ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
EQUIPMENT AND PROCUREMENT DIVISION
BID INVITATION

Bid Number: M-14-001P

Bid Opening Date: July 2, 2013 Time: 11:00 a.m.

BID OPENING LOCATION:	**MAIL TO:**	**DELIVER TO:**
AHTD Equipment and Procurement Division 11302 W. Baseline Road Little Rock, AR 72209	AHTD Equipment and Procurement Division P.O. Box 2261 Little Rock, AR 72203	AHTD Equipment and Procurement Division 11302 W. Baseline Road Little Rock, AR 72209

Sealed bids for furnishing the commodities and/or services described below, subject to the Conditions on Page 2 of this Bid Invitation will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected. Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name:_____ Name (Type or Print):_____

Address:_____ Title:_____

_____ Phone:_____ Fax:_____

City:_____ State:_____ Zip:_____ E-mail Address:_____

Federal Tax ID or Social Security No.:_____ **Signature:**_____
Signature must be legible, original (not photocopied) and in ink.
Unsigned bids will be rejected.

1. Asbestos Abatement and Demolition located at Conway South Interchange, Hwy. 365 (Gr. & Strs.) Route I-40 Section 32, Faulkner County; as per attached work list for Tracts 7X, 8X, 9X, 10X, 12X, 14X, 22X, 23X, 25X, 28X, 29X, 30X, 33X, 34X & 76X - Job 080395.

To meet the requirements of Arkansas State Highway and Transportation Department Specifications and Drawings attached to and made a part of this bid.

LUMP SUM_____

Tracts **must** be priced individually as listed on the Work List but bid will be awarded by the Lump Sum.

Additional tracts and/or structures may be added to this contract from this job.

Pricing for Additional Pay Items is requested on Page 4.
(Additional pay item pricing will be on an as needed basis and does not obligate the Department to award any additional tracts.)

Contact for Technical Information: Joel Clark, Property Manager (501-569-2317)
Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)

Bid price shall include all labor, materials, and equipment necessary to perform the work as specified, and shall further include all licenses, fees, permits, royalties, and all taxes. Bid price shall represent full compensation for completion of the work. This provision supersedes Condition 4 on page 2 of Bid Invitation. Payment will be made in accordance with Arkansas Highway & Transportation Department Standard Specifications and Applicable Special Provisions.

Bid Bond in the amount of 5% of total bid price required of all bidders at time of bid opening or bid will be rejected. **Personal and company checks are not acceptable as Bid Bonds.** See Condition 3 on page 2 of Bid Invitation.
Performance Bond only (no checks of any kind allowed) in the amount of 100% of total bid price will be required of successful bidder prior to providing goods/services. See Condition 3 on page 2 of Bid Invitation.

The successful bidder will be required to submit Notice of Intent (NOI) to ADEQ within 3 days after receipt of Purchase Order and to complete all work within forty-five (45) calendar days from the starting date on the NOI. Work not completed within this time frame shall result in the successful bidder being charged $120.00 per day until work is completed.

Name, Address, Phone No. of Disposal Site:_____

Bids and Specifications are available on-line by going to the AHTD Web Site – www.arkansashighways.com and clicking on "Commodities and Services Bids/Contracts Information". Tabulations will also be available at this site within 72 hours after bid opening. If you have any questions, call this office at 501-569-2667.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

STANDARD BID CONDITIONS

M-14-001P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.

2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.

3. **BID BONDS AND PERFORMANCE BONDS**: If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds**. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds**. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.

4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.

5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.

6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.

7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.

8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.

9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.

10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.

11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.

12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.

13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.

14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT

NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. Nelson, Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: joanna.nelson@arkansashighways.com.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

BIDDER:_____

ITEM NO.	DESCRIPTION	AMOUNT
1.	Asbestos Abatement	$_____ Square Foot
2.	Demolition	$_____ Square Foot
3.	Foundation	$_____ Linear Foot
4.	Foundation Slab	$_____ Square Foot
5.	Well Closure	$_____ Each
6.	Septic System Closure	$_____ Each

Job 080395
Conway South Interchange
Hwy. 68 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County
Tracts 7X, 8X, 9X, 10X, 12X, 14X, 22X,
23X, 25X, 28X, 29X, 30X, 33X, 34X, 76X

Work Site Directions

Traveling from Little Rock - take Interstate 40 west to Mayflower and take exit #135. Turn left onto Hwy. 89 West and cross over the interstate. Turn right onto Hwy. 365 North towards Conway, AR. The following tracts will be facing Hwy. 365. If you have made to Lawrence Landing Road, you have gone too far.

Tract 7 X, 295 Hwy. 365, Conway, AR 72032:
Tract 8 X, 297 Hwy. 365, Conway, AR 72032:
Tract 10 X, 301 Hwy. 365, Conway, AR 72032:
Tract 29 X, 305 Hwy. 365, Conway, AR 72032:
Tract 30 X, 307 Hwy. 365, Conway, AR 72032:

The following two tracts are located on McClure Acres Road.
Tract 9 X, #11 McClure Acres Road (Lane), Conway, AR 72032: McClure Acres Road turn east off of Hwy. 365. The road will have turn to the right and then the drive for #11 goes between two houses on your left and has another turn to the left. There you will find Tract 9 sitting about 130' to the north.

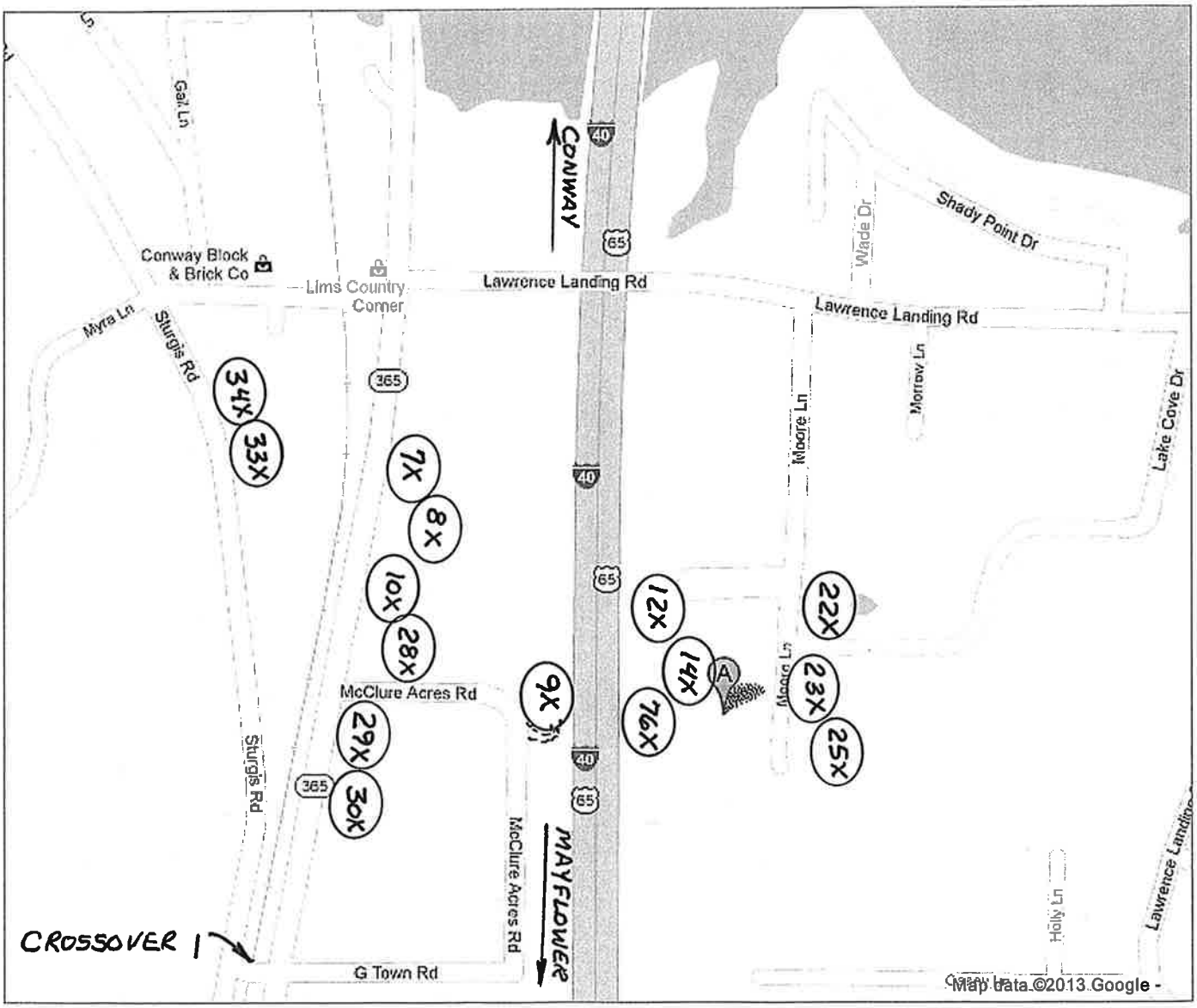
Tract 28 X, #3 McClure Acres Road (Lane), Conway, AR 72032: this will be the first house site on the left, just after turning onto McClure Acres Road.

Sturgis Road is located on the left side of Hwy. 365. Turn left at the Crossover 1 which is across the highway from G Town Road. Turn right onto Sturgis Road.
Tract 33 X, 369 Sturgis Road, Conway, AR 72032:
Tract 34 X, 367 Sturgis Road, Conway, AR 72032:

Lawrence Landing Road turns east off of Hwy. 365 and crosses over the interstate. Moore Lane runs south off of Lawrence Landing Road.
Tract 12X, 20 Moore Lane, Conway, AR:
Tractn 14X, 28 Moore Lane, Conway, AR:
Tract 22X, 27 Moore Lane, Conway, AR:
Tract 23X, 34 Moore Lane, Conway, AR:
Tract 25X, 34 A Moore Lane, Conway, AR:
Tract 76X, 30 Moor Lane, Conway, AR:

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google



080395

RIGHT OF WAY SIGNS AND SYMBOLS

- SECTION CORNER
- QUARTER CORNER
- QUARTER QUARTER CORNER
- SECTION CENTER
- STATE LINE OR CITY LIMITS
- COUNTY LINE
- TOWNSHIP LINE
- QUARTER SECTION LINE
- PROPERTY LINE
- EXISTING R/W LINE
- PROPOSED R/W LINE
- EXISTING CONTROL OF ACCESS
- PROPOSED CONTROL OF ACCESS
- PROPOSED R/W & CONTROL OF ACCESS
- EXISTING R/W DIMENSION
- PROPOSED R/W DIMENSION
- TEMPORARY & PERMANENT EASEMENT LINE
- EXISTING BRIDGE OR SEPARATION STRUCTURE
- PROPOSED BRIDGE OR SEPARATION STRUCTURE
- EXISTING CULVERT
- RAILROAD
- PAVED ROADS
- GRAVEL ROAD
- DRIVEWAY
- FENCE
- CONSTRUCTION LIMITS
- LEVEE
- TRAIL
- RESIDENTIAL & COMMERCIAL BUILDING
- HEDGE ROW
- SMALL STREAM
- LARGE STREAM
- POND OR LAKE
- TELEPHONE POLES
- POWER POLES
- TRANSMISSION LINES
- TREES
- DECIDUOUS WOODS
- EVERGREEN WOODS
- SET AHTD R/W MONUMENT
- TEMPORARY EASEMENT POINT
- PERMANENT EASEMENT POINT
- EXISTING R/W POINT
- PROPERTY LINE POINT
- FOUND MONUMENT
- SURVEY CALCULATED POINT

02/2012

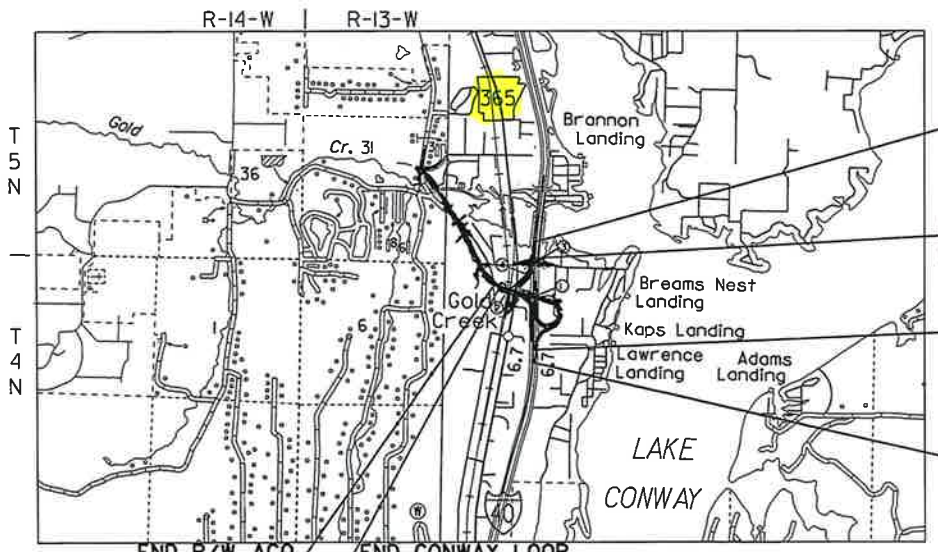
"THIS IS A FULLY CONTROLLED ACCESS FACILITY"

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP
CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)

FAULKNER COUNTY
ROUTE I-40 SECTION 32
JOB 080395

LAYOUT
NOT TO SCALE



APPROX. JOB MID-POINT
LT: 35°00'53"
LG: 92°24'36"

SURVEY CONTROL COORDINATES

Project Name: 5080395
Date: 1/27/2011
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL. PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	253171.2514	1185460.3027	283.66	CTL	5/8" REBAR*
2	252377.2672	1185289.3187	276.96	CTL	5/8" REBAR
3	252252.1476	1185673.1350	271.39	CTL	5/8" REBAR
4	251357.5368	1186594.5081	306.05	CTL	5/8" REBAR
5	250815.2395	1187174.2119	289.96	CTL	5/8" REBAR
6	250293.1565	1187513.6796	291.90	CTL	5/8" REBAR
7	249681.7101	1187886.6548	297.30	CTL	5/8" REBAR
8	249063.7573	1188150.2719	303.11	CTL	5/8" REBAR
20	250309.8267	1188812.8706	275.04	CTL	5/8" REBAR W/2" ALM MON*
21	249515.4918	1188763.6507	286.38	CTL	5/8" REBAR W/2" ALM MON
22	248729.1419	1188648.3083	286.89	CTL	5/8" REBAR W/2" ALM MON
23	247947.7436	1188491.0067	288.44	CTL	5/8" REBAR W/2" ALM MON
24	247164.0934	1188332.8996	292.24	CTL	5/8" REBAR W/2" ALM MON
25	246382.1928	1188176.1933	295.04	CTL	5/8" REBAR W/2" ALM MON
80	250709.5000	1189639.6517	277.28	CTL	5/8" REBAR W/2" CAP*
81	249762.4949	1189602.1942	276.74	CTL	5/8" REBAR W/2" CAP
82	249714.8894	1188949.2681	285.07	CTL	5/8" REBAR W/2" CAP
83	249688.8389	1189997.4522	284.21	CTL	5/8" REBAR W/2" CAP
84	248814.2643	1189536.3863	280.25	CTL	5/8" REBAR W/2" CAP
85	247990.0360	1189524.7909	295.32	CTL	5/8" REBAR W/2" CAP
86	247184.9583	1189514.5176	297.54	CTL	5/8" REBAR W/2" CAP
87	246347.6324	1189539.2146	294.89	CTL	5/8" REBAR W/2" CAP
954	250380.5061	1189630.5089	274.07	TBM	CHL SQ IN DI IN MEDIAN
956	249659.4137	1189473.3265	298.65	TBM	CHL SQ IN SW CORN OF BR*3786
958	249380.2762	1189567.9770	274.07	TBM	CHL SQ IN DI IN MEDIAN
959	248260.4852	1189545.5165	288.03	TBM	CHL SQ IN DI IN MEDIAN
990	285016.9076	1178342.9846	401.140	BM	NGS MARK E 291
991	282193.5202	1179189.7671	351.690	BM	NGS MARK D 291

*Note - 5/8" REBAR - Standard - 5/8" Rebar without Cap
5/8" REBAR W/2" ALM MON - Standard - 5/8" Rebar with 2" Aluminum Cap stamped GARVER CONTROL POINT, PN *
5/8" REBAR W/2" CAP - Standard - 5/8" Rebar with 2" Aluminum Cap stamped AHTD, JOB* 080388, PN *

ALL DISTANCES ARE GROUND.
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.9999676209 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.
BASED ON NGS PTS. D 291 & E 291

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
BASED ON GPS PTS.
230026 - 230020
230028 - 230028A
230027 - 230027A
DETERMINED FROM GPS CONTROL POINT: 62
AHTD JOB #080388
NORTHING 264067.0068, EASTING 1187664.3294
CONVERGENCE ANGLE: 0-14-33 LEFT
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

ALIGNMENT NAME: RAMP 1

POINT	STATION	TYPE	NORTHING	EASTING
8000	7420+38.59	PC	249645.8551	1189531.7615
8001	7421+33.81	PI	249750.8202	1189525.8655
8002	7422+28.87	PT	249856.8430	1189510.5462
8003	7423+99.00	PC	249988.9307	1189483.1746
8004	7425+42.70	PI	249347.0944	1189460.0537
8005	7426+78.48	PT	249247.3117	1189356.8345
8006	7431+37.34	PC	248927.3188	1189024.9796
8007	7432+52.11	PI	248847.8303	1188942.3868
8008	7433+81.70	PT	248737.4730	1188910.1808
8009	7434+41.21	POE	248661.1597	1188887.8697

ALIGNMENT NAME: RAMP 2

POINT	STATION	TYPE	NORTHING	EASTING
8010	7431+65.85	PC	248570.1738	1189118.8974
8011	7434+59.79	PI	248487.8895	1189401.0273
8012	7436+84.32	PT	248195.5254	1189433.2931
8013	7440+39.38	PC	247842.6152	1189472.2875
8014	7441+30.81	PI	247751.7377	1189482.3038
8015	7442+22.02	PT	247660.3117	1189481.4306

ALIGNMENT NAME: RAMP 3

POINT	STATION	TYPE	NORTHING	EASTING
8016	7441+34.94	POB	247441.1141	1190264.4135
8017	7444+97.30	PC	247255.0303	1189973.4896
8018	7448+39.47	PI	247079.3109	1189679.8835
8019	7451+33.15	PT	246739.4352	1189640.3073
8020	7456+25.34	PC	246250.5501	1189583.3800
8021	7457+20.56	PI	246155.9715	1189572.3670
8022	7458+15.62	PT	246060.7865	1189570.8158

ALIGNMENT NAME: RAMP 4

POINT	STATION	TYPE	NORTHING	EASTING
8023	7440+29.10	PC	247852.0339	1189600.4158
8024	7448+15.89	PI	247065.4851	1189592.5224
8025	7449+63.52	PT	247469.4302	1190287.4668

ALIGNMENT NAME: MERGED RAMPS 3 & 4

POINT	STATION	TYPE	NORTHING	EASTING
8026	7449+63.52	PC	247455.2722	1190275.9402
8027	7460+10.17	PI	247992.7695	1191174.0342
8028	7480+23.33	PT	248286.4762	1190169.4385

ALIGNMENT NAME: CONWAY LOOP

POINT	STATION	TYPE	NORTHING	EASTING
8028	13+52.70	POB	248288.4762	1190169.4385
8029	30+98.10	PC	248776.2819	1188494.1738
8030	37+32.12	PI	248954.1784	1187685.8276
8031	42+91.88	PT	249524.2866	1187608.1709
8032	56+51.90	PC	250747.1454	1187013.0070
8033	60+48.55	PI	251103.7996	1186838.4266
8034	64+43.94	PT	251433.1327	1186618.3562
8035	80+09.78	PC	252733.2281	1185745.8452
8036	87+99.39	PI	253388.8269	1185305.5634
8037	94+53.07	PT	253366.7284	1184516.2842
8038	123+22.20	POE	253286.4312	1181648.2557

ALIGNMENT NAME: HWY. 365

POINT	STATION	TYPE	NORTHING	EASTING
8039	384+00.00	POB	243262.8640	1187567.8485
8040	439+52.50	PC	248705.5975	1188865.4304
8041	452+36.94	PI	249964.5896	1188919.3297
8042	465+02.50	PT	251242.9983	1188794.0118
8043	500+00.00	POE	254723.8110	1188452.7735

ALIGNMENT NAME: I-40

POINT	STATION	TYPE	NORTHING	EASTING
8044	7389+60.40	POB	252900.1834	1189936.6374
8045	7404+27.38	PC	251445.7447	1189745.1930
8046	7418+12.40	PI	250072.5736	1189564.4457
8047	7431+94.05	PT	248687.6293	1189550.3787
8048	7449+77.89	PC	246903.8871	1189532.2811
8049	7466+49.80	PI	245232.2633	1189515.2824
8050	7482+97.89	PT	243635.1591	1189021.4477
8051	7507+69.85	POE	241273.7099	1188291.2729

ALIGNMENT NAME: HWY. 365 CONNECTOR

POINT	STATION	TYPE	NORTHING	EASTING
8052	20+00.00	POB	248657.7404	1188899.5652
8053	22+81.27	PC	248378.1691	1188868.7152
8054	25+42.27	PI	248118.7360	1188840.0676
8055	26+77.53	PT	248170.3320	1188584.2320
8056	27+03.75	POE	248175.5133	1188558.5376

ALIGNMENT NAME: LAWRENCE LANDING

POINT	STATION	TYPE	NORTHING	EASTING
8057	12+10.18	POB	249644.9038	1188801.3839
8058	16+34.47	PC	249710.7836	1189220.5403
8059	18+87.36	PI	249765.5382	1189569.1466
8060	23+32.37	PT	249692.1256	1189914.3091
8061	26+77.74	POE	249578.8678	1190447.7520

ALIGNMENT NAME: McCLURE ACRES

POINT	STATION	TYPE	NORTHING	EASTING
8062	10+00.00	POB	247881.4330	1188499.2355
8063	10+25.54	PC	247883.0361	1188524.7229
8064	11+57.70	PI	247891.3323	1188658.6227
8065	12+60.23	PRC	248014.9712	1188703.3112
8066	14+07.65	PI	248152.8664	1188755.3907
8067	15+15.73	PT	248147.1552	1188902.7000
8068	16+84.83	POE	248140.5773	1189071.7692

ALIGNMENT NAME: MOORE ACCESS ROAD

POINT	STATION	TYPE	NORTHING	EASTING
8135	10+00.00	POB	248561.3102	1190284.0109
8136	10+38.96	PC	248522.8658	1190277.6975
8137	11+89.76	PI	248374.0607	1190253.2606
8138	12+98.87	PT	248306.6571	1190368.1563
8139	14+15.52	POE	248254.5176	1190492.5036

NO.	DATE	DESCRIPTION	BY	CK'D
DATE:	02/2012	REVISIONS		
DESIGNED:	DWT	REVIEWED:	TEM	

CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY
SURVEY CONTROL SHEET

LOT SCHEDULE
JORDAN ESTATES SUBDIVISION

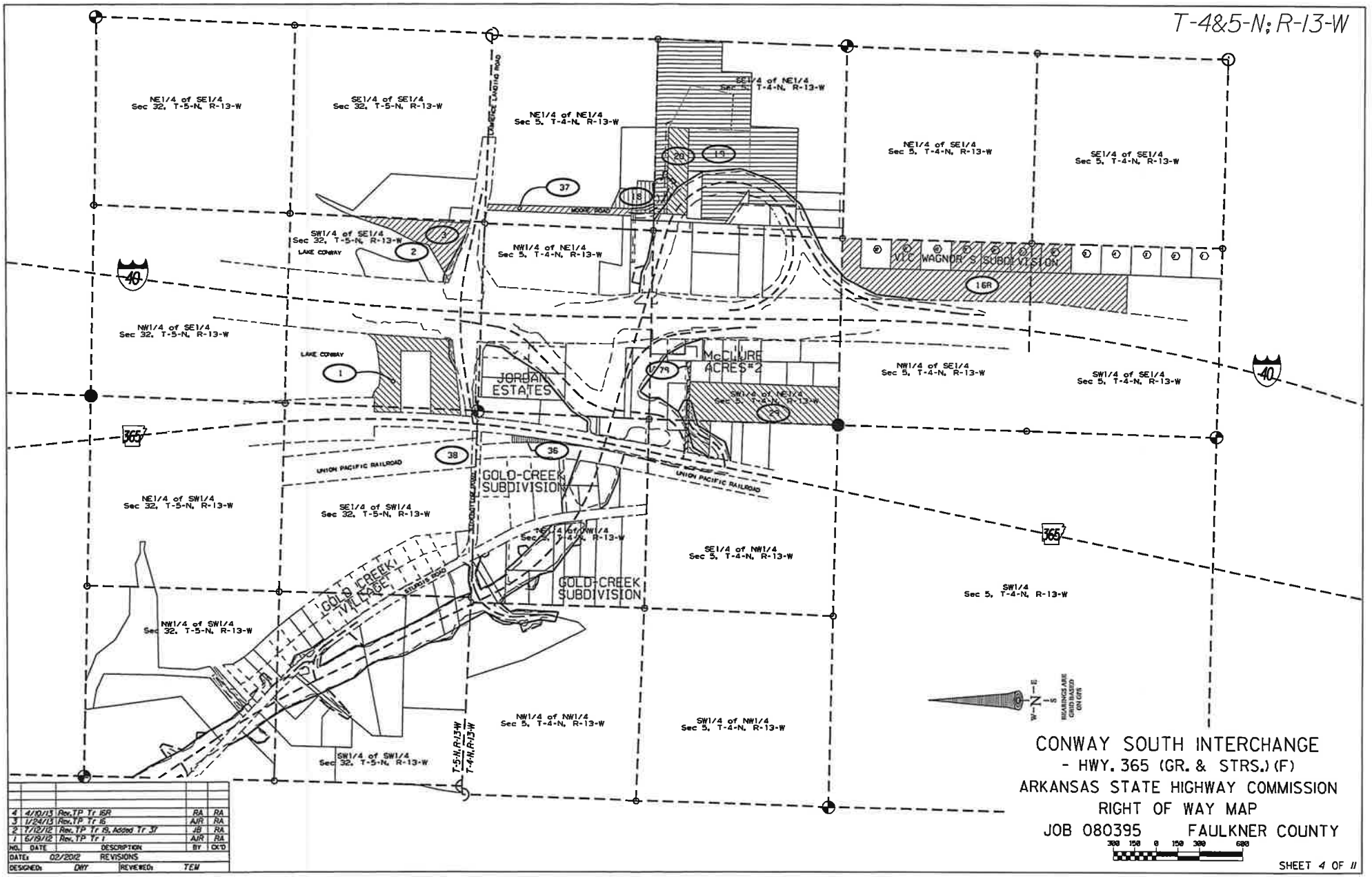
TRACT	LOT	SQ. FT.	ACQ.	RESIDUAL
4	2	45,132	1773	43,359
4	PART OF 3	35,030	20,637	14,393
4	PART OF 5	6484	6484	0
4	6	47,941	46,021	1920
5	1	45,269	0	45,269
5	7	48,286	17,672	30,614

