

July 22, 2022

Mr. Mitchell Lowe
Capitol Advisors Group
Via Email:
Mitchelllowe@cagark.com

Re: Summary Fire Origin and Cause Report

File Name: Greg and Melissa Harris
Address: 119 Davis Road, Atkins, Arkansas 72823
Client #: HARRIS
Cause of Loss: Fire
Date of Loss: June 28, 2022 @ approximately 00:15 hours
J.S. Held Project #: 22062457

Mr. Lowe:

At your request, a fire origin and cause investigation was conducted with respect to a fire that involved the above-referenced fire loss. The site of the loss was inspected on June 30, 2022.

This fire origin and cause investigation was conducted in accordance with the practices recommended in the current edition of the National Fire Protection Association (NFPA) 921 "Guide for Fire & Explosion Investigations". The author of this report meets or exceeds NFPA 1033 "Standard for Professional Qualifications for Fire Investigators" and employed the elements of the scientific method as an operating analytical process throughout the investigation and for the development of conclusions.

The non-destructive observations and evaluations made served to document for assessment purposes the condition of the systems and/or components as called for within the scope. As provided by the site visit conducted, the following visual observations were found to exist and were recorded as follows.

SCOPE

This fire origin and cause investigation was performed so as to identify the area from which the fire originated, the fuel involved, the ignition source, and to determine the circumstances that brought these elements together to establish the cause for this fire to have occurred.

At the conclusion of the investigation, a verbal description of our findings was presented to Mitchell Lowe on June 30, 2022. Mr. Lowe requested a written summary report with limited photographs in place of a full report. If a full report and photograph appendix should be required in the future, one can be provided upon request.

BACKGROUND

The residence is listed in Pope County Property Records as a 2011 double-wide manufactured home. The structure is 1,456 square feet in size and is located in a rural area outside the city limits of Atkins in Pope County, Arkansas. Greg and Melissa Harris use the manufactured home as their primary residence. They reported to me that they did not have insurance coverage on the structure or contents at the time of the fire loss due to budget constraints.

The front of the wood-framed mobile home faces toward the east. The mobile home was anchored, and the perimeter was enclosed with vinyl skirting. Exterior walls were covered with vinyl siding. The roof assembly was covered with three-tab asphalt composite shingles. Interior partition walls and ceilings were covered with drywall. The wood sub-floors were covered with laminate, carpet, and vinyl floor coverings. The remains of the contents observed inside the residence were consistent with a structure occupied by two adults, three children, and a pet dog. The dog died as a result of the fire and was recovered by Greg Harris from the master bedroom in the northwest quadrant of the residence.



Pre-fire view of residence with 10' x 9' wood deck attached to the front, east side

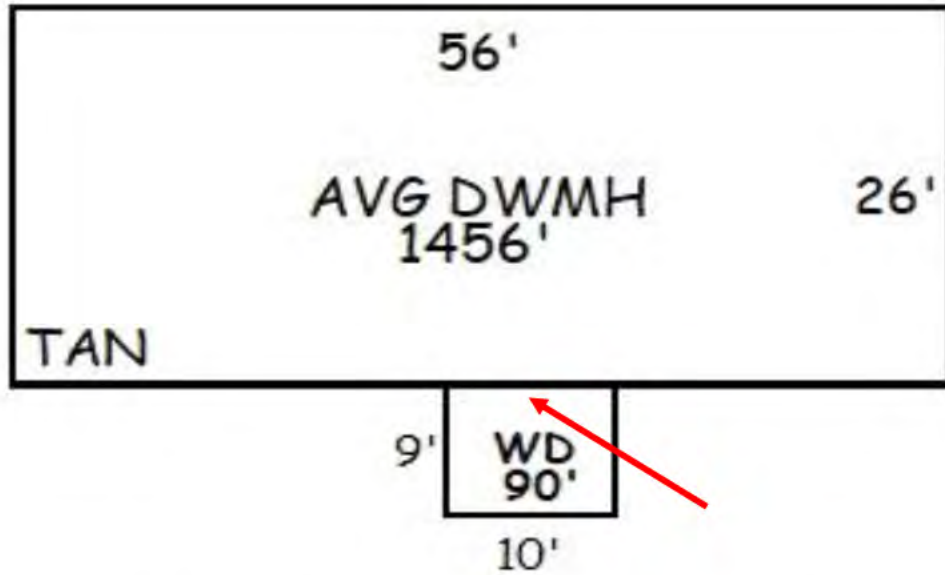
Entergy Corporation supplies electric service in the area. The electric service entered the structure from a pole-mounted electric meter socket located off the northwest corner of the structure. The electric meter was intact and still in place at the time of my inspection.

