

COPY

OCT 14 2009



VIRGINIA STATE POLICE


CRASH TEAM REPORT

DIVISION 1

Dinwiddie County, August 29, 2009
Rt. 1, 200 feet North of Terminal Drive

■ THIS REPORT IS PART OF A PENDING CRIMINAL INVESTIGATION
DO NOT DISSEMINATE FURTHER

Accident Reconstructionist: Sr. Trp. O. B. Moody, Jr.

Reviewing Officer: 

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Accident Data Report

Investigating Officer: Trooper N. L. Elsesser Area/Agency: 07/ VSP
Negative File No: 20090923-000007, CAD #DIV109124544
Road Conditions: Three lane, straight, level, marked roadway, bordered by gravel and grass shoulders.

Road Surface: Dry, traffic polished asphalt
Weather/Visibility: Clear, sunny and warm
Posted Speed Limit: 55
Fatalities: Yes Injuries: Yes Property Damage: Yes

Vehicle Information

Vehicle #1A
License Plate: [REDACTED] State: VA Year: 2010 VIN: [REDACTED]
Year: 2004 Make: Ford Model: Expedition Style: Eddie Bauer Edition

Vehicle #1B
License Plate: 208560 TL State: VA Year: Permanent VIN: [REDACTED]
Year: 2009 Make: Master Tow Model: Trailer Style: 2 Axle

Vehicle #2 (Fatal)
License Plate: XNY 1712 State: VA Year: 2010 VIN: 1HGCD7202VA028747
Year: 1997 Make: Honda Model: Accord SE Style: 2 door coupe

Driver:

Driver #1: KING, [REDACTED] - 02/13/1992 - [REDACTED]
Dinwiddie, Virginia 23841 - [REDACTED] VA

Driver #2: JOHNSON, Caitlyn L. - 10/03/1988 - 3815 Elsie Drive
Petersburg, Virginia 23803 - [REDACTED] VA (FATAL)

Passengers or Pedestrians:

V#2: FITZKE, Lisa - 10/12/2008 - 3815 Elsie Drive Petersburg, VA 23803

Crash Description:

Veh #1A was towing Veh #1B, traveling south approaching the crash location, in the southbound lane. Veh#2 was traveling north approaching the crash location, in the northbound lane. Veh#1B became detached from Veh#1A, continued to travel south, ran off the road to the right three times, crossed the center lane traveled into the northbound lane into the path of Veh#2 and struck Veh#2.

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Details of Investigation:

The roadway at the crash location is a three lane, undivided highway. The three lanes travel in a north/south direction. There is a northbound lane, which measured 9.1 feet, a southbound lane, which measured 8.6 feet, and a center turn lane, which measured 10.8 feet. On either side of the center turn lane, there is a dashed yellow line and a solid yellow line. On the east side of the northbound lane there is a solid white line, with a gravel and grass shoulder. On the west side of the southbound lane there is a solid white line, with a grass and gravel shoulder. The road surface is traffic polished asphalt. The roadway is flat, with no super-elevation. The weather was clear, sunny and warm. The crash occurred at approximately 1140 hours. The crash location is located a 37.16939 latitude and 77.506075 longitude.

Upon my arrival on scene, Vehicle #2 was facing south, mostly in the center turn lane, approximately 96.7 feet north of the crash impact area. Vehicle #1B was facing east, on the eastbound shoulder of the northbound lane, up against several trees, approximately 25.9 feet east of the crash impact area. Vehicle #1A had been moved post-crash and it was located in the southbound lane, south of the crash impact area. On-scene investigation showed that first contact between Vehicle #1B and Vehicle #2 was in the northbound lane, approximately 6.9 feet west of the northbound lane fog line. After impact, Vehicle #2 began to rotate counter-clockwise and partially ran off the road to the right, continuing to travel in a northerly direction. As Vehicle #2 was rotating, it began leaving a furrow in the grass from its right rear tire. As Vehicle #2 re-entered the roadway, it began to leave a tire mark from its right front tire, which became deflated. After Vehicle #2 stopped rotating, it continued drifting backwards in a northerly-direction, leaving a tire mark and also some scratch marks on the road surface from the deflated right front tire and the right front rim. Examination of the rim should scratches were present. This is consistent with the rim leaving the scratch marks on the roadway. There were no pre-impact marks left from Vehicle #2.