16R	BILLY P.TYLER REVOCABLE TRUST	83	15.01	15.01	653,971	653,971			10,11
15R	BILLY P.AND CATHY TYLER H/W	37.41	0.95	0.95	41,200	41,200			9,10
32R	ZUELLA MATTISON	90	0.39	0.39	16,997	16,997			8
12XR	STANLEY AND DEANA F.JONES	73	1.38	1.38	60,043	60,043			7,9
8XR	LARRY MALTBIA	65	0.11	0.11	4,763	4,763			7,8
22XR	CARLA KNIGHT	28	0.08	0.08	3,482	3,482			9
31XR	JOHNNIE AND SERENA DEXTER H/W	104	0.29	0.29	12,544	12,544			8
28XR	RICHARD MARTIN	34	0.49	0.49	21,337	21,337			8
80R	MARGARET J. MOREHEAD	16B	0.88	0.88	38,365	38,365			9
26R	GARY W. MOREHEAD	16A	0.70	0.70	30,539	30,539			9
80	MARGARET J. MOREHEAD	16B	0.92	0.04	40,185	1,820			9
79	HEIRS AT LAW OF ARTHIMER FULLER	45 Rev B	0.29	0.17	12,598	7,144	79A-0.08 AC.+or 3,298 S.F.+: 79B-0.09 AC.+or 3,846 S.F.+		7, 8
76X	ARKANSAS TECHNICAL & ELECTRICAL SERVICES,INC.	126	2.27	2.27	98,954	98,954			7,9,10
40	DELETED								
39X	DELETED								
38	UNION PACIFIC RAILROAD		UNABLE	0	UNABLE	0	PCE 38E-1-0.69 AC.+or 30,143 S.F.+: TCE 38E-2-0.13 AC.+or 5,483 S.F.+		8
37	WASH AND MAE HALE H/W	122					TCE 37E-1-0.05 AC.+or 2,037 S.F.+		9
36	CARL D.STRINGFELLOW & TERESA GAIL STRINGFELLOW	119	0.28	0.01	12,233	239			8
35	GRINDELL PRICE	66 Rev.	0	0	III	III			8
34X	VERNELL WRIGHT	91	0.52	0.45	22,590	19,802			8
33X	GLEN D.AND EVA T.WINSTON H/W	92	0.55	0.55	23,974	23,974			8
32	ZUELLA MATTISON	90	1.06	0.67	46,054	29,057			8
31X	JOHNNIE AND SERENA DEXTER H/W	104	1.04	0.75	45,413	32,869			8
30X	ALAN DWIGHT LASKER	84	0.92	0.43	40,148	18,834			8
29X	ALVIN PRICE	31 Rev.	7.24	0.80	315,323	35,018	29XA-0.13 AC.+or 5,768 S.F.+: 29XB-0.67 AC.+or 29,250 S.F.+:		8
28X	RICHARD MARTIN	34	1.00	0.51	43,429	22,092	28XA-0.38 AC.+or 16,391 S.F.+: 28XB-0.13 AC.+or 5,701 S.F.+		8
27	THE HEIRS-AT-LAW OF JOE ACKLIN,dec'd	107 Rev.	0.19	0.04	8,410	1,912			5,6
26	GARY W. MOREHEAD	16A	0.92	0.22	40,093	9,654			9
25X	STEVEN R.FERGUSON	29	0.62	0.62	27,051	27,051			9
24	RICHARD D.AND CAROLYN M.JOHNSON H/W	106	0.07	0.07	3,039	3,039			9
23X	REBA FERGUSON	14 REV-1	0.91	0.91	39,532	39,532			9
22X	CARLA KNIGHT	28	0.76	0.68	33,275	29,793			9
21	RICHARD D.AND CAROLYN M.JOHNSON H/W	106	0.44	0.44	19,110	19,110	21-A-0.42 AC.+ or 18,204 S.F.+: 21-B-0.02 AC.+or 906 S.F.+:		9
20	JOANNE M. BARRETT ANTHONY	22	1.98	.71	86,297	31,182	20A-0.57 AC.+ or 25,035 S.F.+: 20B-0.14 AC.+ or 6,147 S.F.+: TCE 20E-2-0.02 AC.+or 735 S.F.+:		9
19	DON AND PEGGY WHARTON H/W	15.27	18.86	3.92	821,180	170,373	19A-1-3.39 AC.+ or 147,576 S.F.+: 19A-2-0.06 AC.+or 2,425 S.F.+: 19B-0.47 AC.+or 20,372 S.F.+:TCE 19E-2-0.03 AC.+or 1,409 S.F.+:		9
18	GRADEN R.AND MARY LINDA ROWLETT H/W	74	1.12	0.18	48,660	7,879			9
17	DELETED								
16	BILLY P.TYLER REVOCABLE TRUST	83	15.66	0.65	682,246	28,275			10,11
15	BILLY P.AND CATHY TYLER H/W	37.41	8.32	7.37	362,378	321,178			9,10
14X	GARY AND MARGARET MOREHEAD	42	1.57	1.57	68,295	68,295			9
13	IDA B.CARGILE,REVOCABLE TRUST	43	3.18	3.18	138,435	138,435			7,9
12X	STANLEY AND DEANA F.JONES	73	2.04	0.66	88,815	28,772	12A-0.47 AC.+ or 20,598 S.F.+ 12B-0.19 AC.+or 8,174 S.F.+: TDE 12XE-2-0.14 AC.+or 6,261 S.F.+:		7,9
11	DEBORAH E.GRAYSON	32	0.55	0.04	23,867	1,833			7
10X	STEPHEN FULLER AND HEIRS AT LAW OF ARTHEMER FULLER	45 Rev A	2.82	1.62	122,822	70,726			7,8
9X	LEROY AND MARION McCLURE	33, 35	0.59	0.49	25,625	21,305	TDE 9XE-1-0.09 AC.+ or 3,876 S.F.+		7
8X	LARRY MALTBIA	65	1.46	1.35	63,750	58,987			7,8
7X	GRINDELL PRICE	66 Rev.	1.77	1.77	77,039	77,039			7,8
6	JASPER SEWELL	67	6.41	5.25	279,046	228,815			7,8
5	ROBERT L.AND SHEILA L.JORDAN, H/W	68,69	2.15	0.41	93,555	17,672			6,7,8
4	ROBERT C.JORDAN AND BETTY E.JORDAN,H/W	70 Rev.	3.09	1.72	134,588	74,916			5,6,7
3	THE HEIRS-AT-LAW OF JOE ACKLIN,dec'd	107 Rev.	2.80	0.18	121,909	7,856			5,6
2	ARKANSAS STATE GAME AND FISH COMMISION	127	UNABLE	0.03	UNABLE	1,523			5,6
1	THE HEIRS-AT-LAW OF JOE ACKLIN,dec'd	107 Rev.	4.75	0.12	206,704	5,146			5,6
TRACT	OWNERSHIP	TITLE	PARCEL AREA IN ACRES:	TO ACQUIRE	PARCEL AREA IN SQ.FT.:	TO ACQUIRE	REMARKS		PAGE

NO.	DATE	DESCRIPTION	BY	CK'D
18	4/10/13	Rev.TP Tr.15 & 16R	RA	RA
17	2/28/13	Deleted Tr.17	RA	RA
16	2/1/13	Added Tr.'s 15R & 16R	JB	RA
15	1/24/13	Rev.TP Tr 16	AJR	RA
14	1/14/13	Added Tr. 32R	JB	RA
13	1/7/13	Added Tr 12XR	AJR	RA
12	12/13/12	Added Tr.8XR	JB	AJR
11	12/5/12	Added Tr 22XR	RA	RA
10	11/21/12	Added Tr. 31XR	AJR	RA
9	11/19/12	Changed R/W to TCE Tr.'s 17 & 37.	RA	RA
8	10/31/12	Added Tr.29XR	RA	RA
7	10/18/12	Added Tr.26R and 80R	WHK	RA
6	10/08/12	Rev.Ownership Tr.4 and 23X	WHK	RA
5	9/28/12	Changed Tr.Designation from Tr. 76 to Tr.76X	RA	RA
4	8/16/12	Rev. TP & ATA Trs 10X,14X & 26. Changed Tr Designation of Trs. 10XA-1 & 10XA-2 to 10X, Added Trs 76, 79, 79A, 79B & 80, Del. Tr 10XB. Rev. Ownership Tract 10X & 26	JB	RA
3	7/12/12	Added Cert Number to Tr. 2, Rev. Ownership Trs. 23X & 29X, Rev. TP Tr.19	JB	RA
2	6/18/12	Rev.TP & ATA Tr 7X, Deleted Tr's 39 & 40, Rev. Ownership Tr's 1,3, 7X, 27 & 35, Rev. TP Tr 1	AJR	RA
1	4/5/12	Rev. PCE's to ATA Trs. 10X, 12, 17, 18, 19, 20, 21, 28X, 29X, 30X & 37	DS	AJR

DATE: 02/2012 REVISIONS
DESIGNED: DMY REVIEWED: TEW

CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY



NO.	DATE	DESCRIPTION	BY	CK'D
4	4/10/13	Rev. TP Tr 15R	RA	RA
3	1/24/13	Rev. TP Tr 16	AJR	RA
2	7/12/12	Rev. TP Tr 15, Added Tr 37	JB	RA
1	6/19/12	Rev. TP Tr 1	AJR	RA

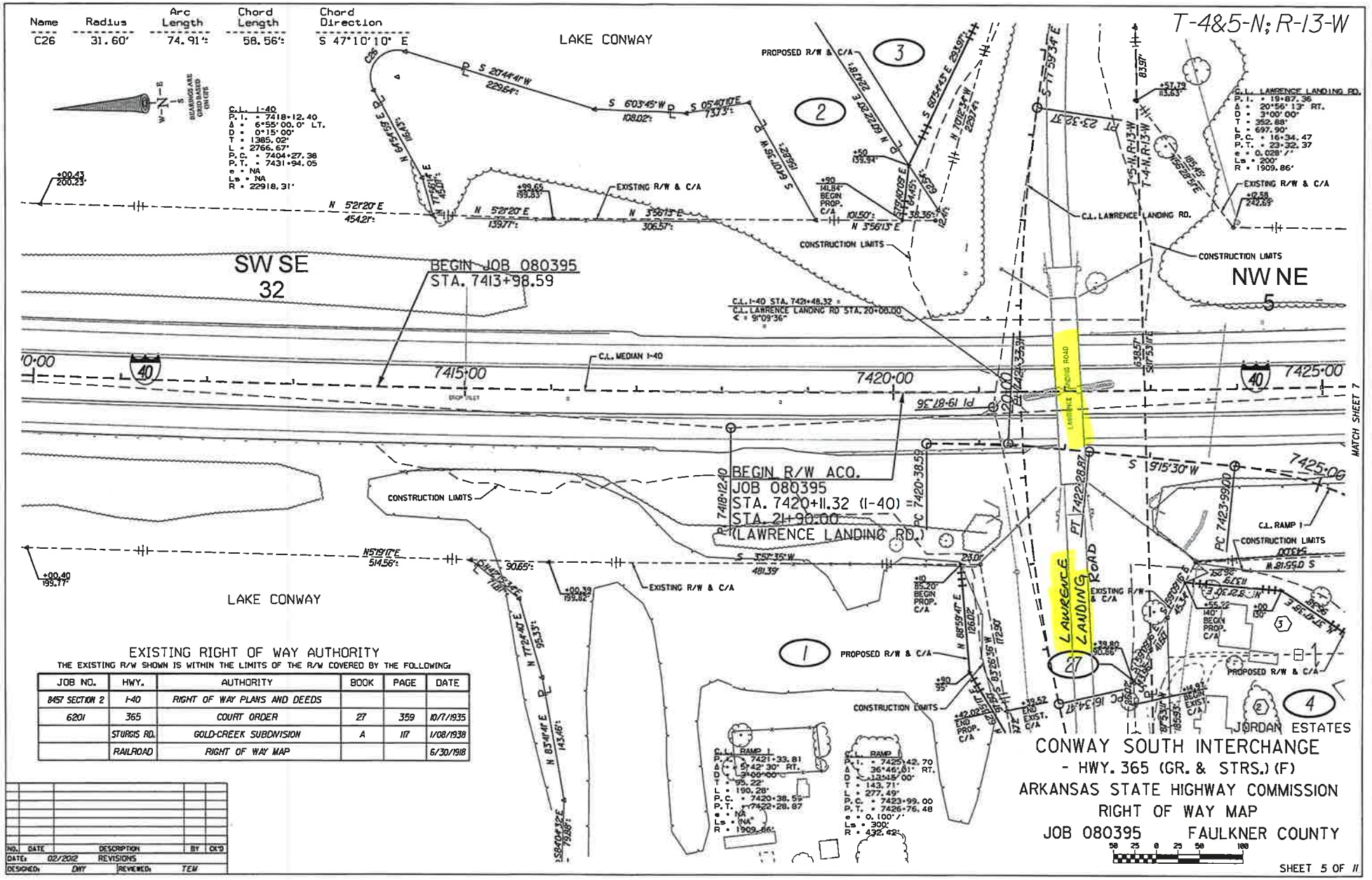
DATE: 02/2012 REVISIONS

DESIGNED: DHT REVIEWED: TEW

CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY

300 150 0 150 300 600

SHEET 4 OF 11



Name	Radius	Arc Length	Chord Length	Chord Direction
C26	31.60'	74.91'	58.56'	S 47°10'10" E

C.L. I-40
P.I. = 7418+12.40
Δ = 6°55'00.0" LT.
D = 0°15'00"
T = 1385.02'
L = 2766.67'
P.C. = 7404+27.38
P.T. = 7431+94.05
e = NA
Ls = NA
R = 22918.31'

C.L. LAWRENCE LANDING RD.
P.I. = 19+87.36
Δ = 20°56'13" RT.
D = 3°00'00"
T = 352.88'
L = 697.90'
P.C. = 16+34.47
P.T. = 23+32.37
e = 0.028'/'
Ls = 200'
R = 1909.86'

C.L. RAMP 1
P.I. = 7421+33.81
Δ = 5°42'30" RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. = 7420+38.59
P.T. = 7422+28.87
e = NA
Ls = NA
R = 1909.86'

C.L. RAMP 2
P.I. = 7425+42.70
Δ = 36°46'01" RT.
D = 13°15'00"
T = 143.71'
L = 277.49'
P.C. = 7423+99.00
P.T. = 7426+76.48
e = 0.100'/'
Ls = 300'
R = 432.42'

EXISTING RIGHT OF WAY AUTHORITY

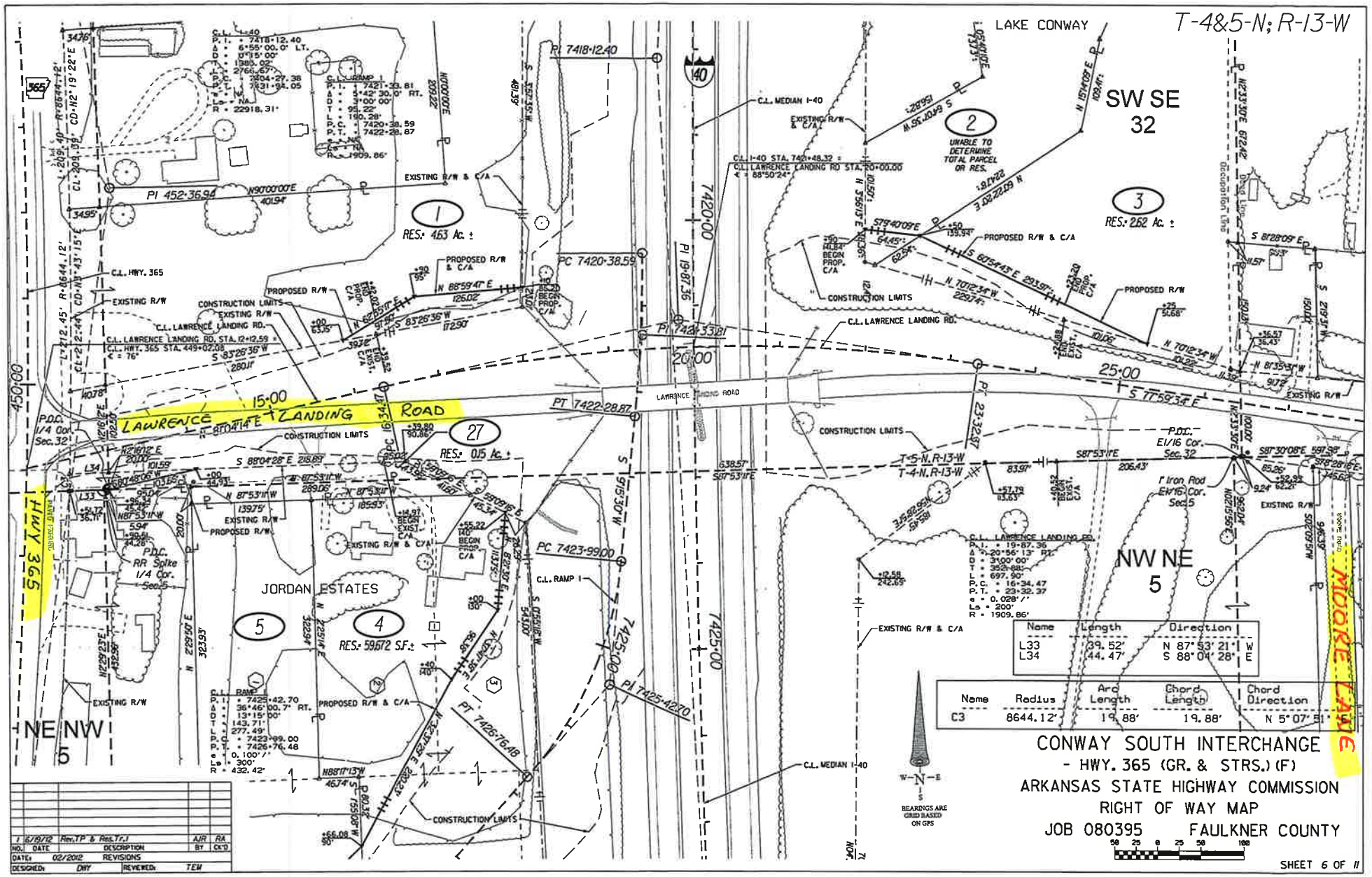
THE EXISTING R/W SHOWN IS WITHIN THE LIMITS OF THE R/W COVERED BY THE FOLLOWING:

JOB NO.	HWY.	AUTHORITY	BOOK	PAGE	DATE
8457 SECTION 2	I-40	RIGHT OF WAY PLANS AND DEEDS			
6201	365	COURT ORDER	27	359	10/7/1935
	STURGIS RD.	GOLD-CREEK SUBDIVISION	A	117	1/08/1938
	RAILROAD	RIGHT OF WAY MAP			6/30/1918

NO.	DATE	DESCRIPTION	BY	CK'D
DATE:	02/2012	REVISIONS		
DESIGNED:	DMY	REVIEWED:	TEW	

CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY

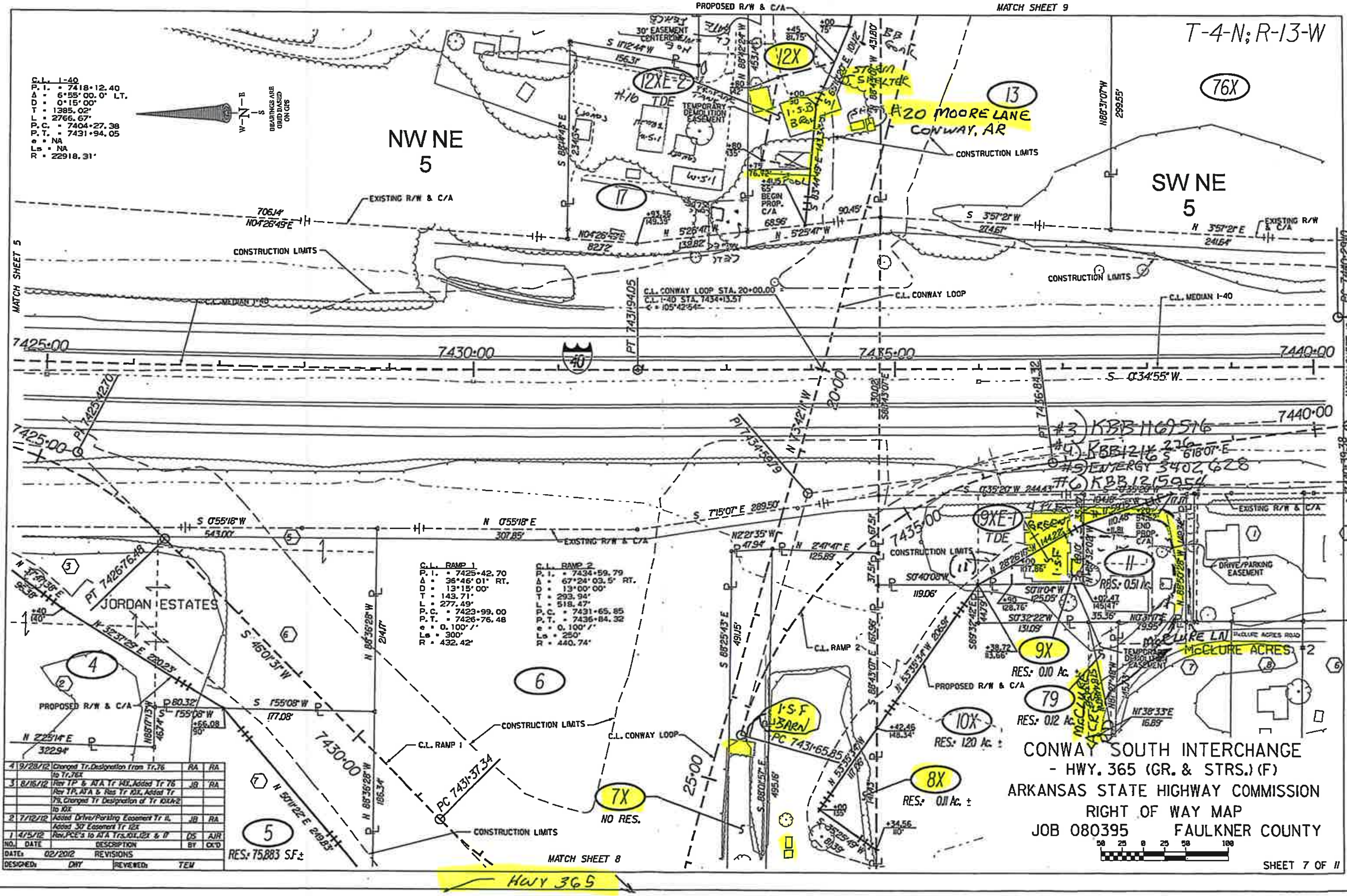
50 25 0 25 50 100

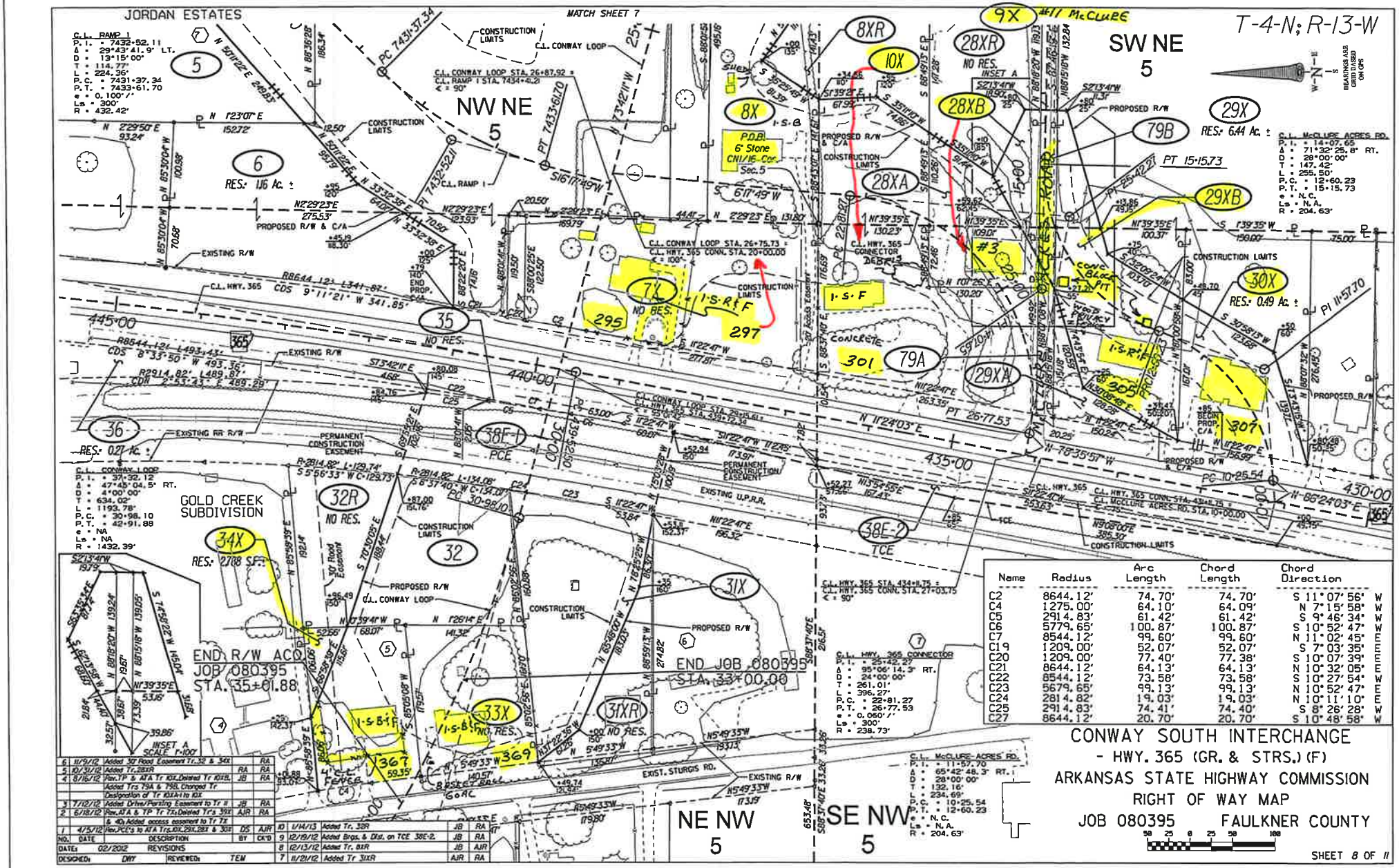


Name	Length	Direction
L33	39.52'	N 87° 53' 21" W
L34	44.47'	S 88° 04' 28" E

Name	Radius	Arc Length	Chord Length	Chord Direction
C3	8644.12'	19.88'	19.88'	N 5° 07' 51" E

NO.	DATE	DESCRIPTION	BY	CK'D
1	6/8/12	Rev. TP & Res. Tr. 1	AJR	RA
DATE:	02/2012	REVISIONS		
DESIGNED:	DHY	REVIEWED:	TEM	

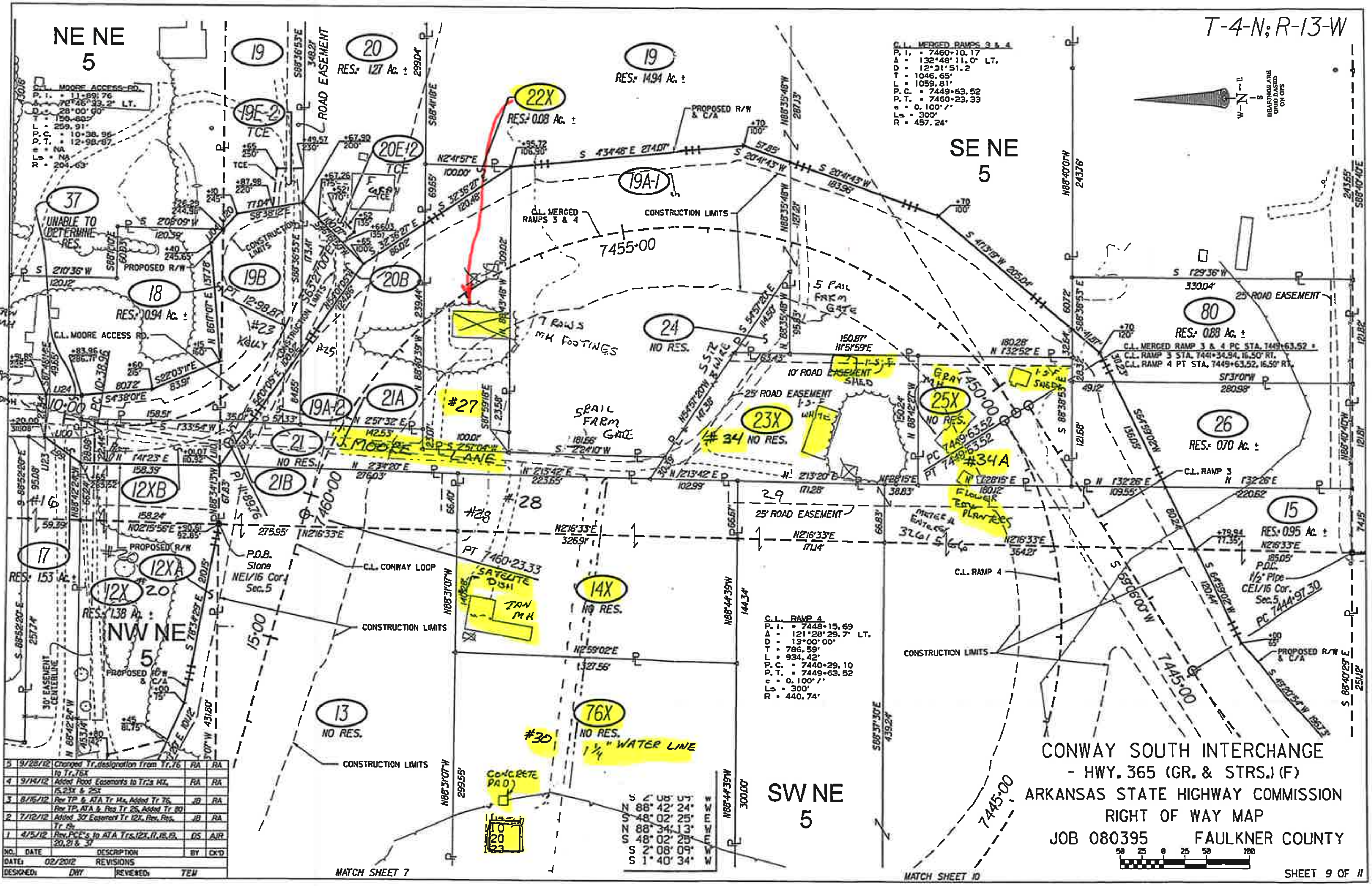

T-4-N; R-13-W
MATCH SHEET 9
MATCH SHEET 5
MATCH SHEET 8
MATCH SHEET 10
C.L. I-40
P.I. = 7418+12.40
Δ = 6°55'00.0" LT.
D = 0°15'00"
T = 1385.02'
L = 2766.67'
P.C. = 7404+27.38
P.T. = 7431+94.05
e = NA
Ls = NA
R = 22918.31'
BEARINGS ARE GRID BASED ON GPS
NW NE 5
SW NE 5
PROPOSED R/W & C/A
EXISTING R/W & C/A
CONSTRUCTION LIMITS
C.L. MEDIAN I-40
C.L. CONWAY LOOP
C.L. CONWAY LOOP STA. 20+00.00
C.L. I-40 STA. 7434+13.57
C.L. RAMP 1
P.I. = 7425+42.70
Δ = 36°46'01" RT.
D = 13°15'00"
T = 143.71'
L = 277.49'
P.C. = 7423+99.00
P.T. = 7426+76.48
e = 0.100'/'
Ls = 300'
R = 432.42'
C.L. RAMP 2
P.I. = 7434+59.79
Δ = 67°24'03.5" RT.
D = 13°00'00"
T = 293.94'
L = 518.47'
P.C. = 7431+65.85
P.T. = 7436+84.32
e = 0.100'/'
Ls = 250'
R = 440.74'
JORDAN ESTATES
30' EASEMENT
TEMPORARY DEMOLITION EASEMENT
TDE
DRIVE/PARKING EASEMENT
420 MOORE LANE
CONWAY, AR
McCLURE LN
McCLURE ACRES
1-S.F. BARN
NO RES.
RES: 0.10 Ac.
RES: 0.12 Ac.
RES: 1.20 Ac. ±
RES: 0.11 Ac. ±
RES: 0.51 Ac.
RES: 75,883 S.F.±
HWY 365
CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY
SHEET 7 OF 11
4 9/28/12 Changed Tr. Designation from Tr. 76 to Tr. 76X RA RA
3 8/16/12 Rev TP & ATA Tr 14X, Added Tr 76 Rev TP, ATA & Res Tr 10X, Added Tr 79, Changed Tr Designation of Tr 10XA-2 to 10X JB RA
2 7/12/12 Added Drive/Parking Easement Tr 11, Added 30' Easement Tr 12X JB RA
1 4/5/12 Rev. PCE's to ATA Trs. 10X, 12X & 17 DS AJR
NO. DATE DESCRIPTION BY CK'D
DATE: 02/2012 REVISIONS
DESIGNED: DHY REVIEWED: TEM



Name	Radius	Arc Length	Chord Length	Chord Direction
C2	8644.12'	74.70'	74.70'	S 11°07'56" W
C4	1275.00'	64.10'	64.09'	N 7°15'58" W
C5	2914.83'	61.42'	61.42'	S 9°46'34" W
C6	5779.65'	100.87'	100.87'	S 10°52'47" W
C7	8544.12'	99.60'	99.60'	N 11°02'45" E
C19	1209.00'	52.07'	52.07'	S 7°03'35" E
C20	1209.00'	77.40'	77.38'	S 10°07'39" E
C21	8644.12'	64.13'	64.13'	N 10°32'05" E
C22	8544.12'	73.58'	73.58'	S 10°27'54" W
C23	5679.65'	99.13'	99.13'	N 10°52'47" E
C24	2814.82'	19.03'	19.03'	N 10°11'10" E
C25	2914.83'	74.41'	74.40'	S 8°26'28" W
C27	8644.12'	20.70'	20.70'	S 10°48'58" W

