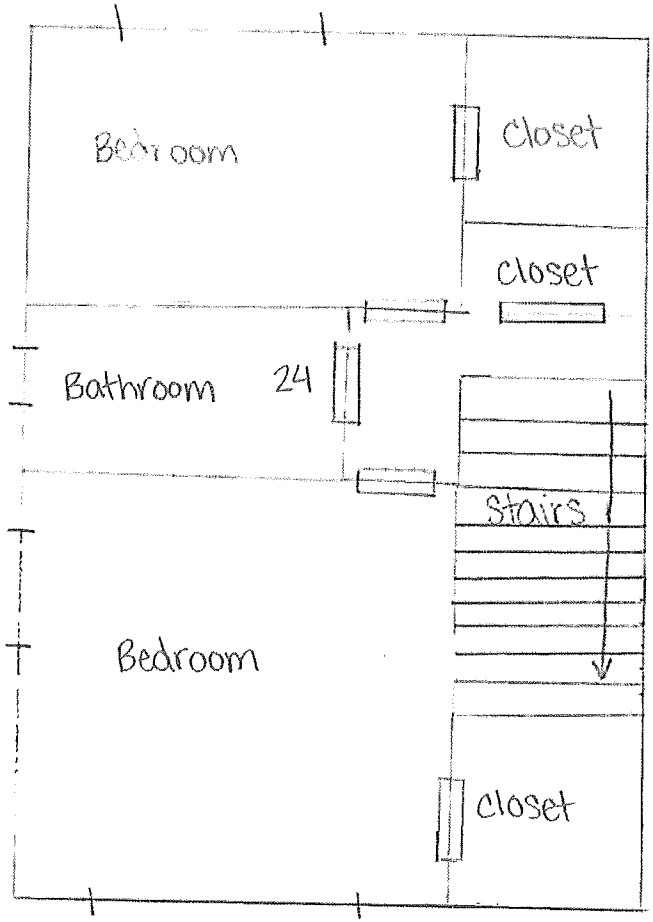
One Apartment

31 x 98
x2 Buildings
Zed Brick
2 Story

Downstairs



Upstairs



APPENDIX "B"

QUALIFICATIONS

Arkansas Department of Environmental Quality

ATOKA, INC.

is a licensed

Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.

License Number: 000242

Issue Date: 2014 December 10

Expire Date: 2015 December 10

J. Ryan Benefield, P.E.
ADEQ Interim Director

Arkansas Department of Environmental Quality

012717 ANGELA WARD

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 5/31/2016

Contractor/Supervisor 5/31/2016

Inspector 5/31/2016

Management Planner 5/31/2016

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

Issue Date:01-Jun-2015

Becky W. Keogh
ADEQ Director