Further examination of the scene showed there was a 1.5 foot scratch mark in the center of the southbound lane approximately 484.9 feet north of the impact area. This scratch is consistent with the tongue of the trailer, Vehicle #1B, making contact with the roadway and being detached from Vehicle #1A and no longer being towed by Vehicle #1A at this location. As Vehicle #1B was traveling south by its self, as a single unit without a power unit, it partially ran off the road to the right, leaving tire impressions in the gravel of the southbound lane's west shoulder. It traveled approximately 74.9 feet south and then re-entered the highway. Vehicle #1B then continued south in the roadway for approximately 73.3 feet at which time it partially ran off the road to the right again, leaving tire impressions in the gravel of the southbound lane's west shoulder. It traveled approximately 112.3 feet south and then re-entered the roadway. Vehicle #1B continued traveling south in the roadway for approximately 28.4 feet at which time it ran off the road to the right, leaving tire impressions in the gravel of the southbound lane's west shoulder. Vehicle #1B traveled approximately 135.6 feet and re-entered the roadway. As the trailer re-entered the roadway, it began to rotate counter-clockwise, causing the two tires on

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the right to begin to side skid, leaving tire marks in the roadway as it continued in a southeasterly direction. Vehicle#1B continued traveling across the southbound and center lanes for approximately 35.2 feet at which time it crossed into the northbound lane and impacted with Vehicle#2. As Vehicle #2 rotated out of the collision, Vehicle #1B continued in a easterly direction for approximately 6.9 feet at which time it ran off the road on the east side of the northbound lane and traveled approximately 19.9 feet and impacted with several trees and came to rest. Vehicle #1A traveled south in front of Vehicle#1B until after the collision occurred. After the crash, the driver of Vehicle#1A turned around and came back to the scene. Driver and infant passenger of Vehicle #2 were transported from the scene by emergency responders prior to my arrival.

Examination of Vehicle#1A showed it to be a 2004 Ford Expedition 4 Door, Eddie Bauer Edition, equipped with a single over head cam 5.4 liter V8 engine. Vehicle#1A was equipped with an automatic transmission. Vehicle#1A displayed a valid Virginia inspection sticker showing the vehicle had passed a state inspection in April, 2009 (Sticker # M381926). Mileage displayed on the odometer was 381,926. There was no damage to the interior of the vehicle. Exterior exam showed Vehicle #1A's tires were Michelin X Radial LT, P26570R17. The left front tire contained 36 pounds of air, and the tread depth measured 8/32". The left rear tire contained 38 pounds of air and the tread depth measured 4/32". The right front tire contained 36 pounds of air and the tread depth measured 8/32". The right rear tire contained 36 pounds of air and the tread depth measured 4/32". The only new damage located on Vehicle #1A was found on the right rear bumper and on the trailer hitch. The damage on the bumper was impact damage, pushing the bumper towards the front of the vehicle and a hole torn in the bumper cover near the right corner of the bumper. This damage is consistent with the trailer (Vehicle# 1B) making contact with Vehicle#1A prior to Vehicle #1B impacting with Vehicle#2. Damage to the trailer hitch was to the iron plate used to connect the safety chains from the towed vehicle. Both receiving ports located on either side of the tow ball were bent downward, with the right port being more bent than the left. This damage is consistent with the trailer (Vehicle #1B) coming detached as the vehicles were moving. The vehicle was equipped with a triple ball receiver. The three balls were 1 and 7/8", 2", and 2 and 5/16". Upon my examination, the ball that was in the horizontal position (the position to be used) was the 2 and 5/16", with the 2" ball being vertical on the left side and the 1 and 7/8" ball being vertical on the right side. I was advised by first responders on the scene prior to my arrival that the owner of Vehicle #1A and #1B had arrived on scene after the first responders and changed the ball from its position when the crash occurred. Prior to the crash, the 2" ball was in the horizontal position and that the owner changed it after the crash because he thought he might have to move the trailer. While on scene, the owner verified to me that the 2" ball was in use at the time of the crash.