NO.	DATE	DESCRIPTION	BY	CK'D
6	11/9/12	Added 30' Road Easement Tr. 32 & 34X		RA
5	10/31/12	Added Tr. 28XR	RA	RA
4	8/16/12	Rev. TP & ATA Tr 10X, Deleted Tr 10XB, Added Trs 79A & 79B, Changed Tr Designation of Tr 10XA to 10X	JB	RA
3	7/12/12	Added Drive/Parking Easement to Tr II	JB	RA
2	6/18/12	Rev. ATA & TP Tr Trs, Deleted Trs 39X & 40, Added access easement to Tr 7X	AJR	RA
1	4/5/12	Rev. PCE's to ATA Trs. 10X, 29X, 28X & 30X	DS	AJR
DATE:	02/2012	REVISIONS	DESIGNED:	DWT
			REVIEWED:	TEM

10	1/14/13	Added Tr. 32R	JB	RA
9	12/19/12	Added Brgs. & Dist. on TCE 38E-2.	JB	RA
8	12/13/12	Added Tr. 31R	JB	AJR
7	11/21/12	Added Tr 31XR	AJR	RA


T-4-N; R-13-W
NE NE 5
NW NE 5
SE NE 5
SW NE 5
C.L. MOORE ACCESS RD.
C.L. MERGED RAMPS 3 & 4
P.I. = 7460+10.17
Δ = 132°48' 11.0" LT.
D = 12°31' 51.2
T = 1046.65'
L = 1059.81'
P.C. = 7449+63.52
P.T. = 7460+23.33
e = 0.100'/'
Ls = 300'
R = 457.24'
C.L. RAMP 4
P.I. = 7448+15.69
Δ = 121°28' 29.7" LT.
D = 13°00' 00"
T = 786.59'
L = 934.42'
P.C. = 7440+29.10
P.T. = 7449+63.52
e = 0.100'/'
Ls = 300'
R = 440.74'
BEARINGS ARE GRID BASED ON GPS
RES. 1.27 Ac. ±
RES. 0.08 Ac. ±
RES. 14.94 Ac. ±
RES. 0.94 Ac. ±
RES. 0.88 Ac. ±
RES. 0.70 Ac. ±
RES. 0.95 Ac. ±
RES. 1.53 Ac. ±
RES. 1.38 Ac. ±
UNABLE TO DETERMINE RES.
NO RES.
ROAD EASEMENT
25' ROAD EASEMENT
10' ROAD EASEMENT
PROPOSED R/W
CONSTRUCTION LIMITS
C.L. CONWAY LOOP
C.L. RAMP 3
C.L. RAMP 4
P.O.B. Stone NE1/16 Cor. Sec.5
P.O.C. 1/2" Pipe CE1/16 Cor. Sec.5
30' EASEMENT CENTERLINE
MOORE LANE
SATELITE DISH
TRN MH
CONCRETE PAD
1 1/4" WATER LINE
7 ROWS MH FOOTINGS
5 RAIL FARM GATE
MATCH SHEET 7
MATCH SHEET 10
CONWAY SOUTH INTERCHANGE
- HWY. 365 (GR. & STRS.) (F)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 080395 FAULKNER COUNTY
SHEET 9 OF 11
5 9/28/12 Changed Tr. designation from Tr. 76 to Tr. 76X RA RA
4 9/14/12 Added Road Easements to Tr's 14X, 15, 23X & 25X RA RA
3 8/15/12 Rev TP & ATA Tr 14s, Added Tr 76, Rev TP, ATA & Res Tr 25, Added Tr 80 JB RA
2 7/12/12 Added 30' Easement Tr 12X, Rev. Res. Tr 19 JB RA
1 4/5/12 Rev. PCE's to ATA Trs. 12X, 17, 18, 19, 20, 21 & 37 DS AJR
NO. DATE DESCRIPTION BY CK'D
DATE: 02/2012 REVISIONS
DESIGNED: DWY REVIEWED: TEM

PROPERTY MANAGEMENT
ASBESTOS ABATEMENT & DEMOLITION BIDS

Job 080395
Conway South Interchange
Hwy. 365 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County
Tracts 7X, 8X, 9X, 10X, 12X, 14X, 22X,
23X, 25X, 28X, 29, 30X, 33X, 34X, 76X

Proposed Bid List

Tract 7 X , 295 Hwy. 365, Conway, AR 72032	Unit Price	Extended Price
Abate Approximately:		
442.75 SF Ceiling Textured Sheet Rock in Room (1, 4, 7, 8)	$ _____ /SF	$ _____
Total Abatement		$
Demolition:		
1,075 SF 1-S-Rock & Frame Dwelling	$ _____ /SF	$ _____
Remove Septic System	$ _____ /EA	$ _____
200 SF Shed	$ _____ /SF	$ _____
180 SF Shed	$ _____ /SF	$ _____
540 SF Barn	$ _____ /SF	$ _____
All Asphalt Paving from Ditch line Back 200 SF	$ _____ /SF	$ _____
660 LF of 4' Chain Link Fence	$ _____ /LF	$ _____
(2) T - Post	$ _____ /EA	$ _____
Picnic Table	$ _____ /EA	$ _____
Total Demolition		$ _____
Total Abatement & Demolition Tract 7 X		$ _____

Tract 8 X, 297 Hwy. 365, Conway, AR	Unit Price	Extended Price
NO ABATEMENT NECESSARY		
Demolition:		
1,882 SF 1-S-B Dwelling	$ _____ /SF	$ _____
Remove Septic System	$ _____ /EA	$ _____
100 SF Shed	$ _____ /SF	$ _____
96 SF Shed	$ _____ /SF	$ _____
Total Abatement & Demolition Tract 8 X		$ _____

Tract 9 X, #11 McClure Acres Road (Lane), Conway, AR	Unit Price	Extended Price
NO ABATEMENT NECESSARY		
Demolition:		
3,003 SF 1-S-Frame 4-Plex Dwelling	$ _____ /SF	$ _____
Septic System	$ _____ /EA	$ _____
Satellite Dish	$ _____ /EA	$ _____
800 SF Concrete Paving	$ _____ /SF	$ _____
Total Demolition Tract 9 X		$ _____

Tract 10 X, 301 Hwy. 365, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
All Ceiling Sheet Rock, at 1,257 SF	$ _____ /SF	$ _____
All Wall Sheet Rock at 3,182 SF	$ _____ /SF	$ _____
625 SF of Floor Tiles & Mastic in (2, 5, 6, 9)	$ _____ /SF	$ _____
500 SF Dumpsite	$ _____ /SF	$ _____
Total Abatement		$ _____
Demolition:		
1,296 SF 1-S Frame Dwelling	$ _____ /SF	$ _____
Remove Septic System	$ _____ /EA	$ _____
Approximately 17,000 SF Concrete	$ _____ /SF	$ _____
Total Demolition		$ _____
Total Abatement and Demolition Tract 10 X		$ _____

Tract 12 X, 20 Moore Lane, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
1,547 SF All Ceiling Sheet Rock	$ _____ /SF	$ _____
4,136 SF Sheet Rock Walls	$ _____ /SF	$ _____
192 SF Floor Material & Mastic	$ _____ /SF	$ _____
Total Abatement		$ _____
Demolition:		
1,547 SF 1-S-Brick Dwelling	$ _____ /SF	$ _____
Remove Septic System	$ _____ /EA	$ _____
64 SF Shed	$ _____ /SF	$ _____
140 SF Shed	$ _____ /SF	$ _____
480 SF Canopy	$ _____ /SF	$ _____
143 SF Storm Shelter	$ _____ /SF	$ _____
125 LF Wood Privacy Fence	$ _____ /LF	$ _____
Total Demolition		$ _____
Total Abatement & Demolition Tract 12 X		$ _____

Tract 14 X, 28 Moore Lane, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
1,280 SF Mobile Home	$ _____ /SF	$ _____
Remove Septic System	$ _____ /EA	$ _____
Satellite Dish	$ _____ /EA	$ _____
Total Demolition Tract 14 X		$ _____

Tract 22 X, 27 Moore Lane, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
(8) 2X30 or 480 SF Mobile Home Foundation, French Drain	$ /SF	$
Remove Septic System	$ /EA	$
Total Demolition Tract 22 X		$

Tract 23 X, 34 Moore Lane, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
(8) 2X30 or 480 SF Mobile Home Foundation	$ /SF	$
Remove Septic System	$ /EA	$
600 SF Shed	$ /SF	$
Total Demolition Tract 23 X		$

Tract 25 X, 34 A Moore Lane, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
1,048 SF Roofing Material	$ /SF	$
Total Abatement Tr. 25 X		$
Demolition:		
1, 048 SF Mobile Home Foundation	$ /SF	$
Remove Septic System	$ /EA	$
396 SF Shed	$ /SF	$
Total Demolition		$
Total Abatement & Demolition Tract 25 X		$

Tract 28 X, 3 McClure Drive, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
(4) 140 = 560 SF Mobile Home Pads	$ /SF	$
Wooden Steps, Concrete Block Debris (140 SF)	$ /SF	$
240 LF 4' Chain Link Fence	$ /LF	$
Remove Septic System	$ /EA	$
Total Demolition Tract 28 X		$

Tract 29 X, 305 Hwy. 365, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
All Ceiling Sheet Rock 1,396 SF	$ /SF	$
Total Abatement		$
Demolition:		
1,520 SF 1-S-F Dwelling	S /SF	$
Remove Septic System	$ /EA	$
(2) Concrete Block Burn Pits	$ /EA	$
100 LF of Wood Privacy Fence	/LF	
Total Demolition		$
Total Abatement & Demolition Tract 29 X		$

Tract 30 X, 307 Hwy. 365, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
2,665 SF 1-S-B Dwelling	$ /SF	$
Remove Septic System	$ /EA	$
Total Demolition Tract 30 X		$

Tract 33 X, 369 Sturgis Road, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
90 SF of Floor Material in Bathrooms	$ /SF	$
Total Abatement		$
Demolition:		
1,952 SF 1-S-Brick & Frame Dwelling	$ /SF	$
100 SF Shed	$ /SF	$
Remove Septic System	$ /EA	$
Total Demolition		$
Total Abatement & Demolition Tract 33 X		$

Tract 34 X, 367 Sturgis Road, Conway, AR	Unit Price	Extended Price
Abate Approximately:		
174 SF Floor Material in Kitchen & Laundry Room	$ /SF	$
Total Abatement		$
Demolition:		
1,112 SF 1-S-Brick & Frame Dwelling	$ /SF	$
Remove Septic System	$ /EA	$
200 LF Chain Link Fence	$ /LF	$
Total Demolition		$
Total Abatement & Demolition Tract 34 X		$

Tract 76 X, 30 Moore Lane, Conway, AR	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
720 SF 1-S-Metal Building	$ /SF	$
Remove Septic System	$ /EA	$
275 LF Private Water Line	$ /LF	$
32 SF Concrete Slab	$ /SF	$
Total Demolition Tract 76 X		$

Total Lump Sum Price of Abatement & Demolition $

Note 1: Read "Demolition" and "Job Requirements" for extent of Demolition Bid.

Note 2: This document is to be returned with bid and becomes part of the contract.

DEMOLITION: For contract bidding purposes, demolition per square foot includes removal of any and all improvements within the acquired proposed right of way. All structures must be completely removed, including slabs, footings, foundations, basements, posts, poles, decks, interior fences and all debris. Leave site in a safe and level condition.

Disclaimer:

Samples were collected from materials identified as Homogeneous Materials based upon visual inspection of the site. AHTD is not responsible for assumptions on homogeneity which prove to be incorrect. In addition, samples collected represent only that portion of the entire homogeneous material. AHTD is not responsible for materials not identified and sampled due to the restraints on accessibility of the material due to the type of construction and finish materials of the building. This report refers to the Site and Facility as it appeared on the day of the inspection. No warranties, expressed or implied, relate to the previous and or future conditions at the Site.

Analysis was performed by Crisp Analytical Laboratories, L.L.C., Carrollton, TX. Crisp Analytical Laboratories, L.L.C. is solely responsible for all analytical results contained in and referred to in this report.

Job 080395
Conway South Interchange
Hwy. 365 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County
Tracts 7X, 8X, 9X, 10X, 12X, 14X, 22X,
23X, 25X, 28X, 29, 30X, 33X, 34X, 76X

Bid Requirements

Bid price shall include all insurance, taxes, permits, ADEQ notifications, license, labor, equipment, and material necessary to complete the work. Actual quantity of material to be removed may differ slightly from the estimated amount shown above. Bid price shall reflect actual quantity of material to be removed and bidders are strongly encouraged to inspect the premises prior to bidding to verify the quantity. All asbestos abatement/demolition work must be done according to the method and requirements contained in the **"SPECIAL PROVISIONS"** and work list which will be attached and made a part of the bid and contract.

Contractor shall comply with all state, local and federal laws associated with this work. All structures must be completely removed, including slabs, footings, foundations, private walkways, decks, basements, posts, poles, fences within Proposed Right of Way along with all debris. Determination of the extent of work necessary for complete removal of the structures is strictly the responsibility of the bidder. Basements (pits, pools, storm shelters) **(if applicable)** will be removed, backfilled with suitable material and left level with the surrounding area. Septic tanks (in or out of the right of way, **(if applicable)**, will be pumped empty, removed, and backfilled void with suitable material and left level with the surrounding area. Water wells **(if applicable)** shall have equipment removed and casing securely covered for safety. Contractor will be required to comply with the provisions of "Appendix A" (Required Contract Provisions Federal-Aid Construction Contracts) that will be attached and made a part of the bid and contract.

It is understood that all combustible materials, construction material and all other rubbish, including shrubbery and trees which are cut or uprooted to facilitate operations, will be cleared from the premises by the contractor and **the premises will be left in a generally level, safe, and sanitary condition, a condition in which it can be mowed and maintained safely**. The contractor shall endeavor to avoid unnecessary damage or destruction of trees, shrubs, and plants on the premises.

NOTE: CONTRACTOR MUST FILE TEN (10) DAY NOTICE WITH ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ); HOWEVER, BIDS SHOULD INCLUDE REGISTRATION FEE ON EACH PROJECT. Dumping of demolition waste materials shall be at a landfill permitted by the Arkansas Department of Environmental Quality (ADEQ) or at an un-permitted site approved by ADEQ. Contractor must call ONE CALL for location of other utilities at this job site.

In the event that utility service lines, meters, etc., are disconnected, destroyed or otherwise impaired in any way by reason of performance of this operation by the contractor, the contractor shall, at his own expense, be responsible for all replacement utility service in lieu of those affected. **Contractor must call ONE CALL for location of other utilities at this job site**

Contractor shall be required to hold a current license issued by the Arkansas Department of Environmental Quality for the removal of asbestos. For demolition, State law requires a contractor's license for jobs over $20,000.00. Changes in the scope of work must have prior approval by the Departments Property Manager in order to be eligible for payment.

NOTICE TO CONTRACTORS
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964
FOR
FEDERAL AID CONTRACTS
APPENDIX "A"

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor or work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

(4) Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Arkansas State Highway & Transportation Department or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Arkansas State Highway & Transportation Department, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the contractor's non-compliance with the nondiscrimination provisions of this contract, the Arkansas State Highway & Transportation Department shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

(a) Withholding of payments to the contractor under the contract until the contractor complies, and/or

(b) Cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Arkansas State Highway & Transportation Department or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Arkansas State Highway & Transportation Department to enter into such litigation to protect the interests of the State, and, litigation to protect the interests of the United States.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF SHEET ROCK, WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL

The material which contains asbestos (ACM) has been identified in this building. This building must be demolished as part of the right-of-way clearing for the construction of the above-captioned job. Prior to demolition of these buildings, the ACM must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency.

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality (ADEQ), as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of ACM and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of NESHAP - National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACM and any associated from the designated area in the identified buildings. Estimated quantities of material to be removed and disposed of are provided in the contract. The removal of the ACM must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos regulations. Wet cleaning and HEPA filter vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing materials shall apply as per OSHA and ADEQ regulations.

A work plan and worker protection plan shall be provided to AHTD prior to the commencement of work for review and approval.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF FLOORING WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL

Floor covering which contains asbestos (ACM) has been identified in buildings to be demolished as part of the right-of-way clearing for the construction of the above captioned job. Prior to demolition of these buildings, the ACM must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency.

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality (ADEQ), as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of ACM and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACM and any associated mastic material from the designated area in the identified buildings. Estimated quantities of material to be removed and disposed of are provided in the contract. The removal of the ACM flooring must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos regulations. Wet cleaning and HEPA filter vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining mastic can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing flooring shall apply as per OSHA and ADEQ regulations.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

REMOVAL OF FLOOR COVERING MASTIC WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL:

Floor covering mastic which contains asbestos has been identified in a building to be demolished as part of the right-of-way clearing for the construction of the above captioned job. Prior to demolition of this building, the floor covering and associated mastic which contains asbestos must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality(ADEQ).

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality, as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations 21 for the removal of floor covering which contains asbestos and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of NESHAP - National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the floor covering and all associated mastic material from the designated area in the identified building. The removal of the ACM mastic and flooring must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos Regulations 21. Wet cleaning and HEPA vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining mastic can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within two working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing flooring shall apply as per OSHA and ADEQ Regulations 21.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF HARD ASBESTOS-CONTAINING BUILDING MATERIAL IN EXTERIOR SETTING

General:

Siding which contains hard asbestos has been identified on the exterior of a building scheduled for demolition as part of the above referenced job. Prior to demolition of this building, the asbestos-containing building material (ACBM) must be removed and disposed of in compliance with all the Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency asbestos regulations and these specifications.

Description of Work:

All work performed under this contract shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality's adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

In addition, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of hard ACBM in an outdoor setting and applicable OSHA worker protection requirements (29, 1910 - Respiratory Protection). Disposal and record keeping requirements of NESHAP -National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACBM with minimal breakage, sanding or sawing. Wetting procedures shall be utilized as warranted by ADPC&E regulations. ACBM shall be placed in sealable metal drums with proper labeling then stored, transported and disposed of in accordance with ADEQ Asbestos Regulations (November, 1990). All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this outdoor removal activity shall apply as per OSHA and ADEQ regulations.

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

Laboratory analysis has determined the following Tracts **do not** contain asbestos.

Tract 8X – Residential Structure and Barn – 297 Hwy. 365
Tract 9X – Apartment Structure – 3, 4, 5 & 6 McClure Drive
Tract 14X – Residential Structure – 28 Moore Lane
Tract 23X – Demolished Storage Building – 34 Moore Lane
34 Moore Lane House Trailer not sampled, owner is moving it.
Tract 30X – Residential Structure – 307 Hwy. 365
Tract 76X – Metal Building – 30 Moore Lane

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAR130550.58

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 30X - Residential Structure
307 Highway 365
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 30X
Date 5/22/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
30X- 01		Ceiling Texture	Bedroom	X			S	F	G	10%	H	2600 sft
30X- 02		Ceiling Texture	Family room			X	S	F	G	10%	H	See Above
30X- 03		Ceiling Texture	Kitchen			X	S	F	G	10%	H	See Above
30X- 04		Sheetrock and joint compound	Bedroom	X			M	F	G	10%	H	10800 sft
30X- 05		Sheetrock and joint compound	Family room			X	M	F	G	10%	H	See Above
30X- 06		Sheetrock and joint compound	Kitchen			X	M	F	G	10%	H	See Above
30X- 07		Roof Shingle	Roof	X			M	NF	G	10%	H	3600 sft

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound Samples**

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 7X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 - Faulkner County

Mr. Joel Clark:

On May 23, 2013, I conducted an asbestos survey at the above referenced location. Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 7X-01 – Ceiling Texture
Sample # 7X-08 – Sheetrock and Joint Compound

I had the laboratory perform composite sampling on the sheetrock and joint compound. This additional sampling has determined that the Sheetrock and joint compound contains less than 1% of Chrysotile Asbestos.

Federal and state regulations with the exception of OSHA, determine a material to be asbestos containing if it contains 1% or more asbestos. OSHA states that any amount is an asbestos containing material.

Therefore ceiling must be removed by a licensed asbestos contractor prior to demolition of the structure. However the sheetrock and Joint Compound may now be considered a Non-Asbestos containing material and left in place for demolition. The demolition contractor will be required to follow the OSHA regulations concerning asbestos.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector -License No. 005065

State of Arkansas
Department of
Environmental Quality

005065 GARY NOONER

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 1/31/2014

Contractor/Supervisor 1/31/2014

Inspector 12/31/2013

Project Designer 1/31/2014

Issue Date:04-Mar-2013

Teresa Marks

ADEQ Director

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 7220
501-562-381
Fax 501-562-570

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL 30550528

Client	**Property**	**Inspector**	Gary Nooner
Arkansas Highway & Transportation Department	Tract 7X - Residential Structure & 2 storage buildings	**Building ID**	Tract 7X
Little Rock, AR	295 Highway 365	**Date**	5/23/2013
	Mayflower, AR	**Turnaround Time**	Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
7X - 01		Ceiling Texture	Bedroom (room 6)	X			S	F	G	10%	H	900 sft
7X - 02		Ceiling Texture	Kitchen			X	S	F	G	10%	H	See Above
7X - 03		Ceiling Texture	Living room			X	S	F	G	10%	H	See Above
7X - 04		Ceiling Tile 12"x12"	Bedroom (room 5)	X			M	F	G	10%	H	200 sft
7X - 05		Ceiling Tile 12"x12"	Hallway			X	M	F	G	10%	H	See Above
7X - 06		Ceiling Tile 12"x12"	Bathroom			X	M	F	G	10%	H	See Above
7X - 07		Sheetrock and Joint Compound	Living room	X			M	F	G	10%	H	3400 sft
7X - 08		Sheetrock and Joint Compound	Bedroom (room 9)			X	M	F	G	10%	H	See Above
7X - 09		Sheetrock and Joint Compound	Hallway			X	M	F	G	10%	H	See Above
7X - 10		Linoleum	Kitchen	X			M	NF	G	10%	H	168 sft
7X - 11		Linoleum	Bathroom	X			M	NF	G	10%	H	65 sft
7X - 12		Roof Shingle	Roof	X			M	NF	G	10%	H	1200 sft
7X - 13		Roof Shingle	Storage building (10)	X			M	NF	G	10%	H	200 sft
7X - 14		Roof Shingle	Storage building (11)	X			M	NF	G	10%	H	200 sft

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By	[signature]	Time 1500	Date 5/23/13	Relinquished By	Time Date
Received By		Time	Date	Received By [signature]	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 7X-Residential Structure & 2 Storage Bldg's
Reference #: CAL13055053NT Date: 5/29/2013

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 EPA H20 TX 01402 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: Tract 7X-Residential Structure & 2 Storage Bldg's **CA Labs Project #:** CAL13055053NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
7X-01	1-1	***Ceiling Texture/*** *white textured surfacing*	***4% Chrysotile***	***white textured surfacing green surfaced tan compound composite of layer 1 and 2***
7X-08	8-1	***Sheetrock and Joint Compound/*** *green surfaced tan compound*	***2% Chrysotile***	
	8-3	*composite of layer 1 and 2*	***<1% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 7X-Residential Structure & 2 Storage Bldg's
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055053NT

Date: 5/29/2013
Samples Received: 5/28/13 10:30am
Date Of Sampling: 5/23/2013
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
7X-01		1-1	***Ceiling Texture/*** *white textured surfacing*	*y*	***4% Chrysotile***		96% qu,ve,bi,ca
7X-02		2-1	***Ceiling Texture/*** *white textured surfacing*		*Positive Stop*		
7X-03		3-1	***Ceiling Texture/*** *white textured surfacing*		*Positive Stop*		
7X-04		4-1	***Ceiling Tile 12"x12"/*** *white surfacing*	*y*	***None Detected***		100% qu,bi
		4-2	*tan fibrous ceiling tile*	*y*	***None Detected***	100% ce	
7X-05		5-1	***Ceiling Tile 12"x12"/*** *white surfacing*	*y*	***None Detected***		100% qu,bi
		5-2	*tan fibrous ceiling tile*	*y*	***None Detected***	100% ce	

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant liber damage - reported percentages reflect unaltered libers
2. Fire Damage no significant liber 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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 7X-Residential Structure & 2 Storage Bldg's
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055053NT

Date: 5/29/2013
Samples Received: 5/28/13 10:30am
Date Of Sampling: 5/23/2013
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
7X-06		6-1	***Ceiling Tile 12"x12"/ white surfacing***	*y*	***None Detected***		100% qu,bi
		6-2	*tan fibrous ceiling tile*	*y*	***None Detected***	100% ce	
7X-07		7-1	***Sheetrock and Joint Compound/ white surfaced white compound***	*n*	***None Detected***		100% mi,bi,ca
		7-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		7-3	*white drywall with brown paper*	*n*	***None Detected***		100% mi,bi,ca
		7-4	*off-white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		7-5	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 7X-Residential Structure & 2 Storage Bldg's
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055053NT

Date: 5/29/2013
Samples Received: 5/28/13 10:30am
Date Of Sampling: 5/23/2013
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
7X-08		8-1	***Sheetrock and Joint Compound/*** *green surfaced tan compound*	n	***2% Chrysotile***		98% mi,bi,ca
		8-2	*white drywall with brown paper*	n	***None Detected***	24% ce	76% qu,gy
		8-3	*composite of layer 1 and 2*	n	***<1% Chrysotile***	11% ce	89% qu,mi,gy,ca
7X-09		9-1	***Sheetrock and Joint Compound/*** *white surfaced tan compound*		*Positive Stop*		
		9-2	*tan compound (beneath tape)*		*Not Analyzed*		
		9-3	*white drywall with brown paper*		*Not Analyzed*		
7X-10		10-1	***Linoleum/*** *gray linoleum*	y	***None Detected***	32% ce 6% fg	62% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 7X-Residential Structure & 2 Storage Bldg's
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055053NT

Date: 5/29/2013
Samples Received: 5/28/13 10:30am
Date Of Sampling: 5/23/2013
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
		10-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
7X-11		*11-1*	***Linoleum**/ tan linoleum*	*y*	***None Detected***	32% ce 5% fg	63% gy,ma
		11-2	*tan patterned linoleum*	*y*	***None Detected***	31% ce 5% fg	64% gy,ma
7X-12		*12-1*	***Roof Shingle**/ black roofing shingle with black gravel*	*n*	***None Detected***	12% fg	88% qu,bi
		12-2	*black roofing shingle with gray gravel*	*n*	***None Detected***	13% fg	87% qu,bi
		12-3	*black felt*	*y*	***None Detected***	30% ce	70% qu,bi
7X-13		*13-1*	***Roof Shingle**/ black roofing shingle with black gravel*	*n*	***None Detected***	11% fg	89% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Rasmussen

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 7X-Residential Structure & 2 Storage Bldg's
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055053NT

Date: 5/29/2013
Samples Received: 5/28/13 10:30am
Date Of Sampling: 5/23/2013
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
		13-2	*black roofing shingle with gray gravel*	*n*	***None Detected***	12% fg	88% qu,bi
		13-3	*black felt*	*y*	***None Detected***	31% ce	69% qu,bi
7X-14		*14-1*	***Roof Shingle**/ black roofing shingle with black gravel*	*n*	***None Detected***	13% fg	87% qu,bi
		14-2	*black roofing shingle with gray gravel*	*n*	***None Detected***	12% ce	88% qu,bi
		14-3	*black felt*	*y*	***None Detected***	22% ce	78% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

