





Atlantic Claims Service, Inc.

APRIL 20, 1995

Mooreville Ford
Attn: Grady Shew, General Manager
P O Box 509
Mooreville, NC 28115

RE: Insured: [REDACTED]
Our Policy #: [REDACTED]
Date of Loss: 02-03-95
Your Customer: [REDACTED]
Insured Vehicle: 1995 Ford 150

Dear Mr. Shew:

We have been called upon by our insured, [REDACTED] Construction, [REDACTED] to provide payment for damages sustained to his above vehicle as a result of a fire loss. [REDACTED] vehicle, a 1995 Ford 150 bearing VIN 1FTRK1AN5SK [REDACTED] was rendered a total loss in this incident. We understand he purchased this vehicle at Mooreville Ford. Therefore, we are presenting our claim to you.

Our investigation has revealed that this fire was caused by a malfunction of the fuel injection. Fire Investigator, Chris Elrod, completed a thorough investigation at our request. If you wish to inspect this vehicle contact Baheson Auto and Salvage, Ash, North Carolina. Additionally, Mr. Elrod's report includes several color photos and a complete description of his findings.

Our payment of \$25,000.00 represented the actual cash value of this vehicle. Please review the enclosed material and advise if additional information is needed. Please make your check payable to Atlantic Casualty Insurance Company as Subrogee of [REDACTED]. Should you forward this claim to the manufacturer, please advise us so that we may follow up on our claim. Your cooperation is appreciated.

Sincerely,

Deborah A. Sykes
Deborah A. Sykes
Subrogation Department
1-800-673-4773 *8 1149

ENC-885-LC1-3443

Insured: [REDACTED]

ASSIGNMENT

The assignment was received on March 27, 1995 with specific instructions to conduct a fire scene examination in order to determine cause and origin. The investigation commenced March 28, 1995.

ENCLOSURES

1. Twenty (20) color photographs with explanation sheet

RISK

The vehicle was examined at Babson Auto and Salvage in Ash, NC on March 28, 1995. The vehicle is a 1995 Ford F150 with VIN 1FTEX14N5SK[REDACTED]. The registration plate was not present on the vehicle at the time of my examination. Due to fire damage, safety inspection information and the vehicle's mileage could not be determined.

EXTERIOR

Overall with the exception of fire damage, the exterior of this vehicle was in good condition, with no evidence of pre-fire collision damage, repaired body damage, etc.

Fire damage is concentrated the heaviest in the front portion of the vehicle becoming progressively less as one moves from this area. The area in the front which also included the extended cab and consumed most of the combustible components of the interior of the cab.

At the time of the fire, all four tires were present on the vehicle, during my examination the tires were equal and matching and in good serviceable condition. There were no signs of pre-fire forced entry into this vehicle, and all windows were destroyed by the fire.

INTERIOR

All vehicle doors were closed at the time of the fire with door latching mechanisms activated and all windows were in the raised position. Debris within both the driver and passenger compartment were examined and did not reveal evidence of fire origination. At the conclusion of debris examination and removal, there were no unusual items found. Personal contents found during my examination included the remains of the glove compartment which contained the vehicles owners manual as well as lease information. I also discovered during my examination, a tool box located directly behind the cab which contained some items of personal belongs such as the remains of a drill as well as other tools and construction items.

Case No: A-9538-05

-3-

April 5, 1995

Insured: [REDACTED]

ENGINE COMPARTMENT

This vehicle was powered by an eight cylinder fuel injected gasoline engine, power was provided to the rear wheels through an automatic transmission with four wheel drive capabilities.

Fire damage in the engine compartment was severe throughout with heavy concentration in the area of the fuel injection and fuel lines.

All engine components were present within the compartment at the time of the loss, and no unusual conditions were noted. Oil level was normal and there was no evidence of fluid leakage from any other engine components. Nothing was visible within the engine compartment that would establish that the vehicle was inoperable at the time of the fire.

The vehicle's 12V battery was present, and the vehicle's electrical system and wiring did not show any evidence of shorting or heating indicating an electrical fire causing malfunction. It was impossible to determine if there was any pre-fire failure of any fuses as the vehicle's fuse box was completely destroyed by the fire.

The burn patterns and severe fire damage seen throughout the engine compartment are consistent with a fuel fed fire. Heaviest fire concentration was in the area where the fuel injection manifold and assembly was located. Fire damage in this area was severe causing extensive melting of the alloy components. All fuel lines were still in place in the rear portion of the manifold and any return lines or other type of fuel carrying or vapor carrying lines on or around the fuel injection was destroyed unless the lines were constructed of an alloy that could withstand the severe fire temperatures that were within the engine compartment at the area of origin. Examination of the fuel lines failed to reveal any items of evidence as they were still attached in their proper location. The looseness of the fuel line is not indication of malfunction, due to the fact that any rubber gaskets or over rings that were attached to this lines were also destroyed by the fire causing a very marked looseness of the fuel lines.

DETERMINATION OF CAUSE AND ORIGIN

Based on both interviews and my physical fire scene investigation, I am of the opinion that this fire is accidental in nature. The fire is a result of the ignition of gasoline in the engine compartment due to failure of the fuel injection system. The exact point of failure is not known due to extreme fire damage. The source of ignition could be any number of components within the engine compartment capable of producing an electric spark and/or producing heat during normal engine operation.

COMMENTS

I am aware that at the time of this loss, the insured had just parked the vehicle for a short time in order to go to another person's location. During the time of his departure, the vehicle caught fire in

Case No: A-9538-05

-4-

April 5, 1995

Insured: [REDACTED]

the engine compartment and there by spreading throughout the remaining portions of the vehicle as previously described.

As you are also aware, the vehicle actually caught fire at a location in Little River, SC, and that follow-up inspection by fire officials who responded to the initial call, stated that their opinion was that the fire was also a result of a fuel injection malfunction.

After gathering information thus far and conferring with you verbally, the only further investigative activity, if during this interim you have any questions, comments, or additional instructions, please advise at your convenience.

Chris Elrod, Fire Investigator
Wilmington, NC
910-452-0203

cc: Steve Langham, Fire Investigator

Case No: A-9538-05

Insured: [REDACTED]

Enclosure No: 1

PHOTOGRAPH EXPLANATION SHEET

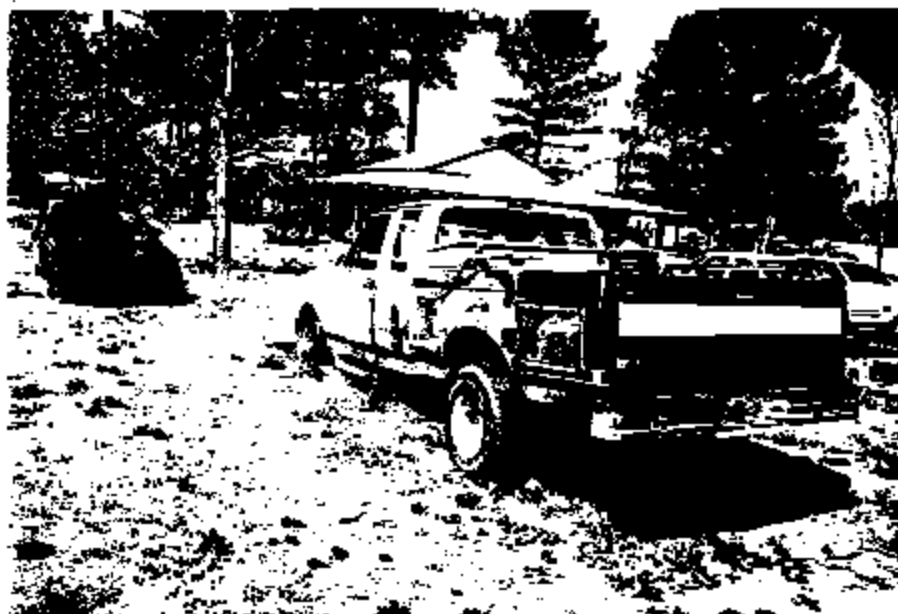
- 1-2. Exterior driver's side
3. Exterior showing both gas tank filler doors and caps in place
- 4-5. Exterior passenger side
6. Remains of tool box in tail bed showing personal belongings
7. Underneath portion of the vehicle showing lack of fire damage
8. View of interior damage from over-the hood
- 9-11. Overall damage on the interior
12. Remains of glove box which included owners manual
13. Remains of fuse box
14. Intact remains of dashboard wiring
15. Overall engine compartment
16. Remains of 12V battery
17. Close-up of fuel lines
18. Close-up of fuel injection remains
19. Close-up of wiring from engine side of fire wall
20. Close-up of battery terminals showing no unusual conditions

PHOTO SHEET

FILE NO. A9538-04



1



2

PHOTO SHEET

FILE NO. A9528-05



3



4

EM85-085-LC1-3449

PHOTO SHEET

FILE NO. A9538-05



5



6

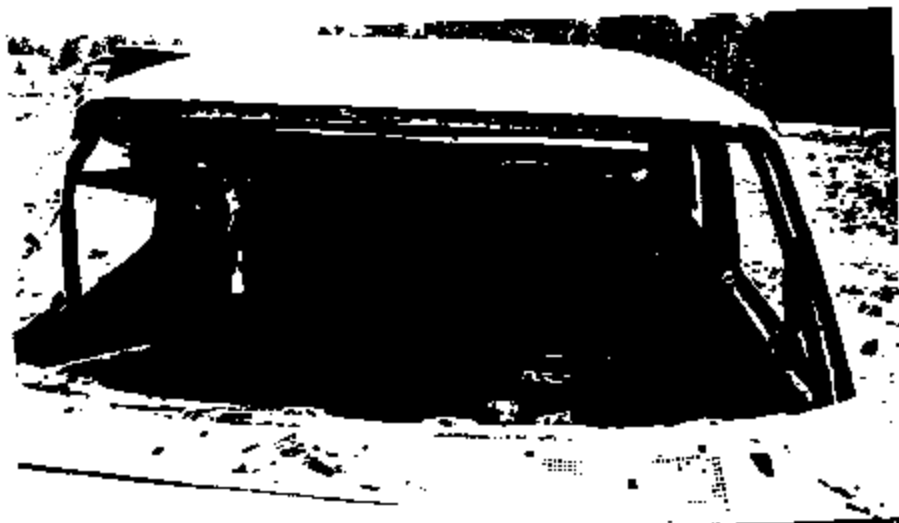
KA95-805-LC1-3450

PHOTO SHEET

FILE NO. A9538-05



7



8

PHOTO SHEET

FILE NO. 9958-05



9



10

PHOTO SHEET

FILE NO. A9538-05



11

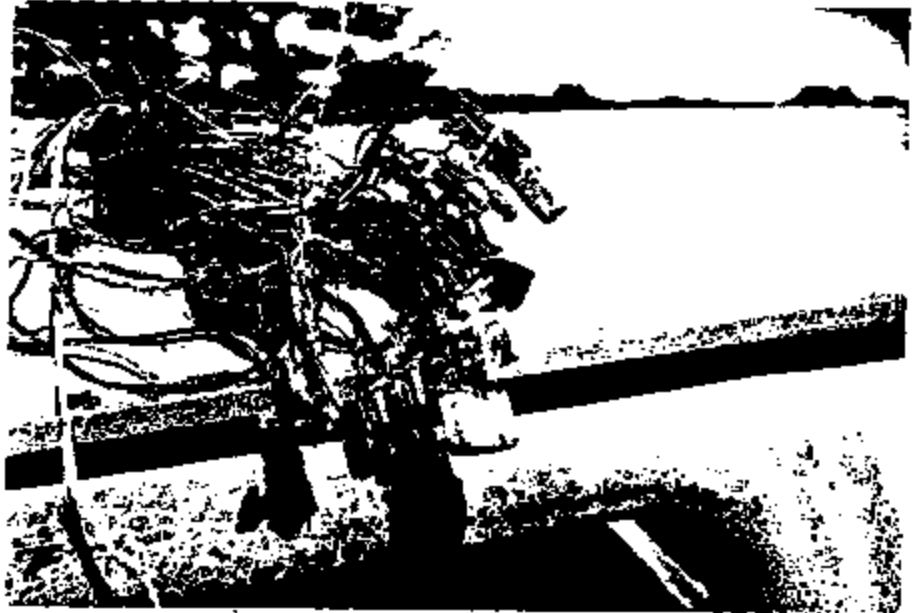


12

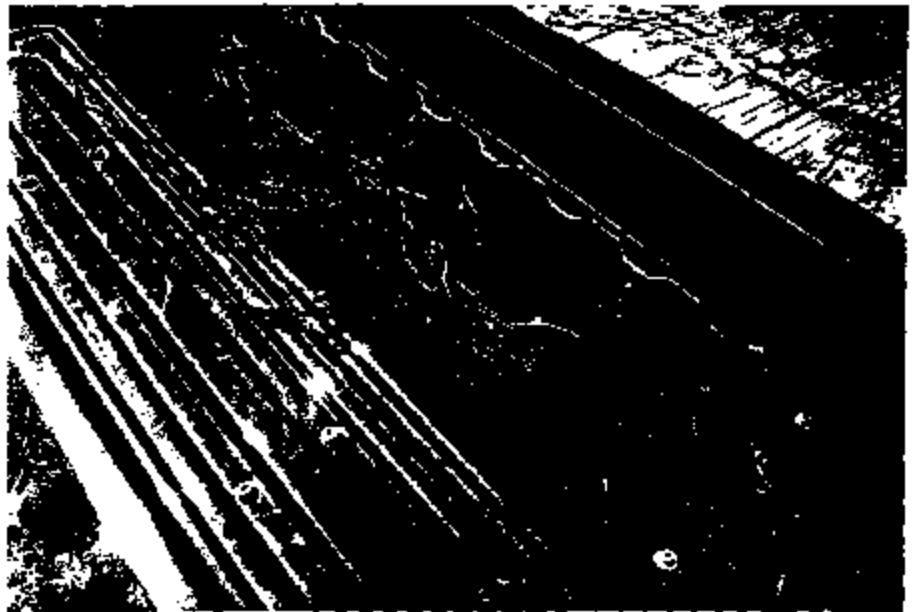
EP05-005-L01-3453

PHOTO SHEET

FILE NO. A9538-05



13

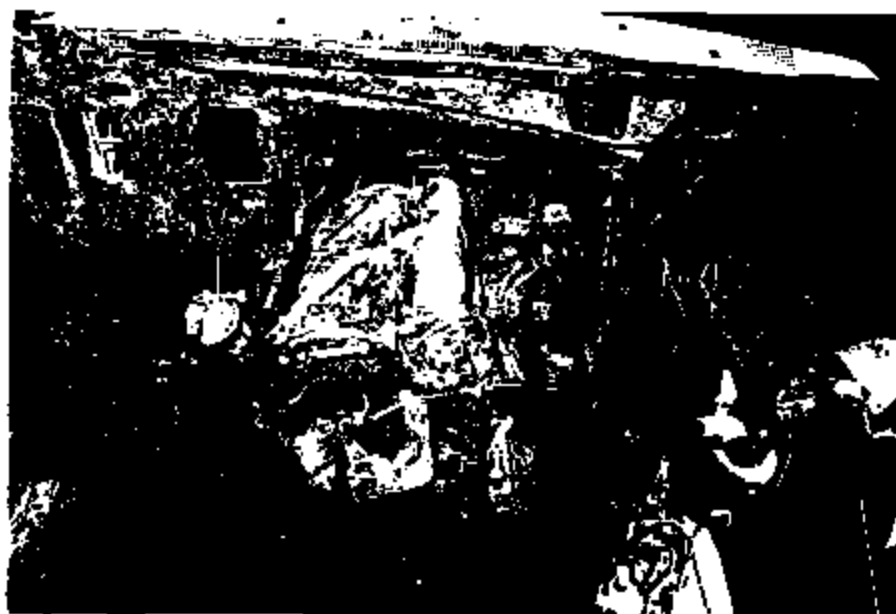


14

ER05-005-LC1-3454

PHOTO SHEET

FILE NO. A9538-05



15



16

PHOTO SHEET

FILE NO. A9538-05



17



18

ERG-805-LC1-3455

PHOTO SHEET

FILE NO. A 9538-05



19



20

ERSS-805-LC1-3457

HOBBS COUNTY FIRE DEPARTMENT

VOLUNTARY STATEMENT

Page 1 of 1

DATE 3 FEB 95 TIME 17:20 PLACE OFF OSCAR & RENOSSVILLE

I, L. MICHAEL LINKER am 28 years old and I live at R. 1 Box 1 Reno, Mo. 64575 Phone No. 577 5375

I am giving this statement to D.D. CROSSETT

I volunteer the following information of my own free will for whatever purpose it may serve:

I DROVE UP TO A PLACE WE CALL THE
HAT SHED, LEFT TO RIDE TO THE RIVER
AT THE END OF THE ROAD WITH MY
PARTNER. I HAD A COUPLE OF BEERS
AND HEARD A HORN BLOW. WHEN
I RETURNED MY TRUCK WAS ON FIRE
I WENT STRAIGHT TO BRUCE AND
HE WOULD CALLED 911.

I have read each page of this statement consisting of 1 page(s), each page of which bears my signature, and correction, if any, bear my initials, and I certify that the facts contained herein are true and correct. I also certify that I have received a copy of this statement.

Dated at SCENE this 3 day of FEB 1995

Signature [REDACTED]

Witness [REDACTED]

Witness [REDACTED]

Langham and Associates, Inc.

P.O. Box 1227

Morehead City, North Carolina 28557

STEVE W. LANGHAM, CFI
President

919/247-9256
FAX: 919/247-9258

INVESTIGATION REPORT

REPORT NUMBER One

PRIVILEGED AND CONFIDENTIAL

April 5, 1995

PREPARED FOR:

Atlantic Claims Company
P.O. Drawer 2027
Goldsboro, NC 27533

ATTENTION:

Ms. Shirley Whitley

INSURED:

[REDACTED]

DATE OF LOSS:

February 3, 1995

LOSS LOCATION:

Babeson Auto & Salvage-Ash, North Carolina

POLICY NUMBER:

[REDACTED]

CLAIM NUMBER:

FILE NUMBER:

D-9538-05

Case No: A-9538-05

-2-

April 5, 1995

Insured: [REDACTED]

ASSIGNMENT

The assignment was received on March 27, 1995 with specific instructions to conduct a fire scene examination in order to determine cause and origin. The investigation commenced March 28, 1995.

ENCLOSURES

1. Twenty (20) color photographs with explanation sheet

RISK

The vehicle was examined at Babson Auto and Salvage in Ash, NC on March 28, 1995. The vehicle is a 1995 Ford F150 with VIN 1FTEX14N5SK [REDACTED]. The registration plate was not present on the vehicle at the time of my examination. Due to fire damage, safety inspection information and the vehicle's mileage could not be determined.

EXTERIOR

Overall with the exception of fire damage, the exterior of this vehicle was in good condition, with no evidence of pre-fire collision damage, repaired body damage, etc.

Fire damage is concentrated the heaviest in the front portion of the vehicle becoming progressively less as one moves from this area. The area in the front which also included the extended cab and consumed most of the combustible components of the interior of the cab.

At the time of the fire, all four tires were present on the vehicle, during my examination the tires were equal and matching and in good serviceable condition. There were no signs of pre-fire forced entry into this vehicle, and all windows were destroyed by the fire.

INTERIOR

All vehicle doors were closed at the time of the fire with door latching mechanisms activated and all windows were in the raised position. Debris within both the driver and passenger compartment were examined and did not reveal evidence of fire origination. At the conclusion of debris examination and removal, there were no unusual items found. Personal contents found during my examination included the remains of the glove compartment which contained the vehicles owners manual as well as lease information. I also discovered during my examination, a tool box located directly behind the cab which contained some items of personal belongs such as the remains of a drill as well as other tools and construction items.

Insured: [REDACTED]

ENGINE COMPARTMENT

This vehicle was powered by an eight cylinder fuel injected gasoline engine, power was provided to the rear wheels through an automatic transmission with four wheel drive capabilities.

Fire damage in the engine compartment was severe throughout with heavy concentration in the area of the fuel injection and fuel lines.

All engine components were present within the compartment at the time of the loss, and no unusual conditions were noted. Oil level was normal and there was no evidence of fluid leakage from any other engine components. Nothing was visible within the engine compartment that would establish that the vehicle was inoperable at the time of the fire.

The vehicle's 12V battery was present, and the vehicle's electrical system and wiring did not show any evidence of shorting or heating indicating an electrical fire causing malfunction. It was impossible to determine if there was any pre-fire failure of any fuses as the vehicle's fuse box was completely destroyed by the fire.

The burn patterns and severe fire damage seen throughout the engine compartment are consistent with a fuel fed fire. Heaviest fire concentration was in the area where the fuel injection manifold and assembly was located. Fire damage in this area was severe causing extensive melting of the alloy components. All fuel lines were still in place in the rear portion of the manifold and any return lines or other type of fuel carrying or vapor carrying lines on or around the fuel injection was destroyed unless the lines were constructed of an alloy that could withstand the severe fire temperatures that were within the engine compartment at the area of origin. Examination of the fuel lines failed to reveal any items of evidence as they were still attached in their proper location. The looseness of the fuel line is not indication of malfunction, due to the fact that any rubber gaskets or over rings that were attached to this lines were also destroyed by the fire causing a very marked looseness of the fuel lines.

DETERMINATION OF CAUSE AND ORIGIN

Based on both interviews and my physical fire scene investigation, I am of the opinion that this fire is accidental in nature. The fire is a result of the ignition of gasoline in the engine compartment due to failure of the fuel injection system. The exact point of failure is not known due to extreme fire damage. The source of ignition could be any number of components within the engine compartment capable of producing an electric spark and/or producing heat during normal engine operation.

COMMENTS

I am aware that at the time of this loss, the insured had just parked the vehicle for a short time in order to go to another person's location. During the time of his departure, the vehicle caught fire in

Case No: A-9538-05

-4-

April 5, 1995

Insured: [REDACTED]

the engine compartment and there by spreading throughout the remaining portions of the vehicle as previously described.

As you are also aware, the vehicle actually caught fire at a location in Little River, SC, and that follow-up inspection by fire officials who responded to the initial call, stated that their opinion was that the fire was also a result of a fuel injection malfunction.

After gathering information thus far and conferring with you verbally, the only further investigative activity, if during this interim you have any questions, comments, or additional instructions, please advise at your convenience.

Chris Elrod, Fire Investigator
Wilmington, NC
910-452-0203

cc: Steve Langham, Fire Investigator

EA05-005-LC1-3482

Case No: A-9538-05

Insured: [REDACTED]

Enclosure No: 1

PHOTOGRAPH EXPLANATION SHEET

- 1-2. Exterior driver's side
3. Exterior showing both gas tank filler doors and caps in place
- 4-5. Exterior passenger side
6. Remains of tool box in tail bed showing personal belongings
7. Underneath portion of the vehicle showing lack of fire damage
8. View of interior damage from over the hood
- 9-11. Overall damage on the interior
12. Remains of glove box which included owners manual
13. Remains of fuse box
14. Intact remains of dashboard wiring
15. Overall engine compartment
16. Remains of 12V battery
17. Close-up of fuel lines
18. Close-up of fuel injection remains
19. Close-up of wiring from engine side of fire wall
20. Close-up of battery terminals showing no unusual conditions