Examination of Vehicle #1B showed it to be a 2009 Master Tow 2 axle Trailer. The gross vehicle weight rating of Vehicle#1B was 7,000 pounds and Vehicle #1B was equipped with brakes. This vehicle is required to be inspected, however, the trailer had not been inspected and no valid inspection sticker was displayed. The

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trailer was equipped with Carlisle ST20575D14 tires. The left front tire contained 46 pounds of air and the tread depth measured 8/32". The left rear tire contained 44 pounds of air and the tread depth measured 8/32". The right front tire contained 50 pounds of air and the tread depth measured 7/32" the right rear tire contained 31 pounds of air and the tread depth measured 8/32". The coupling mechanism on the tongue of the trailer required the use of a 2 and 5/16" tow ball. Although the vehicle was set up to have a brake away brake installed, there was no addition equipment on the trailer to have a fully functional brake away brake. On the lock down lever on top of the coupling mechanism there was no retaining pin present. Safety chains were in use but both chains broke during separation. The trailer width was measured and found to be 80 inches wide. The trailer length was measured and found to be 196 1/2 inches long. From the front of the trailer to the end of the tongue was measured and found to be 49 inches. From the rear of the trailer to the center of the rear axle was 68 inches. From the front of the trailer to the center of the front axle was 99 inches. Distance between the centers of the front axle to the rear axle was 34 inches. There was impact damage to the front and right portion of the trailer. The tongue was scratched. Red paint transfer was present on the tongue. The red paint was consistent with Vehicle#2. Impact damage to front top is consistent with it impacting with the tree off the roadway. When impacting with Vehicle #2, Vehicle#1B over-rode Vehicle#2.

Examination of Vehicle #2 showed it to be a 1997 Honda Accord SE 2 door coupe, red in color, with a 4 cylinder engine. Vehicle #2 was equipped with an automatic transmission, with it being in the drive position. Vehicle #2 displayed a valid Virginia inspection sticker showing the vehicle had passed a state inspection in March 2009 (Sticker #M4505935). Mileage displayed on the odometer was 205,567. Vehicle was equipped with front disc brakes and rear drum brakes. Vehicle was equipped with driver and front passenger air bags and both bags deployed. Driver side seatbelt was a combination lap/ shoulder belt with a free sliding latch plate. At the time of exam, the belt was retracted and locked. This is consistent with the belt not being in use at the time of the crash. Emergency personnel on scene advised me that the infant in the vehicle was properly restrained in a child seat and that the seat was properly installed. Interior exam showed damage to Vehicle #2 is consistent with the trailer, Vehicle #1B, impacting Vehicle #2 on the front left and overriding Vehicle #2. Driver side A pillar was removed by Vehicle #1B as it intruded into the occupant compartment of Vehicle #2. Dash was pushed down and towards the rear of the vehicle. Steering wheel was pushed back and towards the rear. Driver seat was pushed back and towards the right rear of the vehicle. Blood and human tissue was present on the seat back and floor. Exterior exam showed the vehicle was equipped with 3 Goodyear P185/65R15 and 1 Viva P185/65R15 (left front). Front left tire contained 27 pounds of air and the tread depth measured 8/32". Rear left tire contained 26 pounds of air and the tread depth measured 7/32". Right front tire was deflated and the rim was scratched and scared. Tread depth measured 4/32". Right rear tire contained 27 pounds of air and the tread depth measured 8/32". Top of the vehicle was removed by rescue personnel. Driver side A pillar was removed during the crash. Remaining driver side B and C pillars were cut by rescue personnel, along with the passenger side A, B, and C pillars. There was massive override damage on

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the left front, hood and top of the vehicle. As Vehicle #2 rotated out of the collision, the left front fender began to fold back towards the front of the vehicle during last contact. Left side of Vehicle #2 was measured and found to be 177 inches long, with a wheel base of 107 inches. Left front overhang was 33 inches and the left rear overhang was 38 inches. Right side of Vehicle #2 was measured and found to be 199 inches long, with a wheel base of 108 inches. Right front overhang was 32 inches and the right rear overhang measured 40 inches. The front wheel track measured 68 inches and the rear wheel track measured 67 inches.