OBSERVATIONS AND FINDINGS

Fire pattern analysis, empirical data, data analysis, and witness statements revealed the fire originated outside the residence on the elevated wood deck attached to the front, east side of the structure. The fire spread upward and outward from that singular and localized area of fire origin. Due to the presence of an ignitable liquid that was dispersed into the area of fire origin, irregular fire patterns were observed that confirmed that the fire also burned downward through the wood deck and penetrated inward by entrainment toward the interior floor assembly around the front door entrance to the residence. The elevated and attached wood deck, the mid-section of the front, east side exterior wall assembly, and the roof assembly over the living room area were completely burned away because of the fire. An inverted and angular “V” shaped fire pattern was observed and documented on the interior side of the front door entrance at floor level. Heat stress and oxidation patterns were observed on the east side of the section of the steel I beam located near the front door entrance to the residence.

A detailed inspection of the area of fire origin confirmed that there were no electric branch circuits located in or routed through the area where the fire originated. Inspection of the battery and battery cables on the riding lawn mower located approximately ten feet to the south of the front door did not show any evidence of electrical activity to failure. A charcoal grill located on the east side of the wood deck was used by Greg Harris to cook steaks on the night of the fire loss but was not located in the area where the fire originated. Greg and Melissa Harris are both smokers and stated they did smoke on the front wood deck while they were grilling steaks several hours prior to the discovery of the fire. A fire caused by smoldering and unattended cigarette butts is not consistent with the timeline of events on the night of the fire nor is it consistent with the irregular fire patterns documented in the area where the fire originated and the presence of an ignitable liquid in the debris sample taken from the area of fire origin. All potential and possible timelines, ignition sources, first fuel sources, and fire cause hypotheses were considered using inductive and deductive reasoning prior to reaching final opinions and conclusions regarding the cause of this fire.

The ignition source for this fire can be inferred per NFPA 921 to be a device capable of producing an open flame such as a match or lighter that was most likely removed from the fire scene by the person(s) who deliberately set the fire on the front wood deck just outside the front door entrance. The first material ignited would be vapors from the ignitable liquid that was dispersed onto the wood deck and front door to serve as an accelerant for the fire. The ignition sequence that brought together the ignition source and first material ignited together required human intervention. It is my professional opinion that this fire was deliberately set with malice. The cause of this fire loss is incendiary.



View of exterior dimensions with the area of fire origin denoted by a red arrow



Aerial Satellite Pre-Fire Photograph of Structure obtained from Google Earth

The following items were considered and/or relied upon to form my opinions and conclusions:

- Site Inspection of the fire scene using a systematic approach and the scientific method
- Identification of a singular and definitive area of fire origin in the fire area
- Fire Analysis and Fuel Load Analysis
- Fire Dynamics and Fire Effects on Materials
- Directional Fire Patterns
- Movement and Intensity Fire Patterns
- Documentation and Inspection of Electric Service Entrance Equipment
- Arc map survey in the general area of fire origin
- Loss of Mass Fire Patterns
- Arrow Patterns
- Empirical Data
- Deductive and Inductive Reasoning
- Identification of Competent Ignition Source by inference
- Debris sample testing positive for the presence of ignitable liquids (accelerant)
- Identification of first fuel ignited
- Witness Statements
- Timeline Analysis
- Review of photographs taken during the inspection of fire scene
- Pottsville Fire Department Incident Report
- Pope County Property Information for 119 Davis Road, Atkins, Arkansas
- Exterior Dimensions Diagram
- NFPA 921 – 2021 Edition

EVIDENCE

Item No.	Brief Description	Location Recovered from	Date Collected
S-1	Debris sample taken from area of fire origin	Collected 22' 7" North of Southeast Exterior Corner and 1' East of East Exterior Wall Below Front Door	06/30/2022

RESULTS AND INTERPRETATIONS FROM F.A.S.T. Lab:

A light petroleum distillate was present in Item 1. Products in this range include, but are not limited to, some types of camping fuels, cigarette lighter fluids, and Naphtha. A copy of the lab report is enclosed. N.F.P.A. 921 – 2021 Edition Referenced Definitions:

3.3.2 Accelerant. A fuel or oxidizer, often an ignitable liquid, intentionally used to initiate a fire or increase the rate of growth or spread of fire.