PHOTO SHEET

FILE NO. A9538-04



1



2

PHOTO SHEET

FILE NO. A9528-05



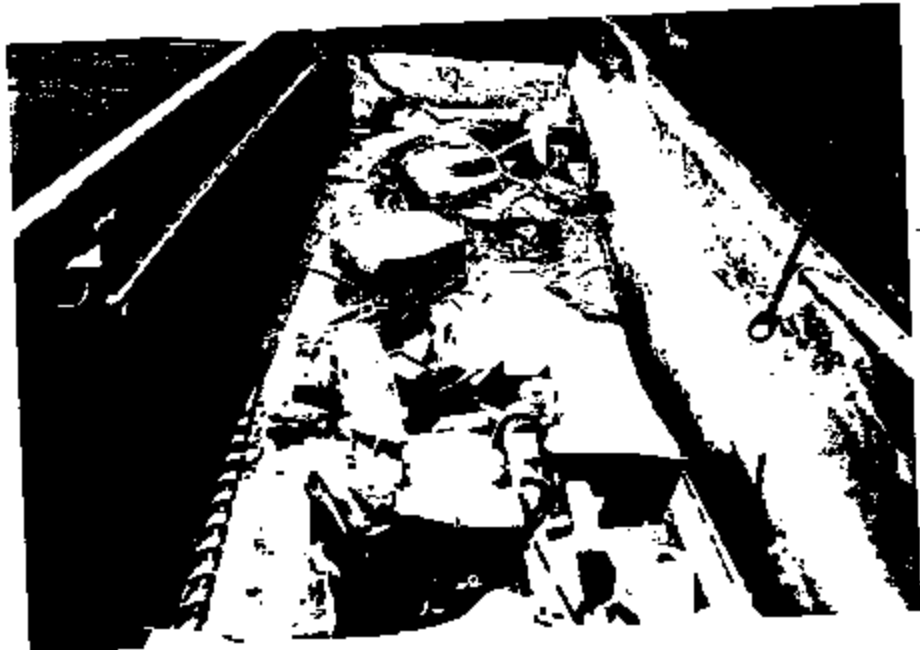
3



4

PHOTO SHEET

FILE NO. A958-05



ER05-005-LC1-3468

PHOTO SHEET

FILE NO. A9538-05



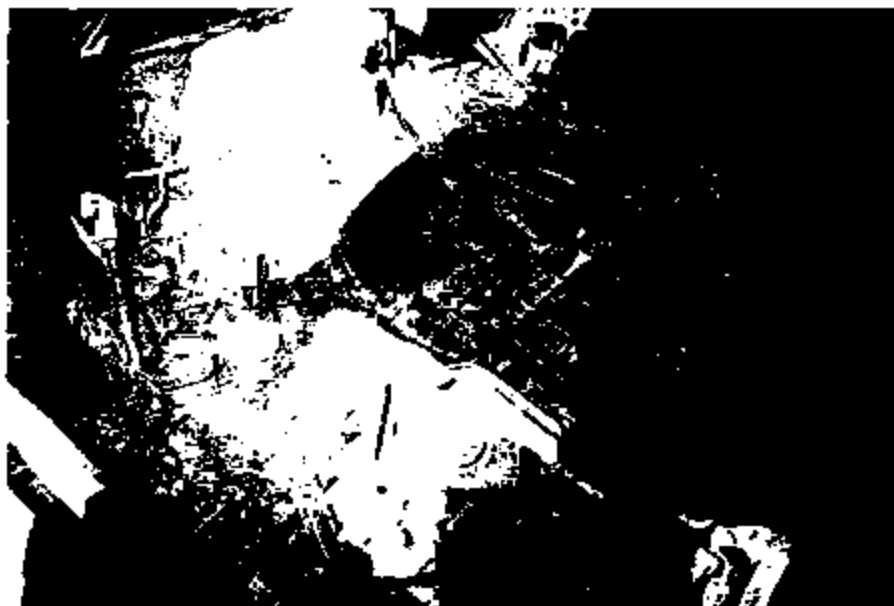
7



8

PHOTO SHEET

FILE NO. 99538-05



9



10

EROS-006-LC1-346B

PHOTO SHEET

FILE NO. A9538-05



11

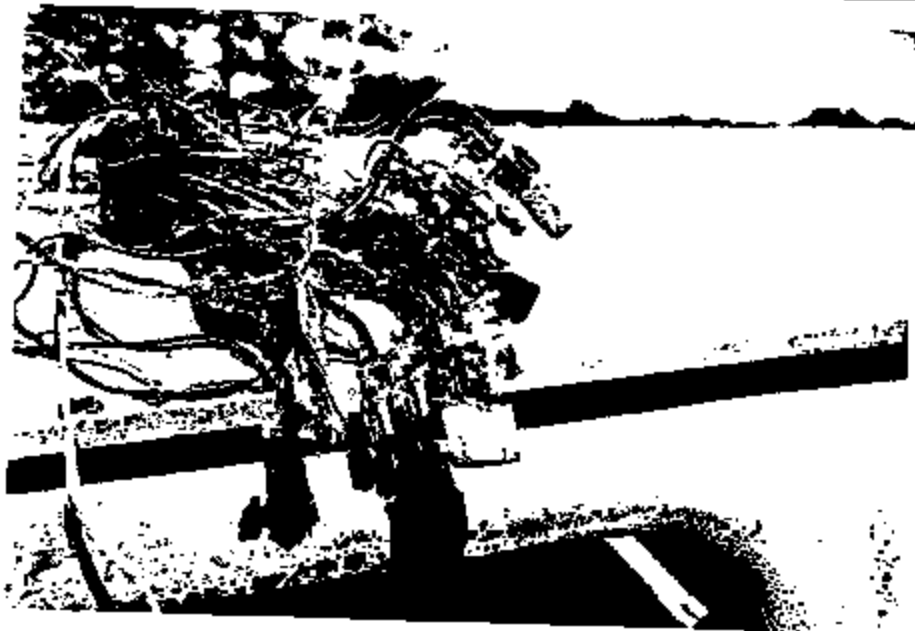


12

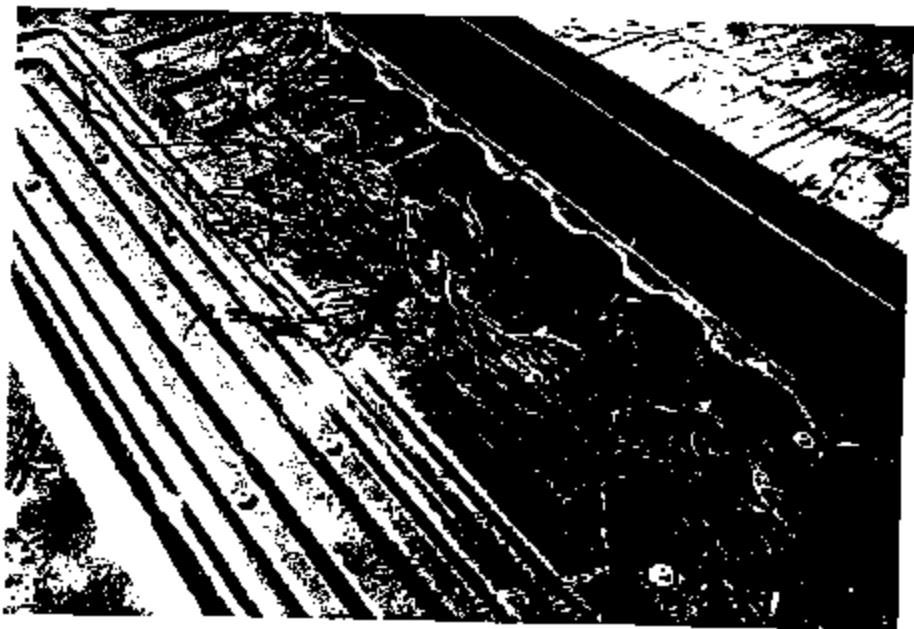
EP05-005-LC1-3488

PHOTO SHEET

FILE NO. A9538-05



13



14

PHOTO SHEET

FILE NO. A9538-05



17



18

ERSS-085-LC1-3471

PHOTO SHEET

FILE NO. A 9538-05



19



20

885-885-101-3472


FARMERS

National Document Center
 P.O. Box 268992
 Oklahoma City, OK 73166-8992
 claimsdocument@farmersinsurance.com
 FAX : 877-477-1389

05/27/2004

Hacienda Ford
 3010 W University
 Edinburg, TX 78539

Re: Our Insured: [REDACTED]
 Our Claim #: [REDACTED]
 Date of Loss: 04/21/2004
 Your Claim #: [REDACTED]
 Amount Owed: \$10,559.90

Dear Hacienda Ford:

We have made payment to our insured for damages resulting from this accident. Our investigation has established that the above loss was caused by the negligence of your driver. By virtue of our subrogation rights this letter is to advise you that we expect payment from you for the amount of damages within 14 days of the receipt of this letter.

Be advised that no partial payment, which is less than the full amount claimed herein, will be considered in any way as acceptance of benefits, a novation or an accord and satisfaction of this claim without the express written release of our claim executed by an individual who identifies himself/herself as a member of our subrogation department. Therefore, our legal rights to enforce collection on the remaining amount of the claim shall not be waived or estopped due to a partial payment by you.

If you need additional support for our claim or require further information, please call me at 512-238-5723 with your FAX number so that the requested information can be sent to you.

Sincerely,
 Mid-Century Insurance Company of Texas

Angela D. De La Garza
 Angela De La Garza
 Senior Subrogation Representative
 angela.delagarza@farmersinsurance.com
 ATTACHMENT(S)

E900-005-101-2473

A vehicle has been authorized with Enterprise Rent-A-Car for claim number [REDACTED] by [REDACTED] 3 day(s); \$35.00/\$1,050.00 policy limits). Enterprise Rent-A-Car will contact your renter to arrange for the rental.

Because you are not able to reply to this email, please contact the rental branch at (956) 618-2277 with any questions or if you need additional information.

Your confirmation number for the rental is 52-568587.

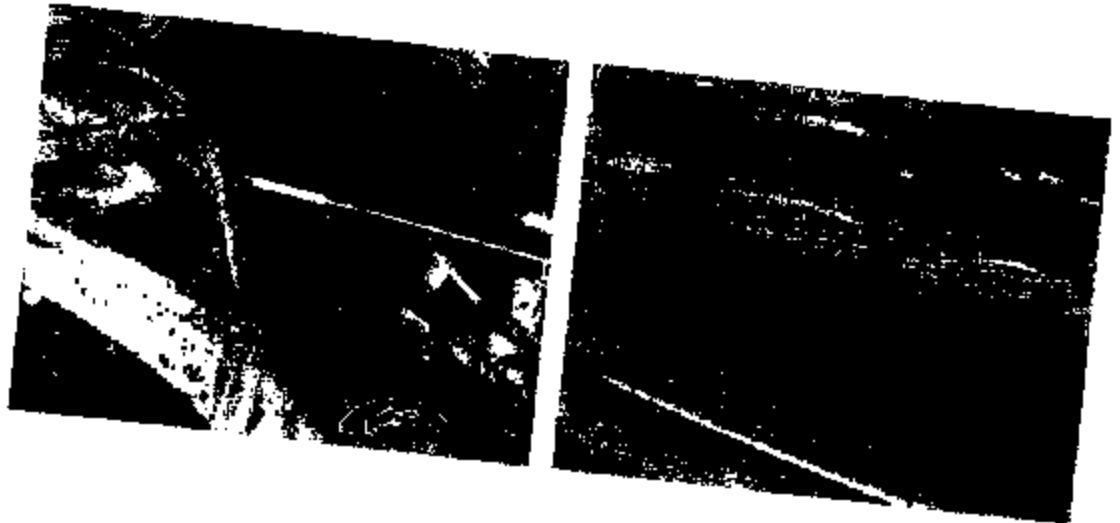
Sincerely,
Enterprise Rent-A-Car

EA85-805-LC1-3474

HACTENCA FORD

866-282-2422

05/01/04 05:23pm P. 005



JUN 01 2004 17:10

ER05-005-LC1-3475



ER05-885-LC1-3478





ER05-085-LC1-3478



TWERDY, JACKSON, BEECH & FIKES

BANKHEAD BYARS BUILDING

1818 3RD AVE.

SUITE 200

P. O. BOX 748

JASPER, ALABAMA 36028-0748

(205) 387-2171

FACSIMILE (205) 387-2174

E-MAIL: tl@twb.com

TAX ID #83-0583884

HARVEY JACKSON, JR.
EDWARD B. JACKSON
RICHARD E. FIKES

J. DAVID HOOD
JAMES C. BRAKEFIELD

CHARLES E. TWERDY, JR.
RETIRED

JIM BEECH
(1922-1992)

May 21, 2002

Shawn Norton
Claim Analyst
Ford Motor Company
Parklane Towers West, Suite 300
Three Parklane Boulevard
Dearborn, MI 48126-2568

68,000 (M)

RE: [REDACTED] / Vehicle Fire

Dear Mr. Norton:

I am in receipt of your letter dated May 17, 2002 requesting additional information regarding the above referenced fire. The following is the answers to your inquiries:

1. The date of accident and the city and state in which it occurred.

The accident occurred on October 7, 2001 at [REDACTED] residence in Haleyville, Alabama.

2. A complete description of the incident, including events which occurred prior to and subsequent to the loss.

[REDACTED] is a school teacher who resides at [REDACTED] Haleyville, Alabama. He and his girlfriend had been riding around during the afternoon of the incident. They went back to [REDACTED] home and he parked his truck in the garage. They were sitting at home watching the news when his girlfriend noticed that the truck was on fire. [REDACTED] looked out the door and saw a flame behind his left front tire. He immediately ran in and got his fire extinguisher and attempted to extinguish the flame. His fire extinguisher ran out of the fire retardant and he was unable to put out the fire. He then jumped into his truck and tried

to back it out of the garage because he was afraid it was going to burn his house. When he got into the truck it cranked but he could not get it to go into reverse. He was unable to remove the vehicle from his garage. He then called 911 and the Haleyville Fire Department responded to the scene and extinguished the fire.

Approximately a week prior to the fire [REDACTED] had received a recall notice from Ford concerning the fuel line. A copy of that recall notice is attached.

3. A copy of the police and/or fire report.

Enclosed.

6. The mileage on the vehicle at the time of the incident.

Approximately 68,000 miles

7. Expert's original color photos of the vehicle's collision/fire damage and the alleged defective parts from several different angles.

I am not in possession of any original color photographs of the vehicle. I will attempt to obtain such photographs for your review.

11. Documentation to substantiate your defect allegation, including a copy of your expert's report and the expert's original color photographs.

Enclosed is a copy of the experts report with photographs. The photographs are not the original color photographs.

12. Has the alleged defective part been repaired or replaced?

No.

13. The present location of the alleged defective part and the vehicle.

The vehicle was sold for salvage via auction to The Car Shoppe in Fayetteville, Tennessee.

14. Repair estimate, repair order, your total loss worksheet for the vehicle's damage and any loss associated with this incident, and copies of draft payments.

Please see attached.

15. **A complete service history of the subject's vehicle, including any tune ups or oil changes.**

We do not have any of this information.

16. **List of any after market additions or modifications that were made to the vehicle.**

None.

21. **Was the engine running?**

Not when the fire began.

22. **Were the keys in the ignition?**

Not when the fire began.

25. **If this vehicle was purchased as used by the insured please provide: the date of purchase, mileage at the time of purchase, and from whom the vehicle was purchased.**

The vehicle was purchased new.

If you have any questions or comments please do not hesitate to call.

Sincerely,


James C. Brakefield

**JCB/kv
Enclosures**

END OF LETTER TELETYPE UNIT

INCIDENT REPORT

Haleyville Fire Department

NFIRS-1

FDID NA	INCIDENT NO 010176	EXP NO. 00	MO 10	DAY 7	YR 01	DAY OF WEEK Sunday	ALARM TIME 14:40	ARRIVAL TIME 14:45	IN SERVICE 14:58		
TYPE OF SITUATION FOUND Vehicle fire						TYPE OF ACTION TAKEN Extinguishment			MUTUAL AID None		
FIXED PROPERTY USE One-family dwl: year-rod use						IGNITION FACTOR Ign Elec wiring					
CORRECT ADDRESS 1208 25th St. Haleyville Ala.							ZIP CODE 35886	CENSUS TRACT 0			
OCCUPANT NAME						TELEPHONE (000)000-0000		ROOM OR APT.			
OWNER NAME				ADDRESS			TELEPHONE (000)000-0000				
METHOD OF ALARM FROM PUBLIC Telephone call to fire dept.						CO. INSPECTION DIST. 7	SHIFT		NO. ALARMS 1		
NO. FIRE SERVICE PERSONNEL RESPONDING			NO. ENGINES RESPONDING		NO. AERIAL APPARATUS RESPONDING		NO. OTHER VEHICLES RESPONDING				
21			1		0		0				
NUMBER OF INJURIES FIRE SERVICE				OTHER		NUMBER OF FATALITIES FIRE SERVICE				OTHER	
0				0		0				0	
COMPLEX Dwelling (1-2 family)						MOBILE PROPERTY TYPE All terrain vehicles					
41						13					
AREA OF FIRE ORIGIN Garage, carpet, veh. Broken Camp						EQUIPMENT INVOLVED IN IGNITION Escale Inv last undamaged road					
47						00					
FORM OF HEAT IGNITION			TYPE OF MATERIAL IGNITED			FORM OF MATERIAL IGNITED					
NUMBER OF STORIES 1 story					CONSTRUCTION TYPE Unprot. wood frame/wot 7						
1					8						
EXTENT OF FLAME DAMAGE Confined to pt rm/area orig						EXTENT OF SMOKE DAMAGE Confined to room of origin					
2						3					
DETECTOR PERFORMANCE						SPRINKLER PERFORMANCE					
IF ROOMS BEYOND ROOM OF ORIGIN		TYPE OF MATERIAL GENERATING MOST SMOKE				FORM OF MATERIAL GENERATING MOST SMOKE					
						No significant amt of sm try					
IF MOBILE PROPERTY		YEAR 87	MAKE FORD	MODEL PICKUP F1	SERIAL NO. 1FYDF18WQV	LICENSE NO.					
IF EQUIPMENT INVOLVED IN IGNITION		YEAR	MAKE	MODEL	SERIAL NO.						
OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT)								DATE			
1st Capt Claud T. Holley								10/07/01			
MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE)								DATE			
3rd Lt William D. Brakefield								10/07/01			

FORENSIC INVESTIGATIVE SERVICES, INC.
5805 State Bridge Road
Suite G 167
Duluth, GA 30097
Telephone (770) 887-4450
Facsimile (770) 887-4458

October 29, 2001

Mr. Brent Johnson
State Farm Insurance Company
P.O. Box 1016
Florence, Alabama 34631

Re: [REDACTED]
Claim #: [REDACTED]
Date of Loss: October 7, 2001
FIS #: 01-972

Brent:

INTRODUCTION:

On October 9, 2001, you notified this office concerning a fire to a 1997 Ford, F150 pickup truck. The fire occurred on October 7, 2001, and the insured notified you that he had received a recall notice regarding the fuel line.

You requested that I do an origin and cause examination and October 11, 2001, I proceeded to Insurance Auto Auctions, Athens, Alabama, and began my vehicle analysis.

DESCRIPTION OF VEHICLE:

The involved vehicle is a 1997 Ford, F150 pickup truck with VIN 1FTDF18W0V1 [REDACTED] Manufacture date on the vehicle is April 1996.

Exterior examination revealed that 90% of the hood was melted. Also receiving fire damage was the left fender and plastic molding under the fender. The fire communicated to the windshield and caused it to fall inward and charred the paint on the roof. All tires remained inflated although there was a slight charring to the interior sidewalls of both front tires.

Interior examination revealed that the fire communicated through the windshield and affected the headliner, sun visors and top of the instrument panel. Material from the headliner fell onto the seats causing damage to the seat cushions. The fire patterns are characteristic of a fire originating outside of the passenger compartment.

ORIGIN AND CAUSE EXAMINATION:

Exterior and interior observations revealed that the fire originated in the engine compartment. The main wire harness traversed left to right and paralleled the firewall. The harness was examined and I found no electrical activity. However, some of the wires were missing and could not be examined. Melted over the left fender was the fuse panel. Examination of the fuse panel revealed that the fire did not originate at this location. Also mounted in the area of the left fender was the air filter. Char patterns on the air filter showed that the fire communicated from the top of the engine block to the filter. Neoprene hoses below the air intake manifold were still intact demonstrating that the fire was above the engine block. On top of the engine block was the air intake manifold and carburetor. This area was totally melted.

The fuel line was traced from the gas tank which was located on the undercarriage along the left side of the vehicle and behind the cab. The fuel line was traced from the gas tank along the left side of the vehicle and into the engine compartment. The fuel line entered the engine compartment on the left side and traversed vertically to the top of the engine block. At this point one end of a neoprene hose was clamped to the steel fuel line and the other end to the carburetor. The neoprene hose was consumed by the fire.

Continued examination of the engine compartment failed to reveal physical evidence relating to the cause of the fire.

INTERVIEWS:

██████████ was interviewed via telephone. He stated that he was driving the vehicle for approximately 30-60 minutes before parking it in his carport. His girlfriend arrived and parked her vehicle behind his. She then entered the house through the French doors on the carport side of the house. They did not smell anything unusual. Approximately fifteen minutes after he parked his vehicle, his girlfriend saw flames coming from the vehicle. ██████████ stated that the flames were visible at the left front wheel well. He tried to extinguish the fire with a dry powder extinguisher but did not succeed. He called 911 and then attempted to back the vehicle away from the house. The vehicle started but he was unable to put it in reverse because he did not have any brake pedal.

During the time he was driving the vehicle before the fire and also when he parked it, he did not smell any unusual odors. The vehicle drove without any problems on the day of the fire. ██████████ stated that he never had any problems with the vehicle. He also stated that no recent work was performed on the vehicle.

CONCLUSION:

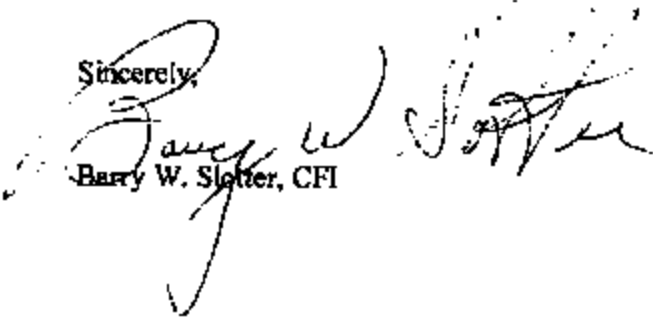
Based on the physical evidence I am able to conclude that the fire originated in the engine compartment. All heat patterns are high along the top of the engine block. Located in the area of origin is the fuel intake manifold and carburetor, which were totally destroyed by the fire. The neoprene fuel line was also consumed by the fire, therefore, making it impossible to determine if the line leaked.

It would be my opinion, based on the location of the origin, that there most likely cause was a fuel leak, which caused the elevated temperatures in the area of the air intake manifold and carburetor. However, since gasoline is constantly present in this area, I would expect to see this type of damage. An attempt to rule out an electrical fire could not be done because some of the wires in the wire harness were missing due to the fire. As a result, not all the wires could be examined.

It would be my opinion that this fire was accidental and the most likely cause was a fuel leak. However, the physical evidence supporting this theory was destroyed in the fire.

Brent, if there is anything further I can do regarding this investigation please feel free to call upon me.

Sincerely,


Barry W. Slotter, CFI

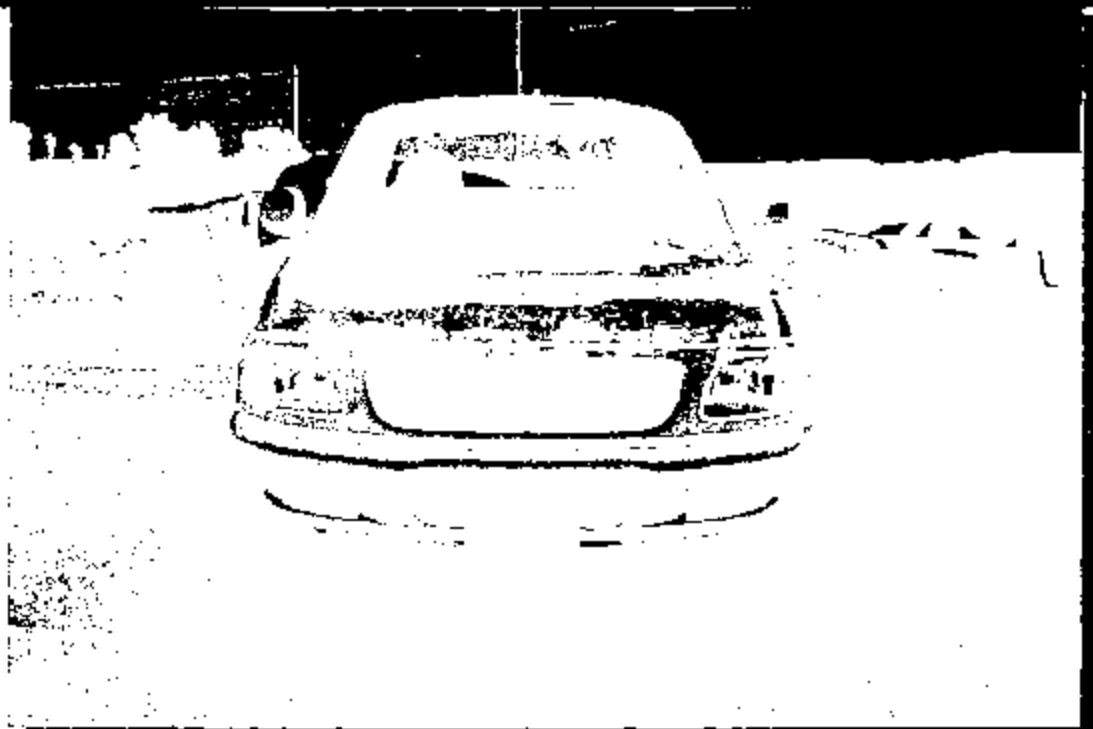
FORENSIC INVESTIGATIVE SERVICES, INC.

Photographic Descriptions

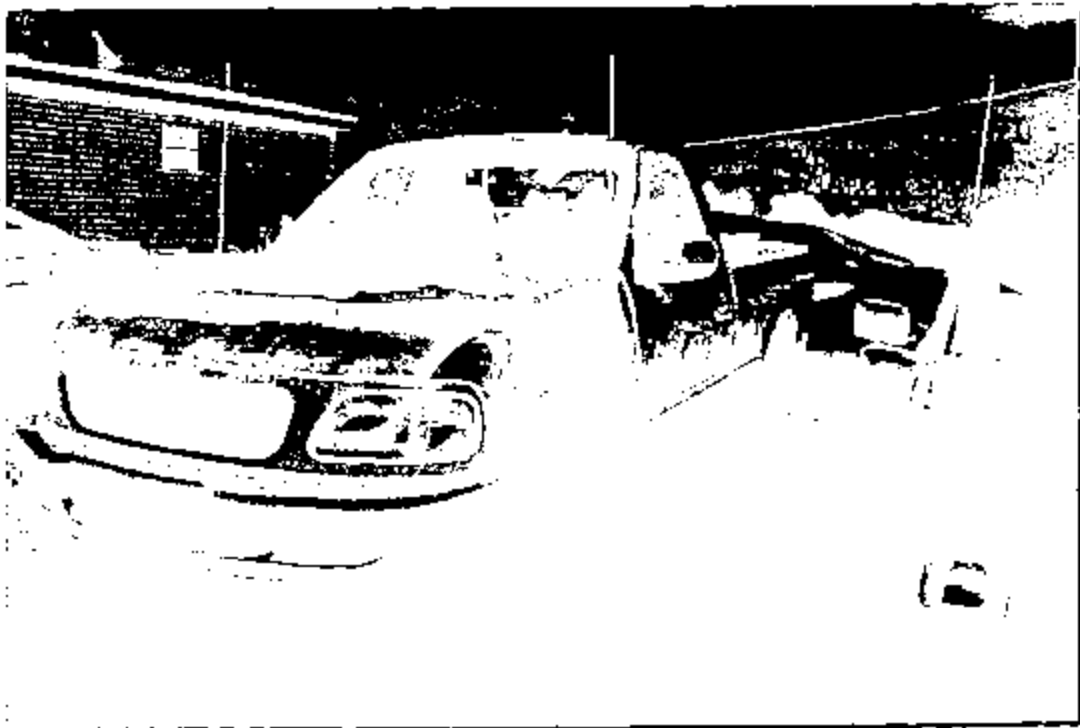
Re: State Farm [REDACTED]
Claim #: 01-Q106-441

- Photograph Number 01: This photograph depicts the front of the vehicle.
- Photograph Number 02: This photograph depicts the front and left side of the vehicle.
- Photograph Number 03: This photograph depicts the rear and left side of the vehicle.
- Photograph Number 04: This photograph depicts the interior molding of the left door.
- Photograph Number 05: This photograph depicts the manufacturer's identification sticker, which was on the left front door.
- Photograph Number 06: This photograph depicts the rear of the vehicle.
- Photograph Number 07: This photograph depicts the truck bed.
- Photograph Number 08: This photograph depicts the rear and right side of the vehicle.
- Photograph Number 09: This photograph depicts the front and right side of the vehicle.
- Photograph Number 10: This photograph was taken from the right front door and depicts the front interior.
- Photograph Number 11: This photograph depicts the interior molding on the right door.
- Photograph Number 12: This photograph depicts the center and left side of the engine compartment.
- Photograph Number 13: This photograph depicts the right side of the engine compartment.