Both Vehicle #1B and Vehicle #2 were weighed using The Virginia Department of Agriculture and Consumer Services, Division of Product and Industry Regulation, Weights and Measures Section Portable Scale Unit on 09/02/09 at The Virginia State Police First Division Headquarters. Vehicle #1B had a total weight of 2,100 pounds. Vehicle #2 had a total weight of 2,950 pounds.

Pre-impact path of Vehicle #1A was south on Rt. 1 in the southbound lane. No evidence was present to indicate that Vehicle #1A moved from its lane of travel. Evidence shows that prior to separating from Vehicle #1A, Vehicle #1B was traveling south in the southbound lane. Upon separating from Vehicle #1A, Vehicle #1B continued in a southerly direction, ran off the road three times to the right, crossed the southbound lane, the center lane, began crossing into the northbound lane and impacted with Vehicle #2. Pre-impact path of Vehicle #2 was north on Rt. 1 in the northbound lane. No evidence was present to indicate that Vehicle #2 moved from its lane of travel or attempt to swerve or brake. Pre-impact speed was calculated from the mark left in the roadway from Vehicle #2B. Just prior to impacting with Vehicle #2, using the arc from the mark and a drag factor of 0.7, speed was 35.344 miles per hour. Post-impact path of Vehicle #1A was south on Rt. 1 until driver of Vehicle #1A stopped, turned around, and came back north and stopped at the crash site. Post-impact path of Vehicle #1B was easterly, off the roadway and impact with a tree. After maximum engagement, Vehicle #2 rotated counter-clockwise, continued to travel north while drifting backwards and came to rest facing south, mostly in the center lane and partially in the northbound lane.

The trailer separated from the pulling vehicle because the wrong size tow ball was being used. Although the trailer was equipped with brakes, no battery was present and the break away brake was not installed. The trailer had a small load on it, but all the weight was on the rear of the trailer. This added weight enables the trailer to stay upright and continue to travel, with the tongue of the trailer staying upright instead of being forced downward. If the trailer had been properly secured to the towing vehicle, or if the trailer was equipped with a properly working break away brake, crash probably would not have happened.

This crash was reconstructed using The First Division Crash Team Total Station. I collected the evidence; SRTPR J. Spencer worked the Total Station. Scene was photographed by TPR. Fisher.

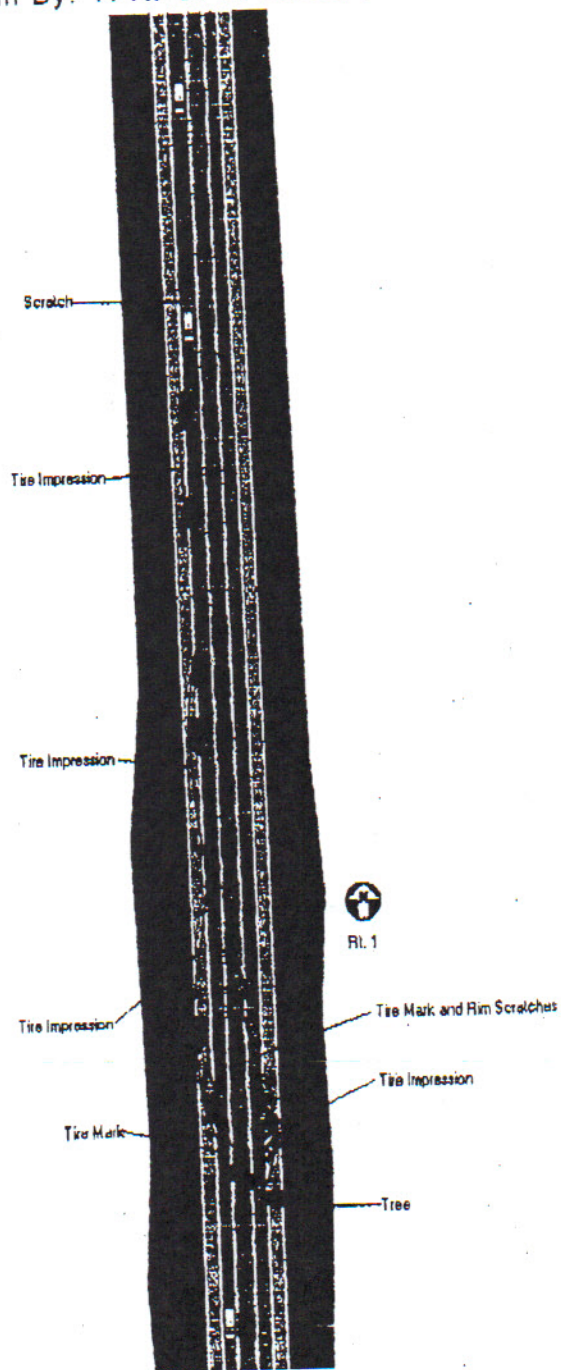
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Reconstruction Diagram