3.3.9 Arc Mapping. Identifying and documenting a fire pattern derived from the identification of arc sites used to aid in determining the area of fire origin or spread.

3.3.13 Area of Origin. A structure, part of a structure, or general geographic location within a fire scene, in which the "point of origin" of a fire or explosion is reasonably believed to be located.

3.3.14 Arrow Pattern. A fire pattern displayed on the cross-section of a burned wooden structural member

3.3.15 Arson. The crime of maliciously and intentionally, or recklessly, starting a fire or causing an explosion.

3.3.27 Cause. The circumstances, conditions, or agencies that brought about or resulted in the fire or explosion incident, damage to property, bodily injury, or loss of life.

3.3.37 Competent Ignition Source. An ignition source that has sufficient energy and can transfer that energy to the fuel long enough to raise the fuel to its ignition temperature.

3.3.42 Data Analysis. The process of systematically utilizing logical techniques to dissect, reorder, evaluate, and interpret data.

3.3.43 Deductive Reasoning. The process by which conclusions are drawn by logical inference from given premises.

3.3.54 Empirical Data. Factual data that is based on actual measurement, observation, or direct sensory experience rather than on theory

3.3.56 Entrainment. The process of air or gases being drawn into a fire, plume, or jet.

3.3.69 Fire Analysis. The process of determining the origin, cause, development, responsibility, and, when required, failure analysis of a fire or explosion.

3.3.70 Fire Area. The boundary of fire effects within a scene in which the area of origin will be located. The fire area is characterized by identifying the border between damaged and undamaged areas, which are distinguishable by fire effects and patterns created by flame, heat, and smoke.

3.3.71 Fire Cause. The circumstances, conditions, or agencies that bring together a fuel, ignition source, and oxidizer (such as air or oxygen) resulting in a fire or a combustion explosion.

3.3.73 Fire Dynamics. The detailed study of how chemistry, fire science, and the engineering disciplines of fluid mechanics and heat transfer interact to influence fire behavior.

3.3.74 Fire Effects. The observable or measurable changes in or on a material because of a fire.

3.3.76 Fire Investigation. The process of determining the origin, cause, and development of a fire or explosion.

3.3.78 Fire Patterns. The visible or measurable physical changes, or identifiable shapes, formed by a fire effect or group of fire effects.

3.3.83 First Fuel Ignited. The first fuel ignited is that which first sustains combustion beyond the ignition source.

3.3.116 Ignitable Liquid. Any combustible or flammable liquid.

A3.3.121 Incendiary Fire. A fire that is intentionally ignited in an area or under circumstances where and when there should not be a fire.

3.3.122 Inductive Reasoning. The process by which a person starts from a particular experience and proceeds to generalizations. The process by which hypotheses are developed based upon observable or known facts and the training, experience, knowledge, and expertise of the observer.

3.3.133 Material First Ignited. The fuel that is first set on fire by the heat of ignition; to be meaningful, both a type of material and a form of material should be identified.

3.3.166 Scene. The general physical location of a fire or explosion incident (geographic area, structure or portion of a structure, vehicle, boat, piece of equipment, etc.) designated as important to the investigation because it may contain physical damage or debris, evidence, victims, or incident-related hazards.

3.3.167 Scientific Method. The systematic pursuit of knowledge involving the recognition and definition of a problem; the collection of data through observation and experimentation; analysis of the data; the formulation, evaluation and testing of hypotheses; and, where possible, the selection of a final hypothesis.

3.3.199 Timeline. Graphic representation of the events in a fire incident displayed in chronological order.

CLOSING

Thank you for the opportunity to provide professional services. The opinions and conclusions in this report have been formulated within a reasonable degree of professional certainty. Please note that J.S. Held LLC opinions are based on the information provided and/or obtained as well as our training, knowledge and experience. To the extent that hidden conditions exist, and/or additional information is made available, J.S. Held LLC reserves the right to revise or update any of the observations, assessments, and/or opinions as conditions change or additional information is provided for our review.