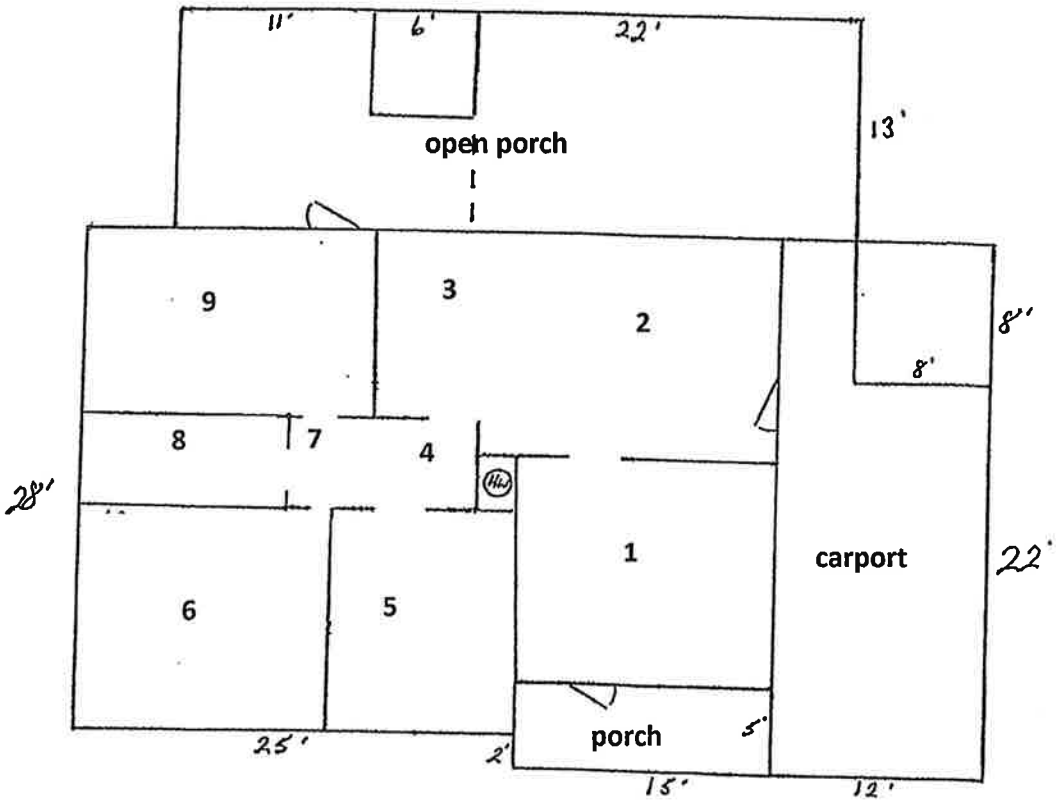
Technical Manager
Chad Lytle

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

Tract 7X

10

11



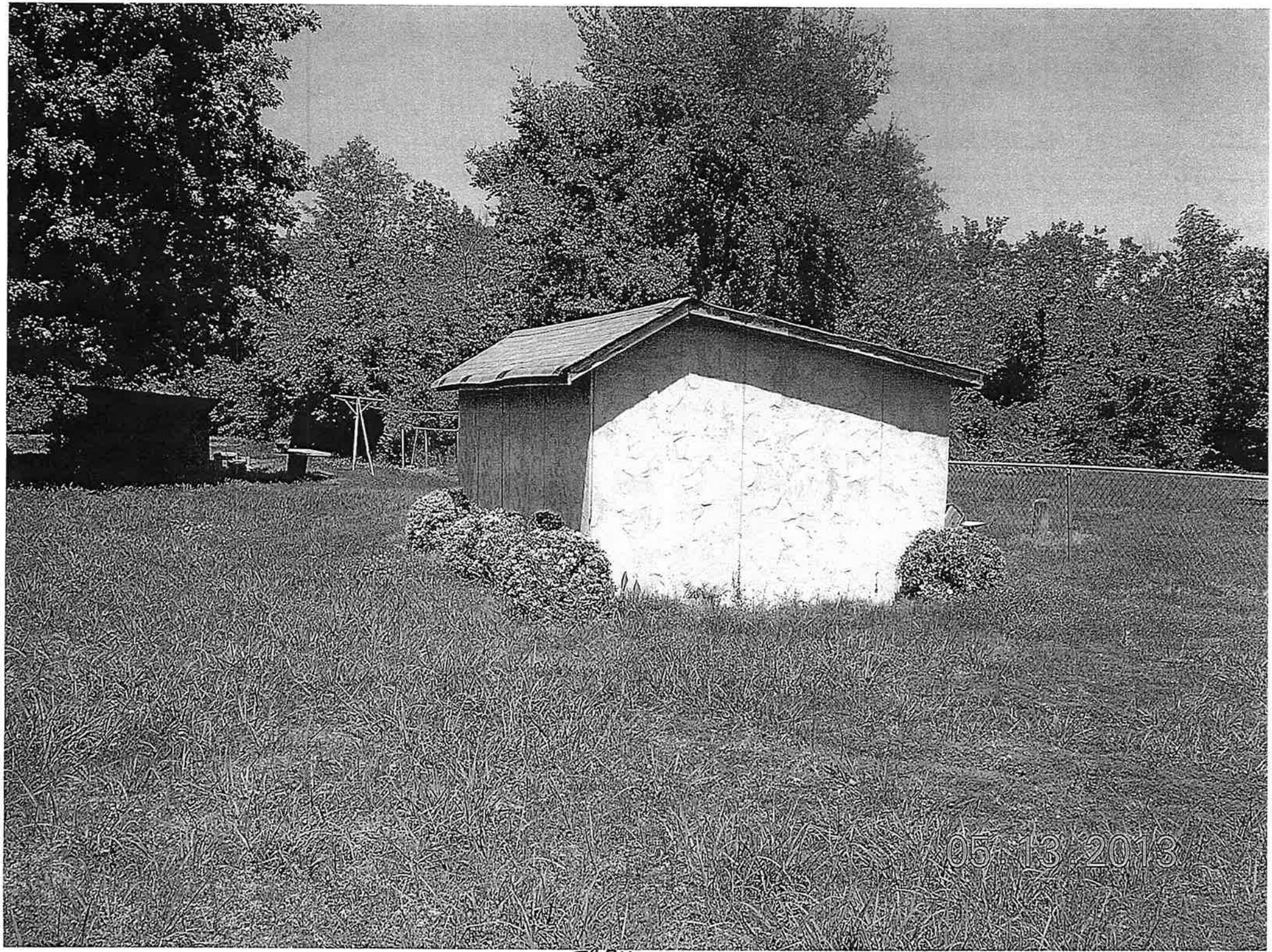
1 living 12 x 13
2 dining 12 x 13
3 kitchen 12 x 14
4 hallway 3 x 7
5 bedroom 10 x 8
6 bedroom 10 x 12
7 hall 3 x 7
8 bathroom 8 x 8
9 bedroom 8 x 11
10 storage building 12 x 16
11 storage building 10 x 20

TR TX

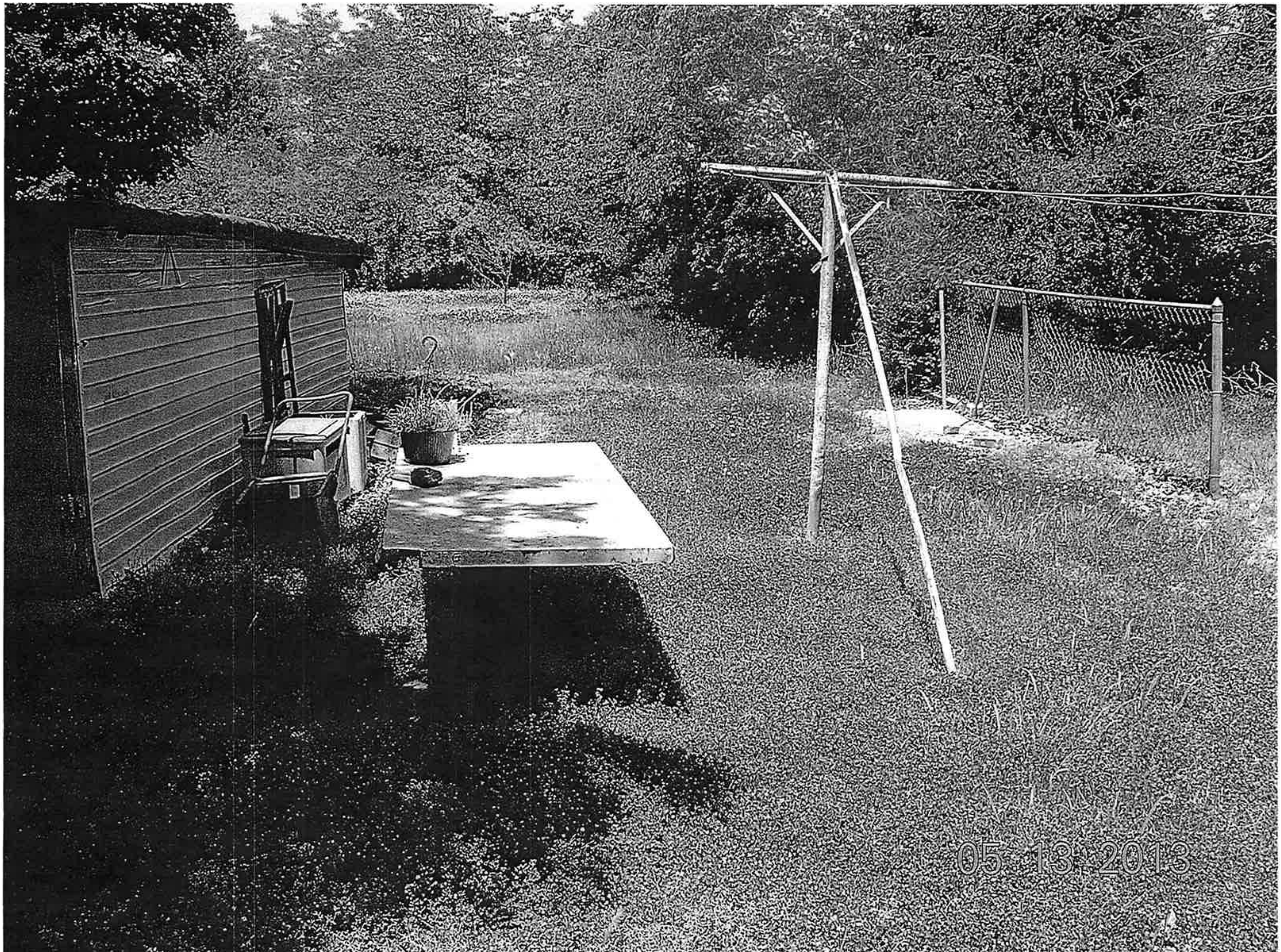

05/13/2013

TR 7X


05.13.2013


05 13 2013

TR 7x



TR. 7K

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL13055055

Client	**Property**	**Inspector**	Gary Nooner
Arkansas Highway & Transportation Department	Tract 8X - Residential Structure & Barn	**Building ID**	Tract 8X
Little Rock, AR	297 Highway 365	**Date**	5/23/2013
	Mayflower, AR	**Turnaround Time**	Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
8X - 01		Ceiling Texture	Bedroom	X			S	F	G	10%	H	2000 sft
8X - 02		Ceiling Texture	Dining room			X	S	F	G	10%	H	See Above
8X - 03		Ceiling Texture	Living room			X	S	F	G	10%	H	See Above
8X - 04		Sheetrock and joint compound	Bedroom	X			M	F	G	10%	H	7500 sft
8X - 05		Sheetrock and joint compound	Dining room			X	M	F	G	10%	H	See Above
8X - 06		Sheetrock and joint compound	Living room			X	M	F	G	10%	H	See Above
8X - 07		Flooring	Kitchen	X			M	NF	G	10%	H	550 sft
8X - 08		Flooring	Bathroom			X	M	NF	G	10%	H	See Above
8X - 09		Flooring	Hallway			X	M	NF	G	10%	H	See Above
8X - 10		Roof Shingle	Roof	X			M	NF	G	10%	H	3000 sft
			No Suspect materials in the old Barn									

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 8X-Residential Structure&Barn,297 Hwy 365
Reference #: CAL13055055NT Date: 05/28/13

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 EPA H20 TX 01402 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: Tract 8X-Residential Structure&Barn,297 Hwy 365 **CA Labs Project #:** CAL13055055NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 8X-Residential Structure&Barn,297 Hwy 365
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055055NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/23/13
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
8X-01		1-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
8X-02		2-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
8X-03		3-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
8X-04		4-1	***Sheetrock and Joint Compound/*** *brown linoleum*	y	***None Detected***	29% ce 6% fg	65% gy,ma
		4-2	*tan mastic*	y	***None Detected***		100% gy,bi
8X-05		5-1	***Sheetrock and Joint Compound/*** *brown linoleum*	y	***None Detected***	31% ce 5% fg	64% gy,ma
		5-2	*tan mastic*	y	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 8X-Residential
Structure&Barn,297 Hwy 365
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055055NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/23/13
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
		5-3	*gray leveling compound*	*y*	***None Detected***		100% qu,ca
8X-06		*6-1*	***Sheetrock and Joint Compound/*** *brown linoleum*	*y*	***None Detected***	30% ce 5% fg	65% gy,ma
		6-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
8X-07		*7-1*	***Flooring/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		7-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		7-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
8X-08		*8-1*	***Flooring/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 8X-Residential
Structure&Barn,297 Hwy 365
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055055NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/23/13
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
		8-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		8-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
8X-09		*9-1*	***Flooring**/ tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		9-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		9-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
8X-10		*10-1*	***Roof Shingle**/ black roofing shingle with brown gravel*	*n*	***None Detected***	11% fg	89% qu,bi
		10-2	*black felt*	*y*	***None Detected***	21% ce	79% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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

TR 8X

TR 8X

TR 8X

TR 8X

TR 8X

TR 8x

TR 8x

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL13055046

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 9X - Apartment Structure
3, 4, 5, & 6 McClure Drive
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 9X
Date 5/22/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
9X- 01		Ceiling Texture	Unit 6 living room	X			S	F	G	10%	H	2900 sft
9X- 02		Ceiling Texture	Unit 5 living room			X	S	F	G	10%	H	See Above
9X- 03		Ceiling Texture	Unit 3 living room			X	S	F	G	10%	H	See Above
9X- 04		Sheetrock and joint compound	Unit 3 Hallway	X			M	F	G	10%	H	12500 sft
9X- 05		Sheetrock and joint compound	Unit 4 Hallway			X	M	F	G	10%	H	See Above
9X- 06		Sheetrock and joint compound	Unit 6 Hallway			X	M	F	G	10%	H	See Above
9X- 07		Linoleum	Unit 6 Kitchen	X			M	NF	G	10%	H	650 sft
9X- 08		Linoleum	Unit 3 Kitchen			X	M	NF	G	10%	H	See Above
9X- 09		Linoleum	Unit 4 Kitchen	X			M	NF	G	10%	H	650 sft
9X- 10		Linoleum	Unit 5 Kitchen			X	M	NF	G	10%	H	See Above
9X- 11		Linoleum	hot water closets (unit 6)	X			M	NF	G	10%	H	24 sft
9X- 12		Roof Shingle	Roof	X			M	NF	G	10%	H	3200 sft

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 9X-Apt Structure, 3, 4, 5, & 6 McClure Dr
Reference #: CAL13055046NT Date: 5/29/2013

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 EPA H20 TX 01402 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: Tract 9X-Apt Structure, 3, 4, 5, & 6 McClure Dr **CA Labs Project #:** CAL13055046NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 9X-Apt Structure, 3, 4, 5, & 6 McClure Dr
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055046NT
Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/2013
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
9X-01		1-1	***Ceiling Texture/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
9X-02		2-1	***Ceiling Texture/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
9X-03		3-1	***Ceiling Texture/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
9X-04		4-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		4-2	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
9X-05		5-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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 libers
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 9X-Apt Structure, 3, 4, 5, & 6 McClure Dr
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055046NT

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/2013
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
		5-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
9X-06		*6-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
9X-07		*7-1*	***Linoleum/*** *brown linoleum*	*y*	***None Detected***	18% ce 4% fg	78% gy,ma
		7-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
9X-08		*8-1*	***Linoleum/*** *tan linoleum*	*y*	***None Detected***	19% ce 3% fg	78% gy,ma
9X-09		*9-1*	***Linoleum/*** *tan linoleum*	*y*	***None Detected***	18% ce 2% fg	80% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 9X-Apt Structure, 3, 4, 5, & 6 McClure Dr
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055046NT

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/2013
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
		9-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
9X-10		*10-1*	***Linoleum**/ tan linoleum*	*y*	***None Detected***	19% ce 4% fg	77% gy,ma
9X-11		*11-1*	***Linoleum**/ tan linoleum*	*y*	***None Detected***	18% ce 3% fg	79% gy,ma
	5	*11-2*	*tan mastic*				
9X-12		*12-1*	***Roof Shingle**/ black roofing shingle with gray gravel*	*n*	***None Detected***	6% fg	94% qu,bi
		12-2	*black felt*	*y*	***None Detected***	64% ce	36% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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	

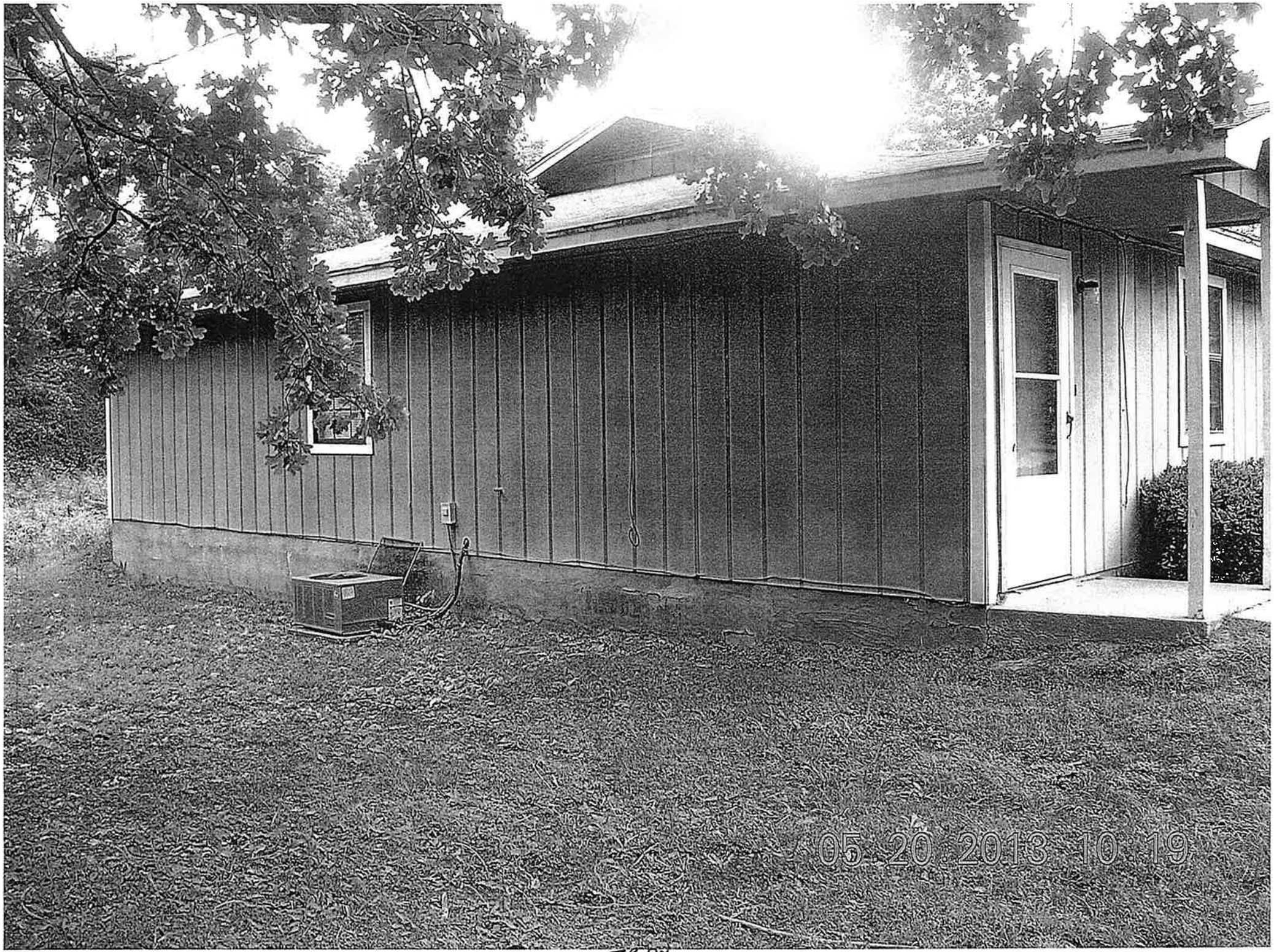
Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

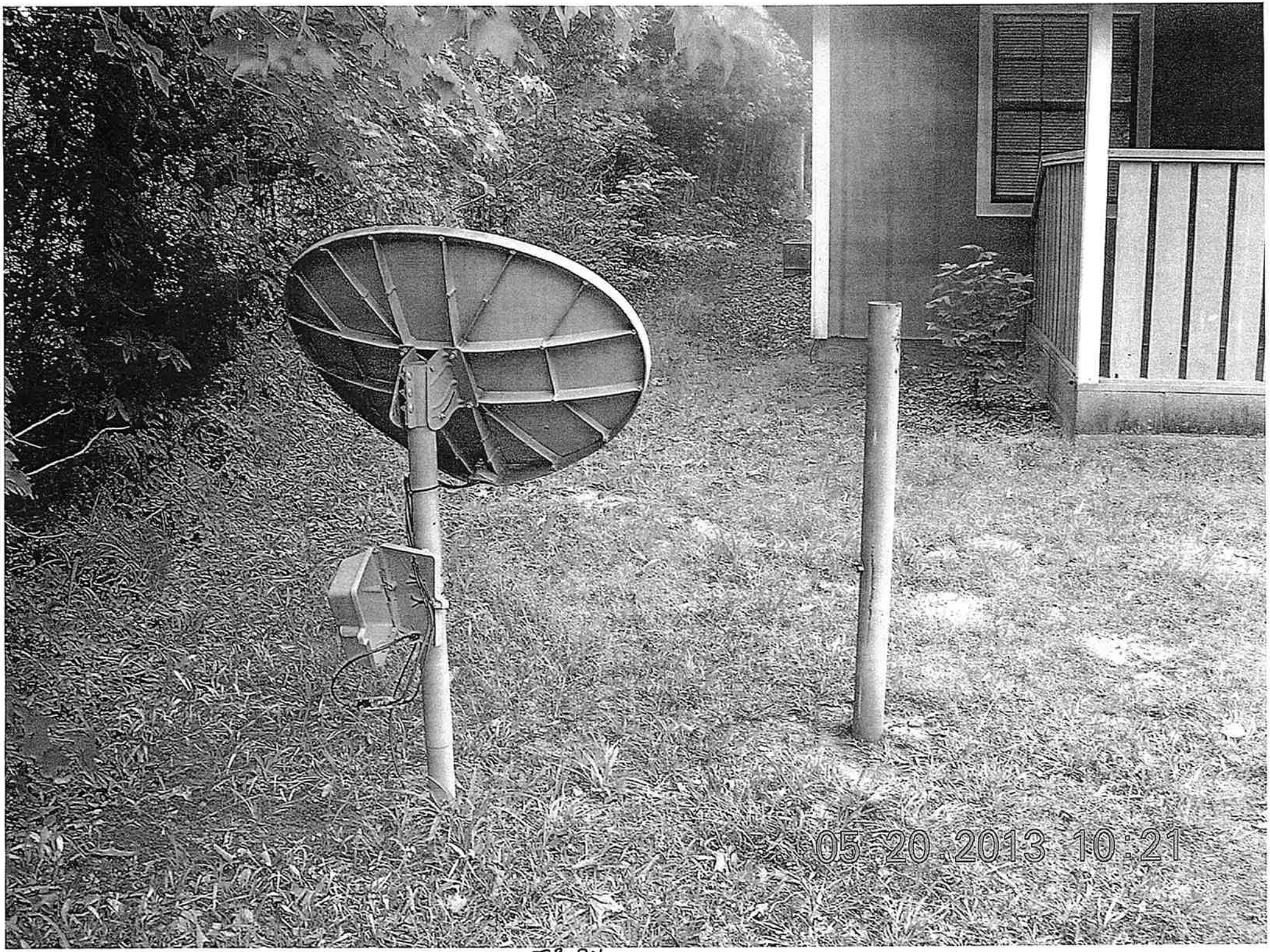
Technical Manager
Chad Lytle

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



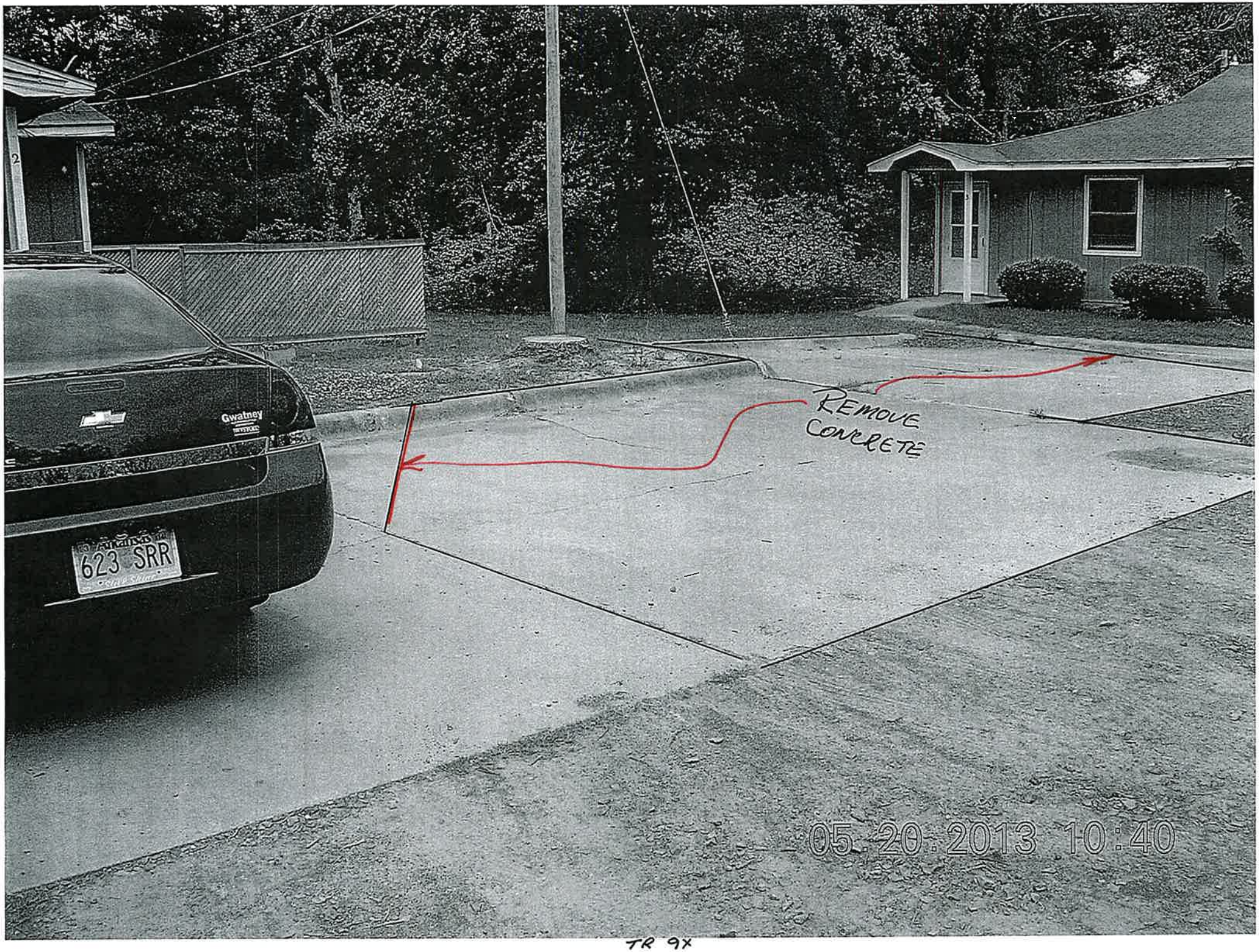
TR 9X

TR 9X



TR 9X


REMOVE
CONCRETE
05.20.2013 10:39



TR 9x

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 10X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 23, 2013, I conducted an asbestos survey at the above referenced location. This site has an illegal dumpsite on the property. Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 10X-01 – Sheetrock and Joint Compound
Sample # 10X-10 – Window Putty
Sample # 10X-13 – Sheetrock and Joint Compound – Found in the debris pile
Sample # 10X-16 – Linoleum – Found in the debris pile

I had the laboratory perform composite sampling on the sheetrock and joint compound. This additional sampling has determined that the Sheetrock and joint compound contains less than 1% of Chrysotile Asbestos.

Federal and state regulations with the exception of OSHA, determine a material to be asbestos containing if it contains 1% or more asbestos. OSHA states that any amount is an asbestos containing material. Therefore ceiling must be removed by a licensed asbestos contractor prior to demolition of the structure. However the sheetrock and Joint Compound may now be considered a Non-Asbestos containing material and left in place for demolition. The demolition contractor will be required to follow the OSHA regulations concerning asbestos.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector -License No. 005065

Environmental Protection Associates

#9 Remington Cov
Little Rock, Arkansas 7220
501-562-381
Fax 501-562-570

Asbestos Sampling Chain of Custody
Field Data Sheet

CAC13.055048

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 10X - Residential Structure and illegal dumpsite
301 Highway 365
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 10X
Date 5/23/2013
Turnaround Time Normal (2days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
10X - 01		Sheetrock and Joint Compound	Bedroom	X			M	F	G	10%	H	2600 sft
10X - 02		Sheetrock and Joint Compound	Bedroom			X	M	F	G	10%	H	See Above
10X - 03		Sheetrock and Joint Compound	Living room			X	M	F	G	10%	H	See Above
10X - 04		Linoleum	enclosed carpet	X			M	NF	G	10%	H	250 sft
10X - 05		Floor tile and mastic	Kitchen	x			M	NF	G	10%	H	500 sft
10X - 06		Floor tile and mastic	Bedroom			X	M	NF	G	10%	H	See Above
10X - 07		Floor tile and mastic	Bathroom			X	M	NF	G	10%	H	See Above
10X - 08		Window putty	Exterior window	X			M	NF	G	10%	H	9 each (3'x5')
10X - 09		Window putty	Exterior window			X	M	NF	G	10%	H	See Above
10X - 10		Window putty	Exterior window			X	M	NF	G	10%	H	See Above
10X - 11		Roof Shingle	Roof	X			M	NF	G	10%	H	1600 sft
10X - 12		fibrous board	Illegal Dumpsite	X			M	NF	G	10%	H	Total Debris pile 40 yards
10X - 13		Sheetrock and Joint Compound	Illegal Dumpsite	X			M	F	G	10%	H	
10X - 14		Linoleum	Illegal Dumpsite	X			M	NF	G	10%	H	
10X - 15		Roof Shingle	Illegal Dumpsite	X			M	NF	G	10%	H	
10X - 16		Linoleum	Illegal Dumpsite	X			M	NF	G	10%	H	

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By	Gary Nooner	Time 1500	Date 5/23/13	Relinquished By	Time Date
Received By		Time	Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 10X-Residential Structure and Illegal Dumpsite
Reference #: CAL13055048RO Date: 5/28/2013

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 EPA H20 TX 01402 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

Polarized Light Asbestiform Materials Point Count

Laboratory Analysis Report - Point Count

Analysis and Method

Point counting was performed on a polarized light microscope with a calibrated reticle according to the revised NESHAP method of November 20, 1990 (Federal Register, V.55, N.224, 11/20/90). Origional asbestos content of bulk materials was determined using procedures outlined in the interim method (40 CFR part 763, Appendix E to subpart E) and AHERA method (EPA-600/R-93/116). Samples were prepared using HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion staining / becke line method.