Overall

Diagram By: TPR. O. B. Moody, Jr.

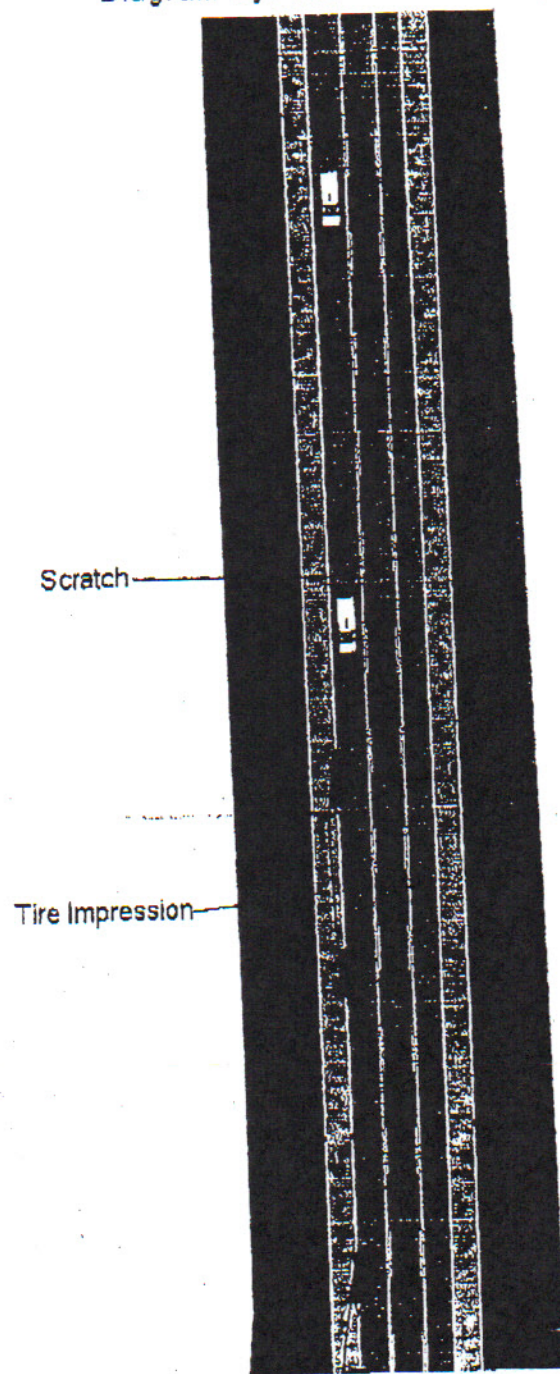


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Reconstruction Diagram

Detail 1

Diagram By: TRP. O. B. Moody



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Reconstruction Diagram