- Photograph Numbers 14-15: These photographs depict the battery on the right side of the engine compartment.
- Photograph Numbers 16-18: These photographs depict the remains of a relay system on the right firewall. There is no electrical activity on the power wires.
- Photograph Number 19: This photograph depicts the remains of the air intake manifold on top of the engine.
- Photograph Number 20: This photograph depicts the left side of the engine compartment and the melted brake reservoir. Also, seen in the photograph is the burned air filter (orange object).
- Photograph Number 21: This photograph is a close-up view of the melted brake reservoir and burned air filter.
- Photograph Numbers 22-23: These photographs depict the fiberglass cowl around the radiator.
- Photograph Number 24: This photograph is a close-up view of the windshield wiper motor, which was located on the left side of the air intake cowl.
- Photograph Number 25: This photograph depicts the underside of the left fender.
- Photograph Number 26: This photograph depicts the underside of the right fender.
- Photograph Numbers 27-28: These photographs were taken through the windshield and depict the interior of the vehicle.
- Photograph Number 29: This photograph depicts the VIN on the left side of the dashboard.
- Photograph Numbers 30-31: These photographs were taken through the left front door and depict the passenger compartment and floor.
- Photograph Number 32: This photograph depicts the condition of the headliner.
- Photograph Number 33: This photograph depicts the condition of the top portion of the front seat.
- Photograph Number 34: This photograph depicts the dashboard, radio and heating/air conditioning controls.