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 of 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. This report is not covered by the scope of NVLAP accreditation. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Customer Info: **Attn:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
Purchase Order #:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo-geneous (Y/N)	Point Counted % / Asbestos Type
10X-10	10-1	***Window Putty/*** *black surfaced gray caulking*	*n*	***0.25% Chrysotile***
10X-13	13-1	***Sheetrock and Joint Compound/*** *white compound*	*y*	***0.50% Chrysotile***

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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: Tract 10X-Residential Structure and Illegal Dumpsite **CA Labs Project #:** CAL13055048RO

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
10X-01	01-1	***Sheetrock and Joint Compound/*** *green surfaced white compound*	***2% Chrysotile***	***green surfaced white compound***
	01-2	*white compound (beneath tape)*	***2% Chrysotile***	***white compound (beneath tape)***
	01-4	*composite of layers 1,2, and 3*	***<1% Chrysotile***	***composite of layers 1,2, and 3***
10X-10	10-1	***Window Putty/*** *black surfaced gray caulking*	***<1% Chrysotile***	***black surfaced gray caulking***
10X-13	13-1	***Sheetrock and Joint Compound/*** *white compound*	***<1% Chrysotile***	
10X-16	16-3	*tan linoleum*	***23% Chrysotile***	***tan linoleum***

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential
Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
10X-01		01-1	***Sheetrock and Joint Compound/*** *green surfaced white compound*	n	***2% Chrysotile***		98% mi,bi,ca
		01-2	*white compound (beneath tape)*	y	***2% Chrysotile***		98% mi,ca
		01-3	*white drywall with brown paper*	n	***None Detected***	23% ce	77% qu,gy
		01-4	*composite of layers 1,2, and 3*	n	***<1% Chrysotile***	11% ce	89% ca,gy
10X-02		02-1	***Sheetrock and Joint Compound/*** *brown surfaced white compound*		*Positive Stop*		
		02-2	*white compound (beneath tape)*		*Positive Stop*		
		02-3	*white drywall with brown paper*		*Not Analyzed*		

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
10X-03		03-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*		*Positive Stop*		
		03-2	*white compound (beneath tape)*		*Positive Stop*		
		03-3	*white drywall with brown paper*		*Not Analyzed*		
10X-04		04-1	***Linoleum/*** *brown linoleum*	y	***None Detected***	25% ce	75% bi
		04-2	*tan mastic*	y	***None Detected***		100% mi,ma
10X-05		05-1	***Floor Tile and Mastic/*** *brown self-adhesive floor tile*	y	***None Detected***		100% bi
		05-2	*clear mastic*	y	***None Detected***		100% mi,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
		05-3	*brown fiber board*	y	***None Detected***	100% ce	
10X-06		06-1	***Floor Tile and Mastic/*** *brown self-adhesive floor tile*	y	***None Detected***		100% bi
		06-2	*clear mastic*	y	***None Detected***		100% mi,ma
10X-07		07-1	***Floor Tile and Mastic/*** *brown self-adhesive floor tile*	y	***None Detected***		100% bi
		07-2	*clear mastic*	y	***None Detected***		100% mi,ma
10X-08		08-1	***Window Putty/*** *gray caulking*	y	***None Detected***		100% qu,bi
10X-09		09-1	***Window Putty/*** *gray caulking*	y	***None Detected***		100% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
10X-10		10-1	***Window Putty/*** *black surfaced gray caulking*	n	***<1% Chrysotile***		100% qu,bi
10X-11		11-1	***Roof Shingle/*** *black roofing shingle with black gravel*	y	***None Detected***	21% fg	79% qu,bi
		11-2	*black felt*	y	***None Detected***	100% ce	
10X-12		12-1	***Fibrous Board/*** *brown fiber board*	y	***None Detected***	21% ce	79% qu,bi,ca
10X-13		13-1	***Sheetrock and Joint Compound/*** *white compound*	y	***<1% Chrysotile***		100% mi,ca
		13-2	*white drywall with brown paper*	n	***None Detected***	22% ce	78% qu,gy
10X-14		14-1	***Linoleum/*** *tan linoleum*	y	***None Detected***	20% ce	80% bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 10X-Residential Structure and Illegal Dumpsite
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055048RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
10X-15		15-1	***Roof Shingle**/ black roofing shingle with black gravel*	y	***None Detected***	18% fg	82% qu,bi
10X-16		16-1	***Linoleum**/ red patterned tan linoleum*	y	***None Detected***	13% fg	87% bi
		16-2	*tan mastic*	y	***None Detected***		100% mi,ma
		16-3	*tan linoleum*	y	***23% Chrysotile***		77% bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
Analyst

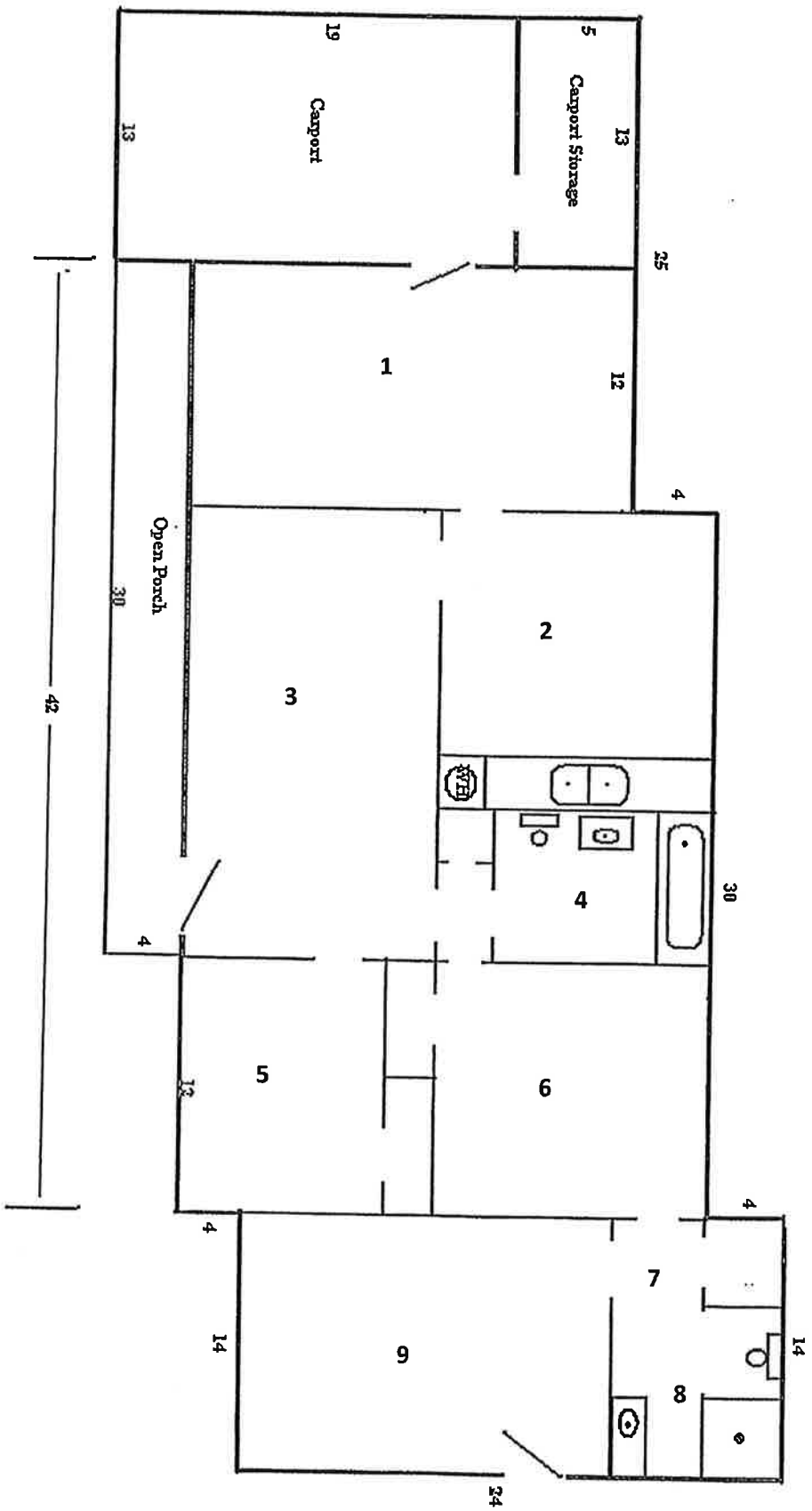
QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

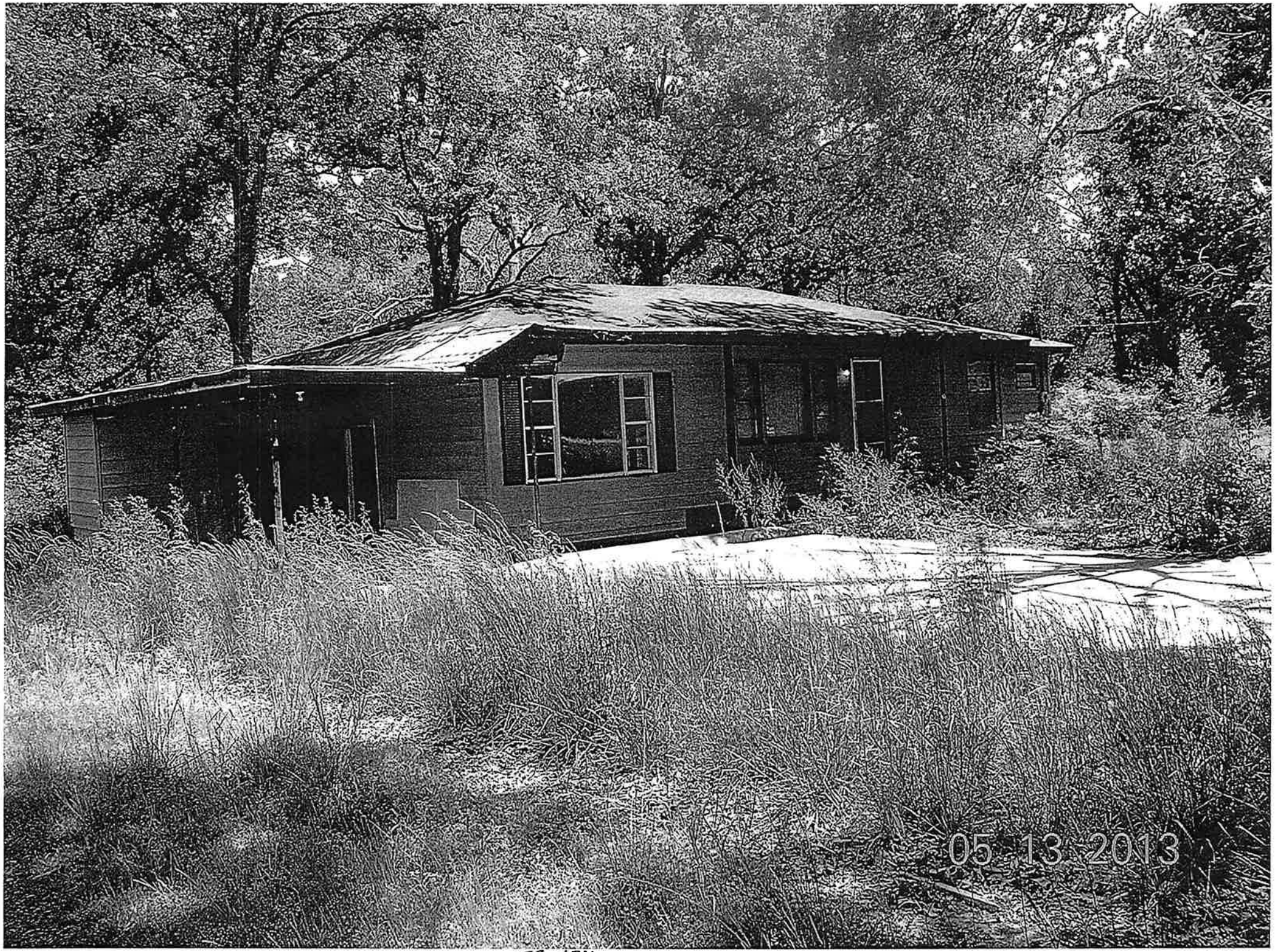
1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. 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

Tract 10X

1 enclosed carport 12 x 18
2 kitchen 12 x 12
3 living 12 x 18
4 bathroom 5 x 9
5 bedroom 12 x 12
6 bedroom 12 x 13
7 hall 7 x 8
8 bathroom 7 x 8
9 bedroom 14 x 16



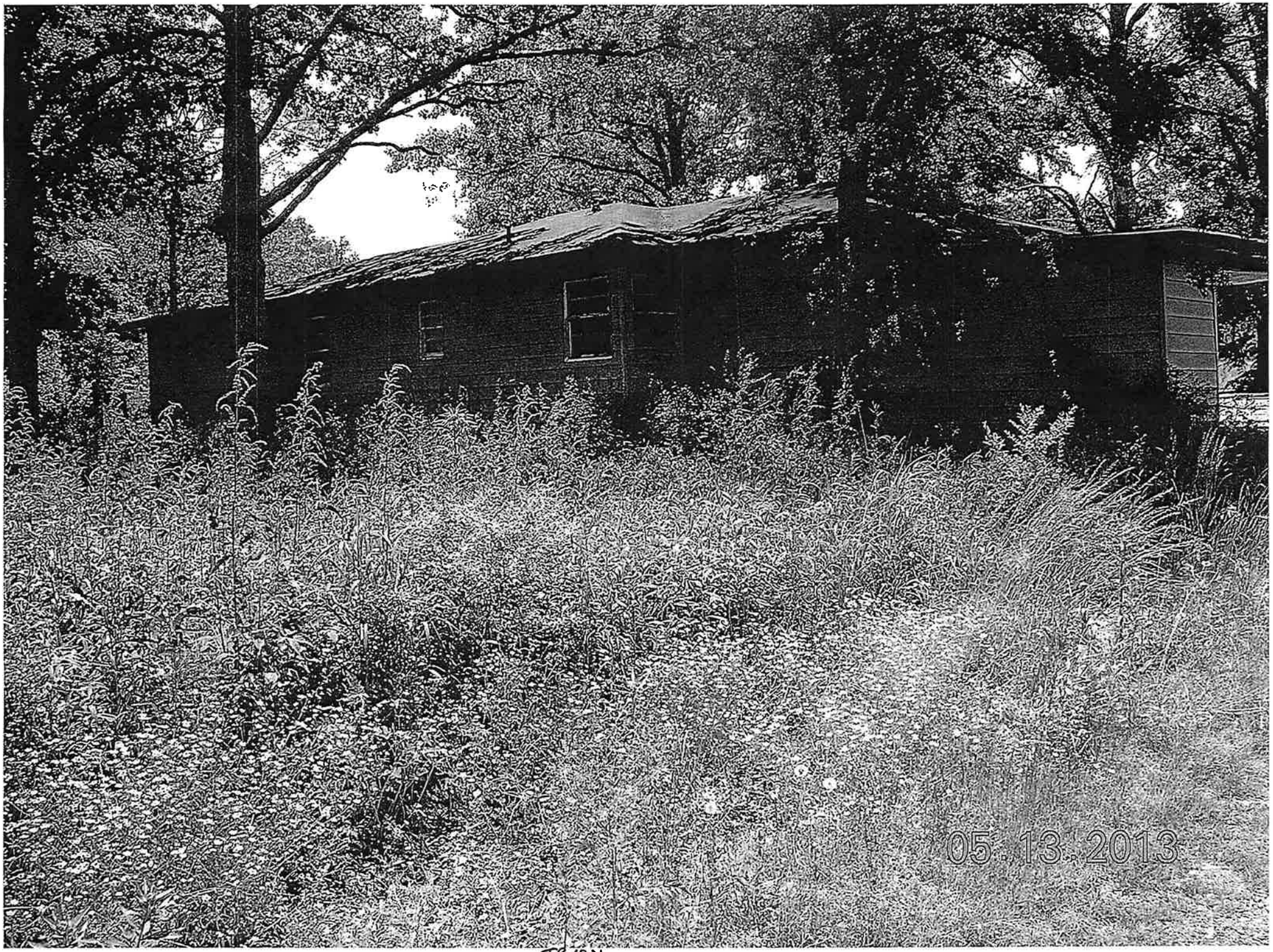
Dumpsite



TR 10x

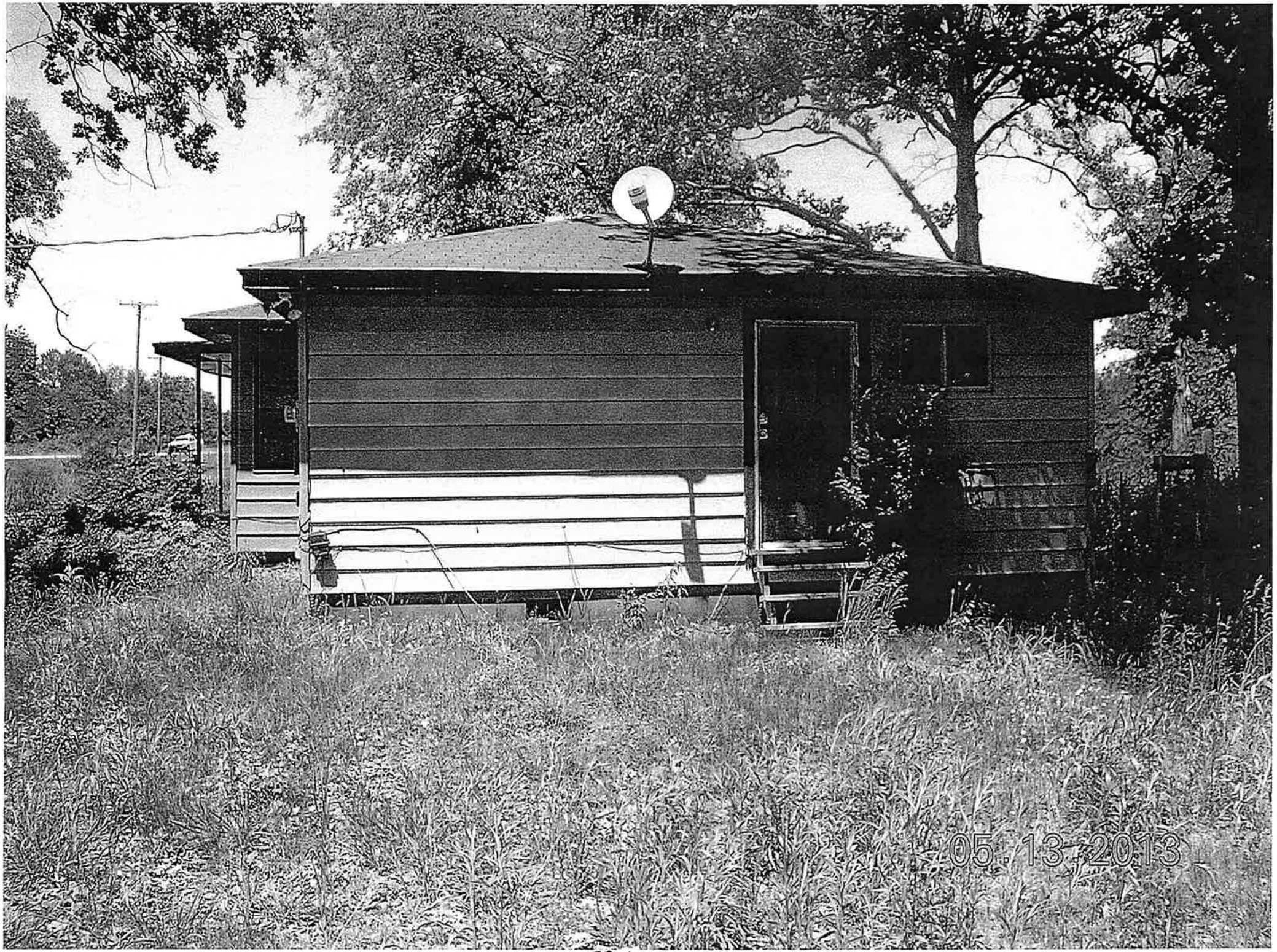
TR 10X

TR 10x



TR 10X

TR 10



TR 10X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 12X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 - Faulkner County

Mr. Joel Clark:

On May 21, 2013, I conducted an asbestos survey at the above referenced location.

Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 12X-05 – Sheetrock and Joint Compound
Sample # 12 X-10 – Flooring - Kitchens

I had the laboratory perform composite sampling on the sheetrock and joint compound. This additional sampling has determined that the Sheetrock and joint compound contains less than 1% of Chrysotile Asbestos.

Federal and state regulations with the exception of OSHA, determine a material to be asbestos containing if it contains 1% or more asbestos. OSHA states that any amount is an asbestos containing material. Therefore the flooring must be removed by a licensed asbestos contractor prior to demolition of the structure. However the sheetrock and Joint Compound may now be considered a Non-Asbestos containing material and left in place for demolition. The demolition contractor will be required to follow the OSHA regulations concerning asbestos.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector - License No. 005065

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL13055054

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 12X - Residential Structure
20 Moore Lane
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 12X
Date 5/21/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
12X-01		Ceiling Texture	Living room	X			S	F	G	10%	H	1500 sift
12X-02		Ceiling Texture	Bedroom			X	S	F	G	10%	H	See Above
12X-03		Ceiling Texture	Addition	X			S	F	G	10%	H	350 sift
12X-04		Ceiling Texture	Addition			X	S	F	G	10%	H	See Above
12X-05		Sheetrock and joint Compound	Bedroom	X			M	F	G	10%	H	4200 sift
12X-06		Sheetrock and joint Compound	Hallway			X	M	F	G	10%	H	See Above
12X-07		Sheetrock and joint Compound	Addition	X			M	F	G	10%	H	950 sift
12X-08		Sheetrock and joint Compound	Addition			X	M	F	G	10%	H	See Above
12X-09		Flooring	Bathroom	X			M	NF	G	10%	H	100 sift
12X-10		Flooring	kitchen	X			M	NF	G	10%	H	200 sift
12X-11		Flooring	Addition	X			M	NF	G	10%	H	100 sift
12X-12		Flooring	Living room	X			M	NF	G	10%	H	16 sift
12X-13		Roof Shingle	Roof	X			M	NF	G	10%	H	2800 sift
			2 portable bldgs. No suspect Materials									
			Carport has same shingles as the house									

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 12X- Residential Structure, 20 Moore Lane
Reference #: CAL13055054NT Date: 05/28/13

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 EPA H20 TX 01402 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: Tract 12X- Residential Structure, 20 Moore Lane **CA Labs Project #:** CAL13055054NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
12X-05	*5-1*	***Sheetrock and Joint Compound/*** *pink surfaced white compound*	***2% Chrysotile***	***pink surfaced white compound composite of layers 1 and 2 brown linoleum***
	5-3	*composite of layers 1 and 2*	***<1% Chrysotile***	
12X-10	*10-5*	*brown linoleum*	***24% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 12X- Residential Structure, 20 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055054NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
12X-01	*8*	*1-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***	3% ta	97% mi,bi,ve,ca
12X-02	*8*	*2-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***	3% ta	97% mi,bi,ve,ca
12X-03		*3-1*	***Ceiling Texture/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
12X-04		*4-1*	***Ceiling Texture/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
12X-05		*5-1*	***Sheetrock and Joint Compound/*** *pink surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		5-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
		5-3	*composite of layers 1 and 2*	*n*	***<1% Chrysotile***	14% ce 1% fg	85% qu,mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 12X- Residential Structure, 20 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055054NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
12X-06		6-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*		*Positive Stop*		
		6-2	*white drywall with brown paper*		*Not Analyzed*		
12X-07		7-1	***Sheetrock and Joint Compound/*** *blue surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		7-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
12X-08		8-1	***Sheetrock and Joint Compound/*** *purple surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		8-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		8-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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 liber 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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 12X- Residential Structure, 20 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055054NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
12X-09		9-1	***Flooring/*** *tan self-adhesive floor tile*	y	***None Detected***		100% qu,gy,ma
		9-2	*clear mastic*	y	***None Detected***		100% gy,bi
12X-10		10-1	***Flooring/*** *gray self-adhesive floor tile*	y	***None Detected***		100% qu,gy,ma
		10-2	*clear mastic*	y	***None Detected***		100% gy,bi
		10-3	*tan linoleum*	y	***None Detected***	18% ce 4% fg	78% gy,ma
		10-4	*tan mastic*	y	***None Detected***		100% gy,bi
		10-5	*brown linoleum*	y	***24% Chrysotile***		76% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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 libers
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 12X- Residential Structure, 20 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055054NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
12X-11		*11-1*	***Flooring/*** *tan linoleum*	*y*	***None Detected***	17% ce 3% fg	80% gy,ma
		11-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
12X-12		*12-1*	***Flooring/*** *gray self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		12-2	*clear and tan mastic*	*y*	***None Detected***		100% gy,bi
12X-13		*13-1*	***Roof Shingle/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	8% fg	92% qu,bi
		13-2	*black felt*	*y*	***None Detected***	66% ce	34% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

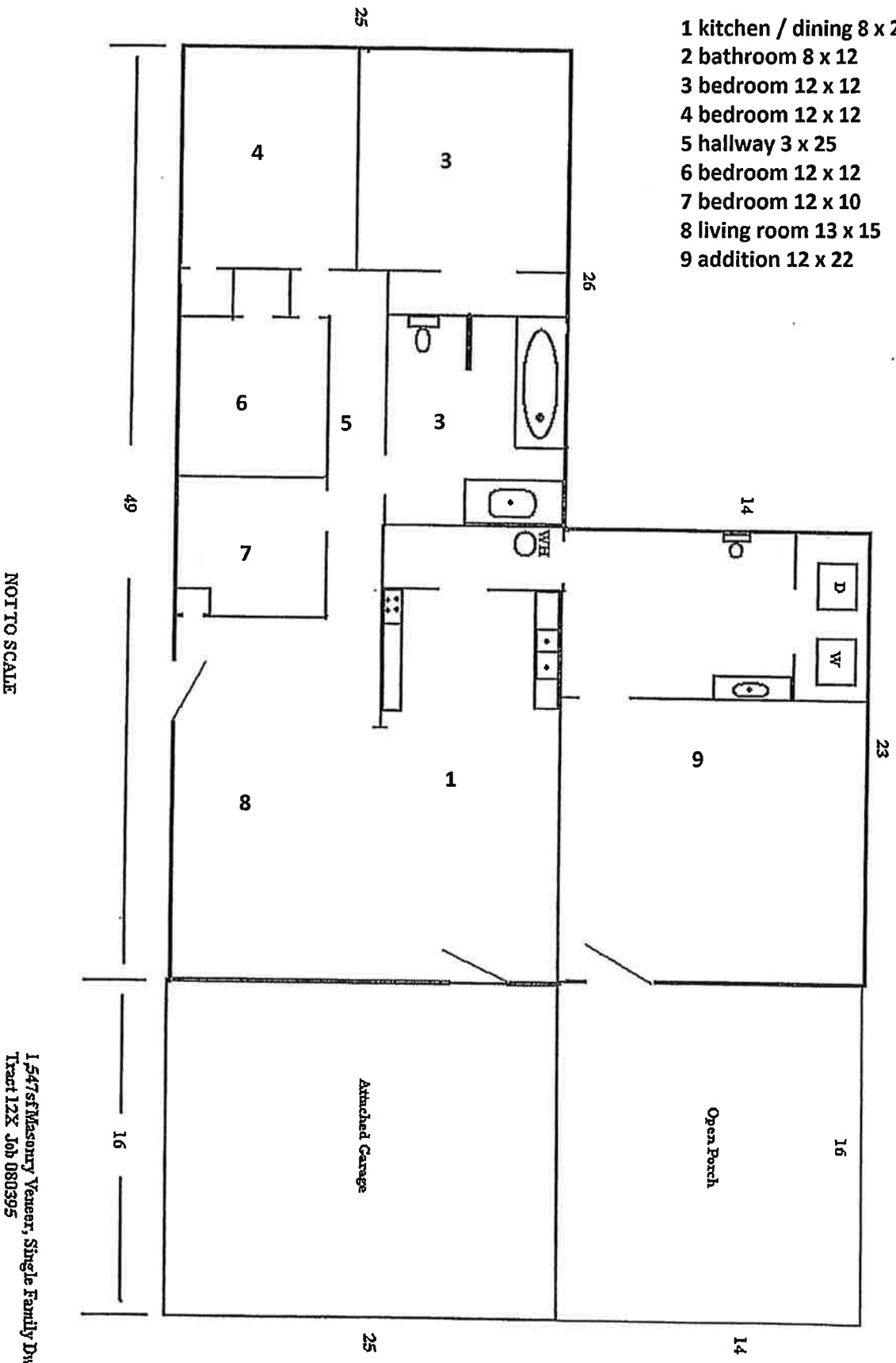
Julio Robles
Analyst

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

Tract 12X



1 kitchen / dining 8 x 24
2 bathroom 8 x 12
3 bedroom 12 x 12
4 bedroom 12 x 12
5 hallway 3 x 25
6 bedroom 12 x 12
7 bedroom 12 x 10
8 living room 13 x 15
9 addition 12 x 22

NOT TO SCALE

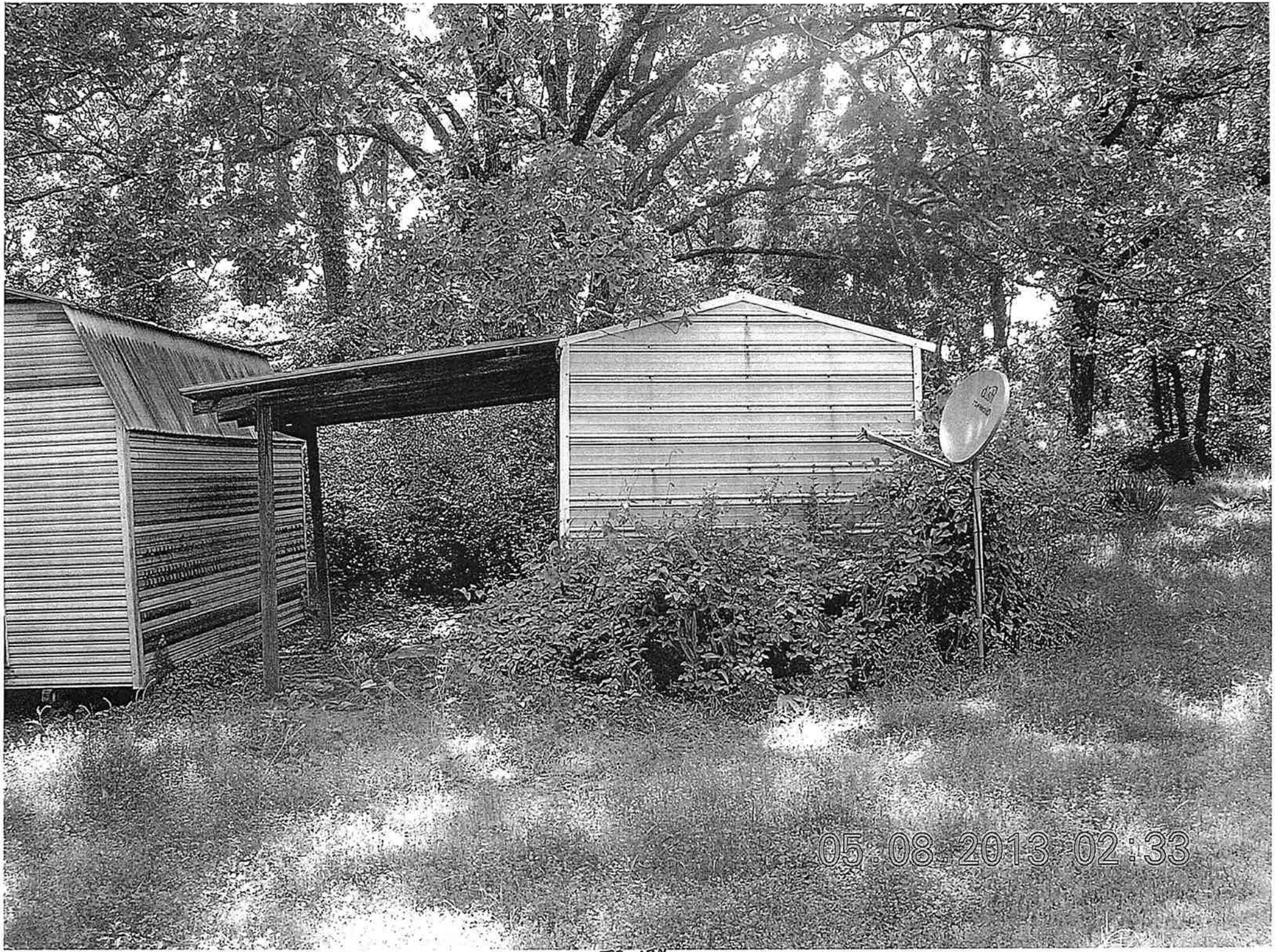
1,547sf Masonry Veneer, Single Family Dwelling
Tract 12X Job 080395