This document is to inure to the benefit of the addressee only and may not be relied upon, used by, or referenced by any third party without the written consent of J.S. Held LLC. If clarification or additional information is required, please do not hesitate to contact us.

Respectfully,
J.S. Held LLC



Senior Fire Investigator III

Technical Review by:
J.S. Held, LLC



Chad R. Forshee, CFI-IFSAC, CFEI
Vice President, Fire O&C Practice Lead

Appendices: A. Captioned Photographs
B. Pottsville Fire Department Incident Report
C. FAST Lab Report
D. Pope County Property Information

cc: File # 22062457



22062457 Greg and Melissa Harris

APPENDIX A

Captioned Photographs



Photo No. 1: Front, east side elevation



Photo No. 2: South side elevation



Photo No. 3: Rear, west side elevation



Photo No. 4: Elevated window at rear, west side used by Harris family to escape from fire



Photo No. 5: View of northwest exterior corner



Photo No. 6: View of intact pole mounted transformer supplying power to residence



Photo No. 7: View of pole mounted electric meter socket and main breaker for residence



Photo No. 8: View of intact Entergy MDM (smart) meter manufactured by Honeywell



Photo No. 9: View of 200 amp Cutler-Hammer service disconnect breaker



Photo No. 10: View of fire patterns at north side of living room



Photo No. 11: View of fire patterns at floor level near front door entrance to residence



Photo No. 12: View of area where wood deck was located at front door entrance



Photo No. 13: View of fire patterns at front door entrance where wood deck was attached to residence, note loss of mass and depth of char on wood framing



Photo No. 14: View of area of fire origin near exterior side of front door entrance



Photo No. 15: View of riding lawn mower parked at south end of wood deck, note fire patterns on inside of wood deck framing (shown with yellow arrow)



Photo No. 16: View of remains of battery on riding mower



Photo No. 17: View of fire patterns at area of fire origin near front door, note that attached and elevated wood deck is completely burned away



Photo No. 18: View of directional fire patterns at area of fire origin & tempering on steel



Photo No. 19: View of loss of mass, directional, tempering and depth of char fire patterns



Photo No. 20: View of fire patterns on underside of sub-flooring near front door entrance



Photo No. 21: View of debris sample S-1 collected from area of fire origin



Photo No. 22: View of general area of fire origin on attached wood deck



Photo No. 23: View of sealed sample S-1 collected at ground level below front door entrance

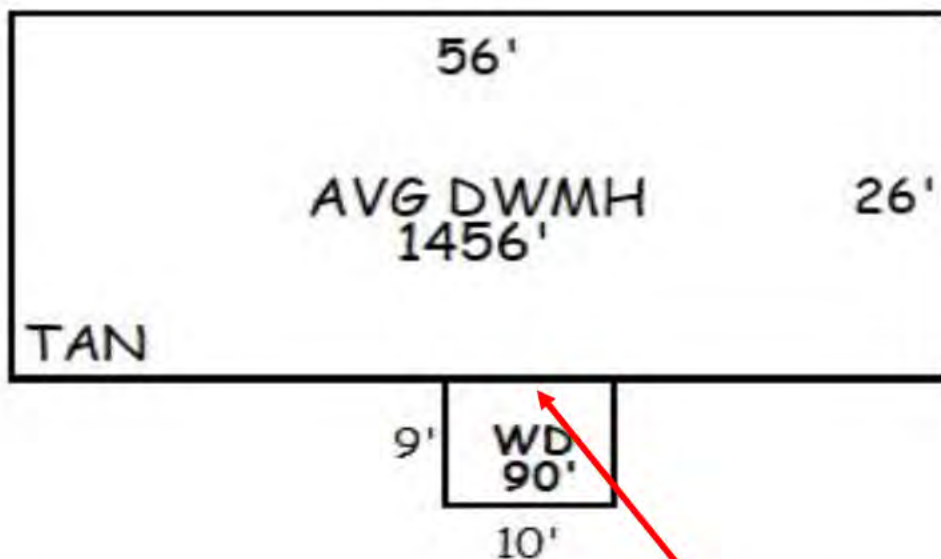


Photo No. 24: View of exterior dimensions with area of fire origin shown with red arrow