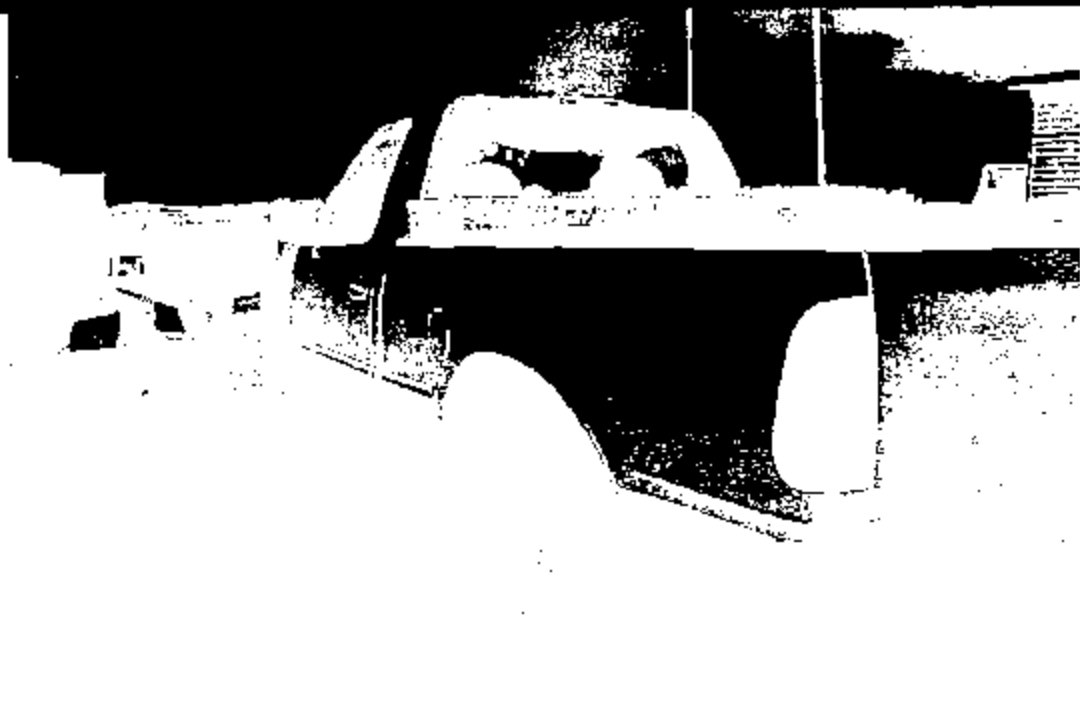


1



2

ERG5-825-LC1-3488

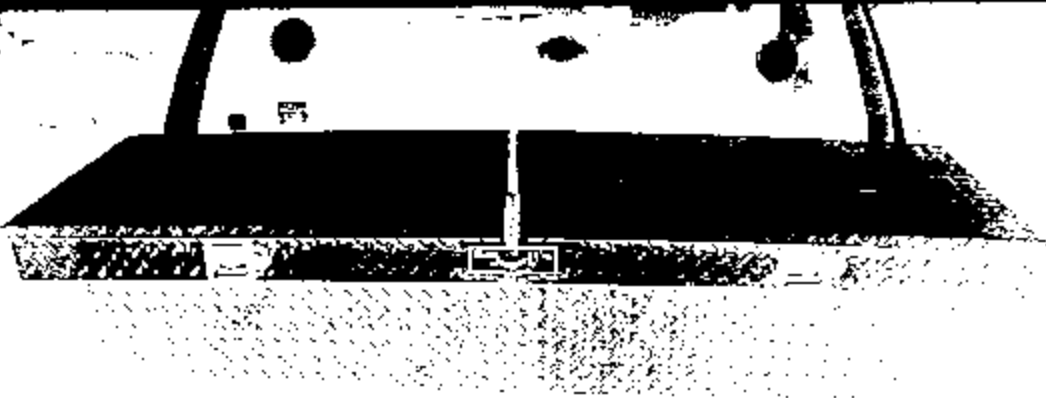


3

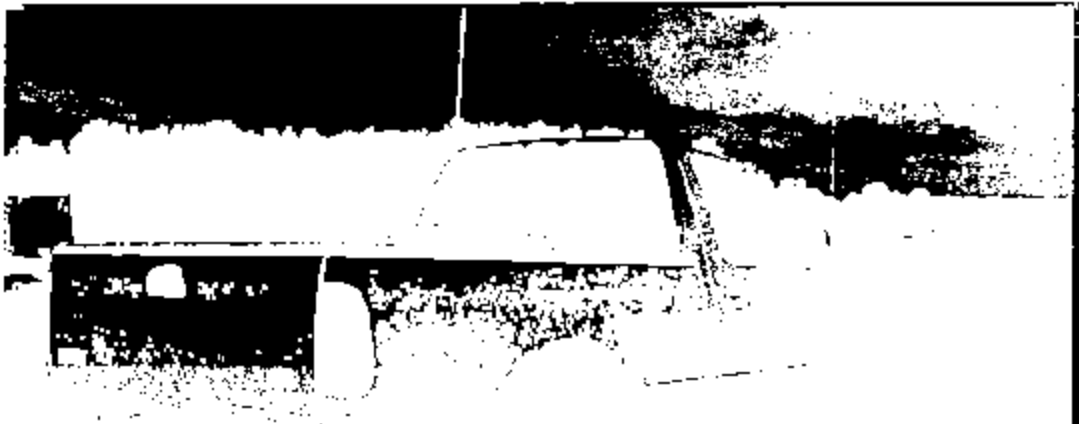


4

ER95-005-LC1-3488



7



8

EDS-885-LC1-3401

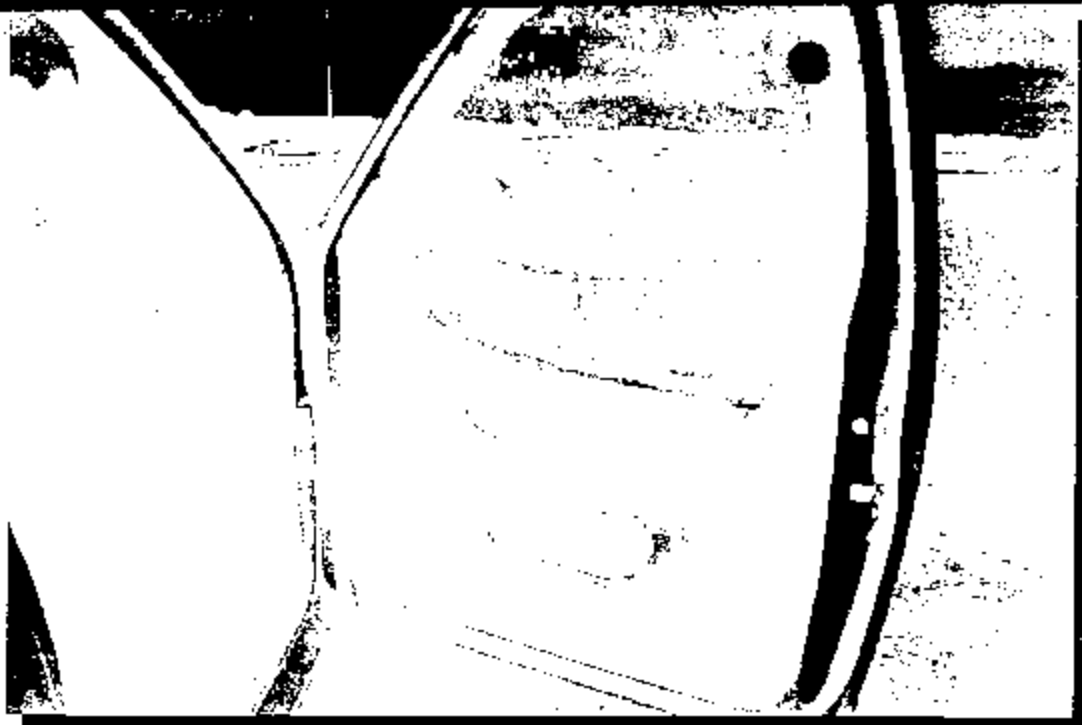


9



10

ER05-885-LC1-3402

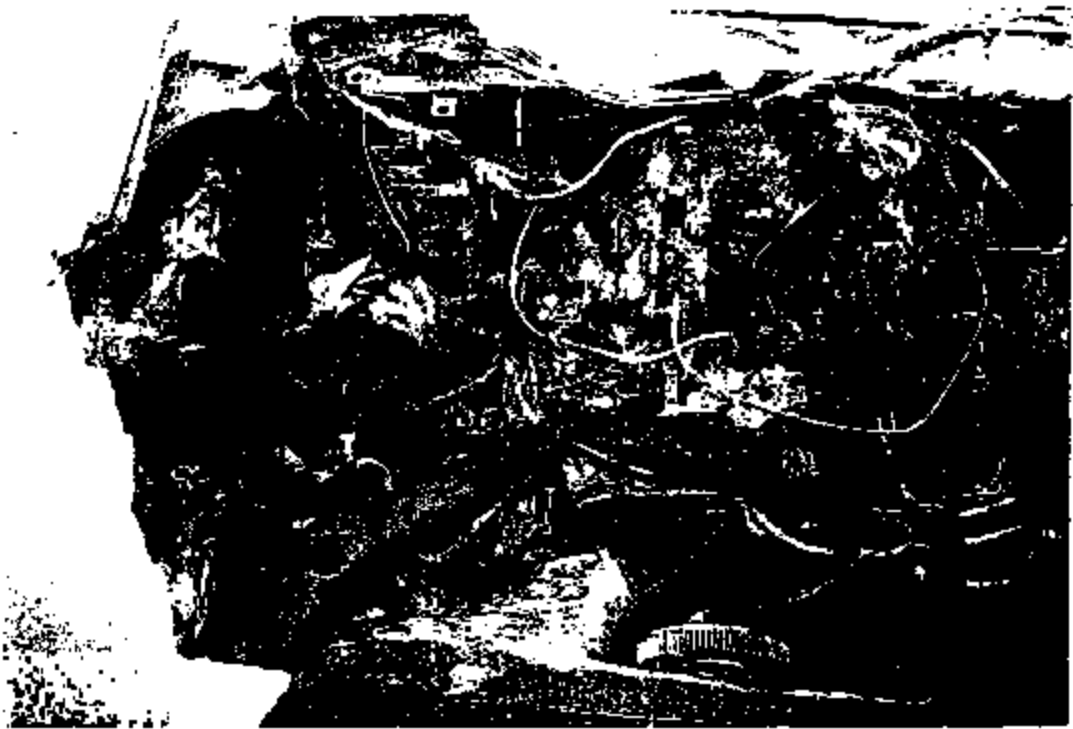


11



12

ER95-805-LC1-3483



13

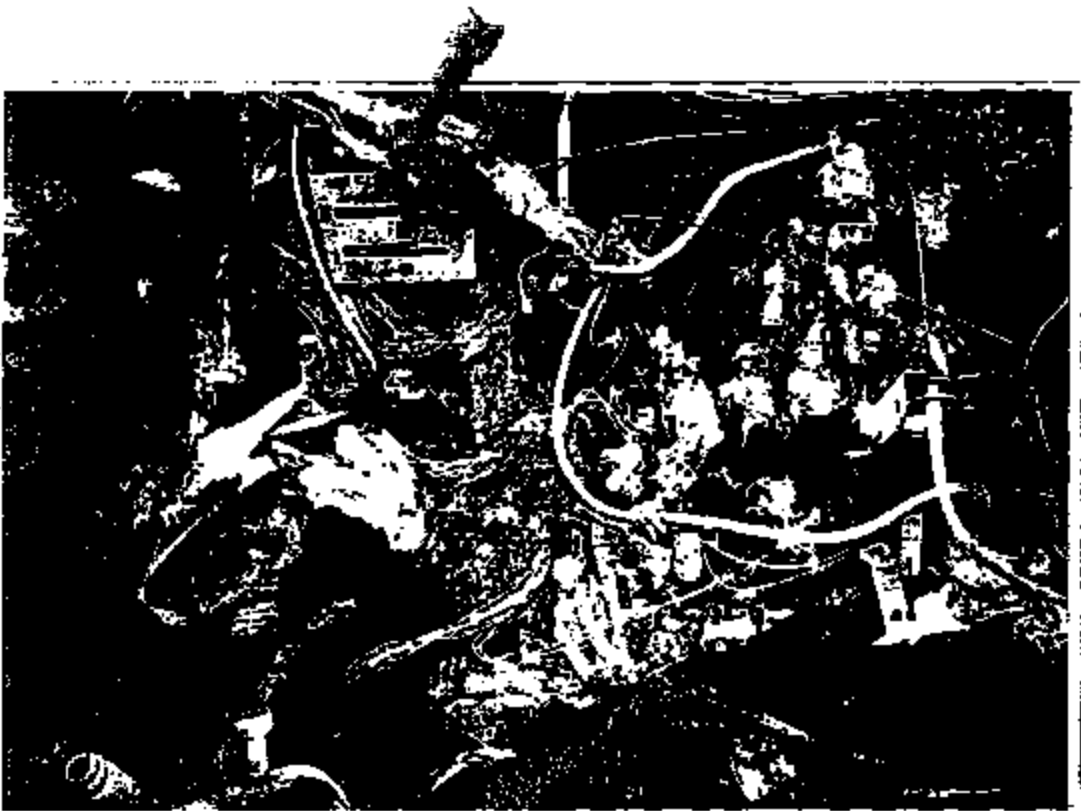


14

EROS-885-LC1-3484

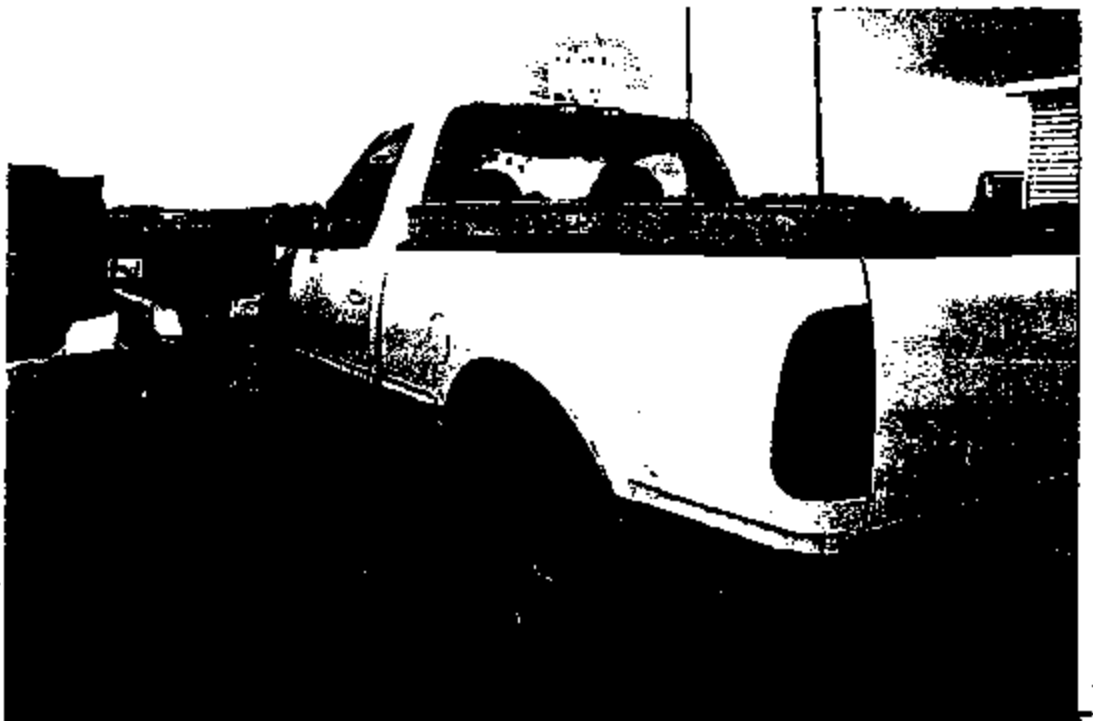


15



16

EROS-685-LC1-3495

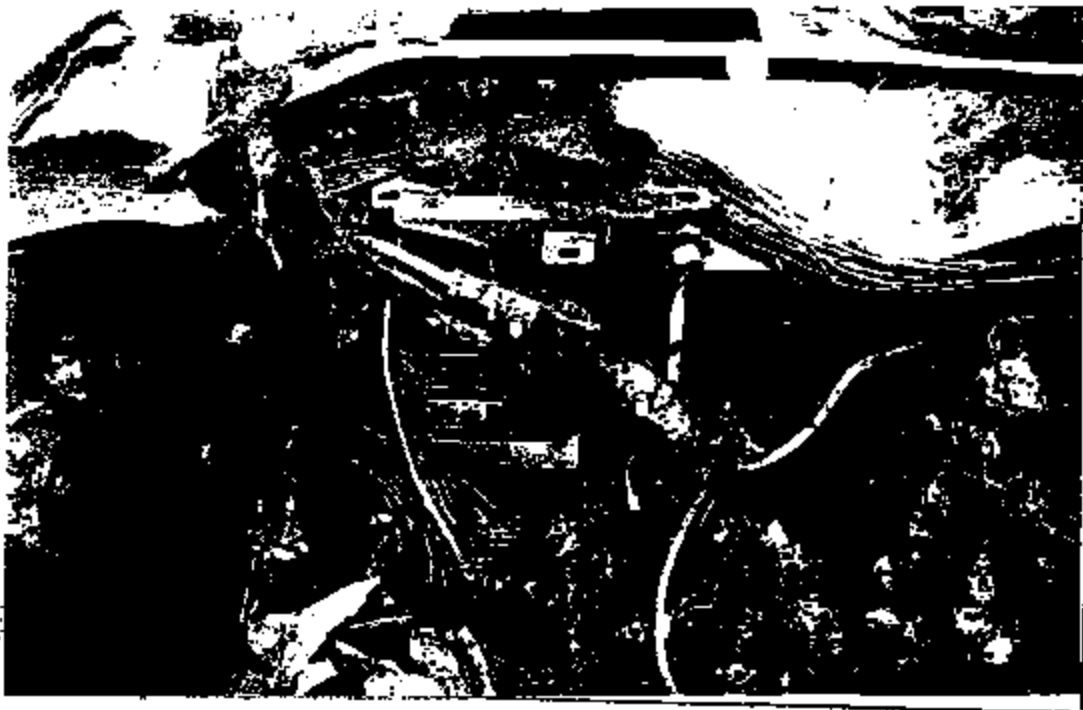


3

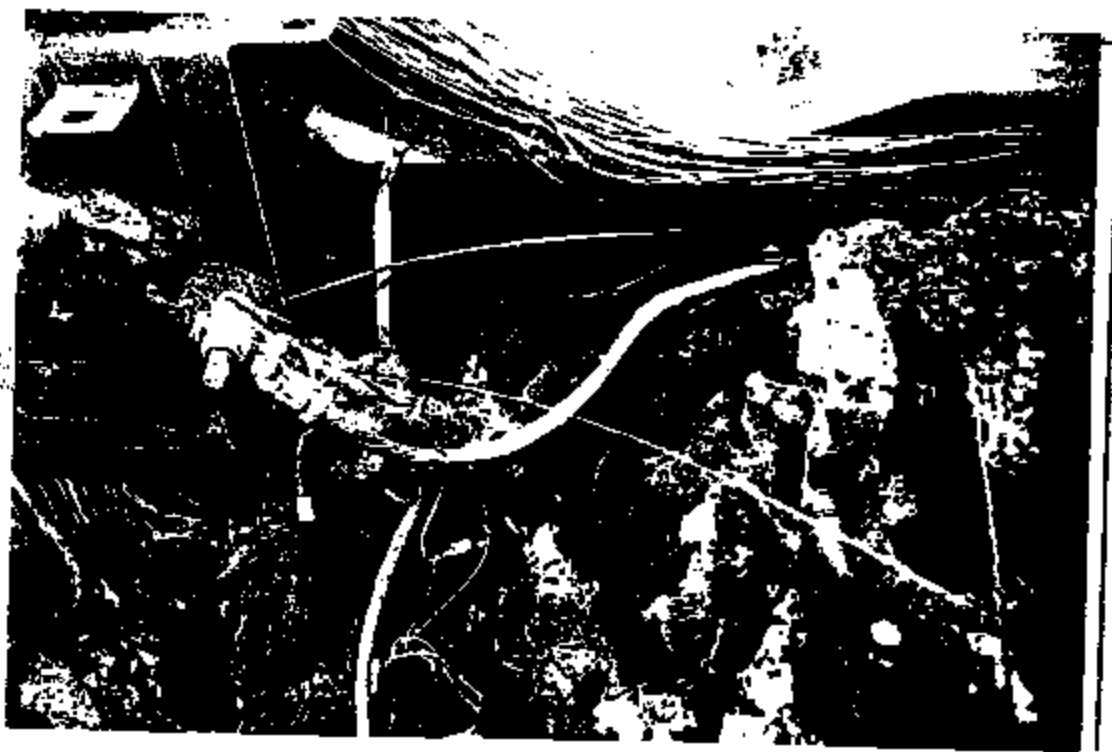


4

ER05-005-LC1-3498



17



18

ERSS-085-LC1-3487

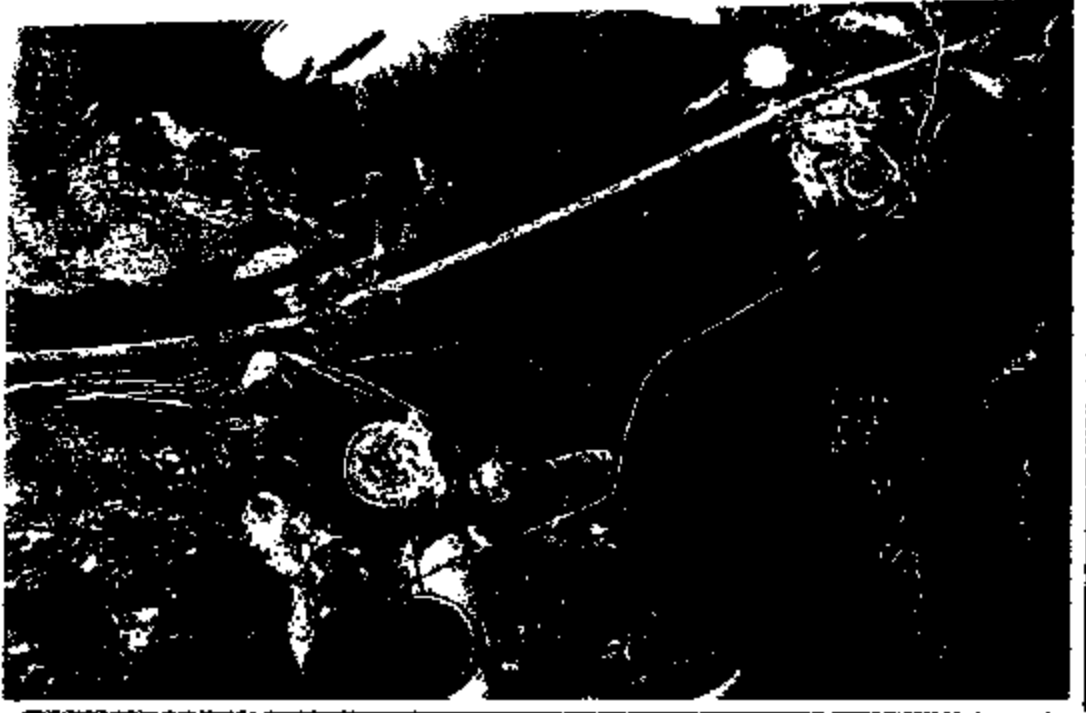


19

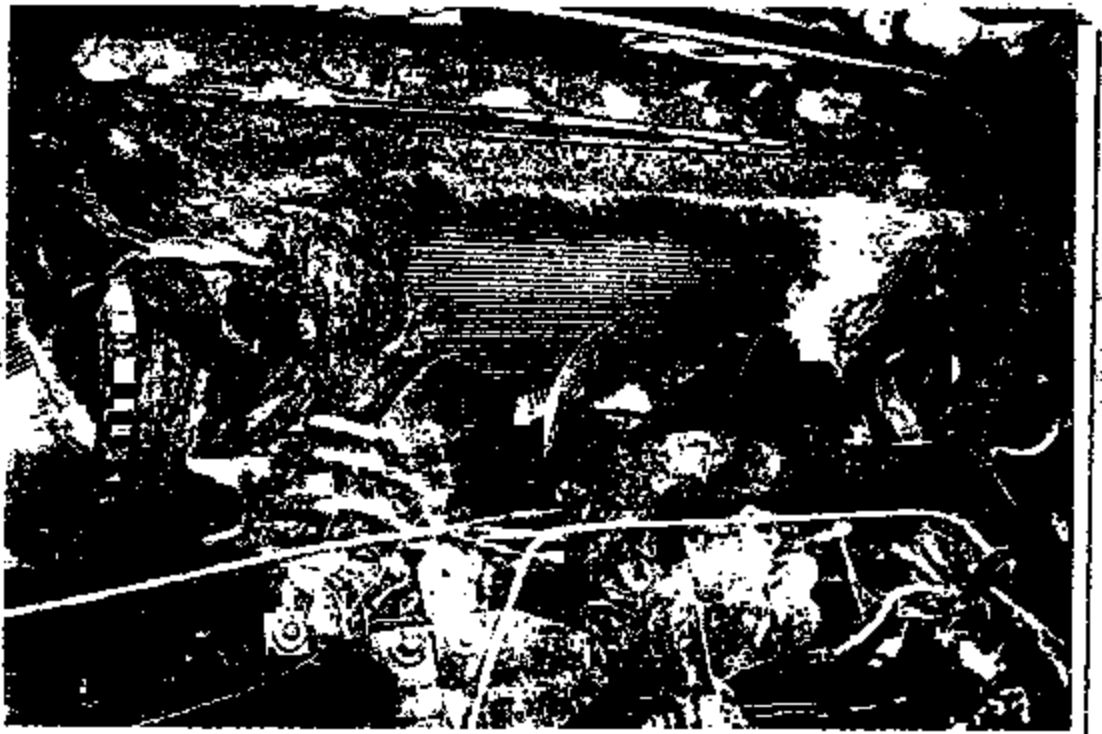


20

ER05-005-LC1-3488

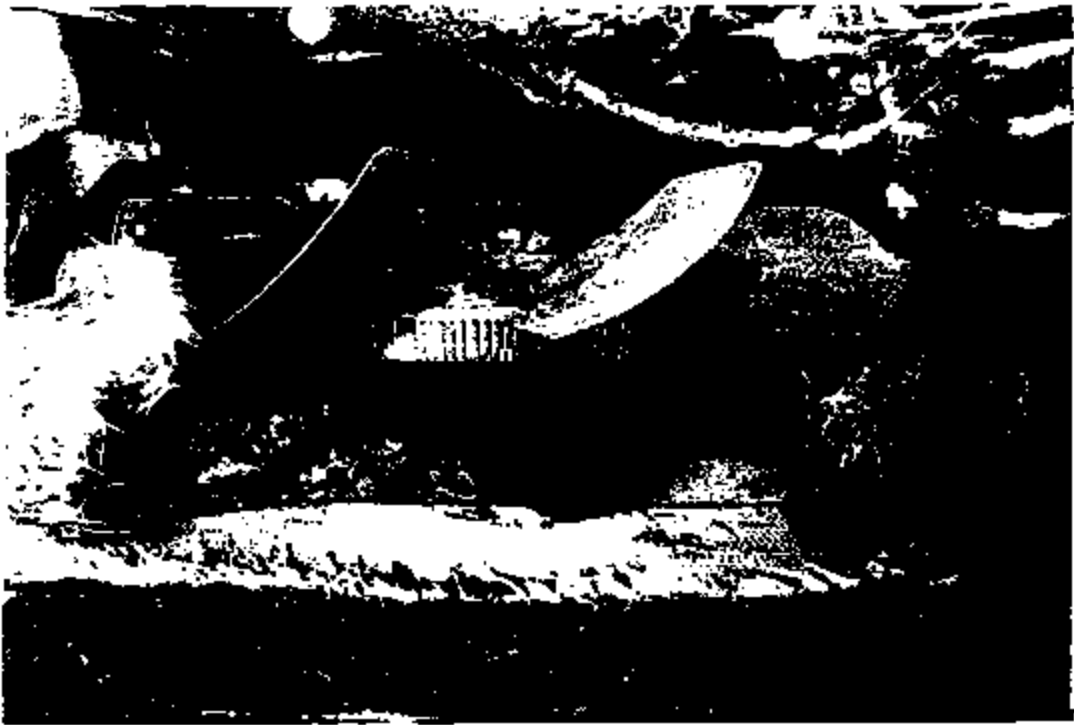


21



22

EROS-005-LC1-3499

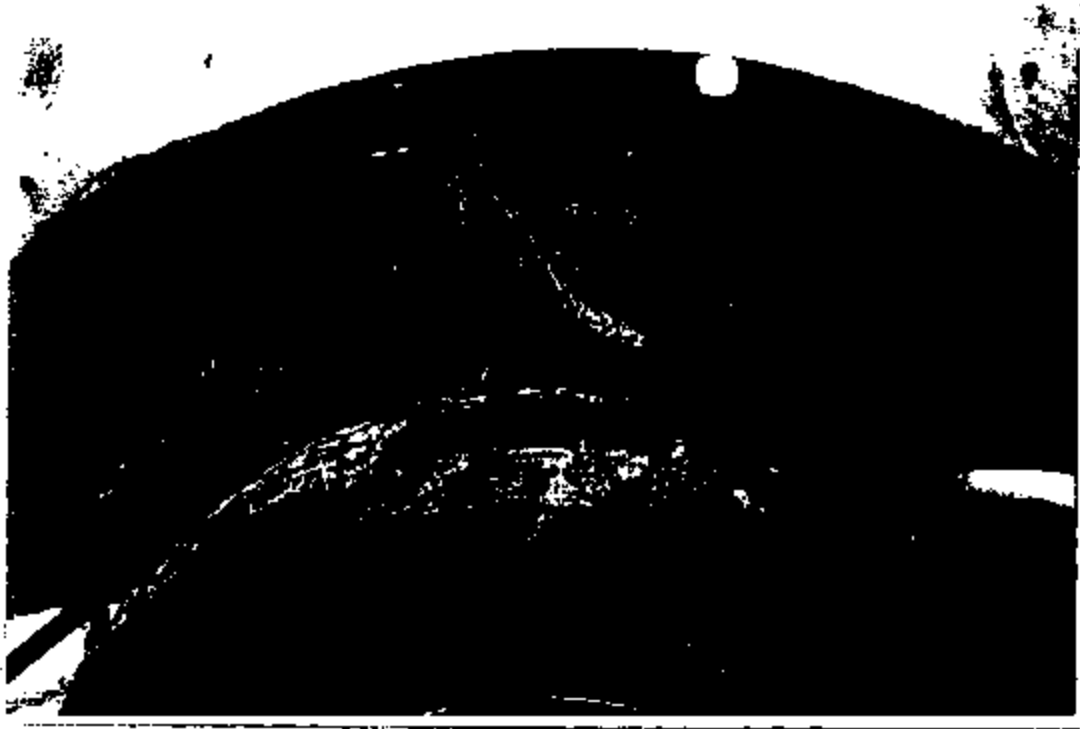


23

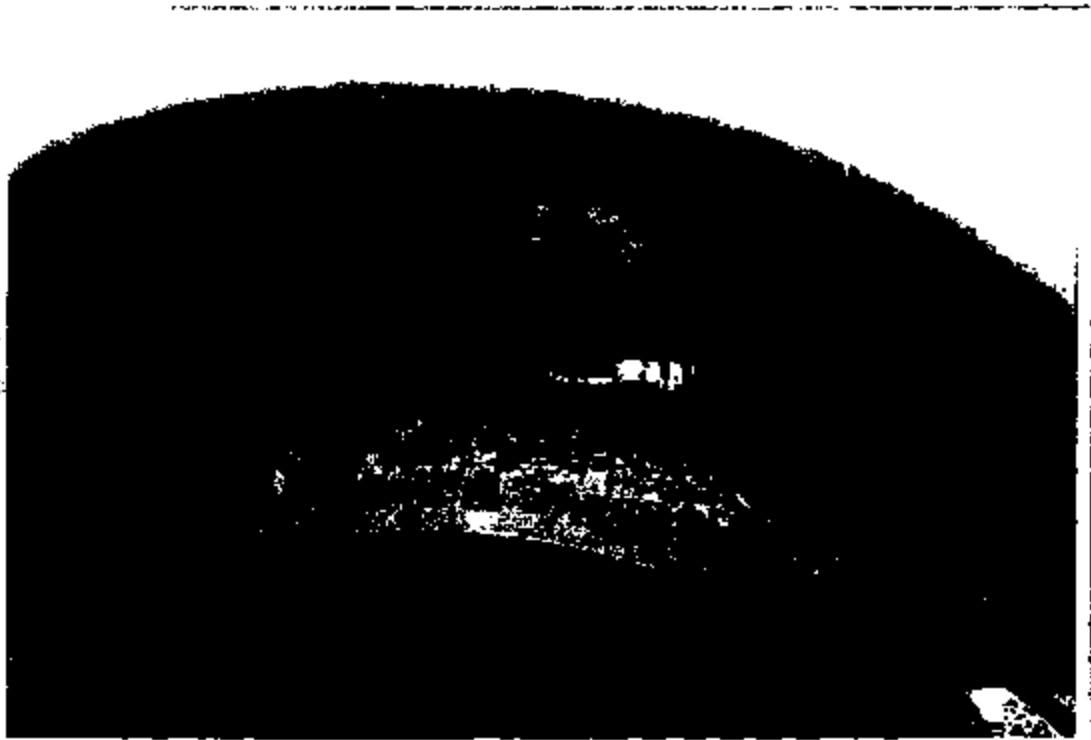


24

ER05-008-LC1-3500



25



26

EA05-005-LC1-3501

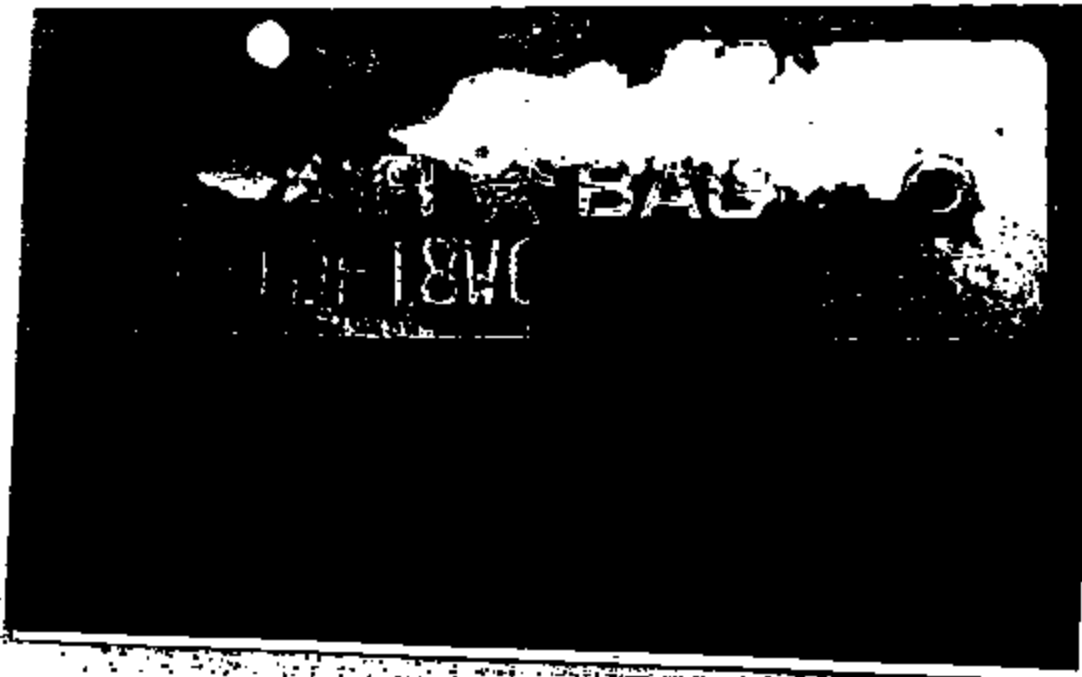


27



28

EA05-005-LC1-3562



19



30

ERR5-005-LC1-3503

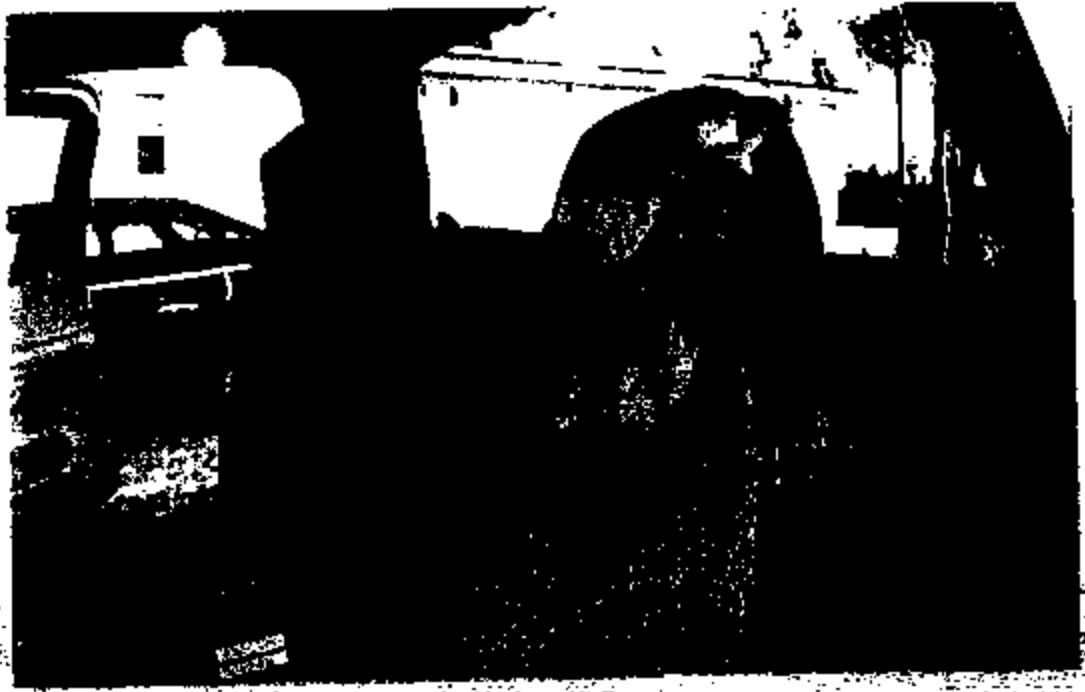


31



32

ERG5-005-LC1-3884

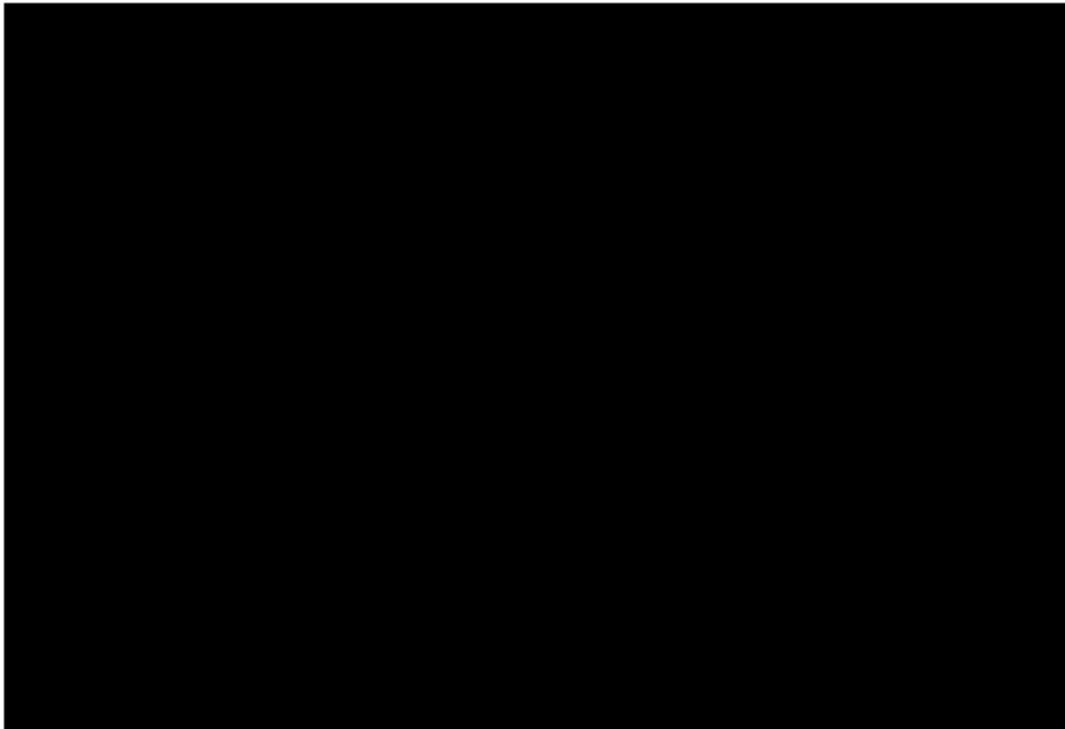


33



34

EDS-005-LC1-3585



January 7, 1997

DEPARTMENT OF
ADMINISTRATIVE
SERVICES

RISK MANAGEMENT
DIVISION

OFFICE OF GENERAL COUNSEL
PARKLANE TOWERS WEST SUITE 300
TREE PARKLANE BLVD
DEARBORN MI 48126

Re: R67782, Loss of 1995 F150 XL pickup

This is a claim under warranty for the above vehicle by the [REDACTED] This vehicle vin #1FTEX14HOSK [REDACTED] with 13,600 miles burned up August 8, 1996 while idling at the scene of a fire with lights activated and air conditioning running.

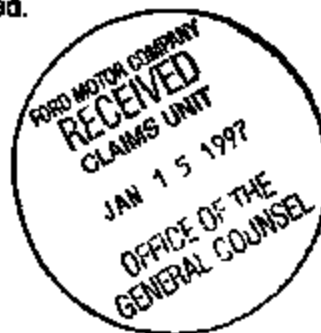
This cause and origin has been investigated by both INS Investigations Inc on December 4, 1996 and then by the engineering firm of Talbot and Associates from Portland, Oregon. These reports are available for your review by request. I have enclosed a copy of Talbot's report minus the photographic evidence for your immediate use.

The vehicle is still at the local Department of Forestry in Forest Grove Oregon. If you wish to view the vehicle please call [REDACTED] at [REDACTED] The address is [REDACTED] That local office may give you information although the authority for the handling of this claim originates at this office.

Your attention to our request is appreciated.

Bruce J. Hoffmeister

Bruce J. Hoffmeister
Claims Specialist
Phone: 378-5469
Fax: 373-7337
778267



John A. Kitzhaber
Governor



195 Cottage St. NE
Salem, OR 97310-0319
(503) 373-7475
FAX (503) 373-7337



December 26, 1996

TAI File 960485

[REDACTED]
Salem, OR [REDACTED]

Attn: Bruce Hoffmeister

Re: 1995 Ford F150 Truck Fire
D/I: 8-8-96

Dear Mr. Hoffmeister:

On August 8, 1996, an Oregon Department of Forestry vehicle, a 1995 Ford F150 XL pickup, was damaged by a fire. [REDACTED] Inc. was requested to examine the vehicle and review scene photographs and other materials to determine the cause of the fire. Selected photos taken during the course of the investigation are included as part of this report; the remainder are on file.

CONCLUSIONS

1. The area of origin of the fire in the 1995 Ford F150 XL pickup was in the left side of the engine compartment.
2. The most probable fuel for the start of the fire was gasoline leaking from the fuel injection system.
3. Ignition of the fuel, although not conclusive, was probably a result of leaking fuel down onto the ignition wiring located below the fuel injection system.
4. None of the reported additional wiring performed by Oregon Department of Forestry employees was located in the area of origin of this fire.
5. The location of the fire's origin and the time and location of the pickup are consistent with the fire being accidental in nature.

December 26, 1996

PROCEDURE

1. The vehicle was examined and photographed on November 20, 1996. The vehicle at the time of the inspection was stored at the Forest Grove District offices of the Oregon Department of Forestry.
2. At the time of the examination, a conversation was held with [REDACTED], driver of the pickup when the fire occurred.
3. Selected photos of the fire scene and of the vehicle, taken by Jeff Bonebrake, Permanent Forest Officer, were received and reviewed.
4. Copies of the fire report log, a report narrative of the vehicle fire, and selected pages from the service manual for the vehicle were received and reviewed.

DATA AND OBSERVATIONS

1. Summary of conversation with [REDACTED]
 - a. Responding to a fire, [REDACTED] had driven the pickup to the scene and had parked it in a Christmas tree farm area.
 - b. The engine had been left running, the overhead lights were flashing and the air conditioner was on. [REDACTED] reported that the ambient temperature at the time of the fire was in the 80° range.
 - c. [REDACTED] was approximately 200 yds. away from the vehicle when he heard over the radio that a "spot fire" in the vicinity of the pickup was underway. [REDACTED] then looked back to see black smoke rising from the pickup. He returned to the pickup and noted that the engine was still running smoothly.
 - d. [REDACTED] and his fellow firefighters extinguished the fire in the pickup with foam extinguishers that were onboard the pickup and by remaining water in a nearby fire truck.
 - e. After the fire was extinguished, pictures were taken and the area under the truck was examined. It was noted that the catalytic converter had bent over a small Christmas tree but that the tree was not burned. Further forward, near the engine compartment, fluids and other debris from the fire had

December 26, 1996

dropped down onto the ground but had not burned any grass or material beneath the vehicle.

- f. [REDACTED] indicated that the Department of Forestry does all its own maintenance and that the vehicle had experienced some undefined electrical problems prior to the fire. The symptom of the problem related to the observation that the battery would become discharged. [REDACTED] indicated that the mechanic and he had discussed replacing the battery with a larger one but had not yet done so. He also indicated that the mechanic did not find any problem with the charging system.
- g. [REDACTED] stated that a light bar and various radios had been added to the vehicle and that the wiring had been done by himself and the mechanic. This wiring, according to [REDACTED] was routed along the right side of the engine compartment.

2. Review of the fire scene photos revealed the following:

- a. The vehicle had been parked on the edge of a Christmas tree farm (fig. 1). Burnable debris on the ground included a small amount of grass and tree trimmings (fig. 2, rear of truck; fig. 3, front of truck; and fig. 4). Also, the truck had been parked on a small tree. The tree had been bent over by the truck's frame and was resting against the muffler (fig. 5).
- b. The area behind the location of the left front tire (fig. 6, arrow A) had deposits of fire debris on the ground under the footprint of the vehicle (fig. 6, arrow B) and also outboard of the vehicle (fig. 6, arrow C). This latter area of debris is adjacent to a small tree, partially burned, and located approximately at and just forward of the A-pillar of the truck on the driver's side (figs. 7 & 8).
- c. No fire damage to the vehicle nor fire-burned debris on the ground was observed behind the passenger's compartment.
- d. The observed fire damage to the left front tire indicates significant burning to the inside surface of the tire as compared with the outside. Portions of the inside sidewall of the tire are burned away, revealing the inside of the tire surface (fig. 9, arrow). The outside surface of the tire appears to have some fire damage, concentrated primarily at the rear of the wheel well.

December 26, 1996

Also, the hub and outer surface of the wheel appear undamaged by heat but are smoke-stained.

- e. Close-up photographs of some of the fire debris on the ground, after removal of the pickup, show burned truck debris deposited on top of unburned and partially burned ground fuel, including fir tree needles and small limbs. Additionally, removal of some of the burned truck debris reveals unburned fir needles beneath (fig. 10), consistent with material burning on the truck, then dropping down onto the ground.

3. Vehicle fire damage:

- a. The vehicle is a Ford F150 XL 4WD manufactured in March 1995. The VIN is 1FTEX14H0SK [REDACTED]
- b. The fire pattern on the hood is generally across the rear of the hood, longitudinally, with more heat damage to the left of center, width-wise (fig. 11). There is a rectangular-shaped burn pattern running width-wise across the hood, centered approximately 10" forward of the rear of the hood.
- c. The left front fender has an extensive burn pattern extending from just behind the headlight housing to the A-pillar. This pattern extends from the bottom of the fender to the top of the fender (fig. 11).

Fire damage to the right front fender is minimal with only some paint scorching above the wheel centerline, near the top of the fender. Additionally, there is a small burn pattern near the right front corner of the hood, above the location of the battery.
- d. When viewed from the front, the plastic shrouding around the radiator and cooler is not significantly fire-damaged.
- e. Within the engine compartment, the following fire damage was observed:
 - i. As indicated by the burn pattern on the hood, the fire damage is concentrated in the engine compartment left of center and towards the rear of the compartment (fig. 12, arrow).

December 26, 1996

- ii. The master cylinder reservoir is burned away (fig. 13, arrow A) as is most of the insulation on the wiring harness coming from the left front area of the driver's compartment (fig. 13, arrow B). The air cleaner housing has significant burning at the corner nearest the engine and master cylinder (fig. 13, arrow C).
 - iii. Fire damage is concentrated along the left side of the engine and is more extensive towards the rear of the engine than to the front (fig. 14). Also, the air inlet hoses are burned on the surfaces facing the rear of the compartment more than they are burned to the front of the engine compartment (fig. 14, arrow A).
 - iv. Located in this area of fire damage is the engine oil dipstick (fig. 14, arrow B). The dipstick was removed and the engine oil was observed to be on the "full" mark.
 - v. The power steering reservoir cap was melted to the reservoir. When pried loose (fig. 15, arrow A), it was observed that the reservoir was empty, consistent with another observation that at least one of the power steering lines had been burned away (fig. 15, arrow B).
 - vi. The air cleaner element was exposed, revealing internal burn damage to the filter element (fig. 16, arrow). Charring of internal surfaces of the filter element with the outer portion remaining unburned is consistent with the engine running during at least part of the fire.
4. Observations made from beneath the vehicle revealed the following information:
- a. Areas of lowest burning, excluding the fire, includes paint on the frame rail and wiring at the bottom of the firewall (fig. 17).
 - b. A plug at the bottom of the torque converter housing was missing, but the converter housing itself did not appear to have suffered much fire damage (fig. 18).
 - c. A rubber bushing on a suspension arm, located behind the left front tire, was observed to be fire-damaged but not totally consumed by the fire (fig. 19, arrow).

December 26, 1996

- d. The transmission pan gasket, although heat-damaged, was not substantially burned (fig. 20, arrow). A hose to the front axle differential is burned away just below the engine oil filter but the lower portion, where it is clamped to the differential housing, is not fire-damaged. Also, the black paint on the front of the differential is not burned and an articulation stop, made of rubber, is not significantly fire-damaged.

DISCUSSION

1. The absence of significant amounts of natural fuel on the ground underneath the pickup and the observation that unburned needles and sticks were found beneath the fire debris falling down from the pickup are indicators that the fire did not start on the ground but, rather, started within the pickup.
2. The lack of observed fire damage to the underside of the vehicle is consistent with the fire starting in the engine compartment and not on the ground.
3. The burn patterns on the hood and on the left front fender indicate that the fire was concentrated in the engine compartment, along the left side of the engine.
4. The areas of most significant heating are the top of the engine, between the air inlet hoses at the front of the engine and the firewall, and the area that includes the master cylinder and wiring harness below the master cylinder, as well as part of the fuel injection system.
5. The most likely fuel available in the above-described areas of high heating is gasoline from the fuel-injection system. Fuel injectors, the fuel injection supply manifold and the fuel pressure regulator are all located adjacent to the observed area of high heat damage. If a fuel leak developed, causing fuel to leak or spray outward from the injector area towards the left front fender area, and the fuel ignited the second area of high heating, the master cylinder area would have been damaged by burning fuel.
6. Although much of the wiring in the engine compartment was burned, no arcing was observed, indicating the wiring burning was probably a victim of the fire, not the cause.
7. If a fuel leak supplied the initial fuel for the fire, the leak was probably quite small since the overall damage to the engine compartment was not complete. Usually, when a fuel system is breached, significant amounts of fuel escape and most of the burnable materials in the engine compartment are consumed. In this fire, the

December 26, 1996

relatively small amount of damage and the observation by personnel at the fire indicating the engine was still running smoothly are consistent with a small fuel leak rather than a large one.