TR PEF

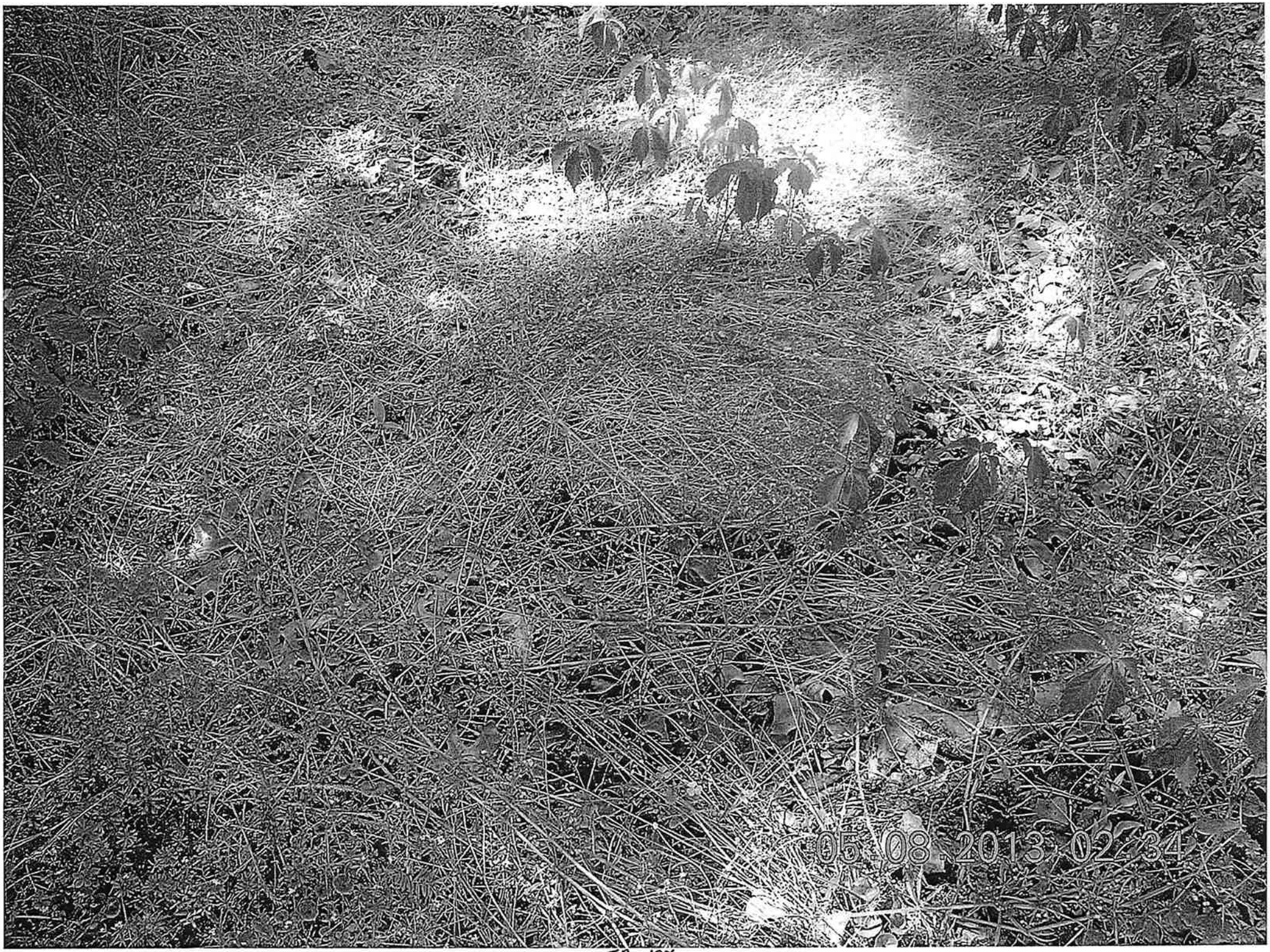

05 08 2013 02 32

TR 12

TR 127



TR 12x



TR 12X

TR 12X

TR 12X

TR 12X

TR 12x

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

Laboratory analysis has determined the following Tracts **do not** contain asbestos.

Tract 8X – Residential Structure and Barn – 297 Hwy. 365
Tract 9X – Apartment Structure – 3, 4, 5 & 6 McClure Drive
Tract 14X – Residential Structure – 28 Moore Lane
Tract 23X – Demolished Storage Building – 34 Moore Lane
34 Moore Lane House Trailer not sampled, owner is moving it.
Tract 30X – Residential Structure – 307 Hwy. 365
Tract 76X – Metal Building – 30 Moore Lane

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAC13055049

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 14X - Residential Structure
28 Moore Lane
Mayflower, AR

Inspector Gary Noonan
Building ID Tract 14X
Date 5/22/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT DAM (L, M, H)	Quantity
14X- 01		Ceiling Texture	Bedroom	X			S	F	G	10%	H	1500 sft
14X- 02		Ceiling Texture	Kitchen			X	S	F	G	10%	H	See Above
14X- 03		Ceiling Texture	Bedroom			X	S	F	G	10%	H	See Above
14X- 04		Sheetrock and joint compound	Bedroom	X			M	F	G	10%	H	4500 sft
14X- 05		Sheetrock and joint compound	Hallway			X	M	F	G	10%	H	See Above
14X- 06		Sheetrock and joint compound	Bathroom			X	M	F	G	10%	H	See Above
14X- 07		Linoleum	Bathroom	X			M	NF	G	10%	H	700 sft
14X- 08		Linoleum	Kitchen			X	M	NF	G	10%	H	See Above
14X- 09		Linoleum	Bathroom			X	M	NF	G	10%	H	See Above

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non friable. Condition: G-good, D-damaged, SD-severely damaged. POT DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By: Amy Moore	Time: 1500 Date: 5/23/13	Relinquished By:	Time: Date:
Received By:	Time: Date:	Received By:	Time: 10:30 Date: 2/24/13
Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 14X-Residential Structure, 28 Moore Lane
Reference #: CAL13055049RO Date: 5/28/2013

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 EPA H20 TX 01402 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: Tract 14X-Residential Structure, 28 Moore Lane **CA Labs Project #:** CAL13055049RO

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 14X-Residential
Structure, 28 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055049RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/13
Purchase Order #:

Sample #	Comment	Layer #	Analysis Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
14X-01		01-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
14X-02		02-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
14X-03		03-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
14X-04		04-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		04-2	*white drywall with brown paper*	n	***None Detected***	22% ce	78% qu,gy
14X-05		05-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		05-2	*white drywall with brown paper*	n	***None Detected***	20% ce	80% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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 affecting 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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 14X-Residential Structure, 28 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055049RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/13
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
14X-06		06-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		06-2	*white drywall with brown paper*	n	***None Detected***	19% ce	81% qu,gy
14X-07		07-1	***Linoleum/*** *tan linoleum*	y	***None Detected***	24% ce	76% bi
		07-2	*tan mastic*	y	***None Detected***		100% mi,ma
14X-08		08-1	***Linoleum/*** *tan linoleum*	y	***None Detected***	25% ce	75% bi
		08-2	*tan mastic*	y	***None Detected***		100% mi,ma
14X-09		09-1	***Linoleum/*** *tan linoleum*	y	***None Detected***	26% ce	74% bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 14X-Residential
Structure, 28 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055049RO

Date: 5/28/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/13
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
		09-2	*tan mastic*	*y*	***None Detected***		100% mi,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

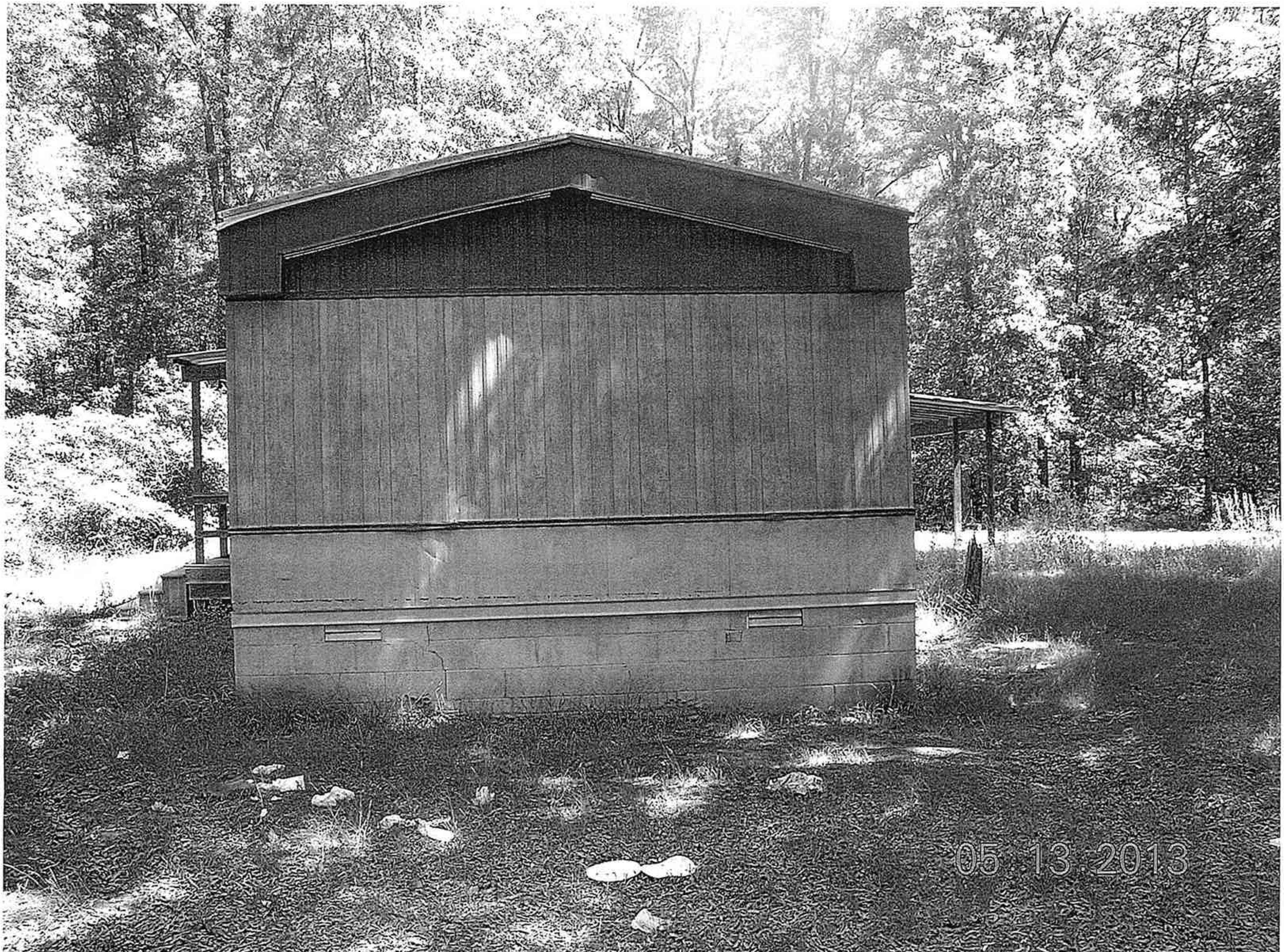
Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages affecting 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

TR 147

TR 14X

TR 14X



TR 14X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395
Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

The following tracts were not sampled.

Tract 22X – 27 Moore Lane – House Trailer has been moved
Tract 31X – Sturgis Road - Shop Building
Tract 23X – 34 Moore Lane House Trailer being moved by owner
34 Moore Lane sampled the demolished storage building.
Tract 39X – tract not on plans

Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395
Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

The following tracts were not sampled.

Tract 22X – 27 Moore Lane – House Trailer has been moved
Tract 31X – Sturgis Road - Shop Building
Tract 23X – 34 Moore Lane House Trailer being moved by owner
34 Moore Lane sampled the demolished storage building.
Tract 39X – tract not on plans

Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395
Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32
Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

The following tracts were not sampled.

Tract 22X – 27 Moore Lane – House Trailer has been moved
Tract 31X – Sturgis Road - Shop Building
Tract 23X – 34 Moore Lane House Trailer being moved by owner
34 Moore Lane sampled the demolished storage building.
Tract 39X – tract not on plans

Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

Laboratory analysis has determined the following Tracts **do not** contain asbestos.

Tract 8X – Residential Structure and Barn – 297 Hwy. 365
Tract 9X – Apartment Structure – 3, 4, 5 & 6 McClure Drive
Tract 14X – Residential Structure – 28 Moore Lane
Tract 23X – Demolished Storage Building – 34 Moore Lane
34 Moore Lane House Trailer not sampled, owner is moving it.
Tract 30X – Residential Structure – 307 Hwy. 365
Tract 76X – Metal Building – 30 Moore Lane

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAC1305505I

Client	**Property**	**Inspector**	Gary Nooner
Arkansas Highway & Transportation Department	Tract 23X - Demolished storage building	**Building ID**	Tract 23X
Little Rock, AR	34 Moore Lane	**Date**	5/22/2013
	Mayflower, AR	**Turnaround Time**	Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
23X- 01		Roof Shingle	Roof	X			M	NF	G	10%	H	275 sft
23X- 02		Roof Shingle	Roof			X	M	NF	G	10%	H	See Above
23X- 03		Roof Shingle	Roof			X	M	NF	G	10%	H	See Above

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By: Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10.30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 23X - Demolished Storage Building, 34 Moore L
Reference #: CAL13055051CB Date: 5/29/2013

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 EPA H20 TX 01402 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: Tract 23X - Demolished Storage Building, 34 Moore L **CA Labs Project #:** CAL13055051CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 23X - Demolished Storage Building, 34 Moore Lane
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055051CB

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/13
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
23X-01		01-1	***Roof/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	15% fg	85% qu,bi
		01-2	*black felt*	*y*	***None Detected***	40% fg	60% qu,bi
		01-3	*black roofing shingle with black gravel*	*n*	***None Detected***	14% fg	86% qu,bi
23X-02		02-1	***Roof/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	16% fg	84% qu,bi
		02-2	*black felt*	*y*	***None Detected***	39% ce	61% qu,bi
		02-3	*black roofing shingle with black gravel*	*n*	***None Detected***	15% fg	85% qu,bi
23X-03		03-1	***Roof/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	14% fg	86% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Chris Park
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 23X - Demolished Storage Building, 34 Moore Lane

Turnaround Time:
2 Days

CA Labs Project #:
CAL13055051CB

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/22/13
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
		03-2	*black felt*	*y*	***None Detected***	41% ce	59% qu,bi
		03-3	*black roofing shingle with black gravel*	*n*	***None Detected***	16% fg	84% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Chris Park
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

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 25X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 22, 2013, I conducted an asbestos survey at the above referenced location.

Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 25X-12 – Roof Coating – on metal trailer house roof

These materials must be removed by a licensed asbestos contractor prior to demolition of the structure.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAC13055050

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 25X - Residential Structure & storage bui
34A Moore Lane
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 25X
Date 5/22/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
25X- 01		Ceiling Texture	Addition	X			S	F	G	10%	H	350 sft
25X- 02		Ceiling Texture	Addition			X	S	F	G	10%	H	See Above
25X- 03		Textured sheetrock & Joint Compound	Addition	X			S	F	G	10%	H	600 sft
25X- 04		Textured sheetrock & Joint Compound	Addition			X	S	F	G	10%	H	See Above
25X- 05		Sheetrock and joint compound	Bedroom	X			M	F	G	10%	H	2600 sft
25X- 06		Sheetrock and joint compound	Living room			X	M	F	G	10%	H	See Above
25X- 07		Sheetrock and joint compound	Hallway			X	M	F	G	10%	H	See Above
25X- 08		Flooring	Kitchen / Hallway	X			M	NF	G	10%	H	200 sft
25X- 09		Flooring	Bathroom	X			M	NF	G	10%	H	100 sft
25X- 10		Flooring under plywood	Hallway	X			M	NF	G	10%	H	520 sft
25X- 11		Roof Shingle	Addition Roof	X			M	NF	G	10%	H	680 sft
25X- 12		Roof Coating	Trailer Metal roof	X			M	NF	G	10%	H	700 sft
25X- 13		Roof Shingle	Storage Building	X			M	NF	G	10%	H	400 sft

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

Class: S-surfacing, T-thermal, M-miscellaneous. **Friability:** F-friable, NF-non-friable. **Condition:** G-good, D-damaged, SD-severely damaged. **POT. DAM** (Potential Damage): L-low, M-moderate, H-high

Relinquished By	Time 1500	Date 5-23-13	Relinquished By	Time	Date
Received By	Time	Date	Received By	Time 10:30 a.m.	Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 25X - Residential Structure & Storage Bui
Reference #: CAL13055050CB Date: 5/29/2013

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 EPA H20 TX 01402 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: Tract 25X - Residential Structure & Storage Bui **CA Labs Project #:** CAL13055050CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
25X-12	12-1	***Roof Coating/*** *silver surfaced black and tan sealant*	***2% Chrysotile***	***silver surfaced black and tan sealant***

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 25X - Residential Structure & Storage Bui
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055050CB

Date: 5/29/2013
Samples Received: 5/29/13 10:30am
Date Of Sampling: 5/22/13
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
25X-01		01-1	***Ceiling Texture/*** *tan surfaced white compound*	n	***None Detected***		100% qu,mi,ca
25X-02		02-1	***Ceiling Texture/*** *tan surfaced white compound*	n	***None Detected***		100% qu,mi,ca
25X-03		03-1	***Textured Sheetrock & Joint Compound/*** *brown surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		03-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		03-3	*white drywall with brown paper*	n	***None Detected***	24% ce	76% qu,gy
25X-04		04-1	***Textured Sheetrock & Joint Compound/*** *brown surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		04-2	*white drywall with brown paper*	n	***None Detected***	23% ce	77% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ras

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 25X - Residential Structure & Storage Bui
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055050CB

Date: 5/29/2013
Samples Received: 5/29/13 10:30am
Date Of Sampling: 5/22/13
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
25X-05		05-1	***Sheetrock and Joint Compound/*** *brown surfacing*	*y*	***None Detected***		100% qu,bi
		05-2	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
25X-06		06-1	***Sheetrock and Joint Compound/*** *brown surfacing*	*y*	***None Detected***		100% qu,bi
		06-2	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
25X-07		07-1	***Sheetrock and Joint Compound/*** *green surfaced white compound*	*n*	***None Detected***	2% ta	98% mi,bi,ca
		07-2	*white drywall with brown paper*	*n*	***None Detected***	24% ce	76% qu,gy
25X-08		08-1	***Flooring/*** *brown flooring*	*y*	***None Detected***		100% qu,gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ra

Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 25X - Residential Structure & Storage Bui
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055050CB

Date: 5/29/2013
Samples Received: 5/29/13 10:30am
Date Of Sampling: 5/22/13
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
		08-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
25X-09		*09-1*	***Flooring**/ brown flooring*	*y*	***None Detected***		100% qu,gy,ma
		09-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
25X-10		*10-1*	***Flooring under Plywood**/ tan linoleum*	*y*	***None Detected***	29% ce	71% qu,gy,ma
		10-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
25X-11		*11-1*	***Roof Shingle**/ black roofing shingle with gray gravel*	*n*	***None Detected***	12% fg	88% qu,bi
		11-2	*black felt*	*y*	***None Detected***	31% ce	69% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

C. T. Ra
Tanner Rasmussen
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 25X - Residential Structure & Storage Bui
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055050CB

Date: 5/29/2013
Samples Received: 5/29/13 10:30am
Date Of Sampling: 5/22/13
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
25X-12		12-1	***Roof Coating/*** *silver surfaced black and tan sealant*	n	***2% Chrysotile***		98% qu,bi
25X-13		13-1	***Roof Shingle/*** *black roofing shingle with gray gravel*	n	***None Detected***	13% fg	87% qu,bi
		13-2	*black roofing shingle with black gravel*	n	***None Detected***	12% fg	88% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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	

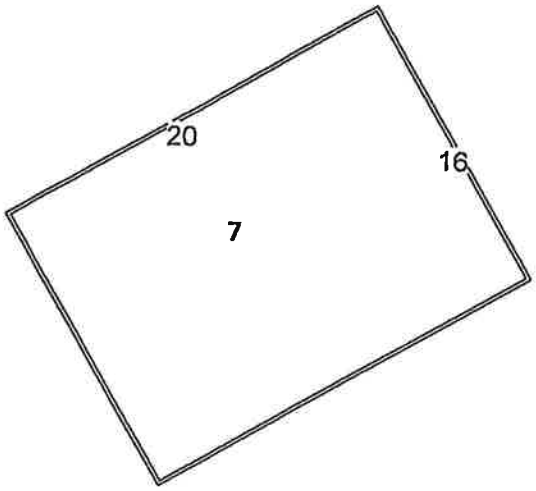
Approved Signatories:

C. T. Ra
Tanner Rasmussen
Analyst

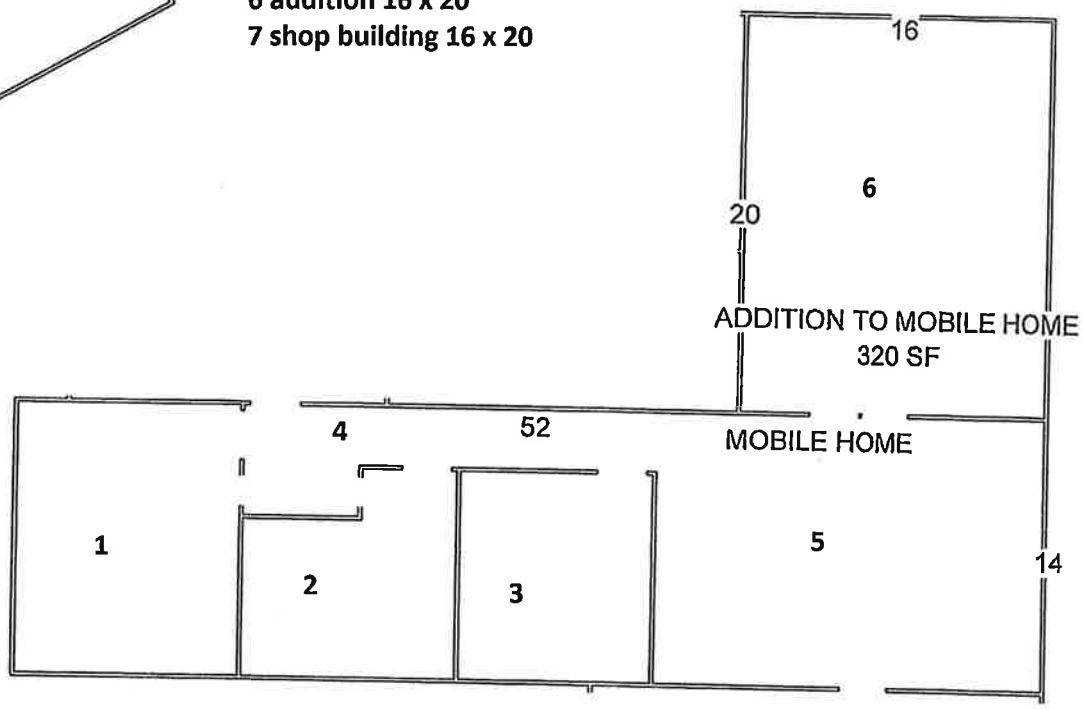
QAC
Leslie Crisp, P.G.

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



1 bedroom 10 x 14
2 bathroom 10 x 8
3 bedroom 10 x 8
4 hallway 3 x 16
5 living / kitchen 14 x 24
6 addition 16 x 20
7 shop building 16 x 20