APPENDIX B

Pottsville Fire Department Incident Report

Pottsville Fire Dept
 Station:

Location: 119 DAVIS RD Atkins AR 72823	Incident Type: 111 - Building fire
Lat/Long: N 35° 12' 6.87" W 93° 1' 58.54"	FDID: 58007 Incident #: 2022-177 Exposure ID: 67027447 Exposure #: 0 Incident Date: 06/28/2022
Location Type: 1 - Street address	

Report Completed by:	Administrator, Potts	ID:	Date: 06/29/2022
Report Reviewed by:	Administrator, Potts	ID:	Date: 06/29/2022
Report Printed by:	Administrator, Potts	ID:	Date: 6/30/2022 Time: 12:12

Structure Type: Enclosed building		Property Use: 419 - 1 or 2 family dwelling	
Automatic Extinguishment System Present: <input type="checkbox"/>		Detectors Present: <input type="checkbox"/> Cause of Ignition: Cause under investigation	
Aid Given or Received: Automatic aid received		Primary action taken: 11 - Extinguishment by fire service personnel	
Losses	Pre-Incident Values		
Property:	Property:	Civilian Injuries: 0	Fire Service Injuries: 0
Contents:	Contents:	Civilian Fatalities: 0	Fire Service Fatalities: 0
Total:	Total:	Total Casualties: 0	Total Fire Service Casualties: 0
Total # of apparatus on call: 5		Total # of personnel on call: 14	

Special Studies

COVID 19 was a factor in this incident.	No, COVID 19 was not a factor.
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NARRATIVE (1)
Narrative Title: BRAD J

Narrative Author: Administrator, Potts

Narrative Date: 06/29/2022 13:42:03

Narrative Apparatus ID: 305

Narrative:

PFD UNITS WERE DISPATCHED TO A CALL OF A RESIDENTIAL STRUCTURE FIRE AT 119 DAVIS RD , UPON ARRIVAL FIRST UNIT FOUND A RESIDENTIAL STRUCTURE MANUFACTURED HOME APPXY 1300 SQ FT IN SIZE WITH APPXY 75 PERCENT INVOLVEMENT IN FIRE , WITH THE CENTER FRONT OF THE HOUSE THE MOST INVOLVED WITH THE ROOF ALREDY BURNED AWAY , THEY MADE ATTACK DEFENSIVE ON THE FIRE , AS THEY STRTED ALL OTHER UNITS FROM PFD AND ATKINS FD WHO RESPONDED AUTO AID ASSISTED IN EITHER FIRE EXSTINGUISHMENT OR WATER SUPPLY , ALL UNITS STAYED UNTIL FIRE WAS DETERMINED TO BE OUT .