8. The burning of the inside of the left front tire was probably a result of burning material dropping down from the engine compartment. Also, later in the fire power steering fluid from the steering system likely added a significant amount of burning fuel at the ground level. This fuel and the burning rubber of the tire would likely result in the heat damage observed on the left front fender. The nearby tree, when ignited, would also add heat to the right front fender area.
9. None of the wiring for the light bar and radios was involved in the fire; the wiring was routed along the right side of the engine compartment, the opposite side of the engine from where the fire started.

Respectfully submitted,

TALBOTT ASSOCIATES, INC.



Expire 6/30/97

Thomas D. Jones, P.E.

TDJ:go



FIGURE 1



FIGURE 2

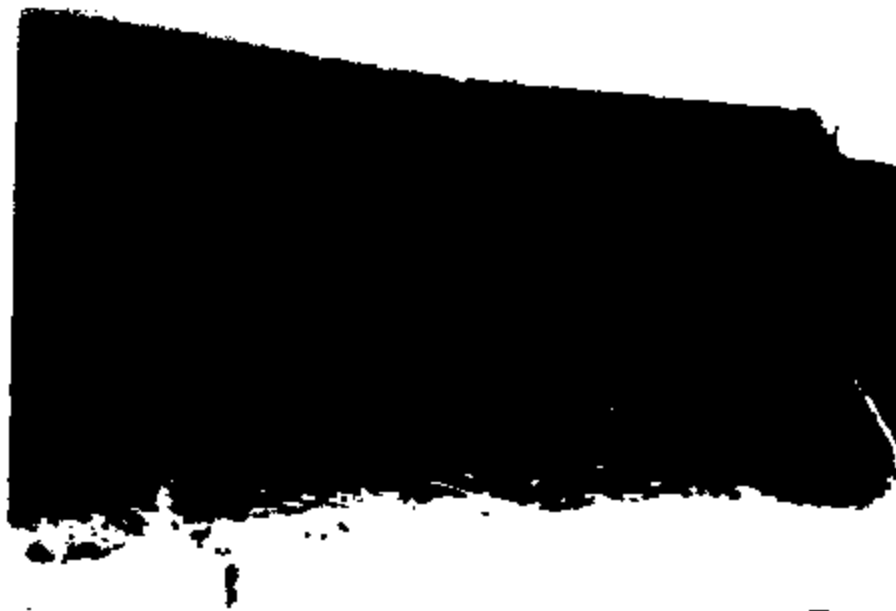


FIGURE 3



FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7



FIGURE 8



FIGURE 9



FIGURE 10



FIGURE 11



FIGURE 12



FIGURE 13

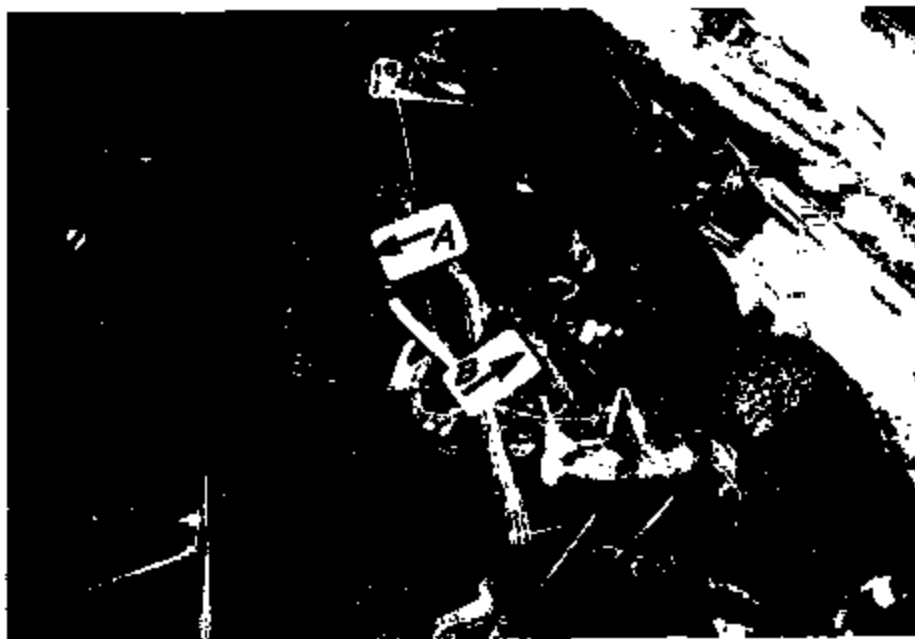


FIGURE 14



FIGURE 15



FIGURE 16



FIGURE 17



FIGURE 18



FIGURE 19



FIGURE 20

SAT, AUG 10, 1996, 10:39 AM

This date and time indicate when these times were brought back up on the dispatch computer prior to faxing to the Forest Grove Fire Dept. 69

Call Type BRUSH

Incident No 96019368

BRUSH FIRE

Loc:10920 NW THORNBURG RD
NWOLD WILSON RIVER NW

APT

City:WA

Name:

NWGALES CREEK RD
Contact?

Add:

Phone# [REDACTED] Area Code:501

Rnks: GRASS FIRE JUST STARTED **CALLER IS UNABLE TO DESCRIBE THE SIZE CALLER
SAYS THAT THERE IS A BARN AND A TREE POSS A 2ND BUILDING POSSIBLY PH
Prty:1 Lev:FN Src:1 Rd:PGC17 Sta:GC Ca:01 P#:96233649 F#: E#:

911:173601 Rc:173706 Ds:173745 En:173903 Ar:174948 Wf: Fo: Cl:211654

Date:080896 Tak-Id:6511 Disp-Id:6544 Alarm Lv:2 Radio Chs:TAC4

Dispo Code:R1 Rnks:

Unit	Time	CC	Remarks
6544	185532		NUMBER 936-3357 FOR MEDIA.
E911	173601	CT	3572334 10920 NW THORNBURG RD
E427	173745	D	10920 NW THORNBURG RD
E421	173745	D	10920 NW THORNBURG RD

6511
6544
6544

*Washing for
County
9/14
Times sheet*

00000

SAT, AUG 10, 1996, 10:39 AM

Unit	Time	CC	Remarks	
B422	173745	D	10920 NW THORNBURG RD	6544
WT4	173745	D	10920 NW THORNBURG RD	6544
R4	173745	D	10920 NW THORNBURG RD	6544
401	173745	D	10920 NW THORNBURG RD	6544
STL4	173745	D	10920 NW THORNBURG RD	6544
GEN4	173745	D	10920 NW THORNBURG RD	6544
SFOR	173745	D	10920 NW THORNBURG RD	6544
SFOR	173751	C	10920 NW THORNBURG RD	6511
GEN4	173755	C	10920 NW THORNBURG RD	6511
401	173903	E	10920 NW THORNBURG RD	6511
C4	173909	BU	10920 NW THORNBURG RD	6511
C4	173909	E	10920 NW THORNBURG RD	6511
432	173912	BU	10920 NW THORNBURG RD	6511
432	173912	E	10920 NW THORNBURG RD	6511
B421	173922	E	10920 NW THORNBURG RD	6511
WT4	174004	E	10920 NW THORNBURG RD	6511

UNIT TO PAGE

DISPATCH PAGE

08/10/96 10:39 AM

EMOS-005-101-3027

SAT, AUG 10, 1996, 10:39 AM

Unit	Time	CC	Remarks	
432	175007	A	10920 NW THORNBURG RD	6511
401	175041	RT	2 BARNS ON GROUND & 1 THREAT	6511
401	175058	RT	KNOCK 2 BARNS DOWN	6511
E421	175120	A	10920 NW THORNBURG RD	6511
WT8	175223	D	10920 NW THORNBURG RD	6544
WT4	175300	A	10920 NW THORNBURG RD	6511
415	175340	BU	10920 NW THORNBURG RD	6544
415	175340	E	10920 NW THORNBURG RD	6544
WT13	175510	BU	10920 NW THORNBURG RD	6544
WT13	175510	E	10920 NW THORNBURG RD	6544
WT7	180036	A	10920 NW THORNBURG RD	6511
E423	180048	A	10920 NW THORNBURG RD	6511
STL4	180053	C	10920 NW THORNBURG RD	6511
E427	180231	E	10920 NW THORNBURG RD	6511
CB	180259	A	10920 NW THORNBURG RD	6511
WT13	180450	A	10920 NW THORNBURG RD	6511

NOV 1996 09:57 78.47 700 80 607/50

2005-08-10-10-39

SAT, AUG 10, 1996, 10:39 AM

Unit	Time	CC	Remarks	
EB14	180554	A	10920 NW THORNBURG RD	6511
R4	180630	C	10920 NW THORNBURG RD	6544
417	180632	BU	10920 NW THORNBURG RD	6511
417	180632	E	10920 NW THORNBURG RD	6511
415	180648	A	10920 NW THORNBURG RD	6511
417	180712	A	10920 NW THORNBURG RD	6511
E422	180853	A	10920 NW THORNBURG RD	6511
E422	180902	RT	UNK WHEN E422 ARRIVED ON SCENE	6511
401	181001	RT	E427 STAGE ALONG SIDE RD & RESPOND IN ON FOOT	6511
E427	181012	A	10920 NW THORNBURG RD	6511
C4	181027	A	10920 NW THORNBURG RD	6511
C4	181032	RT	UNK WHEN C4 ARRIVED	6511
E428	181057	C	10920 NW THORNBURG RD	6511
WT8	181100	C	10920 NW THORNBURG RD	6511
401	181419	RT	RECALL @ 1814	6511
401	181450	RT	ALL UNITS ON SCENE WORKING	6511

88002

*** TO FILE

ALL INFORMATION CONTAINED

HEREIN IS UNCLASSIFIED

DATE 08-10-96 BY 3801/MS

SAT, AUG 10, 1996, 10:39 AM

Unit	Time	CC	Remarks	
432	183644	RT	VEH BURNING	6520
WT13	192709	RS	10920 NW THORNBURG RD	6511
WT7	193343	RS	10920 NW THORNBURG RD	6544
C8	194819	RS	10920 NW THORNBURG RD	6544
E423	195339	RS	10920 NW THORNBURG RD	6511
415	195450	RS	10920 NW THORNBURG RD	6544
EB14	195925	RS	10920 NW THORNBURG RD	6544
WT13	200005	C	10920 NW THORNBURG RD	6544
WT7	201110	C	10920 NW THORNBURG RD	6544
E423	201145	C	10920 NW THORNBURG RD	6544
415	203159	C	10920 NW THORNBURG RD	6511
E422	203412	RS	10920 NW THORNBURG RD	6511
401	203720	RS	10920 NW THORNBURG RD	6564
401	203732	RT	COMMAND TERMINATED	6564
417	203737	RS	10920 NW THORNBURG RD	6564
C8	203757	C	10920 NW THORNBURG RD	6511

ENG-005-LC1-3531

UNCLASSIFIED//FOR OFFICIAL USE ONLY

SAT, AUG 10, 1996, 10:19 AM

Unit	Time	CC	Remarks	
EB14	203802	C	10920 NW THORNBURG RD	6511
WT4	203907	RS	10920 NW THORNBURG RD	6511
E421	204100	RS	10920 NW THORNBURG RD	6564
E427	204708	RS	10920 NW THORNBURG RD	6511
417	205015	C	10920 NW THORNBURG RD	6511
E427	205151	C	10920 NW THORNBURG RD	6544
E422	210321	C	10920 NW THORNBURG RD	6544
401	210323	C	10920 NW THORNBURG RD	6544
E421	210622	C	10920 NW THORNBURG RD	6544
WT4	211638	C	10920 NW THORNBURG RD	6544
432	211643	C	10920 NW THORNBURG RD	6544
C4	211654	C	10920 NW THORNBURG RD	6544

Related Police Unit History

Unit	Time	CC	Remarks	
	175100	CT	1572334 10920 NW THORNBURG RD	6544
LOG1	175156	D	10920 NW THORNBURG RD	6567

ENR-008-101-3032

February 7, 1997

Oregon

After Market Additions
95-406, Vehicle Fire
95 Ford F-150 X-Cab 4x4
Installed By [REDACTED]

DEPARTMENT OF
FORESTRY

FOREST GROVE DISTRICT

I received the pickup new from Oregon Department of Forestry (ODF), Salem autoshop near the end of April in 1995. My job includes among other duties the supervision of initial attack wildland fire engine crews. My vehicle is used as an emergency vehicle when responding to fires and as a command post and communication vehicle while en route and at a fire scene.



"STEWARDSHIP IN
FORESTRY"

To accomplish these duties this vehicle is outfitted with an overhead light bar, siren, switch panel to control light bar, external siren speaker, ODF 32 channel Motorola radio & speaker with roof mount antenna, 40 channel Cobra CB with roof mount antenna, 4 channel Motorola Yamhill County 9-1-1 radio & speaker with roof mount antenna, multiple channel 800 MHz Motorola Washington County 9-1-1 radio & speaker with roof mount antenna, 2 between the seat pedestal floor mount radio and accessory mounts and Cell phone with roof mount antenna. Additional items added to vehicle include: aluminum cab guard, aluminum side-mounted storage boxes (1 on each side), 4 eye bolts in bed (strap down ATV), receiver hitch, overload springs, trailer light connection, 4 mud flaps, bug deflector and 2 rubber housed backup lights (mounted to receiver hitch).

Our Radio Technician, Tim Hurley will address the installation of the ODF 32 channel Motorola radio & speaker with roof mount antenna, 4 channel Motorola Yamhill County 9-1-1 radio & speaker with roof mount antenna, multiple channel 800 MHz Motorola Washington County 9-1-1 radio & speaker with roof mount antenna, 2 between the seat pedestal floor mount radio and accessory mounts and antenna installation for the CB and Cell phone. Our auto mechanic, Terry Hudnall will address the installation of the receiver hitch, overload springs, trailer light connection, 4 mud flaps and bug deflector. I will address the installation of the overhead light bar, siren box, switch panel to control light bar, external siren speaker, 40 channel Cobra CB, Cell phone, aluminum cab guard, aluminum side-mounted storage boxes (1 on each side), 4 eye bolts in bed, 2 rubber housed backup lights (mounted to receiver hitch) and I assisted with 2 between the seat pedestal floor mount radio and accessory mounts.

I have worked in my current position at the Forest Grove office for the past 18 years and with ODF for approximately 20 years. While in this position I am responsible for our 8 fire engines (including this pickup), three of these are 2-ton vehicles, 4 have been 1-ton vehicles and mine is usually a 1/2-ton vehicle. That includes installing overhead lights, siren box, switches, auxiliary lights, bed storage boxes and CB's etc.. We build our own



Vehicle Fire: 95-406

801 888th Creek Road
Forest Grove, OR 97116
(503) 357-2191
FAX (503) 357-4548

ER05-005-LC1-3534

fire engines on site starting with either a cab chassis or our older smaller engines were your basic pick-up style. Over the years I have had approximately 19 vehicles that I have worked on adding accessories. My knowledge regarding these installations comes from working experience with others, asking questions of our radio technician and mechanic and following installation instructions. I feel confident in what I do and if I don't understand something I will ask someone who does.

Upon receiving the vehicle I removed the between-the-seat Ford plastic storage box and the rear extra cab rear seat. This was to gain room between the seats for mounting the 2 pedestal floor mount radio and accessory mounts and provide storage area behind the front seats plus allow space for mounting the actual radios vertically on a plywood board to the passenger side rear wall. The vehicle was given to Tim Hurley, Radio Technician for installation of the radios and antennas. I helped Tim at times discussing placement of antennas in regards to placement of the overhead light bar and placement of the 2 pedestal floor mounts in relation to the drivers seat and ease of use. After Tim completed his work I proceeded to install the other accessories.

I first placed the siren box, switch panel to control light bar and CB into the pedestal floor mounts. Next I mounted the Federal "All-Light Streehawk overhead light bar to the roof. The control harness for this exits the bar on the passenger side so a hole was drilled into the roof and the harness was fed into the roof through a rubber grommet (hole area was sealed with silicone after installation) and run down the door post between the front seat and rear seat area. The harness then ran underneath the floor mat holder at the bottom of the door sill and forward to the fire wall and towards the center of the vehicle. The harness contains 11 wires and is contained in a factory protective cover approximately 15' long. These 11 wires will be connected to the Federal Model SW300 Switch Module mounted on the pedestal floor mount. I then went under the hood, passenger side and mounted a 40 amp reset circuit breaker. The circuit breaker was approximately 10" from the battery mounted on the passenger side fender well area just below the hood. I routed the power lead of 8 gauge wire from the Switch Module to a hole cut into the firewall near the bottom center on the passenger side through a rubber grommet and up the engine compartment firewall area over to the circuit breaker (nothing connected to power yet). The hole was $\frac{1}{2}$ to $\frac{3}{4}$ " in diameter drilled by the radio technician for the radio wires also to pass through. I ran the grounds for the Switch Module and Light bar to the sheet metal screws used to mount the pedestal to the floor. I also ran a hot wire of 14 gauge from the Federal PA300 Electronic Siren the same route as the 8 gauge power wire for the Switch Module up to the circuit breaker under the hood, both were run in wire loom. No connections have been made yet for power except at the unit itself. I measured the power wires to the circuit breaker and put crimp on connectors to attach the wires to the circuit breaker and made the connection to the circuit breaker. I still don't have power from the battery yet.

The light bar wire harness was very long so I trimmed it to length in conjunction with the switch module. Using the schematic that came with the light bar showing the features

we had I began connecting the appropriate feature of lights to the applicable accessory load of switch to activate that feature. The main set of lights plus the center oscillator pulled the most amps so it was connected to the number 1 switch which was a 40 amp switch with an internal 40 amp breaker. The front flashers were connected to switch number 2, rear flashers were connected to switch number 3, front takedown to switch number 4, left alley light to switch number 5 and right alley to switch number 6. Switches number 2 - 6 are all fused with 20 amp. blade fuses on the back of the unit.

As stated above the power lead for the PA300 Siren has been hooked up. The unit was grounded to the screws holding the pedestal. Two wires were run from the Siren to the horn wiring. This wire was identified by our mechanic and I spliced the Tap II feature into the horn. I mounted a 100 watt siren speaker on the drivers side behind the front bumper, also had a small rectangle piece of the bumper cut out to match where the front of the speaker lined up to the bumper. I ran 18 gauge wire through the firewall as mentioned before and routed this to the front on the passenger side of the hood and down behind the bumper and connected the speaker. I placed the 2 wires in wire loom. I connected the radio speaker wires from the Siren to the ODF inside speaker from our radio by using a special wire clip-on which accepted a blade connector. This allowed me to connect to the radio speaker wire without cutting the wire. Once the Siren and Switch Module with Light bar were hooked up I ran an 8 gauge wire from the battery side of the starter relay to one side of the 40 amp circuit breaker. Once I had power I tested all features and functions and everything work correctly.

Next I mounted a Cobra 21 LTD 40 channel CB using special heavy duty Velcro to the top of the Switch Module. Tim Hurley had run an extra power lead in for me and I hooked up the CB through its supplied in-line fuse to this power lead. I hooked up the ground as stated above and attached the antenna connector to a tuning unit and CB. The unit was tested and tuned and everything worked correctly.

The Cell phone was powered by the PowerPoint receptacle provided by Ford and it was hooked up to an external roof mounted antenna installed by Tim Hurley.

The next item installed was an aluminum cab guard by Pro Tech. I had the portion of the cab guard that rested on the top of the side box rails modified by welding a flat piece of aluminum that would strengthen the mounting of the cab guard plus provide protection to exposed portions of the box rail. I mounted this with bolts. I then mounted 2 aluminum side boxes from Pro Tech to the top of the box rail with bolts through the boxes, flat piece of aluminum and box rail. These boxes also require aluminum angle mounted to the box and down to the bed of the pickup for additional support. These were bolted in also.

All the above mentioned items that I mounted were mounted during the months of April, May and June of 1995.

In October of 1995 upon receipt of a ATV quad, I mounted 2 rubber chocks on aluminum bases to the front of the bed of the vehicle. These were mounted with bolts and spaced between the side boxes and at the width of the front tires of the ATV to prevent the front rack from hitting the rear window. I also mounted 4 heavy duty eye-bolts, 2 up front and 2 in the rear of the bed for tie down points to hold the ATV in place.

In the spring of 1996 I mounted 2 PAR 36 Rubber Utility lights to the side of the receiver hitch to be used as backup lights activated by a switch in the cab. I mounted 2 - 20 amp. lighted switches in the dash, middle right side. The second switch will be used for work lights in the bed of the vehicle. I ran 2 wires, each 18 gauge from the switch under the dash and through another small hole I drilled and inserted a rubber grommet in the firewall. After coming through the firewall the wire ran up and along an existing factory loom of wires across the engine compartment and down where I connected with the frame rail underneath the vehicle. The wire continued along the frame rail with 1 wire coming up behind the cab for the work lights and the other kept going to the rear until I could cross over to the receiver hitch area. I connected this wire to the furthest light directly to the screw inside the rubber housing for power. The light is grounded by mounting to the receiver hitch. I ran the wire for the other backup light from a blade connector attached to the main wire and ran it directly into the light itself also. The wire for the work lights was dead ended and was coiled up and wire tied to the aluminum screen of the cab guard. The end of the wire was flush and capped off with a wire nut and electrical tape and the wire was in loom. All wiring from the firewall to the rear lights was inside a wire loom and fastened with wire ties. Each switch was grounded separately with a wire attached to a sheet metal screw into the cab floor. Power was obtained by using a double blade fuse holder and plugged into # 14 and #15 in the vehicle fuse block with 20 amp fuses. After all connections were made to the lights, power was hooked up and tested, all lights worked correctly. These were the last after market products I installed.



Greg Juber
Protection Supervisor
Forest Grove District
Oregon Department of Forestry

February 14, 1997

After Market Additions
95-406, Vehicle Fire
95 Ford F-150 X-Cab 4x4
Radio Communications Equipment
Installed by Tim Hurley

DEPARTMENT OF
FORESTRY

Northwest Oregon Area

I have 23 years experience installing radio communications equipment in various types of vehicles for the State of Oregon, Department of Forestry, Fish and Wildlife, and Corrections. I have a First Class Radiotelephone License. My primary job is repairing and installing various radio systems for the state. I have approximately 525 systems in my work area.



I was responsible for installing three radio systems in this vehicle. There are some common wiring features for all three radios.

The 13.6 volt vehicle battery voltage was distributed on one 12 gauge heavy jacketed wire fused at the battery with a 20 amp fuse. This wire was run down the fender wall on the passenger side of the engine compartment and through the firewall. The 12 gauge wire went through a 3/8 inch grommet hole in the firewall. This power wiring was then branched to the three radio systems. Two of the radio systems were mounted on the back wall of the passenger compartment. The third radio was mounted on a pedestal between the seats. All three of these radios are commercial grade and made by Motorola Corporation.

The ignition control voltage was taken from the main fuse panel with a 3 amp fuse right at the fuse panel. Next, the ignition control voltage was routed through one 18 gauge wire which controlled a relay. The relay had three separate 1 amp fuses distributing the control voltage to the three radios. All the wiring was run under the floor mats in the middle of the vehicle in plastic wire looms.

The coax cable for the antenna systems were run under the floor mats to the back of the passenger cab. Next, the coax ran through both double inner walls to the roof antenna assembly. Then, the antenna was installed to the antenna assembly.

In summary, the two main gauges of wire that were used to distribute power for all three radio systems were fused well below the rated current. Also, all the wire was in loom and run down the center of the vehicle away from passenger feet.

Tim Hurley
Communications Systems Analyst
State of Oregon
Dept. of Forestry



EW05-805-LC1-3538

801 Cales Creek Road
Forest Grove, OR
97116-1199
(503) 357-2191
FAX (503) 357-4548

February 19, 1997

Oregon Department of Forestry
Vehicle Ident number: 95-406
General Mechanic, Terry L. Hudnall

On April 24, 1995 I installed a bug shield.

May 2, 1995 mud flaps were installed.

July 18, 1995 installed overload springs on the rear of vehicle.

November 17, 1995 installed trailer hitch on the rear of vehicle.

April 15, 1996 installed two trailer connectors, using a Hoppy I connector.

On such date to be determined, vehicle was having problems keeping battery charged. It was brought to my attention and charging system tested ok. Battery was not ordered due to business hours were at close of day.

Terry L. Hudnall

ER95-885-101-3538

February 11, 1997

Oregon

Description of Incident
95-406, Vehicle Fire
95 Ford F-150 X-Cab 4x4

DEPARTMENT OF
FORESTRY

FOREST GROVE DISTRICT

I gave my statement to the ODF investigators on scene at the time of the incident. This is a recount of those events that occurred August 8, 1996. This information is recalled from memory and from fire report radio logs and Washington County 9-1-1 radio time sheet as documented on the day of the Thornburg Road Fire. I will also relay information to the best of my ability regarding events with the vehicle prior to this particular fire.



On August 8, 1996 at approximately 1737 the Department of Forestry, Forest Grove Unit was notified by pager of a brush fire and threatened or burning buildings at 10920 NW Thornburg Road. At the same time this information was being received by the Forest Grove Fire Department.

I was at the Forest Grove Office and responded at 1739. Based on what I was hearing on the 800 MHZ Washington County 9-1-1 radio and the smoke column I could see, I upgraded my response from a Code 1 response to Code 3, the Fire Department also upgraded to a second alarm at this time. At 1748 I arrived in the area and began giving size up information over the Washington County radio and then again over the Forestry radio. We had a grass fire going into a Christmas tree plantation, a very large barn with impinging flames and a smaller shed fully involved. Forestry will attack the natural cover fire and the Fire Department will attack the structures. (While responding the light bar was operating using switch #1 (basic rotating lights & oscillator) and the siren was being used and the headlights were on plus the air conditioner was operating. Upon arrival the siren was switch off).

I was trying to locate access for ODF fire engines to attack the grass fire and found an unimproved farm road along the edge of the Christmas tree plantation. I directed 2 Forestry engines into this area to begin initial attack (see ODF investigation map). The unimproved road went through the plantation, East of the fire and bordered the North edge of the plantation. I found the sparsest location on the North side of the plantation away from the fire and pulled off and parked the vehicle on the South side of the unimproved road so the ODF fire engines could pass easily. Upon parking I put the gear selector into Park and applied the parking brake. I left the vehicle and began traveling on foot to direct the Forestry's initial attack. Department policy requires headlights on while driving, which they were, plus the light bar was operating and the air conditioner was operating. The temperature at this time was near 90 degrees. It is normal operation that if the emergency warning lights are on that the engine remains



Vehicle Fire, 95-406

80000 Creek Road
Forest Grove, OR 97116
(503) 357-2191
FAX (503) 357-4548

ED05-805-LC1-3540

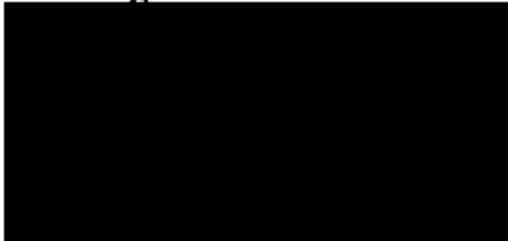
running so the battery doesn't die when parked. Our emergency lights are left on to remain visible to the public and / or other fire engines for safety.