TRACT 25X

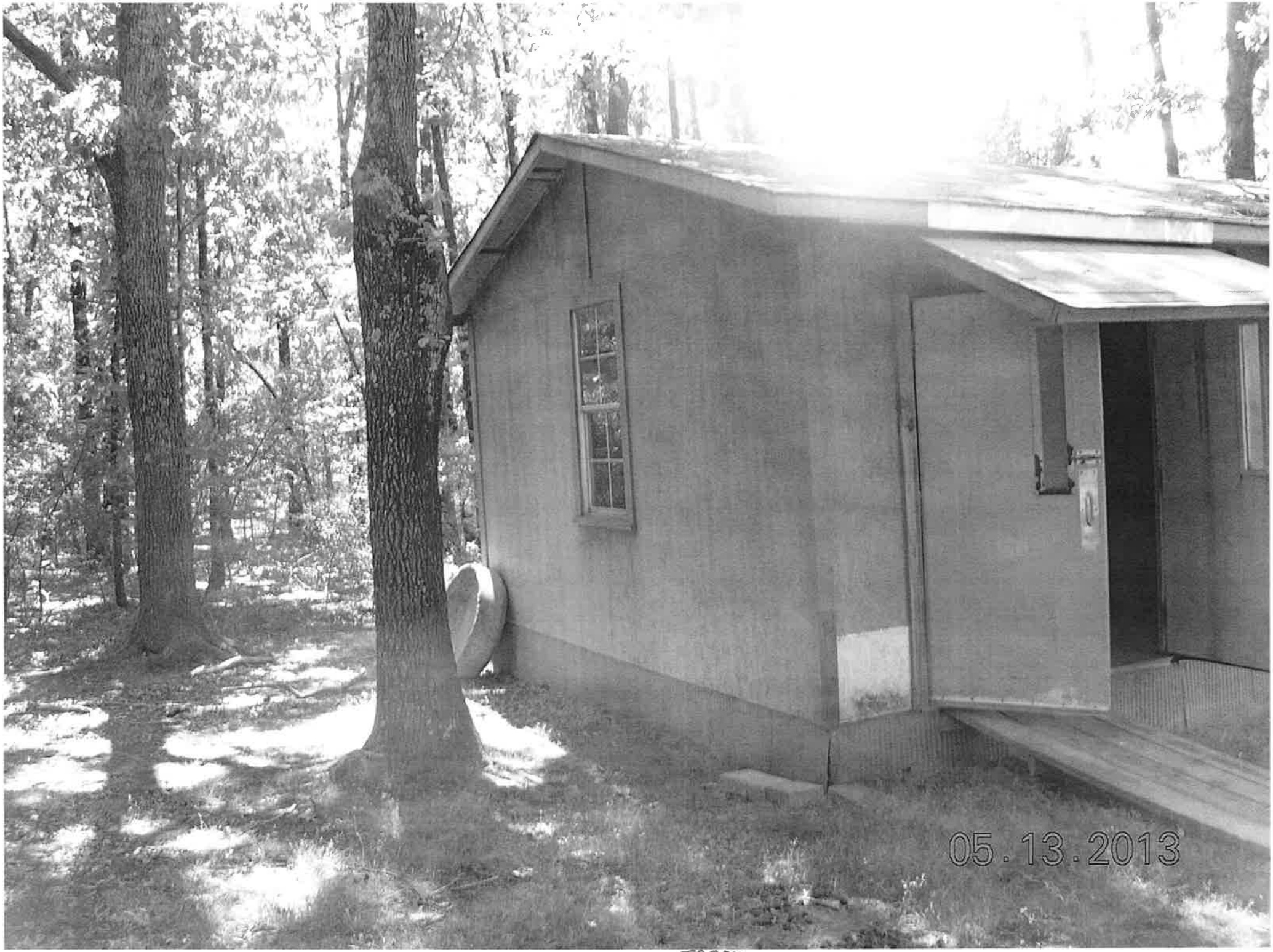
TR 25A

05/13/2013

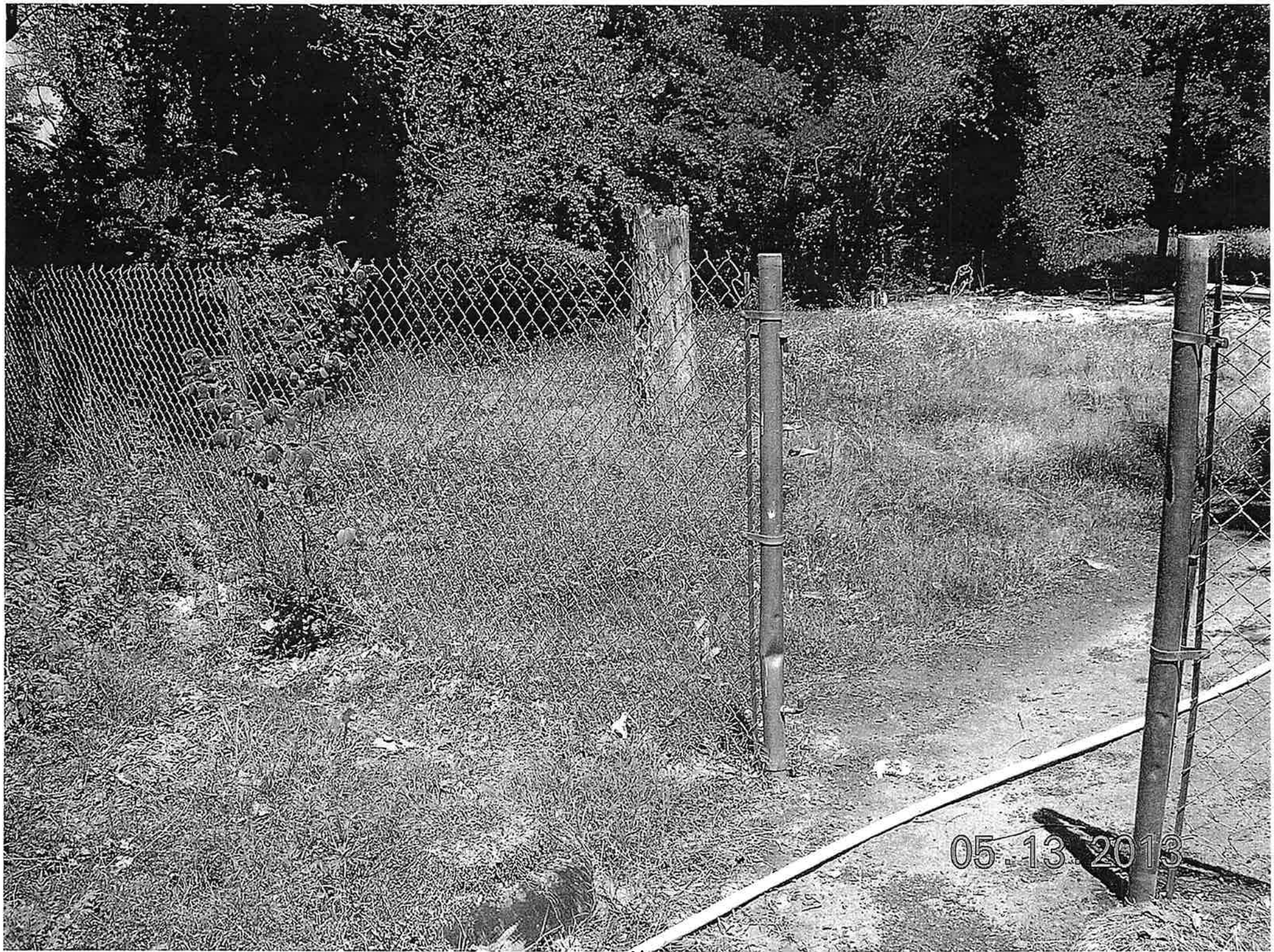
TR 25X

TR 25X

05.13.2013



TR25X

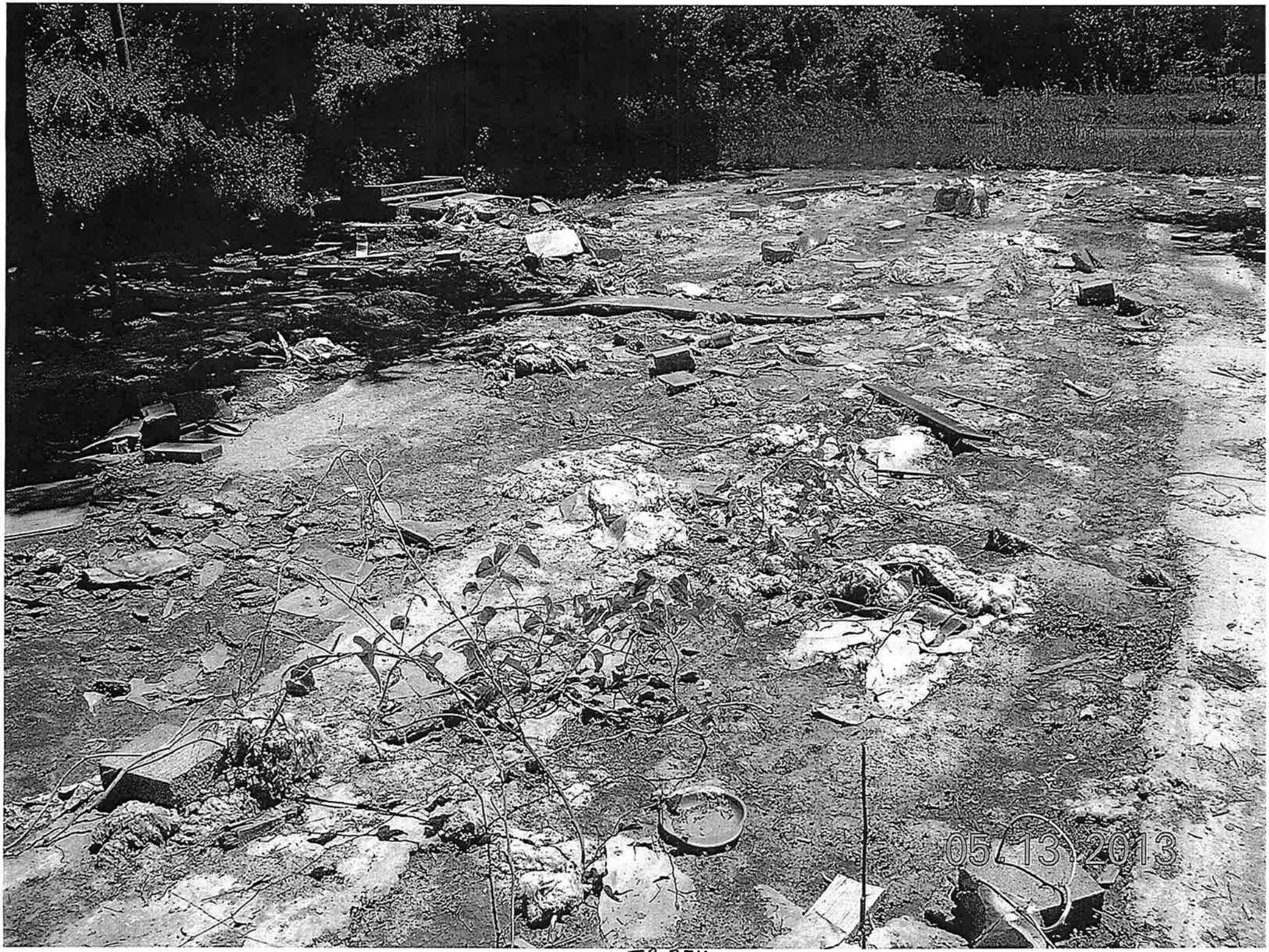


TR 28X

TR 28X

TR28X

TR 287



TR 28X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 29X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 - Faulkner County

Mr. Joel Clark:

On May 23, 2013, I conducted an asbestos survey at the above referenced location.

Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 29X-01 – Ceiling Texture

These materials must be removed by a licensed asbestos contractor prior to demolition of the structure.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CALI 3055056

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 29X - Residential Structure
305 Highway 365
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 29X
Date 5/23/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
29X - 01		Ceiling Texture	Living Room	X			S	F	G	10%	H	1400 sft
29X - 02		Ceiling Texture	Kitchen			X	S	F	G	10%	H	See Above
29X - 03		Ceiling Texture	Den			X	S	F	G	10%	H	See Above
29X - 04		Floor tile and mastic	Dining room	X			M	NF	G	10%	H	200 sft
29X - 05		Floor tile and mastic	Kitchen			X	M	NF	G	10%	H	See Above
29X - 06		Linoleum	Bathroom (room 4)			X	M	NF	G	10%	H	150 sft
29X - 07		Linoleum	Bathroom (room 5)	X			M	NF	G	10%	H	60 sft
29X - 08		Roof Shingle	Roof			X	M	NF	G	10%	H	2000 sft

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By Gary Nooner	Time 1500 Date 5/23/13	Relinquished By	Time Date
Received By	Time Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 29X - Residential Structure, 305 Highway 365
Reference #: CAL13055056CB Date: 5/29/2013

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 EPA H20 TX 01402 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: Tract 29X - Residential Structure, 305 Highway 365 **CA Labs Project #:** CAL13055056CB

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
29X-01	01-1	***Ceiling Texture/*** *white textured surfacing*	***3% Chrysotile***	***white textured surfacing***

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 29X - Residential Structure, 305 Highway 365
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055056CB

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
29X-01		01-1	***Ceiling Texture/*** *white textured surfacing*	y	***3% Chrysotile***		97% mi,bi,ve,ca
29X-02		02-1	***Ceiling Texture/*** *white textured surfacing*		*Positive Stop*		
29X-03		03-1	***Ceiling Texture/*** *white textured surfacing*		*Positive Stop*		
29X-04		04-1	***Floor Tile and Mastic/*** *tan floor tile*	y	***None Detected***		100% qu,ca
		04-2	*tan mastic*	y	***None Detected***		100% gy,bi
		04-3	*tan linoleum*	y	***None Detected***	22% ce	78% gy,ma
29X-05		05-1	***Floor Tile and Mastic/*** *tan floor tile*	y	***None Detected***		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 29X - Residential Structure, 305 Highway 365
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055056CB

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
		05-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		05-3	*tan linoleum*	*y*	***None Detected***	20% ce	80% gy,ma
29X-06		*06-1*	***Linoleum/*** *tan self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		06-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		06-3	*tan linoleum*	*y*	***None Detected***	18% ce 2% fg	80% gy,ma
		06-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
29X-07		*07-1*	***Linoleum/*** *tan floor tile*	*y*	***None Detected***		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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 signilicant 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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 29X - Residential Structure, 305 Highway 365
Turnaround Time:
2 Days

CA Labs Project #:
CAL13055056CB

Date: 5/29/2013
Samples Received: 5/24/13 10:30am
Date Of Sampling: 5/23/13
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
		07-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		07-3	*tan linoleum*	*y*	***None Detected***	19% ce 1% fg	80% gy,ma
29X-08		*08-1*	***Roof Shingle**/ black roofing shingle with black gravel*	*n*	***None Detected***	10% fg	90% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

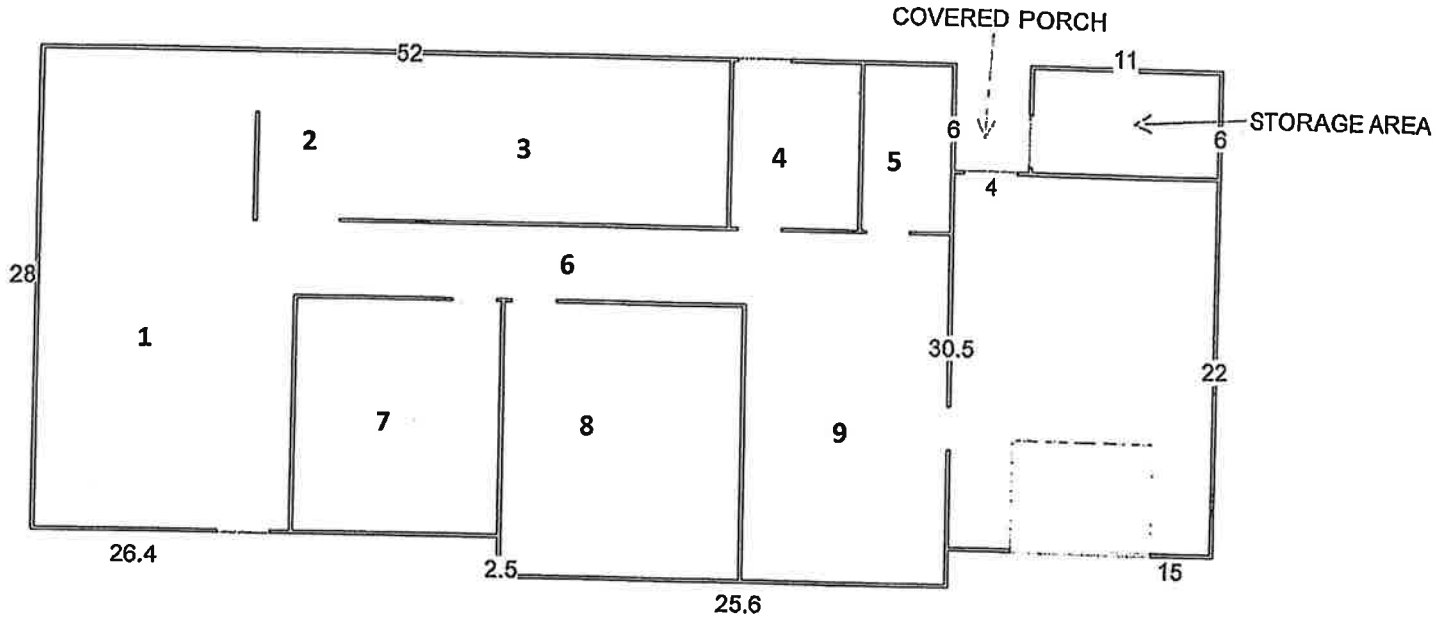
Julio Robles
Analyst

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

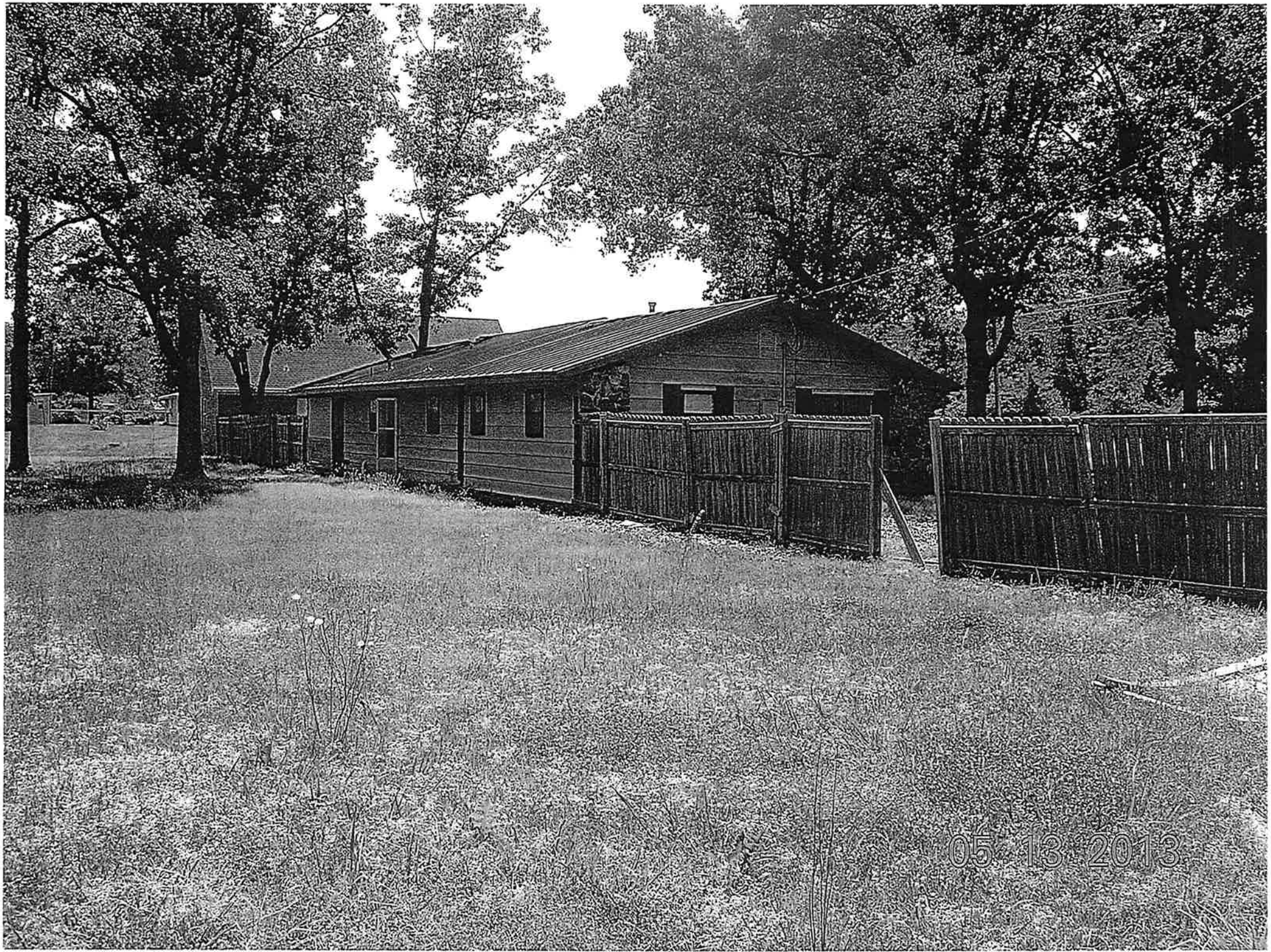
1 living room 15 x 25
2 dining room 13 x8
3 kitchen 11 x 8
4 bathroom 14 x 9
5 bathroom 5 x 12
6 hallway 3 x 20
7 bedroom 10 x 15
8 bedroom 12 x 15
9 den 12 x 20



JOB 080395
TRACT 29X
TOTAL SQUARE FEET 1,520
GARAGE 330 S.F.
STORAGE 66 S.F.

Tract 29X

TR 29x



TR 29X

TR 29X

TR 29X

TR 29X

TR 29X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

Laboratory analysis has determined the following Tracts **do not** contain asbestos.

Tract 8X – Residential Structure and Barn – 297 Hwy. 365
Tract 9X – Apartment Structure – 3, 4, 5 & 6 McClure Drive
Tract 14X – Residential Structure – 28 Moore Lane
Tract 23X – Demolished Storage Building – 34 Moore Lane
34 Moore Lane House Trailer not sampled, owner is moving it.
Tract 30X – Residential Structure – 307 Hwy. 365
Tract 76X – Metal Building – 30 Moore Lane

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

Asbestos Sampling Chain of Custody
Field Data Sheet

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

CAL 13015058

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 30X - Residential Structure
307 Highway 365
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 30X
Date 5/22/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description (Example: FT1- 12 x 12 white Floor tile)	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
30X- 01		Ceiling Texture	Bedroom	X			S	F	G	10%	H	2600 sft
30X- 02		Ceiling Texture	Family room			X	S	F	G	10%	H	See Above
30X- 03		Ceiling Texture	Kitchen			X	S	F	G	10%	H	See Above
30X- 04		Sheetrock and joint compound	Bedroom	X			M	F	G	10%	H	10800 sft
30X- 05		Sheetrock and joint compound	Family room			X	M	F	G	10%	H	See Above
30X- 06		Sheetrock and joint compound	Kitchen			X	M	F	G	10%	H	See Above
30X- 07		Roof Shingle	Roof	X			M	NF	G	10%	H	3600 sft

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

Class: S-surfacing, T-thermal, M-miscellaneous. **Friability:** F-friable, NF-non-friable. **Condition:** G-good, D-damaged, SD-severely damaged. **POT. DAM** (Potential Damage): L-low, M-moderate, H-high

Relinquished By [signature]	Time 1500	Date 5/23/13	Relinquished By	Time	Date
Received By	Time	Date	Received By [signature]	Time 10:30	Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 30X-Residential Structure, 307 Highway 365
Reference #: CAL13055058NT Date: 05/28/13

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 EPA H20 TX 01402 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: Tract 30X-Residential Structure, 307 Highway 365 **CA Labs Project #:** CAL13055058NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 30X-Residential
Structure, 307 Highway 365
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055058NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/22/13
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
30X-01		1-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
30X-02		2-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
30X-03		3-1	***Ceiling Texture/*** *white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
30X-04		4-1	***Sheetrock and Joint Compound/*** *blue surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		4-2	*white drywall with brown paper*	n	***None Detected***	9% ce 2% fg	89% qu,gy
30X-05		5-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	y	***None Detected***		100% qu,mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Chris Park
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered libers
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 30X-Residential
Structure, 307 Highway 365
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055058NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/22/13
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
		5-3	*white drywall with brown paper*	*n*	***None Detected***	8% ce 2% fg	90% qu,gy
30X-06		*6-1*	***Sheetrock and Joint Compound/*** *orange surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***None Detected***		100% qu,mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	8% ce 3% fg	89% qu,gy
30X-07		*7-1*	***Roof Shingle/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	6% fg	94% qu,bi
		7-2	*black felt*	*y*	***None Detected***	20% ce	80% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

Chris Park
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

TR 30X

TR 30X

TR 30X

TR 30X


05 13 2013
TR 30X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 33X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 - Faulkner County

Mr. Joel Clark:

On May 21, 2013, I conducted an asbestos survey at the above referenced location.

Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 33X-09 – Flooring - bathroom

These materials must be removed by a licensed asbestos contractor prior to demolition of the structure.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL13055257

Client	**Property**	**Inspector**	Gary Nooner
Arkansas Highway & Transportation Department	Tract 33X - Residential Structure	**Building ID**	Tract 33X
Little Rock, AR	369 Sturgis Road	**Date**	5/21/2013
	Mayflower, AR	**Turnaround Time**	Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
33X-01		Ceiling Texture	Kitchen	X			S	F	G	10%	H	1400 sft
33X-02		Ceiling Texture	Living room			X	S	F	G	10%	H	See Above
33X-03		Ceiling Texture	Bedroom			X	S	F	G	10%	H	See Above
33X-04		Sheetrock and joint Compound	Bedroom	X			M	F	G	10%	H	4800 sft
33X-05		Sheetrock and joint Compound	Hallway			X	M	F	G	10%	H	See Above
33X-06		Sheetrock and joint Compound	Bedroom			X	M	F	G	10%	H	See Above
33X-07		Flooring under wood	Entryway	X			M	NF	G	10%	H	120 sft
33X-08		Flooring under ceramic	Kitchen	X			M	NF	G	10%	H	300 sft
33X-09		Flooring under ceramic	Bathroom	X			M	NF	G	10%	H	90 sft
33X-10		Roof Shingle	Roof	X			M	NF	G	10%	H	1900 sft

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By	Gary Nooner	Time 1500	Date 5-23-13	Relinquished By	Time Date
Received By		Time	Date	Received By	Time 10:30 Date 5/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 33X-Residential Structure, 369 Sturgis Road
Reference #: CAL13055057NT Date: 05/29/13

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 EPA H20 TX 01402 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: Tract 33X-Residential Structure, 369 Sturgis Road **CA Labs Project #:** CAL13055057NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
33 12X-09	9-5	*tan linoleum*	***24% Chrysotile***	***tan linoleum***

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 33X-Residential
Structure, 369 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055057NT

Date: 05/29/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
33 ~~12~~X-01	*8*	*1-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***		100% mi,bi,ve,ca
33 ~~12~~X-02	*8*	*2-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***		100% mi,bi,ve,ca
33 ~~12~~X-03	*8*	*3-1*	***Ceiling Texture/*** *tan surfaced white compound*	*y*	***None Detected***		100% mi,bi,ve,ca
33 ~~12~~X-04		*4-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*n*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*y*	***None Detected***	19% ce 1% fg	80% qu,gy
33 ~~12~~X-05		*5-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 33X-Residential
Structure, 369 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055057NT

Date: 05/29/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
		5-2	*white compound (beneath tape)*	*n*	***None Detected***		100% mi,ca
		5-3	*white drywall with brown paper*	*y*	***None Detected***	18% ce 2% fg	80% qu,gy
33	~~12~~X-06	*6-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	*n*	***None Detected***		100% mi,ca
		6-3	*white drywall with brown paper*	*y*	***None Detected***	18% ce 1% fg	81% qu,gy
33	~~12~~X-07	*7-1*	***Flooring Under Wood*** *tan linoleum*	*n*	***None Detected***	20% ce 3% fg	77% gy,ma
33	~~12~~X-08	*8-1*	***Flooring Under Wood*** *tan linoleum*	*y*	***None Detected***	22% ce 2% fg	76% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 33X-Residential Structure, 369 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055057NT

Date: 05/29/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
33 ~~12~~X-09		9-1	***Flooring Under Wood/ tan ceramic tile***	*y*	***None Detected***		100% qu,ca
		9-2	*gray mortar*	*y*	***None Detected***		100% qu,ca
		9-3	*tan linoleum*	*y*	***None Detected***	22% ce 3% fg	75% gy,ma
		9-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		9-5	*tan linoleum*	*y*	***24% Chrysotile***		76% gy,ma
	4	9-6	*tan mastic*				
33 ~~12~~X-10		10-1	***Roof Shingle***	*n*	***None Detected***	6% ce	94% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 33X-Residential Structure, 369 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055057NT

Date: 05/29/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
		10-2	*clear mastic*	*n*	***None Detected***	8% fg	92% qu,bi
		10-3	*tan linoleum*	*n*	***None Detected***	7% ce	93% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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

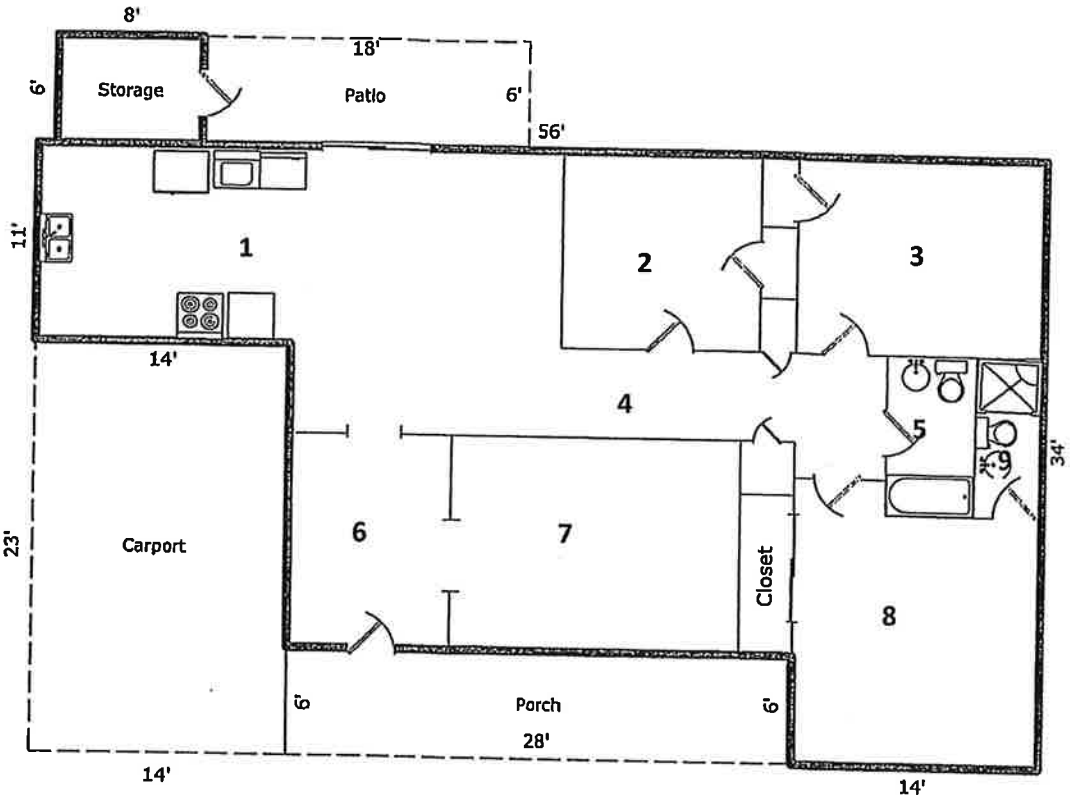
QAC
Leslie Crisp, P.G.

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

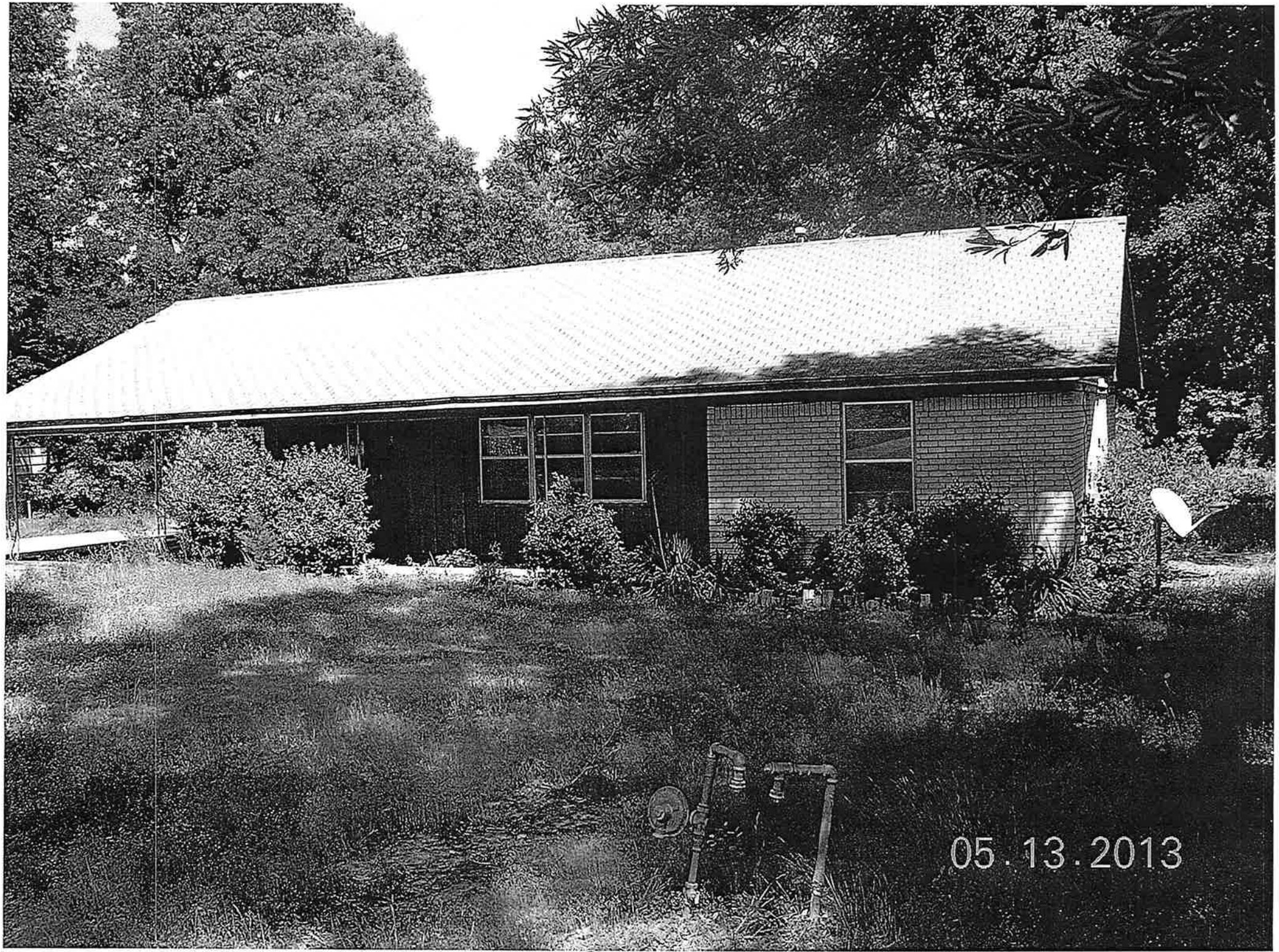
080395 - Tr33X, 369 Sturgis Rd., Conway, AR

Tract 33X



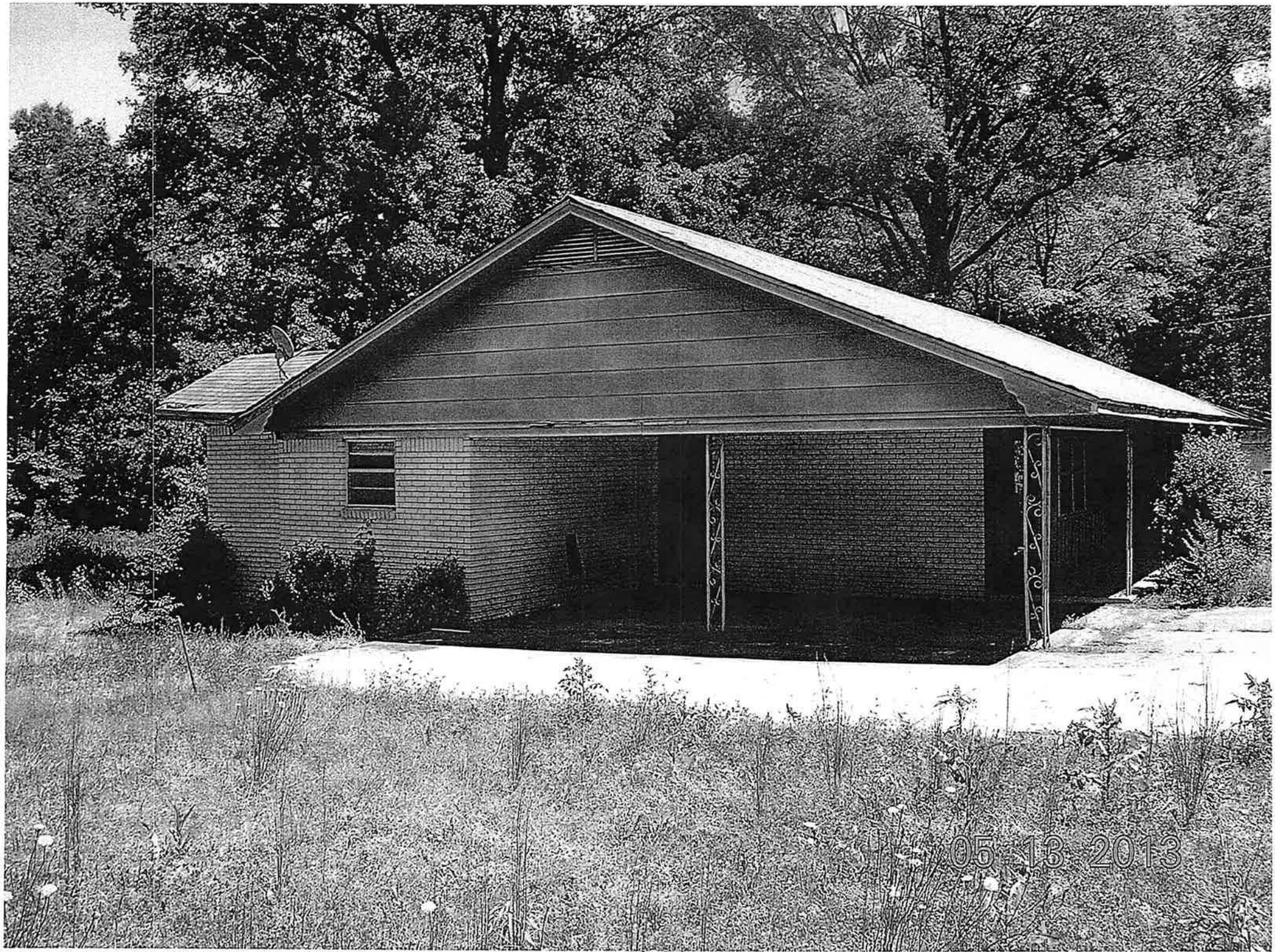
1 kitchen / dining 25 x 12
2 bedroom 10 x 12
3 bedroom 10 x 16
4 hallway 3 x 20
5 bathroom 5 x 9
6 entryway 10 x 12
7 living room 12 x 14
8 bedroom 12 x 15
9 bathroom 5 x 9

TR 33X



TR 33X

TR 33x



TR 337

TR 33X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Survey **Tract 34X**
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 - Faulkner County

Mr. Joel Clark:

On May 21, 2013, I conducted an asbestos survey at the above referenced location.