OWNER OF PROPERTY

GREG HARRIS

PHONE NUMBER

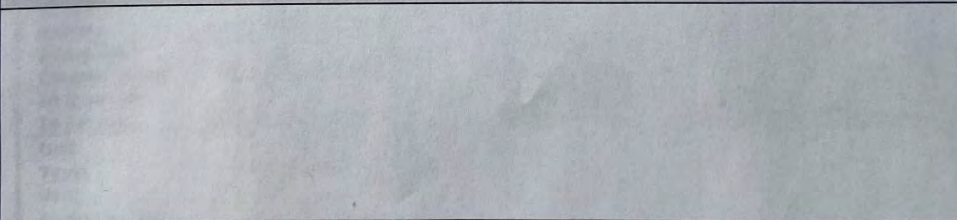
APPARATUS

Unit	303	Unit	305
Type:	Engine	Type:	Engine
Use:	Suppression	Use:	Suppression
Response Mode:	Lights and Sirens	Response Mode:	Lights and Sirens
# of People	3	# of People	3
Injury Or Onset	-- / -- / -- -- : -- : --	Injury Or Onset	-- / -- / -- -- : -- : --
Alarm	06 / 28 / 2022 00:15:00	Alarm	06 / 28 / 2022 00:15:00
Dispatched	06 / 28 / 2022 00:15:00	Dispatched	06 / 28 / 2022 00:15:00
Enroute	-- / -- / -- -- : -- : --	Enroute	-- / -- / -- -- : -- : --
Arrived	06 / 28 / 2022 00:24:00	Arrived	06 / 28 / 2022 00:24:00
Cancelled	-- / -- / -- -- : -- : --	Cancelled	-- / -- / -- -- : -- : --
Cleared Scene	06 / 28 / 2022 02:39:00	Cleared Scene	06 / 28 / 2022 02:39:00
In Quarters	-- / -- / -- -- : -- : --	In Quarters	-- / -- / -- -- : -- : --
In Service	06 / 28 / 2022 02:39:00	In Service	06 / 28 / 2022 02:39:00
Unit	307	Unit	308
Type:	Tanker & pumper combination	Type:	Tanker & pumper combination
Use:	Other	Use:	Other
Response Mode:	Lights and Sirens	Response Mode:	Lights and Sirens
# of People	2	# of People	3
Injury Or Onset	-- / -- / -- -- : -- : --	Injury Or Onset	-- / -- / -- -- : -- : --
Alarm	06 / 28 / 2022 00:15:00	Alarm	06 / 28 / 2022 00:15:00
Dispatched	06 / 28 / 2022 00:15:00	Dispatched	06 / 28 / 2022 00:15:00
Enroute	-- / -- / -- -- : -- : --	Enroute	-- / -- / -- -- : -- : --
Arrived	06 / 28 / 2022 00:24:00	Arrived	06 / 28 / 2022 00:24:00
Cancelled	-- / -- / -- -- : -- : --	Cancelled	-- / -- / -- -- : -- : --
Cleared Scene	06 / 28 / 2022 02:39:00	Cleared Scene	06 / 28 / 2022 02:39:00
In Quarters	-- / -- / -- -- : -- : --	In Quarters	-- / -- / -- -- : -- : --
In Service	06 / 28 / 2022 02:39:00	In Service	06 / 28 / 2022 02:39:00
Unit	304		
Type:	Rescue unit		
Use:	Other		
Response Mode:	Lights and Sirens		
# of People	3		
Injury Or Onset	-- / -- / -- -- : -- : --		
Alarm	06 / 28 / 2022 00:15:00		
Dispatched	06 / 28 / 2022 00:15:00		
Enroute	-- / -- / -- -- : -- : --		
Arrived	06 / 28 / 2022 00:24:00		
Cancelled	-- / -- / -- -- : -- : --		
Cleared Scene	06 / 28 / 2022 02:39:00		
In Quarters	-- / -- / -- -- : -- : --		
In Service	06 / 28 / 2022 02:39:00		

Number Of People not on apparatus: 0

FIRE

Acres Burned	None or Less Than One	Acres Burn From Wildland Form	False
Area Of Fire Origin	Entranceway, lobby	Heat Source	Undetermined
Item First Ignited	Undetermined	Fire Is Confined To Object Of Origin	
Type Of Material	Undetermined	Cause Of Ignition	Cause under investigation
Factor Contributing To Ignition	Undetermined		
Human Factors Contributing	None		
STRUCTURE FIRE			
Structure Type	Enclosed building	Building Status	In normal use
# Of Stories At Above Grade	1	# Of Stories Below Grade	0
Square Feet	1300	Length	
Width		Floor Of Origin	1
Fire Spread	Confined to building of origin		
Minor Damage	0	Significant Damage	0
Heavy Damage	0	Extreme Damage	0
ARSON			
Agency Name	Agency Address	Agency Phone	
	PINE RIDGE RD		

INCIDENT IMAGES


Member Making Report (Potts Administrator):

APPENDIX C

FAST Lab Report



**FORENSIC
AND
SCIENTIFIC
TESTING**

ISO/IEC 17025:2017 Accredited
Certified Laboratory Report

21 Industrial Dr. Page 1/1
Thorsby, AL 35171
Phone: 205-646-0071
E-Mail: swells@fast-lab.com

JS Held
Don Davis

Date: July 11, 2022
D.O.L.: 6/27/22
Date Collected: 6/30/22

Insured: Harris, Greg and Melissa
Claim #: Harris

FAST, Inc. Case #: FJS-7-63799

Investigator: Don Davis
Investigator Case # 22062457
Exam request: Ignitable Liquid Residue

Evidence Delivered on: 7/7/22
Delivery Method: UPS

Items

1. Gallon can listed as containing charred debris from 22'7" N of SE exterior corner and 1' E of E exterior wall below location of front door

METHOD

The above material was prepared by the charcoal vapor concentration technique (ASTM E1412-19) and subjected to gas chromatographic-mass spectrometric analysis (ASTM E1618-19).