The grass fire was in the mop up stage when at approximately 1835 someone from the Fire Department on the Washington County radio observed a spot fire with a column of heavy black smoke taking off near where the Forestry was working. I heard this and looked up, it was in the general area where I had parked my vehicle. I was approximately 100 yards away, down slope from the vehicle and began running in that direction. Upon getting closer I observed the vehicle on fire and the most intense burning was on the drivers side engine compartment with smoke rolling out the drivers side front wheel well. I also observed the light bar was still operating and the headlights on. Also while approaching I responded on the Washington County radio that it was a vehicle burning and to move one of the Fire Department engines in that direction to assist with suppression. I also directed my closest Forestry 500 gallon engine to lay another hose line towards the vehicle for attack. Upon arrival to the vehicle I grabbed 2 foam fire extinguishers I kept in the bed of the pickup and gave 1 to a fireman and kept one and started shooting foam in through the wheel wells of the pickup to slow down the fire until a larger 1 1/2" foam line from the Forestry engine arrived. About the time my extinguisher ran dry Pat Dunlap, a Forestry firefighter had the charged line from the Forestry engine and began extinguishing the fire, this was at approximately 1840. I went to the back of the vehicle and unhooked the tie down straps holding the ATV and threw it out the back of the pickup. The fire was knocked down by now and I opened the drivers door and passenger door to help ventilate the cab from smoke and begin mop up in the cab and check for extension. I turned off the switches for the light bar and headlights which was a mute point, since nothing was working at this time and removed some personal items from the cab. I called for an investigator from my office at approximately 1841. The fire was controlled at approximately 1844 and extinguished at approximately 1855. ODF investigators arrived at approximately 1930 and began their investigation.

Prior to the Fire

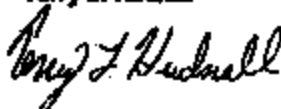
Approximately 3 weeks prior to the above mentioned fire while working in my office on the weekend I had my vehicle parked outside, near my window with the key in the accessory position so I could monitor the Yamhill County 9-1-1 radio. I had done this many times before with this vehicle during the summers of 1995 and 1996 with no problems. The vehicle had been in the accessory position for approximately 2 hours, it was time to leave so I attempted to start the vehicle and it barely turned the engine over. I turned all accessories off and waited for awhile and tried again, the vehicle started. I drove to McMinnville approximately 30 miles away parked for the night and drove back to the office another 30 miles and the vehicle appeared to start normally. I figured the battery was charged normally and the gauges didn't show any different. Everything was going fine for a couple of weeks and then I parked the vehicle by my office again on the weekend (Sunday, August 4, 1996) to listen to the 9-1-1 radio for a couple of hours and

when I tried to start the vehicle the engine would not turn over and I had to jump the vehicle. On Monday, August 5, 1996, I talked to Terry regarding the battery going dead, and about whether it needed a larger alternator to keep the battery charged. Terry thought the alternator was large enough but wanted to check out the battery. Terry charged the battery and tested the battery and charging system, at this time everything appeared to be OK. During fire season my days off are Tuesday and Wednesday Terry's days off are Saturday and Sunday, even on my days off I need my vehicle available for a response. On the morning of Thursday, August 8, 1996 after my weekend, I spoke to our mechanic again, Terry Hudnall. Terry wanted to replace the original battery with a new battery the next day on August 9, 1996. Terry was going to test the battery out of the vehicle because I needed the vehicle for fire response. We didn't get a chance to accomplish the swap due to the fire.



On Aug. 5th I was informed that the battery in 95-408 had gone dead, I charged battery and tested the battery and charging system that same day and did not find anything wrong. On Aug. 8th [redacted] told me his battery went dead again, so I checked it with a load tester and it barely passed, I started to come to the conclusion that the battery wasn't able to hold a charge, I planned on getting a new battery the next morning as it was getting late in the day. Well that evening the vehicle burnt up.

Terry L. Hudnall



INVESTIGATION
REPORT NARRATIVE
THORNBURG VEHICLE FIRE
FIRE #120

On August 8, 1996 at 1845 myself, Mitch Taylor, and Wayne Brown from the Forest Grove office of the Oregon Department of Forestry were dispatched to Old Wilson River Road and Thornburg Road to investigate a vehicle fire, named The Thornburg Vehicle Fire. The vehicle involved was a 1995 Ford one half ton, extended cab, four wheel drive pick up. This Department of Forestry owned vehicle was operated by [REDACTED] Assistant [REDACTED]. This vehicle was parked near the scene of the Thornburg Road Fire. A fire that Forest Grove District suppression personnel were assisting on mutual aid with the Forest Grove Fire Department.

The Thornburg Road Fire had originated from a small mill site spreading to two outbuildings and then to a grass field (Photos A-1,2,3). The weather was warm, 85 to 90 degrees Fahrenheit, and the relative humidity was near 40 percent. The fire was pushed by a three to five mile per hour north west wind through the grasses toward a Christmas tree plantation to the south east. [REDACTED] had entered the scene at 1749 hours from the South east of the fire area on an unimproved farm road through the Christmas tree plantation. He parked away from the advancing fire, 270 feet from the south east corner of the fire. The vehicle was pulled off to the south side of the road at a point where access along the road was not restricted (Map A and Photo B-1). The overhead lights were left on and the engine was left running. [REDACTED] got out of the vehicle and proceeded on foot to the fire scene.

At approximately 1835 a radio transmission on the rural radio frequency from unidentified overhead personnel with the Fire Department drew attention to what appeared to be a spot fire to the south east of the scene. Immediately following, [REDACTED] noticed the same column of smoke. The smoke was black in color and rising from where [REDACTED] had parked his vehicle. [REDACTED] who was monitoring both frequencies, radioed to have an engine move to that location when he could see what was burning.

When [REDACTED] arrived at the burning vehicle the area of the engine compartment was fully involved in fire, the engine had stalled but the overhead lights were still operating. [REDACTED] opened a door, turned off all the electrical switches, removed some items from the cab and the bed of the vehicle, and radioed dispatch for an investigator. The fire was extinguished with extinguishers and a 1½ inch hose line from an engine.

Upon arrival at 1930 hours, we surveyed the scene, took photographs and sketched the area. A tow truck had been dispatched to recover the vehicle and return it to the Forest

Grove District compound to hold it for an investigator experienced in vehicle fires. We concentrated our efforts on determining the cause of the wildland fire that had originated at the point of the burned vehicle.

The combined vehicle and associated wildland fire was contained to an area six feet by six feet (Photo C-1). The fuels burned, other than the vehicle and its debris, was light needle cast from the Christmas trees, light grasses, scattered woody debris from the tree farm including one small cull which had been cut off just above ground level, and portions of one six foot tall live tree.

From our survey of the scene and the surrounding area, we eliminated the possibility of ignition sources not related to the vehicle or to the Thornburg Road Fire itself. The absence of activity near the parked vehicle and of any source that could possibly cause an ignition was noted and considered in our determination.

Inspection of burn pattern indicators in the main fire area led us to multiple starts in the grassy fuels to the south east of the burned outbuildings. The source of ignition at each of these points was the charred remains of cedar shingles which had originally covered the roof of each of the buildings. They had been carried by the column and the wind and deposited up to 600 feet away in a path 350 feet wide (Map A). They ignited the grassy fuels in the area adjacent to the outbuildings, but in the Christmas tree farm we did not find any that ignited or spread due to the absence of continuous fuels (Photo D-1).

Paint flakes which had burned free from the hood and fenders of the vehicle (Photo E-1,2,3) were found scattered 60 feet downwind. Placement of the vehicle in relation to The Thornburg Road Fire, the absence of fire brands in the proximity of the burned vehicle, and the patterns of fallout from each of the columns eliminates the possibility of an ignition source from the main fire causing a start that would involve the vehicle.

Examination of the fuels beneath the vehicle after its removal, revealed an area of origin (see Photos F-1,2 (note arrow)). Unburned fuels in direct contact with hot engine components (see Photo G), and burn pattern indicators including staining and charring on the ground fuels and the unburnable material led us to an area on the ground that, in relation to the vehicle was located directly below the drivers side of the engine compartment just forward of the firewall. Complete staining and charring on the ground in this area did not allow us to pinpoint a specific point of origin. Burn patterns under and around the vehicle indicated an area of about three square feet as the area of origin. Fuels under melted plastic components from the vehicle were found to be protected and unburned (see Photos H-1,2 and I-1,2). This indicates that the fuels on the ground were ignited from the burning vehicle.

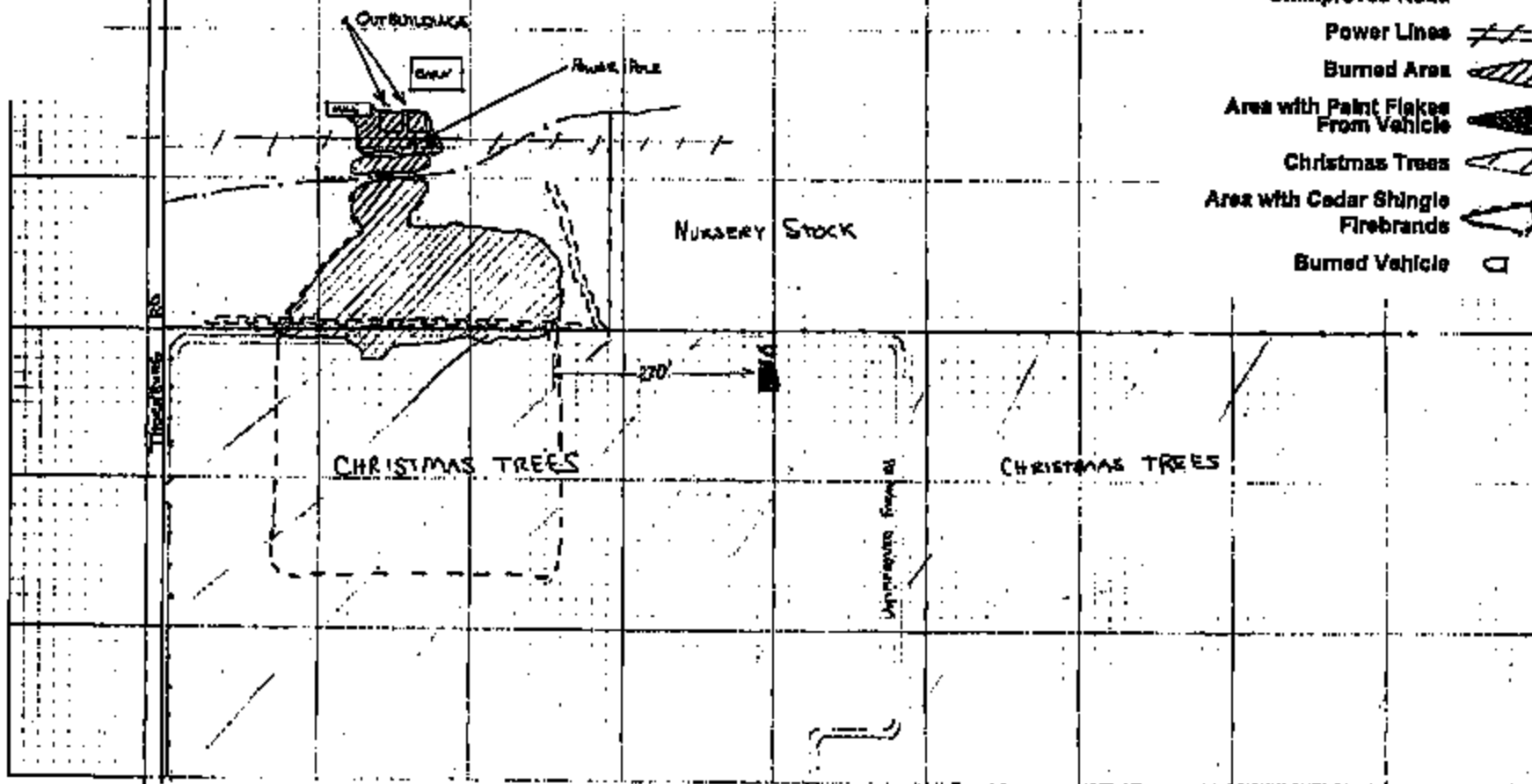
Jeff Bonebrake
Permanent Forest Officer

MAP A



1" = 200'

- Fence Line
- Improved Road
- Unimproved Road
- Power Lines
- Burned Area
- Area with Paint Flakes From Vehicle
- Christmas Trees
- Area with Cedar Shingle Firebrands
- Burned Vehicle



DRAFT-088-LC1-3548

DATE: 11/11/08
SCALE: 1" = 200'

PROJECT: 088-LC1-3548
DRAWN BY: [illegible]



Photos A-1, A-2, A-3



PHOTO B-1



PHOTO C-1



PHOTO D-1



PHOTO E-1, E-2

EA85-805-LC1-3558



PHOTO E-3

EA25-685-LC1-3551



PHOTO F-1



PHOTO F-2

EROS-885-LC1-3852

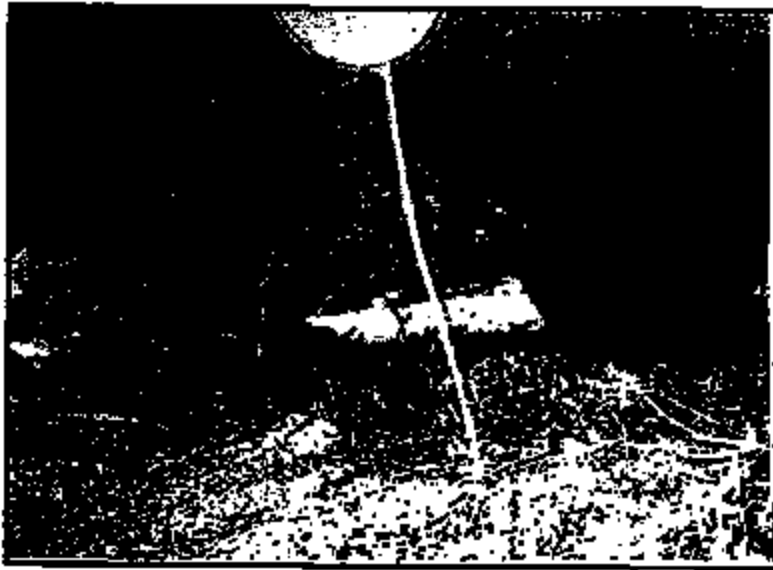
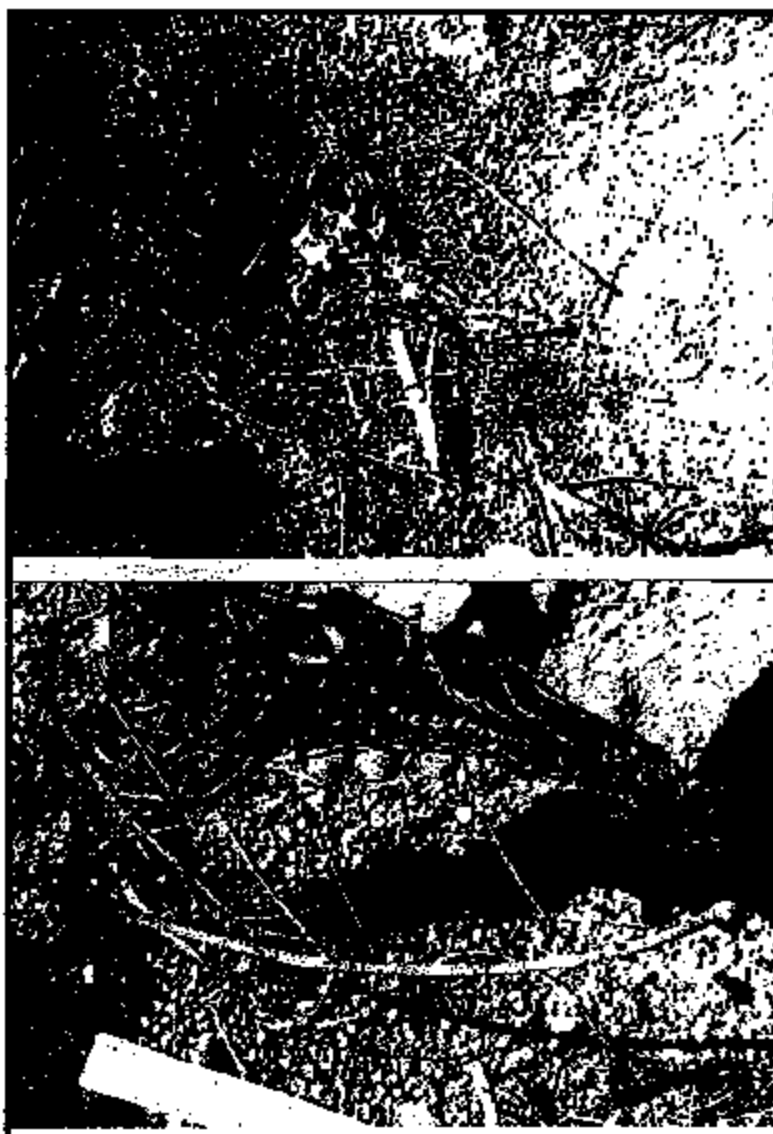


PHOTO G-1

ERDC-025-LC1-3833



PHOTOS H-1, H-2



PHOTOS I-1, I-2

E005-285-LC1-3555

8/15/96

Fire Incident Report
Oregon Department of Forestry

Page 1
1-2-3-101

Fire#: 96-119 Name: Thornburg Road Statistical Category: 2
District: 53 Unit: 1

GEOGRAPHIC DATA AT POINT OF ORIGIN

Fire Location: Latitude: Degree's: 45 Min/Sec: 35.900
Longitude: Degree's: 123 Min/Sec: 14.400
Township/Range: 01N /05W Section: 01 - NESE
County: 34

Protection Agency: 6 Federal Lands: 3 VARC: 7

Land Class at Origin: 9 T/G: T Minimum Assessment Track: N
Dual Assessment Track: N

Weather Zone:

Fire Origin Land Owner:

PREVENTION DEMOGRAPHICS

Discovered By: 08 Tom Wanless
Cause By: General: 09 Specific: 999 Degree Certain: C

General Restrictions: Industrial Restrictions:

Weather: Burn Index:

Involve Operation: Notification Number:

FIRE CHRONOLOGY

	Date	Time
Time of Ignition:		
Time of Discovery:	8/08/96	1730
Time of Reporting:	8/08/96	1738
Time of Initial Attack:		
Time of Control:		

FUELS/FIRE BEHAVIOR/SUPPRESSION ACTION/FIRE SIZE

Initial Attack By: 01 Attack Type: Size at Attack: 2.00

Flame Length: Behavior at initial Attack: Fuel Model: L

Topography: Aspect: Slope: Elevation:

Final Fire Class: A Acres: .25 Protected Acres: 0.00

	R	PA	FR	FG	FT	FS	X
VARC Percent Acres Burned:	0.0	0.0	0.0	0.0	0.0	0.0	100.0

8/15/96

Fire Incident Report
Oregon Department of Forestry

Page 2
1-2-3-101

Fire#: 96-119
District: 53

Name: Thornburg Road
Unit: 1

Statistical Category: 2

ACREAGE BURNED BY TYPE

Ownership	Commercial	Non-Commercial	Non-Forest	Other
State/Private				
Federal Lands				

ACREAGE BURNED BY PROTECTION CLASS

	I	II	Zone1	Other
TOTALS	0.00	0.00	0.00	0.00

- I. Private class 1 and 2 forest lands and public lands paying timber assessment rates.
- II. Private class 3 forest lands and public lands paying grazing assessment rates.

COST RECOVERY AND DAMAGES

District Suppression Cost:	274.00	Cost Recovery Fire: N
Emergency Fire Sup. Cost:	0.00	Will Have Damages: N
Private Company Cost:	0.00	
Other Agency Sup. Cost:	4,716.00	



Prepared by

Thomas M. Savage 8/27/96
District Forester

FIRE INVESTIGATION SUMMARY REPORT
FOR ALL MAN-CAUSED FIRES

CONFIDENTIAL

CONFIDENTIAL

This report includes three sections - supplements may be added as needed.

Section 1 - must be completed for all man-caused fires.

Section 2 - must be completed if the party(s) responsible for the origin of the fire, or responsible for control action on the fire, or responsible for every reasonable effort is known.

Section 3 - [Arson Fires] must be completed on all arson or incendiary fires.

District:	Forest Grove	Fire #:	715319119
Fire Cause:	Misc. other, sparks from sawmill exhaust	Fire Name:	Thornburg Road
		Cost Estimates Regular:	\$ 274.20
RESPONSIBLE PARTY:		Other:	0
<input checked="" type="checkbox"/> Known	Name(s):	Rodney Wanless	TOTAL: \$ 274.20
	Address(s):	10920 NW Thornburg Road	
		Gales Creek, OR 97117	
<input type="checkbox"/> Unknown			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Recommend that responsible party(s) be billed for fire suppression costs.	
<input type="checkbox"/> District will bill	<input type="checkbox"/>	* Request Salem Headquarters to bill.	
		Regular:	
		Other:	
		TOTAL:	
FIRE INVESTIGATION REPORT:			
1.	Who made the investigation? Gary Maxwell, FGF&R		
2.	Where is written investigation report filed? None filed		
3.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Did the investigation reveal the definite cause of the fire?
4.	Give a brief summary of supporting evidence or circumstances you used to make this cause determination.		
	The landowner was milling lumber when a spark from the exhaust ignited dry sawdust. The sawdust pile spread to two out buildings, power poles, and grass and trees.		
5.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Is the fire investigation complete at the time of filing this report?
	08-11-96		<i>Thomas M. Savage</i> 8/27/96
	Date	District Forester	

* Where Salem is requested to bill, all investigative reports, forms, statements, etc. relating to the fire must be sent to the Prevention Section in Salem. Include a copy of form 1-3-5-209 Firefighting Cost Report to substantiate costs to be recovered.

FIRE INVESTIGATION SUMMARY REPORT
FOR ALL MAN-CAUSED FIRES cont'd

CONFIDENTIAL

CONFIDENTIAL

1.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Was the fire caused by or did it result from a forest law violation? If yes, state ORS: _____ and specific violation _____
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Was the responsible party required to appear in court?
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Convicted?
2.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Was the responsible party wilful, malicious or negligent in the origin or subsequent spread of the fire? If yes, briefly explain: _____
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Does not apply. Did the owner or operator fail to give notice to the Forester of an operation?
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Does not apply. Did the owner or operator fail to offset or abate an additional hazard?
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Does not apply. Was the owner or operator required to make every reasonable effort? If yes, why: <input type="checkbox"/> Fire resulted from debris or slash burning. <input type="checkbox"/> Fire resulted from an operation or during the time the operation was in progress.
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Does not apply. Did the owner or operator make every reasonable effort? If no, what effort was made if any, and by whom: _____

ODF FIREFIGHTING COST REPORT

(Form 629-1-3-5-209)

Date: 8/11/96

District/Unit:	Forest Grove / Forest Grove	Fire #:	119	Fire Date:	8/8/96
Fire Name:	THORNBURG ROAD				
	Regular District Min Hours	Hours	6 @	\$17.10 =	\$ 102.60
	*REGULAR DISTRICT EQUIPMENT				
438	Light Engine (200 gal F2)	Hours	0.5 @	\$23.60 =	\$ 11.80
434, 436	Medium Engine (500 gal F3)	Hours	2 @	\$48.58 =	\$ 99.30
	Heavy Engine (1000 gal F3)	Hours	@	\$74.85 =	\$
	3.5 CID (25" Bar or Less)	Hours	@	\$3.15 =	\$
	3.8 CID (29" Bar or Greater)	Hours	@	\$4.40 =	\$
	** PORTABLE PUMPS				
	Wajac Mark 20, 1 1/2"	Hours	@	\$3.00 =	\$
	Wajac Mark 3, 1 1/2"	Hours	@	\$5.20 =	\$
	Hornelite FP-150, 1-1/2"	Hours	@	\$4.00 =	\$
	Gorman Pump B3A, 3"	Hours	@	\$3.50 =	\$
	*** AUTOMOTIVE EQUIPMENT				
	91-471, 91-493, 90-473 200 gal. 4x4 1 unit	Miles	20 @	\$0.96 =	\$ 19.20
	79-208 Supply Trk	Miles	@		\$
	91-238, 92-244, 90-260 800 gal. Foam	Miles	@	\$0.78 =	\$
	95-408 4x4, 432's	Miles	40 @	\$0.88 =	\$ 35.20
	98-192 4x2, 431's	Miles	10 @	\$0.61 =	\$ 6.10
	93-412 4x4, 412's	Miles	@	\$0.37 =	\$
	95-404 4x4, 413's	Miles	@	\$0.35 =	\$
	95-413 4x4, Nancy's, 3/4 ton	Miles	@	\$0.64 =	\$
	94-267, 1000 gal. State Lands	Miles	@	\$0.81 =	\$
(Outside of Fire Season) .1	South Fork Van	Miles	@	\$1.16 =	\$
(Outside of Fire Season) .1	South Fork Bus	Miles	@	\$0.81 =	\$
Add Foreman time to M. hour	South Fork Crews	MD's	@	\$40.00 =	\$
		Miles	@		\$
	65-307, D6C Cat, FD	Hours	@	\$40.96 =	\$
		Hours	@		\$
	Fire Dinners:				\$
	Fire Lunches:				\$

TOTAL REGULAR DISTRICT COSTS \$ 274.20

EXTRA COSTS	South Fork Van	Miles	@	\$0.81 =	\$
	South Fork Bus	Miles	@	\$1.04 =	\$
SF During Fire Season Only	South Fork Crews	MD's	@	\$40.00 =	\$
	South Fork Foreman	Hours	@	\$17.10 =	\$
	Firefighting Labor (Non-contract)				\$
	Firefighting Labor (Contract)				\$
	Equipment Rental (Non-Contract)				\$
	Equipment Rental (Contract)				\$
	Flight Time				\$
	Lead Plane				\$
	Foodstuffs				\$

Worker's Comp Considerations: \$ Firefighting Labor Cost \$

\$.28 per day per person (pick-up labor) # of days x # of people \$

*Worker's Compensation is figured for Non-contract labor only

TOTAL EXTRA COSTS \$

GRAND TOTAL \$

* Use Standard Rate

** Use Firefighting Equipment Rental Rates

*** Use Outside Billing Rates

Rates revised July 1, 1996

ER85-885-LC1-3568

RFD FIREFIGHTING COST REPORT

Date: 8/11/86

Fire District: FOREST GROVE RFD
 Fire Name: THORNBURG ROAD

Fire #: 118 Fire Date: 8/8/86

	PAID Fire Department Man Hours	Hours	@	\$20.12	= \$ 1,890.08
	VOLUNTEER Fire Department Man Hours	Hours	@	\$12.00	= \$ 426.00
4 ENGINES	Type I Eng: 1000gpm w/ 400+ gal. tank	Hours	@	\$100.00	= \$ 1,400.00
	Type II Eng: 500-1000gpm w/ 400+ gal. tank	Hours	@	\$80.00	= \$
	Type III Eng: 120gpm w/ 300+ gal. tank	Hours	@	\$80.00	= \$
3 ENGINES	Type IV Eng: 70gpm w/ <750 gal. tank	Hours	@	\$40.00	= \$ 420.00
	Type I Tender: 300gpm w/ 5000 gal. tank	Hours	@	\$70.00	= \$
3 TENDERS	Type II Tender: 200gpm w/ 2500 gal. tank	Hours	@	\$60.00	= \$ 525.00
	Type III Tender: 200gpm w/ 1000 gal. tank	Hours	@	\$30.00	= \$
	Type I Aerial Ladder Truck	Hours	@	\$150.00	= \$
	3.5 CID (28" Bar or Less)	Hours	@	\$3.00	= \$
	3.6 CID (29" Bar or Greater)	Hours	@	\$4.20	= \$
		Hours	@		= \$
		Hours	@		= \$
		Hours	@		= \$
	German Pump 83A, 3"	Hours	@	\$3.20	= \$
3	Command Vehicle or Support Vehicle	Hours	@	\$15.00	= \$ 97.50
	Squad/ Personnel Transport (In use only)	Hours	@	\$20.00	= \$
R4	Rescue Vehicle (incl. medic or ambulance)	Hours	@	\$45.00	= \$ 157.50
		Miles	@		= \$
		Miles	@		= \$
		Miles	@		= \$
	85-307, DBC Cat, FG	Hours	@	\$70.00	= \$
		Hours	@		= \$
		Hours	@		= \$
		Hours	@		= \$
	Fire Meals:				\$

TOTAL FIRE DEPARTMENT COSTS \$3,336.08

Aircraft	\$
	\$
	\$
	\$
	\$
	\$
	\$

TOTAL EXTRA COSTS \$

GRAND TOTAL \$3,336.08

*Use State Fire Marshal's Rate
 **Use Firefighting Equipment Rental Rates
 ***Use Outside Billing Rates

Rates revised June 1983

Shornburg Rd

INITIAL FIRE REPORT & RADIO LOG

FIRE#: 119
 STAT:
 NS: K
 NFA:

Date: 8/8 Time: 1738

Calling Party: Fire Comm Call Back #:

What is Burning: Brush

Location of Fire: [REDACTED] Cause: NW Old Wilson River Hwy + 9th St.