Laboratory analysis has determined that the following samples do contain asbestos.

Sample # 34X-07 – Flooring - Kitchen
Sample # 34X-08 - Flooring - laundry rooms

These materials must be removed by a licensed asbestos contractor prior to demolition of the structure.

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner

Gary Nooner
Inspector
License No. 005065

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAL13055052

Client
Arkansas Highway & Transportation Department
Little Rock, AR

Property
Tract 34X - Residential Structure
367 Sturgis Road
Mayflower, AR

Inspector Gary Nooner
Building ID Tract 34X
Date 5/21/2013
Turnaround Time Normal (2 days)

SAMPLE ID	HA	Sample Description Example: FT1- 12 x 12 white Floor tile	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
34X-01		Ceiling Texture	Laundry Room	X			S	F	G	10%	H	1200 sft
34X-02		Ceiling Texture	Bedroom			X	S	F	G	10%	H	See Above
34X-03		Ceiling Texture	Living room			X	S	F	G	10%	H	See Above
34X-04		Sheetrock and joint Compound	Laundry Room	X			M	F	G	10%	H	4200 sft
34X-05		Sheetrock and joint Compound	Hallway			X	M	F	G	10%	H	See Above
34X-06		Sheetrock and joint Compound	Bedroom			X	M	F	G	10%	H	See Above
34X-07		Flooring	Kitchen	X			M	NF	G	10%	H	100 sft
34X-08		Flooring	Laundry Room	X			M	NF	G	10%	H	90 sft
34X-09		Flooring	Bathroom	X			M	NF	G	10%	H	35 sft
34X-10		Roof Shingle	Roof	X			M	NF	G	10%	H	1500 sft

HA - Homogeneous Area **A - Analyze** **C - Catalogue** **♦ - Analyze only if the previous sample was found to be negative.**

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By	Gary Nooner	Time 1580	Date 5/23/13	Relinquished By	Time Date
Received By		Time	Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 34X-Residential Structure, 367 Sturgis Road
Reference #: CAL13055052NT Date: 05/28/13

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 EPA H20 TX 01402 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: Tract 34X-Residential Structure, 367 Sturgis Road **CA Labs Project #:** CAL13055052NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
				tan linoleum
34X-07	*7-5*	*tan linoleum*	***22% Chrysotile***	
34X-08	*8-3*	*tan linoleum*	***24% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 34X-Residential
Structure, 367 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055052NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
34X-01	*8*	*1-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***		100% mi,bi,ve,ca
34X-02	*8*	*2-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***		100% mi,bi,ve,ca
34X-03	*8*	*3-1*	***Ceiling Texture/*** *tan textured surfacing*	*y*	***None Detected***		100% mi,bi,ve,ca
34X-04		*4-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
34X-05		*5-1*	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 34X-Residential Structure, 367 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055052NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
		5-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		5-3	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
34X-06		6-1	***Sheetrock and Joint Compound/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		6-3	*white drywall with brown paper*	n	***None Detected***	19% ce 2% fg	79% qu,gy
34X-07		7-1	***Flooring/*** *brown self-adhesive floor tile*	y	***None Detected***		100% qu,gy,ma
		7-2	*black and brown mastic*	n	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 34X-Residential
Structure, 367 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055052NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
		7-3	*tan linoleum*	*y*	***None Detected***	18% ce 4% fg	78% gy,ma
		7-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		7-5	*tan linoleum*	*y*	***22% Chrysotile***		78% gy,ma
	4	*7-6*	*tan mastic*				
34X-08		*8-1*	***Flooring/*** *gray self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		8-2	*clear mastic*	*y*	***None Detected***		100% gy,bi
		8-3	*tan linoleum*	*y*	***24% Chrysotile***		76% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attalning / 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 libers
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 34X-Residential
Structure, 367 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055052NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
	4	*8-4*	*black and tan mastic*				
34X-09		*9-1*	***Flooring/*** *brown self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		9-2	*clear mastic*	*y*	***None Detected***		100% gy,bi
		9-3	*gray self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		9-4	*clear mastic*	*y*	***None Detected***		100% gy,bi
		9-5	*blue self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		9-6	*clear mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 34X-Residential Structure, 367 Sturgis Road
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055052NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
		9-7	*tan linoleum*	*y*	***None Detected***	18% ce 4% fg	78% gy,ma
	5	*9-8*	*tan mastic*				
34X-10		*10-1*	***Roof Shingle/*** *black roofing shingle with red gravel*	*n*	***None Detected***	6% ce	94% qu,bi
		10-2	*black roofing shingle with tan gravel*	*n*	***None Detected***	8% fg	92% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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

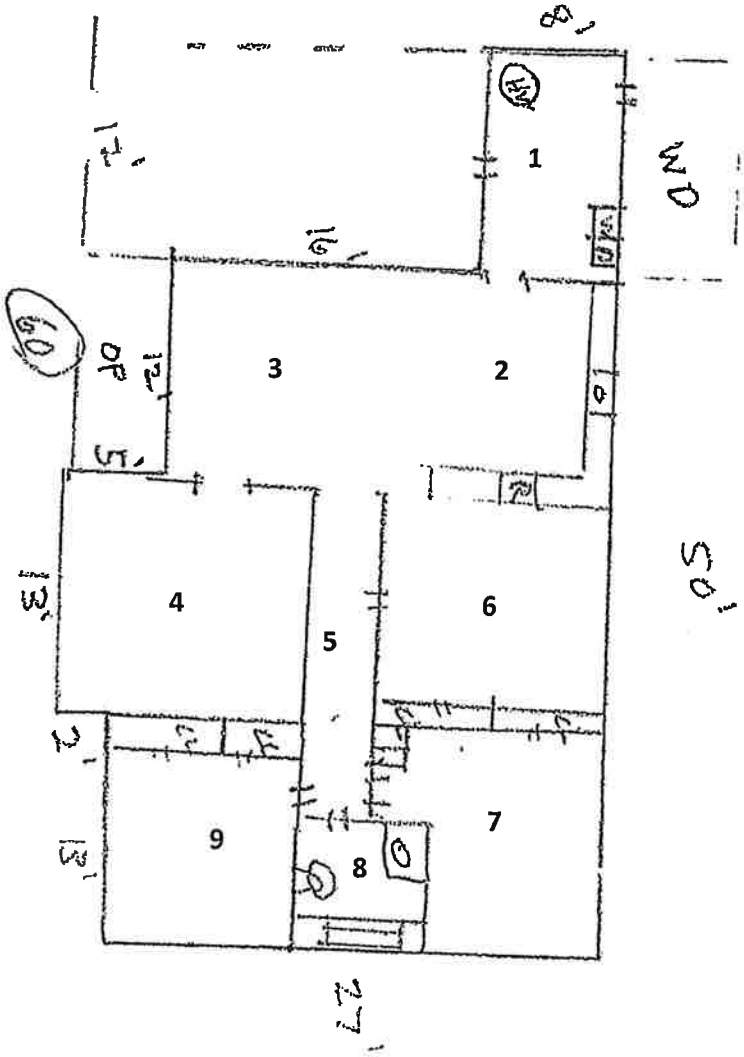
QAC
Leslie Crisp, P.G.

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

Tract 34 X

1 laundry 12 x 7
2 kitchen 9 x 10
3 dining 13 x 12
4 living 12 x 13
5 hallway 3 x 17
6 bedroom 10 x 14
7 bedroom 10 x 14
8 bathroom 5 x 7
9 bedroom 10 x 13



TR 34x

TR 34X

TE 34 X

05. 13. 2013

TR 34X

Environmental Protection Associates

Arkansas Central Office

#9 Remington Cove
Little Rock, Arkansas 72204
(501) 562-3818
Fax (501) 562-5701
E-mail: TBlaylock@epaonline.biz

May 29, 2013

Arkansas State Highway & Transportation Department
P.O. Box 2261 Room 705
Little Rock, AR 72203

RE: Asbestos Surveys multiple Tracts
Job 080395 - Conway South Interchange
Highway 68 (Gr. & Strs.)
Route I-40 Section 32 -Faulkner County

Mr. Joel Clark:

On May 21, 2013 to May 23, 2013, I conducted asbestos surveys at multiple tracts to determine if asbestos was present.

Laboratory analysis has determined the following Tracts **do not** contain asbestos.

Tract 8X – Residential Structure and Barn – 297 Hwy. 365
Tract 9X – Apartment Structure – 3, 4, 5 & 6 McClure Drive
Tract 14X – Residential Structure – 28 Moore Lane
Tract 23X – Demolished Storage Building – 34 Moore Lane
34 Moore Lane House Trailer not sampled, owner is moving it.
Tract 30X – Residential Structure – 307 Hwy. 365
Tract 76X – Metal Building – 30 Moore Lane

I have attached my chain of custody and laboratory findings. Please contact me with any questions you may have.

Sincerely,

Gary Nooner
Inspector
License No. 005065

Enclosures

Environmental Protection Associates

#9 Remington Cove
Little Rock, Arkansas 72204
501-562-3818
Fax 501-562-5701

Asbestos Sampling Chain of Custody
Field Data Sheet

CAU3055047

Client	**Property**	**Inspector**	Gary Nooner
Arkansas Highway & Transportation Department	Tract 76X - Metal Building	**Building ID**	Tract 76X
Little Rock, AR	30 Moore Lane	**Date**	5/21/2013
	Mayflower, AR	**Turnaround Time**	Normal (2 days)

SAMPLE ID	HA	Sample Description (Example: FT1- 12 x 12 white Floor tile)	Sample Location	A	C	♦	Class (S,T,M)	Friability (F, NF)	Condition (G, D, SD)	Damage (%)	POT. DAM (L, M, H)	Quantity
76X-01		Linoleum	entryway / bathroom	X			M	NF	G	10%	H	110 sift
76X-02		Roof Shingle	Used for Driveway / porch	X			M	NF	G	10%	H	3 squares
76X-03		Roof Shingle	pallet stored on property	X			M	NF	G	10%	H	2 squares

HA - Homogeneous Area A - Analyze C - Catalogue ♦ - Analyze only if the previous sample was found to be negative.

Class: S-surfacing, T-thermal, M-miscellaneous. Friability: F-friable, NF-non-friable. Condition: G-good, D-damaged, SD-severely damaged. POT. DAM (Potential Damage): L-low, M-moderate, H-high

Relinquished By	Gary Nooner	Time 1560	Date 5/23/13	Relinquished By	Time Date
Received By		Time	Date	Received By	Time 10:30 Date 2/24/13

Comments: **Composite Sample all positive Sheetrock and Joint Compound 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

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Environmental Protection Associates

#9 Remington Cove
Little Rock, AR 72204

Customer Project: Tract 76X - Metal Building, 30 Moore Lane
Reference #: CAL13055047NT Date: 05/28/13

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 EPA H20 TX 01402 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: Tract 76X - Metal Building, 30 Moore Lane **CA Labs Project #:** CAL13055047NT

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 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)

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:**
Environmental Protection Associates
#9 Remington Cove
Little Rock, AR 72204

Phone # 501-562-3818
Fax # 501-562-5701

Customer Project:
Tract 76X - Metal Building, 30 Moore Lane
Turnaround Time:
2 Day

CA Labs Project #:
CAL13055047NT

Date: 05/28/13
Samples Received: 5/24/13 10:30am
Date Of Sampling: 05/21/13
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
76X-01		1-1	***Linoleum**/ tan linoleum*	y	***None Detected***	42% ce 3% fg	55% gy,ma
		1-2	*tan mastic*	y	***None Detected***		100% gy,bi
76X-02		2-1	***Roof Shingle**/ black roofing shingle with brown gravel*	n	***None Detected***	17% ce	83% qu,bi
		2-2	*black tar*	y	***None Detected***		100% qu,bi
76X-03		3-1	***Roof Shingle**/ black roofing shingle with brown gravel*	n	***None Detected***	14% fg	86% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *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)
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:

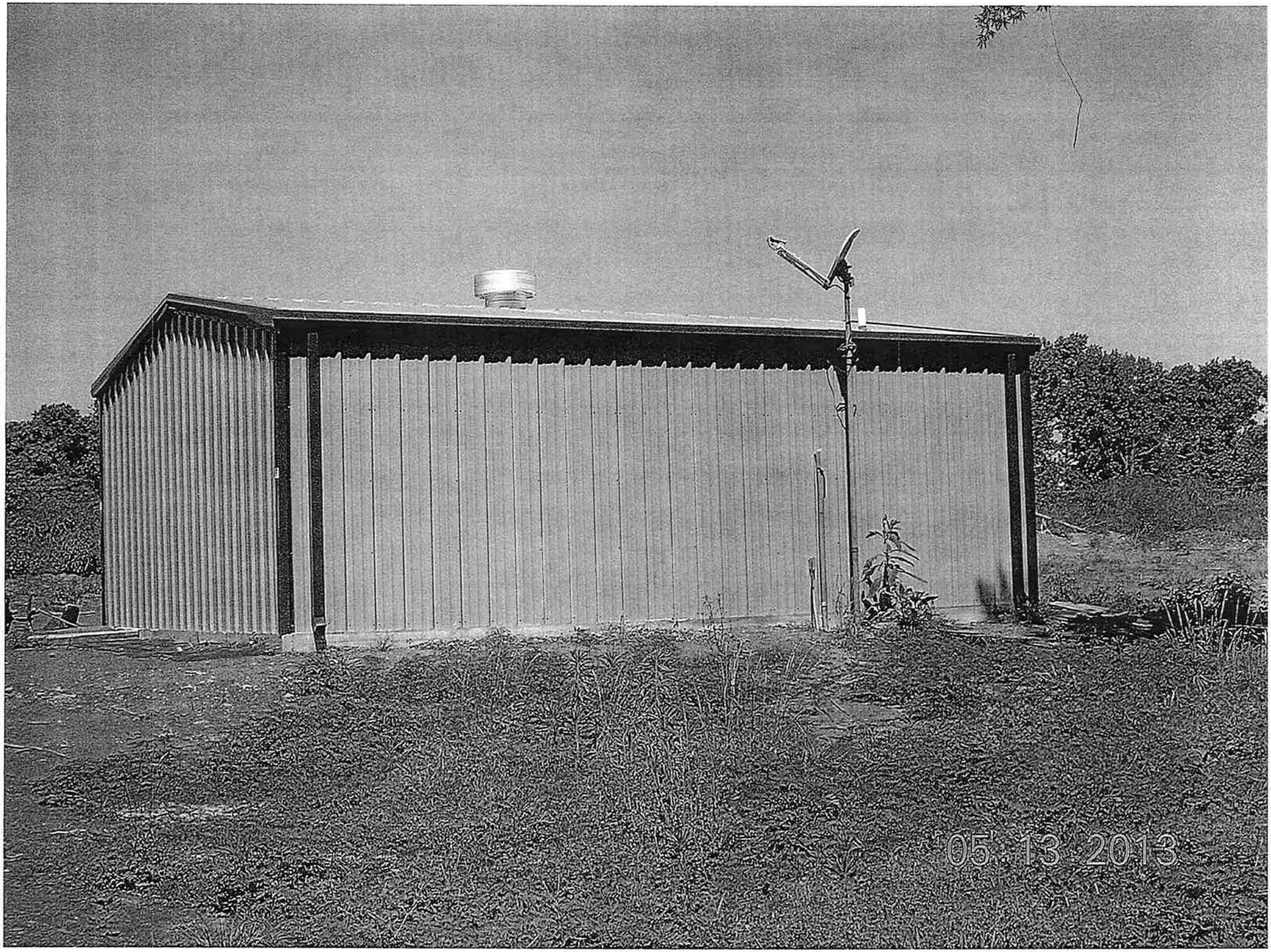
Chris Park
Analyst

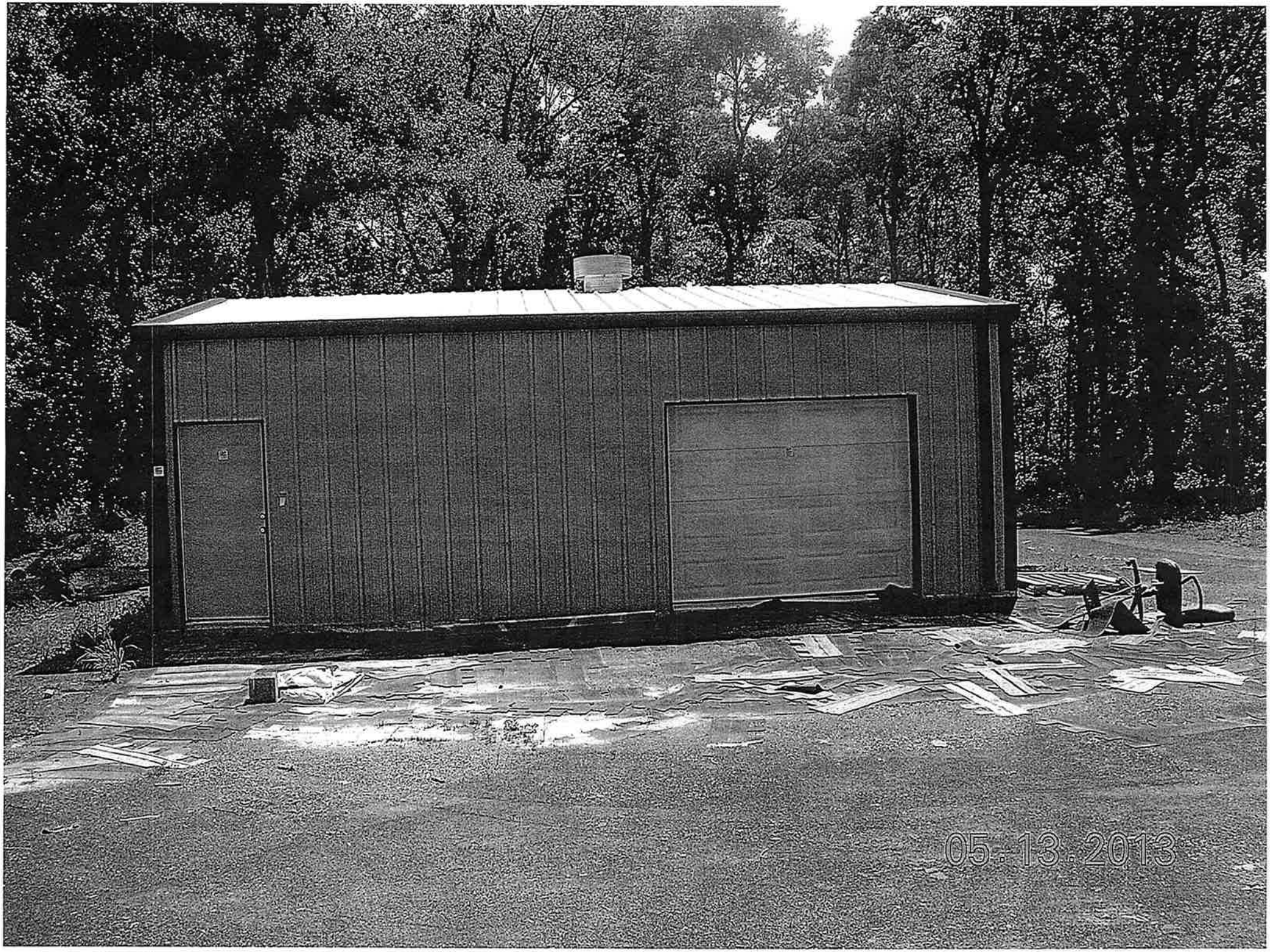
QAC
Leslie Crisp, P.G.

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

TR 767

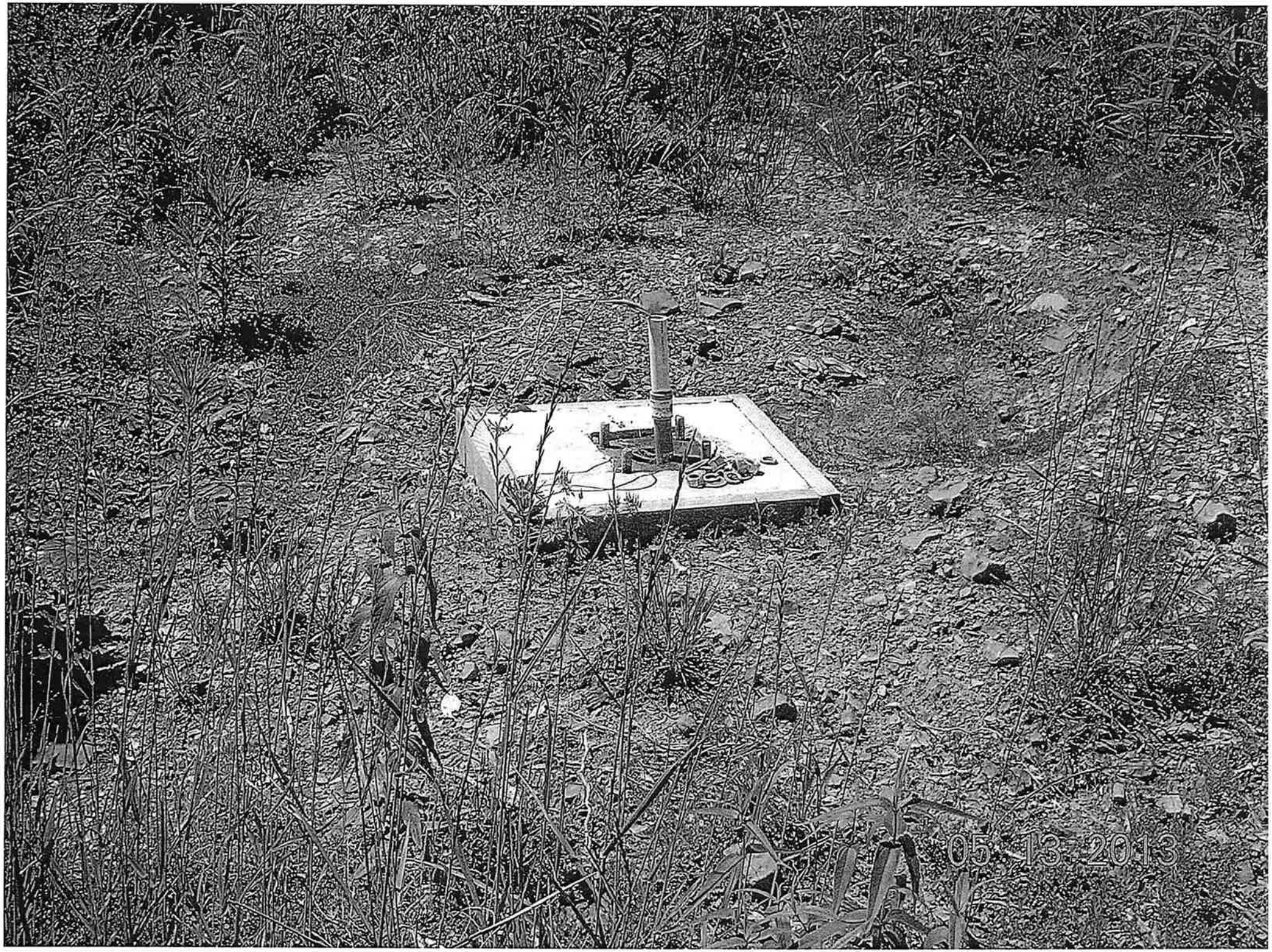

05 13 2013

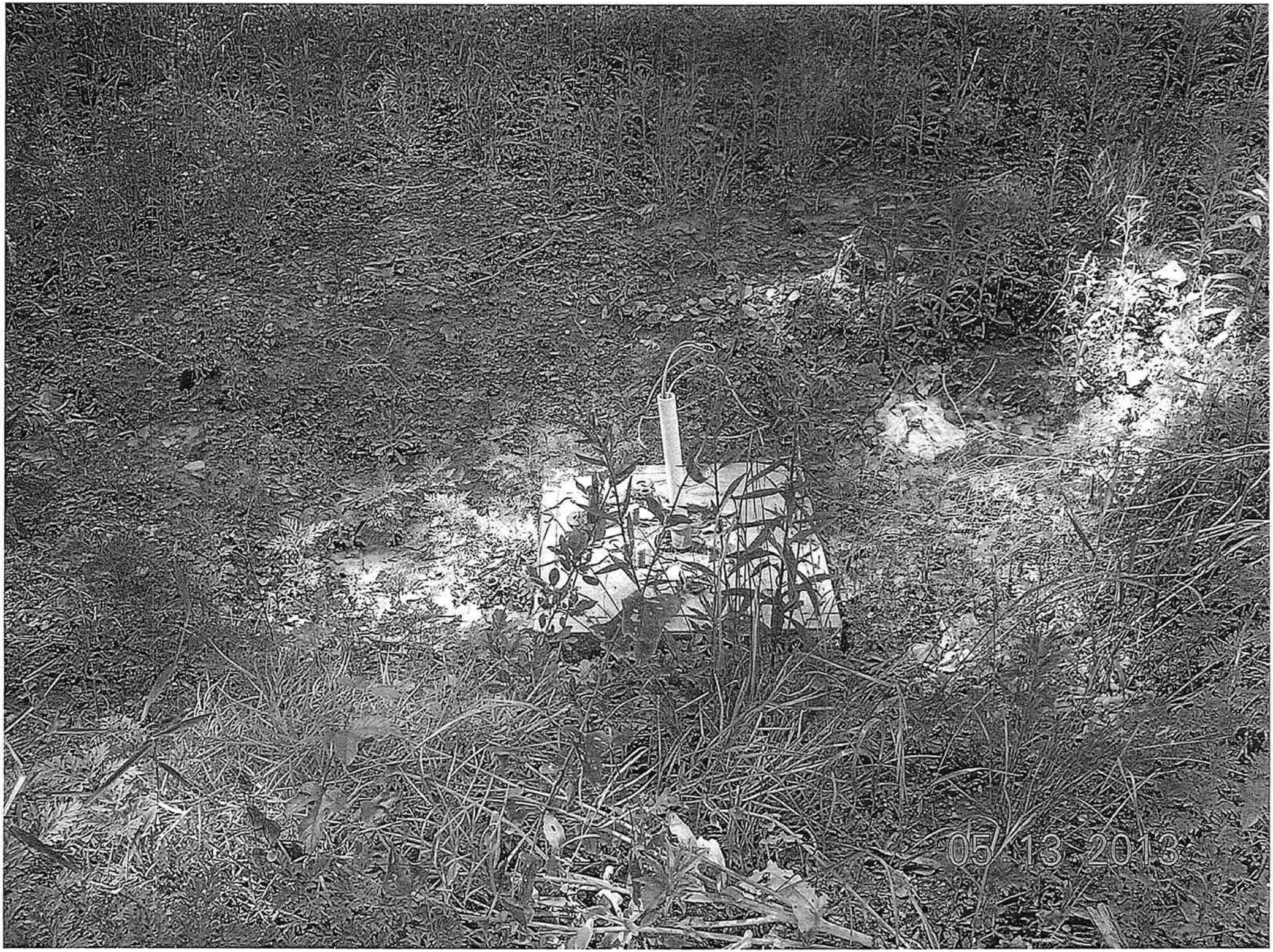

05.13.2013


05 13 2013


05.13.2013


05:13:2013


05-13-2013


05 13 2013


05.13.2013