RESULTS AND INTERPRETATIONS

A light petroleum distillate was present in Item 1. Products in this range include, but are not limited to, some types of camping fuels, cigarette lighter fluids and Naphtha.



Sharee B. Wells, MS, ABC-FD
Forensic Scientist

APPENDIX D

Pope County Property Information

Parcel Number:	003-00132-004A
County Name:	Pope County
Property Address:	HARRIS MELISSA S & GREG K 119 DAVIS RD ATKINS, AR 72823-7168 Map This Address
Mailing Address:	HARRIS MELISSA S & GREG K 119 DAVIS RD ATKINS AR 72823
Collector's Mailing Address ?:	HARRIS GREGORY & MELISSA 119 DAVIS RD ATKINS, AR 72823
Total Acres:	1.01
Timber Acres:	0.00
Sec-Twp-Rng:	05-06N-19W
Lot/Block:	/
Subdivision:	
Legal Description:	PT NE NE
School District:	61 POTTSVILLE OUT
Homestead Parcel?:	Yes
Tax Status:	Taxable
Over 65?:	No

Sales History

Filed	Sold	Price	Grantor	Grantee	Book	Page	Deed Type
1/3/2020	1/3/2020	0	DORRIS ROBERT & OCEL	HARRIS MELISSA & GREG	2020	79	QCD(QUITCLAIM DEED)
7/7/2014	7/1/2014	23,500	OVERTURF DALE R	DORRIS OCEL D	14-28	392	WD(WARRANTY DEED)
5/28/2014	5/22/2014	13,000	SPARKS HERBERT & NORA	OVERTURF DALE R	14-22	319	WD(WARRANTY DEED)
4/11/2011	4/8/2011	8,000	KIES B	SPARKS	11-17	788	WD(WARRANTY DEED)
4/11/2011	3/18/2011	0	C HEDRICK/KIES	KIES B	11-17	786	QCD(QUITCLAIM DEED)

Valuation Information

Entry	Appraised	Assessed
Land: ?	5,050	1,010
Improvements: ?	35,300	7,060
Total Value: ?	40,350	8,070
Taxable Value: ?		8,070
Millage:		0.0497
Estimated Taxes: ?		\$401.08
Homestead Credit:		(\$375.00)
Estimated Taxes w Credit:		\$26.08
Assessment Year:		2021



Living Area 1st Floor	0	Basement Unfinished	0																
Living Area 2nd Floor	0	Basement Finished w/Partitions	0																
		Basement Finished w/o Partitions	0																
Living Area Total SF	0	Basement Total SF	0																
Occupancy Type:	Mobile Home																		
Grade:	D5																		
Story Height:	1 Story																		
Year Built:	2011																		
Effective Age:	9																		
Construction Type:																			
Roof Type:	Unkown																		
Heat / AC:	None																		
Fireplace:	0 0																		
Bathrooms:	0 full 0 half																		
Foundation Type:	Unkown																		
Floor Type:	Unkown																		
Floor Covering:																			
Outbuildings / Yard Improvements:	<table border="1"> <thead> <tr> <th>OBVI Item</th> <th>Quantity</th> <th>Size</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>FOB NCV</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td>WD NCV</td> <td>90</td> <td>10 x 9</td> <td></td> </tr> <tr> <td>WD NCV</td> <td>30</td> <td>6 x 5</td> <td></td> </tr> </tbody> </table>			OBVI Item	Quantity	Size	Description	FOB NCV	1			WD NCV	90	10 x 9		WD NCV	30	6 x 5	
OBVI Item	Quantity	Size	Description																
FOB NCV	1																		
WD NCV	90	10 x 9																	
WD NCV	30	6 x 5																	

What do these OBVI Abbreviations mean?