Remarks: 4866

1st Alarm E 427, E 421, E 432, WT & R4
 2nd Alarm E 428, E 423, E 814, 16708

Corrected Legal: NESE Sec. 1 T 1 W R 5 W
 Varc: 7 Bl: 22 Acres: 1 1/2 - 2

RESOURCES DISPATCHED

Weather: 88° mostly sunny w.
 (temp., rh, general state)

Unit	Resp Time	Arr Time	Miles	Remarks	Fire Cause	Burn Day
432	1741	1749	20		House	Yes (No)
434	1742	1752	20			
435	1742	1751	20			
438	1741	1751	20			

Time	Unit	Message
1745	432	To 434, 435, 438 This is going to be a working fire
1746	432	at least 42 acres. large dark column of smoke. Fire Comm going to 2nd alarm
1749	432	Open fire going into Christmas tree farm; 1 large bar is threatened.
1755	432	Shed on fire
1759	432	Burning through the grass. Wind arriving.
1800	432	E 421: 432 crew to work west side
1802	432	to E 421 not moving to fuel over; doesn't look like its into the Christmas tree
1812	432	House laid out; in good shape on west side & east side of the field

ENR-085-LCI-2862

DO NOT WRITE IN THIS SPACE CONTROL NO.	STATE OF OREGON FIRE REPORT STATE FIRE MARSHAL	FIRE DEPT. ALARM NO. 1057-96
---	---	------------------------------

District of Incident: **FOREST GROVE DIST.** County: **WASHINGTON** 4886 D F Dept. Reporting: **FOREST GROVE**

1 MO DAY YEAR 08/08/96	DAY OF WEEK THU	ALARM TIME 1737	ARRIVAL TIME 1749	TIME BACK IN 2041
2 INCIDENT ADDRESS 10920 NW THORNBURG RD.		ZIP 97117	CENSUS TRACT 338	HOCLASS 8
3 OCCUPANT NAME (Last, First, MI) ADDRESS SAME		DOB (optional)	TELEPHONE	
4 BUSINESS OWNER NAME (Last, First, MI) ADDRESS		DOB (optional)	TELEPHONE	
5 OWNER NAME (Last, First, MI) ADDRESS SAME		DOB (optional)	TELEPHONE	
6 FIRE REPORTED BY (Last, First, MI) WANLESS, TOM ADDRESS		DOB (optional)	TELEPHONE	

7 METHOD OF ALARM 911 (TIE LINE)	RECEIVED
--	----------

8 # OF FIRE SERVICE PERSONNEL RESPONDED 21	# OF ENGINES RESPONDED 4	# OF AERIAL APPARATUS RESPONDED 0	# OTHER VEHICLES RESPONDED (do not include PAs) 6
--	------------------------------------	---	---

9 TYPE OF SITUATION FOUND STRUCTURE FIRE, OTHER PROPERTY W/VALUE, B	TYPE OF ACTION TAKEN EXTINGUISH, INVESTIGATE
---	--

10 METHOD OF EXTINGUISHMENT PRECONNECT HOSE/TANK ONLY

11 FIELD PROPERTY USE PORTABLE WOOD MILL	PROPERTY COMPLEX (if applicable) FARM	MOBILE PROPERTY (if applicable) 0
--	---	---

14 MOBILE PROPERTY	YEAR 0	MAKE 0	MODEL 0	SERIAL # 0	LICENSE # 0
--------------------	------------------	------------------	-------------------	----------------------	-----------------------

12 ROOM/AREA OF FIRE ORIGIN SOUTH SIDE OF MILL	EQUIPMENT INVOLVED IN IGNITION (Complete Line 12) GAS ENGINE FOR MILL
--	---

13 EQUIPMENT INVOLVED IN IGNITION	YEAR 1940	MAKE BELL	MODEL 0	SERIAL # 0	VOLTAGE 0
-----------------------------------	---------------------	---------------------	-------------------	----------------------	---------------------

15 IGNITION FACTOR POSSIBLE SPARK FROM EQUIPMENT, GAS ENGINE TO RUN MILL.

14 FORM OF HEAT OF IGNITION SPARK	MATERIAL FIRST IGNITED WAS MADE OF SAW DUST	ITEM FIRST IGNITED: WOOD DUST
---	---	---

15 LEVEL OF FIRE ORIGIN GRADE LEVEL TO 9 FEET

16 VALUE	Building	Contents	Vehicle and Contents	Other	TOTAL
	\$ 2000	\$ 3000	\$ 0	\$ 400	\$ 5400
LOSS	\$ 2000	\$ 1500	\$ 0	\$ 400	\$ 3900

17 NUMBER OF STORIES 1 STORY
--

18 BUILDING AGE (in Years) 40	BUILDING SIZE (Gross Ft. Sq.)
---	-------------------------------

19 CONSTRUCTION TYPE HEAVY TIMBER

20 EXTENT OF DAMAGE CONFINED TO: Flame Smoke FLAME: BEYOND STRUC/ORIGIN SMOKE: BEYOND STRUC/ORIGIN	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE Sprinkler Contained Fire # of Hooks Opened
--	----------------------	--

21 Weather Conditions Windspeed _____ Direction _____ Condition _____ Temp. _____
--

21a REMARKS LUMBER MILL, TWO SHEDS, FIELD ONE ACRE, POWER POLE, CHRISTMAS TREES.
--

22 Follow Up Investigation Requested NO	If yes, who will investigate
---	------------------------------

23 Number of Injuries Fire Service 0 Other 0	Number of Fatalities Fire Service 0 Other 0
---	--

24 Member Making Report GARY R. MAXWELL	Title LIEUTENANT	Date 08/08/96
---	----------------------------	-------------------------

25 Additional Information by	Title	Date
------------------------------	-------	------

COMPLETE FOR ALL HOSTILE FIRES
 COMPLETE FOR ALL HOSTILE FIRES
 COMPLETE FOR ALL HOSTILE FIRES
 STRUCTURES FIRES ONLY
 8905-085-101-3584

DO NOT WRITE IN THIS SPACE CONTROL NO. _____ EXP. NO. _____	STATE OF OREGON FIRE REPORT STATE FIRE MARSHAL	FIRE DEPT. 1057A-96 ALARM NO. _____
--	---	---

District of Incident **FOREST GROVE DIST** County **WASHINGTON** 4866 D F Dept. Responding **FOREST GROVE**

1	MO DAY YEAR 08/08/96	DAY OF WEEK THUR	ALARM TIME 1737	ARRIVAL TIME 1749	TIME BACK IN 2041
2	INCIDENT ADDRESS 10920 NW THRONBURG RD		ZIP 97118	CEMS/TRACT 336	ISO CLASS 8
3	OCCUPANT NAME (Last, First, MI) ADDRESS		DOB (optional)	TELEPHONE	
4	BUSINESS OWNER NAME (Last, First, MI) ADDRESS		DOB (optional)	TELEPHONE	
5	OWNER NAME (Last, First, MI) ADDRESS		DOB (optional)	TELEPHONE	
6	FIRE REPORTED BY (Last, First, MI) ADDRESS		DOB (optional)	TELEPHONE	

COPY

7 METHOD OF ALARM **911 (TIE LINE)** RECEIVED

# OF FIRE SERVICE PERSONNEL RESPONDED 21	# OF ENGINES RESPONDED 4	# OF AERIAL APPARATUS RESPONDED	# OTHER VEHICLES RESPONDED (do not include PAs) 5
--	------------------------------------	---------------------------------	---

8 TYPE OF SITUATION FOUND **OTHER PROPERTY W/VALUE** TYPE OF ACTION TAKEN **EXTINGUISH**

9 METHOD OF EXTINGUISHMENT **PRECONNECT HOSE/TANK ONLY**

11 FIXED PROPERTY USE FIELD	PROPERTY COMPLEX (if applicable) FARM	MOBILE PROPERTY (Complete line 11)
---------------------------------------	---	---

14 MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL #	LICENSE #
--------------------	------	------	-------	----------	-----------

12 ROOM/AREA OF FIRE ORIGIN 2ND POLE E OF THORNBERG RD	EQUIPMENT INVOLVED IN IGNITION (Complete Line 12) LUMBER MILL
--	---

13 EQUIPMENT INVOLVED IN IGNITION	YEAR 40	MAKE BELL	MODEL	SERIAL #	VOLTAGE
-----------------------------------	-------------------	---------------------	-------	----------	---------

13 IGNITION FACTOR
SPARKS FROM MILL IGNITED GRASS AND PGE POWER POLE

14 FORM OF HEAT OF IGNITION FLAME	MATERIAL FIRST IGNITED WAS MADE OF DRY GRASS	TYPE OF FUEL IGNITED GRASS
---	--	--------------------------------------

15 LEVEL OF FIRE ORIGIN
GRADE LEVEL TO 9 FEET

16 VALUE	Building	Contents	Vehicle and Contents	Other	TOTAL
	\$	\$	\$	\$	\$
	5000				5000
Loss				800	800

17 NUMBER OF STORIES

18 BUILDING AGE (in Years) BUILDING SIZE (Gross Fv Only)

19 CONSTRUCTION TYPE

20 EXTENT OF DAMAGE CONFINED TO: Floor Smoke	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE Sprinkler Controlled Fire: Fall Heads Operated
--	----------------------	--

21 Weather Conditions
Wind speed _____ Direction _____ Condition _____ Temp. _____

21a REMARKS
STRUCTURE FIRE SET FIELD ON FIRE IGNITING PGE POWER POLE.

21 Follow Up Investigation Requested **NO** If yes, who will investigate

22 Number of Injuries Fire Service 0	Other 0	Number of Fatalities Fire Service 0	Other 0
--	----------------	---	----------------

23 Member Making Report GARY R. MAXWELL	Title LIEUTENANT	Date 08/08/96
24 Additional Information by	Title	Date

COMPLETE FOR ALL HOSTILE FIRES
 COMPLETE FOR ALL HOSTILE FIRES
 COMPLETE FOR ALL HOSTILE FIRES
 625-83-10T

DO NOT WRITE IN THIS SPACE CONTROL NO.	EXP. NO.	STATE OF OREGON FIRE REPORT STATE FIRE MARSHAL	FIRE DEPT. ALARM NO. 10578-96
---	----------	---	-------------------------------

District of Incident **FOREST GROVE DIST** County **WASHINGTON** 4868 D F Dept. Responding **FOREST GROVE**

1 NO DAY YEAR 08/08/96	DAY OF WEEK THUR	ALARM TIME 1737	ARRIVAL TIME 1749	TIME BACK IN 2041
----------------------------------	----------------------------	---------------------------	-----------------------------	-----------------------------

2 INCIDENT ADDRESS	ZIP 97116	CENSUS TRACT 336	ISO CLASS 8
--------------------	---------------------	----------------------------	-----------------------

3 OCCUPANT NAME (Last, First, MI) ADDRESS	DOB (optional)	TELEPHONE
--	----------------	-----------

4 BUSINESS OWNER NAME (Last, First, MI) ADDRESS	DOB (optional)	TELEPHONE
--	----------------	-----------

5 OWNER NAME (Last, First, MI) ADDRESS	DOB (optional)	TELEPHONE
---	----------------	-----------

6 FIRE REPORTED BY (Last, First, MI) ADDRESS	DOB (optional)	TELEPHONE
---	----------------	-----------

7 METHOD OF ALARM 911 (TIE LINE)	Manual A.M. (For lightning or lightning only) RECEIVED
--	--

8 # OF FIRE SERVICE PERSONNEL RESPONDED 21	# OF ENGINES RESPONDED 4	# OF AERIAL APPARATUS RESPONDED	# OTHER VEHICLES RESPONDED (do not include PAs) 8
--	------------------------------------	---------------------------------	---

9 TYPE OF SITUATION FOUND BRUSH, GRASS, LEAVES	TYPE OF ACTION TAKEN EXTINGUISH
--	---

10 METHOD OF EXTINGUISHMENT PRECONNECT HOSE/TANK ONLY

11 FOLDED PROPERTY (USE TREE FARM)	PROPERTY COMPLEX (If applicable) FARM	MOBILE PROPERTY (Complete Line 14)
---	---	------------------------------------

14 MOBILE PROPERTY	YEAR	MAKE	MODEL	SERIAL #	LICENSE #
--------------------	------	------	-------	----------	-----------

12 ROOM/AREA OF FIRE ORIGIN SOUTH OF MILL FIRE	EQUIPMENT INVOLVED IN IGNITION (Complete Line 13) GAS ENGINE FOR LUMBER MILL
--	--

13 EQUIPMENT INVOLVED IN IGNITION	YEAR	MAKE	MODEL	SERIAL #	VOLTAGE
40 BELL					

15 IGNITION FACTOR SPARKS FROM MILL IGNITED GRASS, STARTED FIRE IN TREE FARM
--

14 FORM OF HEAT OF IGNITION FLAME	MATERIAL FIRST IGNITED WAS MADE OF DRY GRASS	ITEM FIRST IGNITED GRASS
---	--	------------------------------------

16 LEVEL OF FIRE ORIGIN

VALUE	Building	Contents	Vehicle and Contents	Other	TOTAL
	\$0	\$0	\$0	\$0	\$0
LOSS	\$0	\$0	\$0	\$200	\$200

17 NUMBER OF STORES

18 BUILDING AGE (In Years)	BUILDING SIZE (Gross Floor Area)
----------------------------	----------------------------------

19 CONSTRUCTION TYPE

20 EXTENT OF DAMAGE CONFINED TO: Floor	Detector PERFORMANCE	SPRINKLER PERFORMANCE Sprinkler Controlled Fire: # of Heads Operated
--	----------------------	--

21 Weather Conditions Windspeed _____ Direction _____ Condition _____ Temp. _____
--

21a REMARKS STRUCTURE FIRE SET FIELD ON FIRE EXTENDING TO TREE FARM

22 Follow Up Investigation Requested NO	If yes, who will investigate
--	------------------------------

23 Number of Copies Fire Service 0 Other 0	Number of Copies Fire Service 0 Other 0
---	--

24 Member Making Report GARY R MAXWELL	Title LIEUTENANT	Date 08/08/96
---	-------------------------	----------------------

25 Additional Information by	Title	Date
------------------------------	-------	------

COPY

COMPLETE FOR ALL HOSTILE FIRES
COMPLETE FOR ALL HOSTILE FIRES
COMPLETE FOR ALL HOSTILE FIRES
STRUCTURE FIRES ONLY
8885-085-1-01-3685

DO NOT WRITE IN THIS SPACE CONTROL NO.	STATE OF OREGON FIRE REPORT STATE FIRE MARSHAL	FILE DEPT. 1059-96 ALARM NO.
---	---	---------------------------------

District of Incident **FOREST GROVE DIST.** County **WASHINGTON 4866 0 F** Dept. Responding **FOREST GROVE**

1	MO DAY YEAR 08/08/96	DAY OF WEEK THU	ALARM TONE 1830	ARRIVAL TIME 1831	TIME BACK IN 2015
---	-------------------------	--------------------	--------------------	----------------------	----------------------

2	OCCUPANT NAME (Last, First, MI) [REDACTED]	CONTRACT 336	ISO CLASS 8
---	---	-----------------	----------------

3	ADDRESS [REDACTED] (STATE FORESTRY DEPT.)	DOB (optional)	TELEPHONE
---	--	----------------	-----------

4	BUSINESS OWNER NAME (Last, First, MI) ODF ADDRESS [REDACTED]	DOB (optional)	TELEPHONE
---	---	----------------	-----------

5	OWNER NAME (Last, First, MI) ODF ADDRESS [REDACTED]	DOB (optional)	TELEPHONE
---	--	----------------	-----------

6	FIRE REPORTED BY (Last, First, MI) [REDACTED] ADDRESS [REDACTED]	DOB (optional)	TELEPHONE
---	---	----------------	-----------

7	METHOD OF ALARM RADIO	Mutual Aid (arrangements or investigations only) NOT APPLICABLE
---	--------------------------	--

8	# OF FIRE SERVICE PERSONNEL RESPONDED 3	# OF ENGINES RESPONDED 1	# OF AERIAL APPARATUS RESPONDED 0	# OF OTHER VEHICLES RESPONDED (do not include PAs) 0
---	--	-----------------------------	--------------------------------------	---

9	TYPE OF SITUATION FOUND VEHICLE FIRE	TYPE OF ACTION TAKEN EXTINGUISH, INVESTIGATE
---	---	---

10	METHOD OF EXTINGUISHMENT PRECONNECT HOSE/TANK ONLY, PORTABLE EXTINGUISHER
----	--

11	FIXED PROPERTY USE FIELD	PROPERTY COMPLEX (if applicable) TREE FARM	MOBILE PROPERTY (Complete Line 11) AUTO, PICK-UP TRUCK
----	-----------------------------	---	---

12	MOBILE PROPERTY YEAR 1995 MAKE FORD MODEL F150 SERIAL # 1FTEX14H05 LICENSE # [REDACTED]
----	--

13	ROOM/AREA OF FIRE ORIGIN ENG. COMP.	EQUIPMENT INVOLVED IN IGNITION (Complete Line 13) LINK.
----	--	--

14	EQUIPMENT INVOLVED IN IGNITION YEAR 0 MAKE 0 SERIAL # 0 VOLTAGE 0
----	--

15	IGNITION FACTOR POSSIBLE ELECTRICAL PROBLEM, UNDER INVESTIGATION.
----	--

16	FORM OF HEAT OF IGNITION FLAME	MATERIAL FIRST IGNITED WAS MADE OF WIRING	ITEM FIRST IGNITED WIRE
----	-----------------------------------	--	----------------------------

17	LEVEL OF FIRE ORIGIN GRADE LEVEL TO 9 FEET
----	---

18	VALUE	Building	Contents	Vehicle and Contents	Other	TOTAL
	\$	0	\$ 00	\$ 30000	\$ 0	\$ 30000
	\$	0	\$ 0	\$ 15000	\$ 0	\$ 15000

19	NUMBER OF STORIES 0
----	------------------------

20	BUILDING AGE (in Years) 0	BUILDING USE (Home For Daily)
----	------------------------------	-------------------------------

21	CONSTRUCTION TYPE
----	-------------------

22	EXTENT OF DAMAGE CONFIRMED TO: Flame Smoke	DETECTOR PERFORMANCE	SPRINKLER PERFORMANCE
	FLAME: OBJECT OF ORIGIN SMOKE: OBJECT OF ORIGIN		Sprinklers Controlled Fire. # of Heads Opened

23	Weather Conditions Wind speed Direction Condition Temp.
----	--

24	REMARKS VEHICLE FIRE, ODF PICK-UP, EXTINGUISHED HAND LINES, EXTINGUISHERS.
----	---

25	Follow Up Investigation Requested NO	If yes, who will investigate
----	---	------------------------------

26	Number of Injuries Fire Service 0 Other 0	Number of Fatalities Fire Service 0 Other 0
----	--	--

27	Member Making Report MIKE HUTCHENS Title ASST. CHIEF Date 08/08/96
----	--

28	Additional Information by Title Date
----	--------------------------------------

COPY

COMPLETE FOR ALL
HOSTILE FIRES

COMPLETE FOR ALL
HOSTILE FIRES

COMPLETE FOR ALL
HOSTILE FIRES

STRUCTURE FIRES ONLY

EMS-005-L01-0987

INS

INS INVESTIGATIONS, INC.
18023-M Highway 99, 180 Business Park
Lynnwood, WA 98037
(206) 744-7891/(800) 776-0285

PRIVILEGED AND CONFIDENTIAL
Report Number One
December 4, 1996

PREPARED FOR: GAB Robins
909 N Tomahawk Island DR.
Portland, OR 97217
(503)240-1686

ATTENTION: Rick Wood

INSURED: [REDACTED]

DATE OF LOSS: August 8, 1996

LOSS LOCATION: Gales Creek, OR

POLICY NUMBER: Unknown

CLAIM NUMBER: [REDACTED]

INS FILE: 94606-02272

**THIS REPORT FURNISHED AS PRIVILEGED AND CONFIDENTIAL TO ADDRESSEE.
RELEASE TO ANY OTHER COMPANY, CONCERN OR INDIVIDUAL IS SOLELY THE
RESPONSIBILITY OF ADDRESSEE.**

INS

EP05-005-LC1-3868

INS

94606-92272

-1-

November 26, 1996

Insured: Oregon Department of Forestry

ASSIGNMENT

This assignment was received on September 5, 1996 with my investigation commencing September 6, 1996. My instructions were to determine origin and cause of a fire occurring in a 1995 Ford 1/2 ton pick-up operated by the Oregon Department of Forestry in Forest Grove, Oregon. This fire occurred on August 8, 1996.

SUBJECTS

[REDACTED] Oregon Department of Forestry

ENCLOSURES

1. Photographs 1-25 with Index
2. Vehicle Fire Examination Report, INS form #8081
3. State of Oregon, Oregon Department of Forestry Automotive Equipment Record
4. Dispatch log from WCCCA (8 pages)
5. GAB photos (copies-4 pages)
6. GAB Auto/Casualty Assignment Notice
7. GAB Vehicle Damage Appraisal
8. GAB Total Loss and Salvage Report

FIRE SCENE EXAMINATION

I traveled to Forest Grove, Oregon September 6, 1996. I contacted [REDACTED] at the Oregon Department of Forestry site [REDACTED] directed me to the burned vehicle. The vehicle that burned is a 1995 Ford 1/2 ton 4x4 pick-up. The entire front section of the truck had burned. [REDACTED] was present during the examination of the vehicle. This truck was in service and on scene of a brush fire at the time that the vehicle burned. [REDACTED] was the operator of the truck. [REDACTED] told me that he

INS

EAF5-885-LC1-3589

Insured: Oregon Department of Forestry

had no previous problems with the vehicle prior to this fire. [redacted] stated that en route to the brush fire on August 8, 1996, the pick-up truck had operated normally. That within less than three minutes of his arrival at the brush fire scene, a fire was noted coming from the engine compartment by [redacted]. The suppression of the fire was begun immediately. The fire vehicle was parked on a perimeter area of the brush fire and was left running. My investigation revealed that the brush fire was not contributory to the fire in this vehicle. The photographs were taken at the fire scene by Oregon Department of Forestry employees showing that this vehicle was well away from the brush fire area.

The vehicle fire occurred approximately 30 days prior to this assignment. The vehicle had been removed from the original fire scene to the Oregon Department of Forestry site in Forest Grove, Oregon. Accessories (emergency light bar, radios, and telephones) had been removed from the vehicle. The removal of these items did not adversely affect determination of origin and cause.

I photographed the exterior of the vehicle and began a reverse examination, working from the rear of the truck, which had no fire damage, to the front of the vehicle where the most severe fire damage had occurred. The rear and bed of the truck suffered no fire damage. Examination of the under carriage from the rear of the truck forward showed the brake lines, exhaust system, fuel tanks, fuel lines, transmission housing, electrical lines, and catalytic converter intact and none contributory to this fire. I then proceeded to examine the front cab area and under carriage. The fire damage to the interior of the cab area was due to direct flame impingement through the fire wall area and upper dashboard/windshield area. All wiring in the cab area was examined and found to be non-contributory. The under carriage of the front of the vehicle showed brake lines intact and fuel lines intact. Wiring in this area was also clean, none discolored, none arced, no heating apparent, and did not contribute to this fire.

I then moved to examine the engine Department. The most intense heat was on the left, driver side of the vehicle. Intense burn patterns and vapor pitting were observed at the fire wall between the rear fuel injector, fuel lines, and brake master cylinder. All wiring, battery, and all other components within the engine compartment were damaged as a result of the heat and flames from this fire. All the electrical and mechanical components within the engine compartment were eliminated back to the defined point of origin which was at the aforementioned area at the rear fuel injector/fuel line area.

DETERMINATION OF ORIGIN AND CAUSE

Based on physical evidence, burn patterns, and elimination of all other electrical or mechanical failures, the point of origin of this fire is at the fire wall, driver side, at the area of the rear fuel injector/fuel lines. The most probable cause of this fire was the failure of the rear most gasoline fuel injector, allowing gasoline vapor, under pressure, to be ignited by an arc or a spark of operating electrical equipment within the engine compartment of this vehicle.

INS

94606-92272

-3-

November 26, 1996

Insured: Oregon Department of Forestry

COMMENTS

I will diary date this file 30 days pending instructions for any further activity. No additional investigation will be conducted, nor is contemplated. In the interim, you may contact me through the Washington Service Center or at the phone numbers listed below.

Edward Campbell
Investigator, INS Investigations Bureau, Inc.
(503) 579-3265
(503) 903-3483 Pager

EC:vl

Diary Date: January 1, 1997

cc: Warren Gay
District Manager
Lynnwood, Washington
(206) 744-7891

INS

ERS-805-LC1-3571

PHOTOGRAPH INDEX

1. Front of vehicle.
2. Right side of vehicle.
3. Front and left side of vehicle.
4. Rear of vehicle.
5. Engine compartment, driver side.
6. Engine compartment, right to left side.
7. Engine compartment, driver side. Arrow denotes point of origin.
8. Engine compartment, driver side. Arrow denotes point of origin.
9. Wiring loom and master cylinder, driver side, engine compartment.
10. Interior of cab, driver side.
11. Dashboard/windshield area, driver side to middle
12. Underside of dashboard, cab area.
13. Fuse block, engine compartment.
14. Fuse block, engine compartment.
15. Battery post and cables.
16. Battery post and cables.
17. Rear gasoline fuel injector, engine compartment, point of origin.
18. Rear gasoline fuel injector, engine compartment, point of origin.
19. Rear gasoline fuel injector and fuel lines, area of origin.
20. Fuel vapor pitting and heat line at fire wall, driver side.

INS

94606-02272

-2-

December 4, 1996

PHOTOGRAPH INDEX

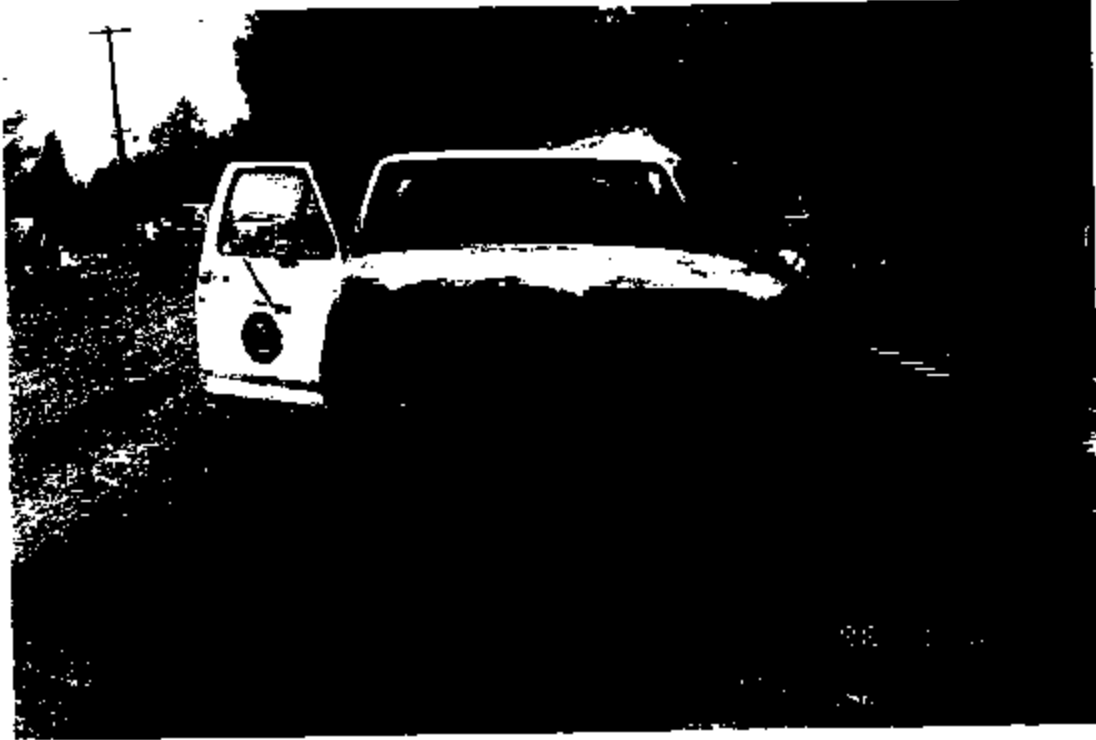
21. Hood and windshield of vehicle.
22. Hood and windshield of vehicle.
23. Hood and windshield of vehicle.
24. Dashboard and windshield, interior of vehicle.
25. Dashboard and windshield, interior of vehicle.

INS

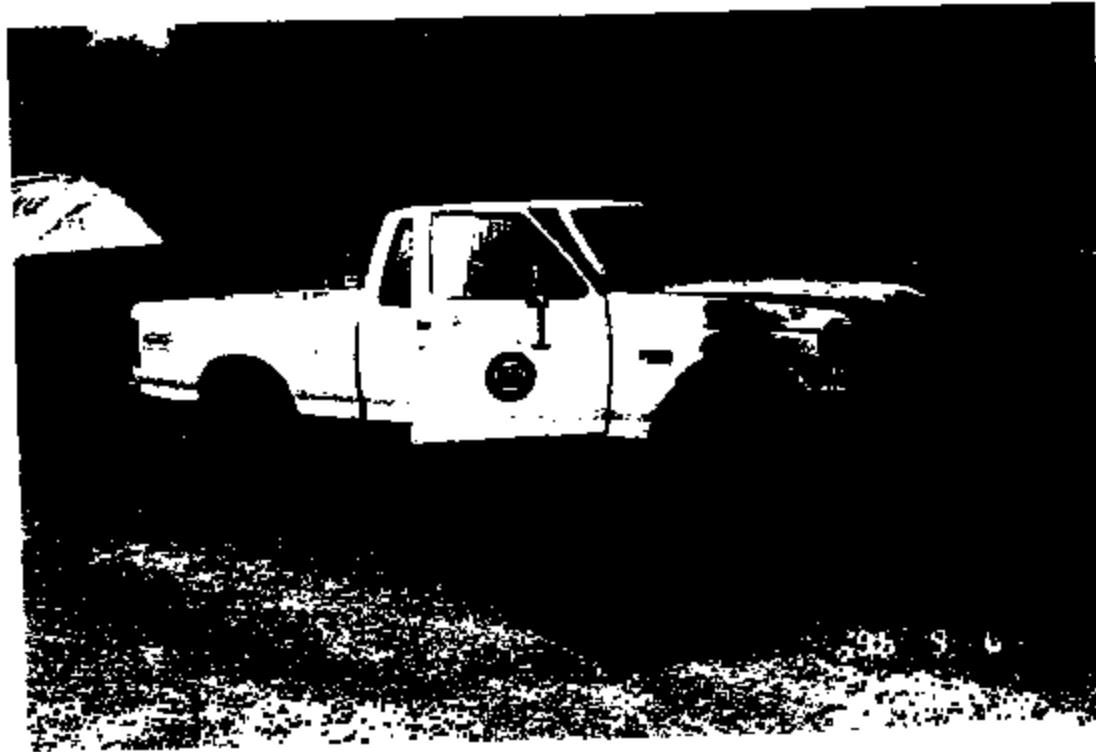
EA85-005-L01-3573

Photo Sheet

INS No. 99606-0227
Insured [REDACTED]



No. 1



No. 2

Photo Sheet

INS No. 94606-02272

INSUR



No. 3



No. 4

Photo Sheet

INS No. 94606-02272

Insured



No. 5



No. 6

Photo Sheet

INS No. 94606-02272

Insured



No. 7



No. 8

Photo Sheet

INS No. 94604-02272

Insured



No. 9

No. X

INS
Form 600 (11/80)

Photo Sheet

INS No. 9460

PLATE



No. _____

No. X

Photo Sheet

INS No. 94606-02272

Insured



No. 11



No. 12

Photo Sheet

NS No. 94606-02372

Insure



No. 13



No. 14

Photo Sheet

INS No. 94606-02272
(number)



No. 15



No. 16

Photo Sheet

INS No. 946016-02272

INSUR



No. 17



No. 18

Photo Sheet

INS No. 94606-02272

Inure



No. 19



No. 30

Photo Sheet

INS No. 94606-02272

Insur



No. 21



No. 22

Photo Sheet

INS No. 946D6-02272

Insured



No. 23



No. 24

Photo Sheet

INS No. 94606-02272

TRANS



No. 25

No. X

PHOTO SHEET

GAB FILE NO.
49359-31921

INSURED
State of Oregon

CLAIMANT
N/A

DATE OF LOSS
8/8/96

DATE & TIME TAKEN
8/27/96 @ 12:00

BY
Brad Whitman



PICTURE NO. ①

DESCRIPTION
Front view
of insured veh.



PICTURE NO. ②

DESCRIPTION
Right front
view.

PHOTO SHEET

GAB FILE NO.
49339-31921

CITY
[REDACTED]

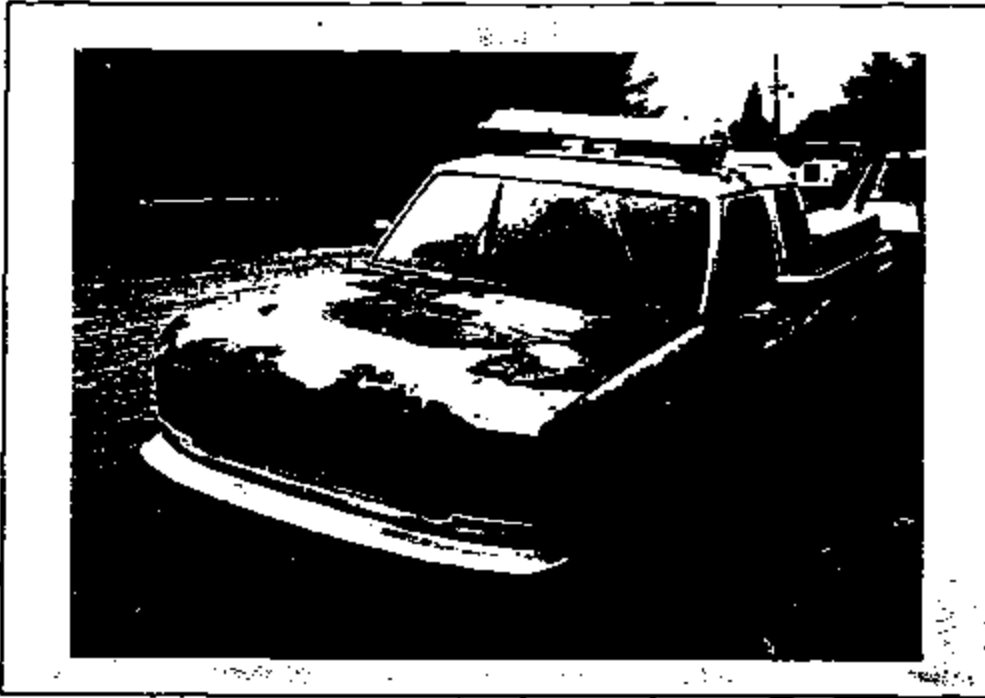
INSURED
State of Oregon

CLAIMANT
N/A

DATE OF LOSS
8/8/96

DATE & TIME TAKEN
8/27/96 @ 12:00

BY
Brad Whitman



PICTURE NO. **(3)**

DESCRIPTION
Left front view.



PICTURE NO. **(4)**

DESCRIPTION
Left near view.

PHOTO SHEET

CLAIMANT

N/A

GAS FILE NO.

49359-31921

DATE OF LOSS

8/8/96

CITY

DATE & TIME TAKEN

8/27/96 @ 12:00

INSURED

State of Oregon

BY

Brad Whitman



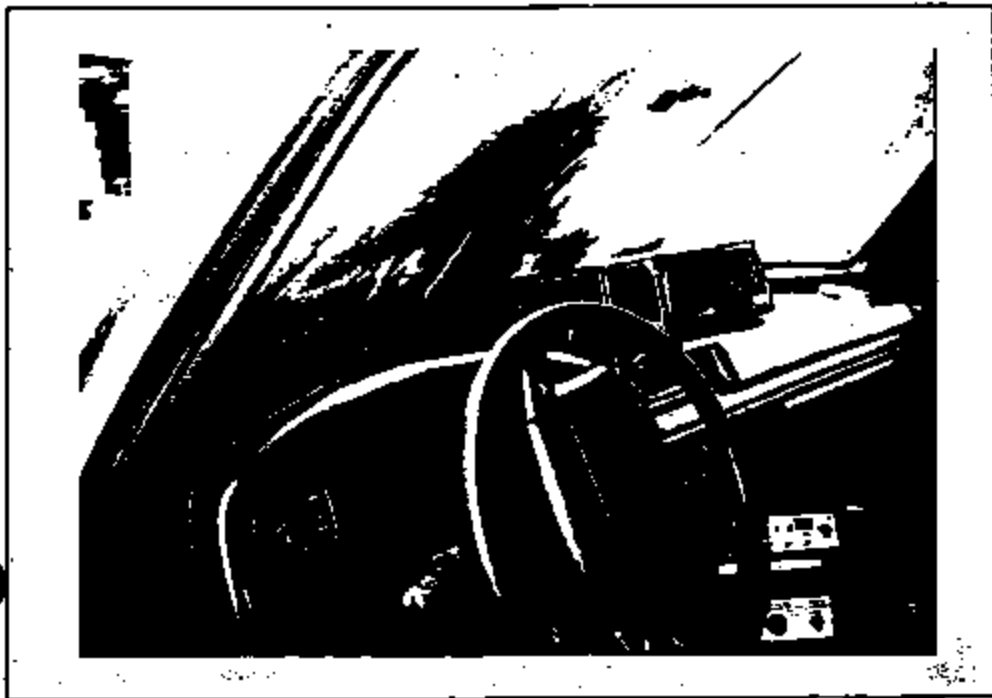
**GAB
Robins**

PICTURE NO.

(5)

DESCRIPTION

Photo shows
interior.



PICTURE NO.

(6)

DESCRIPTION

Inside dash
board.



PHOTO SHEET

CAS FILE NO.
49359-31921

CITY
[REDACTED]

INSURED
State of Oregon

CLAIMANT
N/A

DATE OF LOSS
8/8/96

DATE & TIME TAKEN
8/27/96 @ 12:00

BY
Brad Whitman



PICTURE NO. (7)

DESCRIPTION
Left - drivers side firewall.



PICTURE NO. (8)

DESCRIPTION
Engine assy

December 26, 1996

TAI File 960485

[REDACTED]
Dept. of Risk Management
[REDACTED]

Salem, OR [REDACTED]

Attn: Bruce Hoffmeister

Re: 1995 Ford F150 Truck Fire
D/I: 8-8-96

Dear Mr. Hoffmeister:

On August 8, 1996, an [REDACTED] of Forestry vehicle, a 1995 Ford F150 XL pickup, was damaged by a fire. Talbott Associates, Inc. was requested to examine the vehicle and review scene photographs and other materials to determine the cause of the fire. Selected photos taken during the course of the investigation are included as part of this report; the remainder are on file.

CONCLUSIONS

1. The area of origin of the fire in the 1995 Ford F150 XL pickup was in the left side of the engine compartment.
2. The most probable fuel for the start of the fire was gasoline leaking from the fuel injection system.
3. Ignition of the fuel, although not conclusive, was probably a result of leaking fuel down onto the ignition wiring located below the fuel injection system.
4. None of the reported additional wiring performed by [REDACTED] of Forestry employees was located in the area of origin of this fire.
5. The location of the fire's origin and the time and location of the pickup are consistent with the fire being accidental in nature.

December 26, 1996

PROCEDURE

1. The vehicle was examined and photographed on November 20, 1996. The vehicle at the time of the inspection was stored at the Forest Grove District offices of the Oregon Department of Forestry.
2. At the time of the examination, a conversation was held with [REDACTED], driver of the pickup when the fire occurred.
3. Selected photos of the fire scene and of the vehicle, taken by Jeff Bonebrake, Permanent Forest Officer, were received and reviewed.
4. Copies of the fire report log, a report narrative of the vehicle fire, and selected pages from the service manual for the vehicle were received and reviewed.

DATA AND OBSERVATIONS

1. Summary of conversation with [REDACTED]
 - a. Responding to a fire, [REDACTED] had driven the pickup to the scene and had parked it in a Christmas tree farm area.
 - b. The engine had been left running, the overhead lights were flashing and the air conditioner was on. [REDACTED] reported that the ambient temperature at the time of the fire was in the 80° range.
 - c. [REDACTED] was approximately 200 yds. away from the vehicle when he heard over the radio that a "spot fire" in the vicinity of the pickup was underway. [REDACTED] then looked back to see black smoke rising from the pickup. He returned to the pickup and noted that the engine was still running smoothly.
 - d. [REDACTED] and his fellow firefighters extinguished the fire in the pickup with foam extinguishers that were onboard the pickup and by remaining water in a nearby fire truck.
 - e. After the fire was extinguished, pictures were taken and the area under the truck was examined. It was noted that the catalytic converter had bent over a small Christmas tree but that the tree was not burned. Further forward, near the engine compartment, fluids and other debris from the fire had

December 26, 1996

dropped down onto the ground but had not burned any grass or material beneath the vehicle.

- f. [REDACTED] indicated that the Department of Forestry does all its own maintenance and that the vehicle had experienced some undefined electrical problems prior to the fire. The symptom of the problem related to the observation that the battery would become discharged. [REDACTED] indicated that the mechanic and he had discussed replacing the battery with a larger one but had not yet done so. He also indicated that the mechanic did not find any problem with the charging system.
- g. [REDACTED] stated that a light bar and various radios had been added to the vehicle and that the wiring had been done by himself and the mechanic. This wiring, according to [REDACTED] was routed along the right side of the engine compartment.

2. Review of the fire scene photos revealed the following:

- a. The vehicle had been parked on the edge of a Christmas tree farm (fig. 1). Burnable debris on the ground included a small amount of grass and tree trimmings (fig. 2, rear of truck; fig. 3, front of truck; and fig. 4). Also, the truck had been parked on a small tree. The tree had been bent over by the truck's frame and was resting against the muffler (fig. 5).
- b. The area behind the location of the left front tire (fig. 6, arrow A) had deposits of fire debris on the ground under the footprint of the vehicle (fig. 6, arrow B) and also outboard of the vehicle (fig. 6, arrow C). This latter area of debris is adjacent to a small tree, partially burned, and located approximately at and just forward of the A-pillar of the truck on the driver's side (figs. 7 & 8).
- c. No fire damage to the vehicle nor fire-burned debris on the ground was observed behind the passenger's compartment.
- d. The observed fire damage to the left front tire indicates significant burning to the inside surface of the tire as compared with the outside. Portions of the inside sidewall of the tire are burned away, revealing the inside of the tire surface (fig. 9, arrow). The outside surface of the tire appears to have some fire damage, concentrated primarily at the rear of the wheel well.

December 26, 1996

Also, the hub and outer surface of the wheel appear undamaged by heat but are smoke-stained.

- e. Close-up photographs of some of the fire debris on the ground, after removal of the pickup, show burned truck debris deposited on top of unburned and partially burned ground fuel, including fir tree needles and small limbs. Additionally, removal of some of the burned truck debris reveals unburned fir needles beneath (fig. 10), consistent with material burning on the truck, then dropping down onto the ground.

3. Vehicle fire damage:

- a. The vehicle is a Ford F150 XL 4WD manufactured in March 1995. The VIN is 1FTEX14HOS [REDACTED]
- b. The fire pattern on the hood is generally across the rear of the hood, longitudinally, with more heat damage to the left of center, width-wise (fig. 11). There is a rectangular-shaped burn pattern running width-wise across the hood, centered approximately 10" forward of the rear of the hood.
- c. The left front fender has an extensive burn pattern extending from just behind the headlight housing to the A-pillar. This pattern extends from the bottom of the fender to the top of the fender (fig. 11).

Fire damage to the right front fender is minimal with only some paint scorching above the wheel centerline, near the top of the fender. Additionally, there is a small burn pattern near the right front corner of the hood, above the location of the battery.
- d. When viewed from the front, the plastic shrouding around the radiator and cooler is not significantly fire-damaged.
- e. Within the engine compartment, the following fire damage was observed:
 - i. As indicated by the burn pattern on the hood, the fire damage is concentrated in the engine compartment left of center and towards the rear of the compartment (fig. 12, arrow).

December 26, 1996

- ii. The master cylinder reservoir is burned away (fig. 13, arrow A) as is most of the insulation on the wiring harness coming from the left front area of the driver's compartment (fig. 13, arrow B). The air cleaner housing has significant burning at the corner nearest the engine and master cylinder (fig. 13, arrow C).
 - iii. Fire damage is concentrated along the left side of the engine and is more extensive towards the rear of the engine than to the front (fig. 14). Also, the air inlet hoses are burned on the surfaces facing the rear of the compartment more than they are burned to the front of the engine compartment (fig. 14, arrow A).
 - iv. Located in this area of fire damage is the engine oil dipstick (fig. 14, arrow B). The dipstick was removed and the engine oil was observed to be on the "full" mark.
 - v. The power steering reservoir cap was melted to the reservoir. When pried loose (fig. 15, arrow A), it was observed that the reservoir was empty, consistent with another observation that at least one of the power steering lines had been burned away (fig. 15, arrow B).
 - vi. The air cleaner element was exposed, revealing internal burn damage to the filter element (fig. 16, arrow). Charring of internal surfaces of the filter element with the outer portion remaining unburned is consistent with the engine running during at least part of the fire.
4. Observations made from beneath the vehicle revealed the following information:
- a. Areas of lowest burning, excluding the tire, includes paint on the frame rail and wiring at the bottom of the firewall (fig. 17).
 - b. A plug at the bottom of the torque converter housing was missing, but the converter housing itself did not appear to have suffered much fire damage (fig. 18).
 - c. A rubber bushing on a suspension arm, located behind the left front tire, was observed to be fire-damaged but not totally consumed by the fire (fig. 19, arrow).

December 26, 1996

- d. The transmission pan gasket, although heat-damaged, was not substantially burned (fig. 20, arrow). A hose to the front axle differential is burned away just below the engine oil filter but the lower portion, where it is clamped to the differential housing, is not fire-damaged. Also, the black paint on the front of the differential is not burned and an articulation stop, made of rubber, is not significantly fire-damaged.

DISCUSSION

1. The absence of significant amounts of natural fuel on the ground underneath the pickup and the observation that unburned needles and sticks were found beneath the fire debris falling down from the pickup are indicators that the fire did not start on the ground but, rather, started within the pickup.
2. The lack of observed fire damage to the underside of the vehicle is consistent with the fire starting in the engine compartment and not on the ground.
3. The burn patterns on the hood and on the left front fender indicate that the fire was concentrated in the engine compartment, along the left side of the engine.
4. The areas of most significant heating are the top of the engine, between the air inlet hoses at the front of the engine and the firewall, and the area that includes the master cylinder and wiring harness below the master cylinder, as well as part of the fuel injection system.
5. The most likely fuel available in the above-described areas of high heating is gasoline from the fuel-injection system. Fuel injectors, the fuel injection supply manifold and the fuel pressure regulator are all located adjacent to the observed area of high heat damage. If a fuel leak developed, causing fuel to leak or spray outward from the injector area towards the left front fender area, and the fuel ignited the second area of high heating, the master cylinder area would have been damaged by burning fuel.
6. Although much of the wiring in the engine compartment was burned, no arcing was observed, indicating the wiring burning was probably a victim of the fire, not the cause.
7. If a fuel leak supplied the initial fuel for the fire, the leak was probably quite small since the overall damage to the engine compartment was not complete. Usually, when a fuel system is breached, significant amounts of fuel escape and most of the burnable materials in the engine compartment are consumed. In this fire, the

December 26, 1996

relatively small amount of damage and the observation by personnel at the fire indicating the engine was still running smoothly are consistent with a small fuel leak rather than a large one.

8. The burning of the inside of the left front tire was probably a result of burning material dropping down from the engine compartment. Also, later in the fire power steering fluid from the steering system likely added a significant amount of burning fuel at the ground level. This fuel and the burning rubber of the tire would likely result in the heat damage observed on the left front fender. The nearby tree, when ignited, would also add heat to the right front fender area.
9. None of the wiring for the light bar and radios was involved in the fire; the wiring was routed along the right side of the engine compartment, the opposite side of the engine from where the fire started.

Respectfully submitted,

TALBOTT ASSOCIATES, INC.



Expires 6/15/97

Thomas D. Jones, P.E.

TDJ:go



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7



FIGURE 8



FIGURE 9



FIGURE 10



FIGURE 11



FIGURE 12

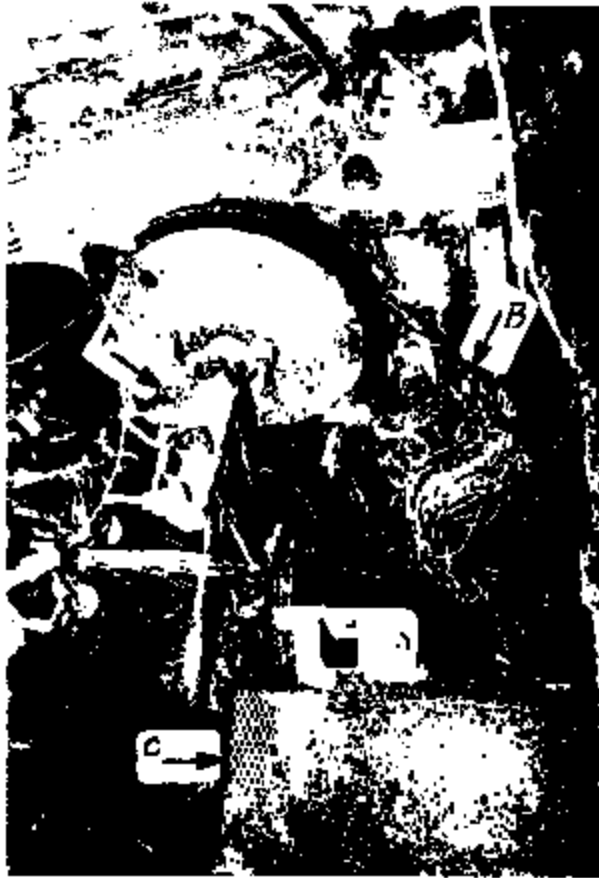


FIGURE 13



FIGURE 14



FIGURE 15



FIGURE 16



FIGURE 17



FIGURE 18



FIGURE 19



FIGURE 20