Detail 2

Diagram By: TRP. O. B. Moody

Tire Impression

Tire Impression

Tire Mark



Rt. 1

Tire Mark and Rim Scratches

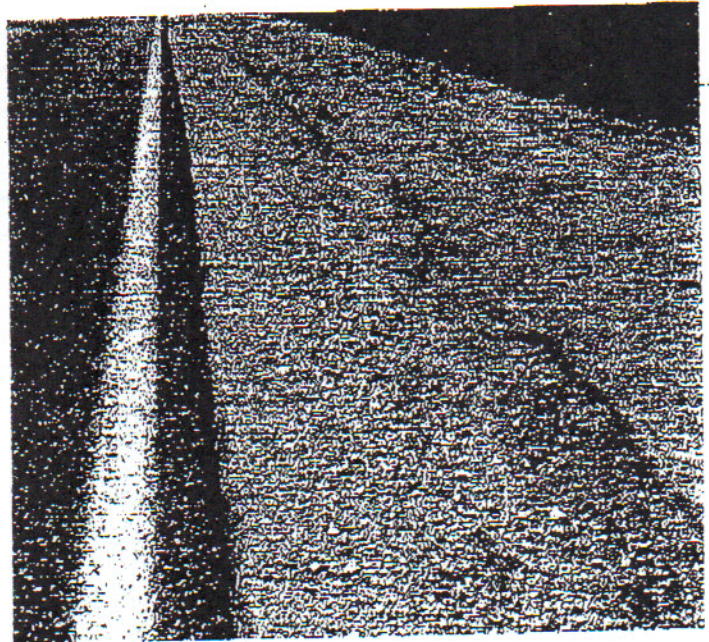
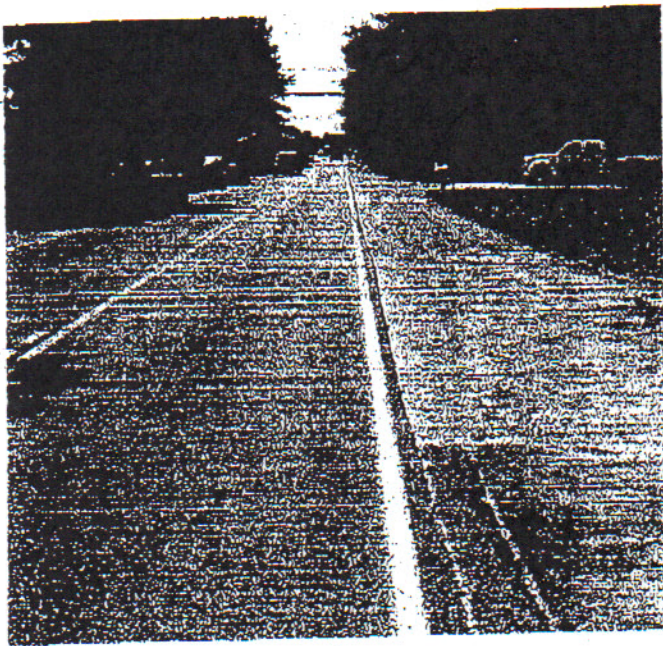
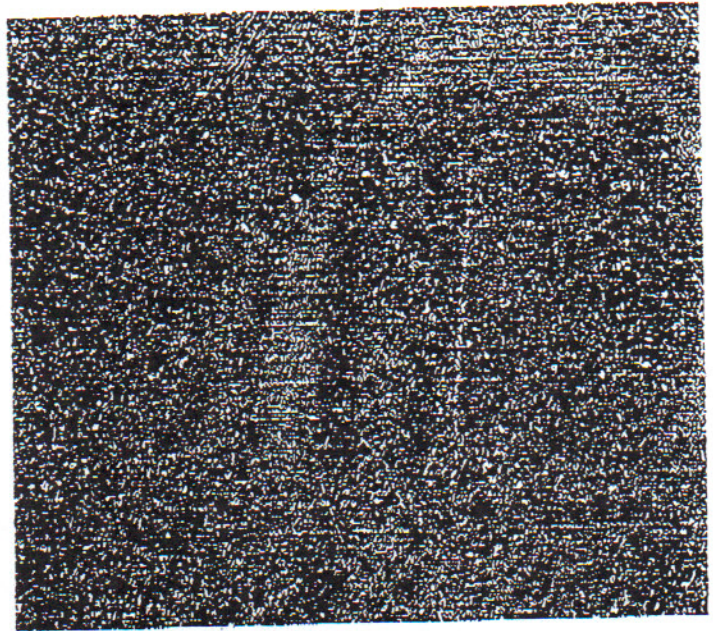
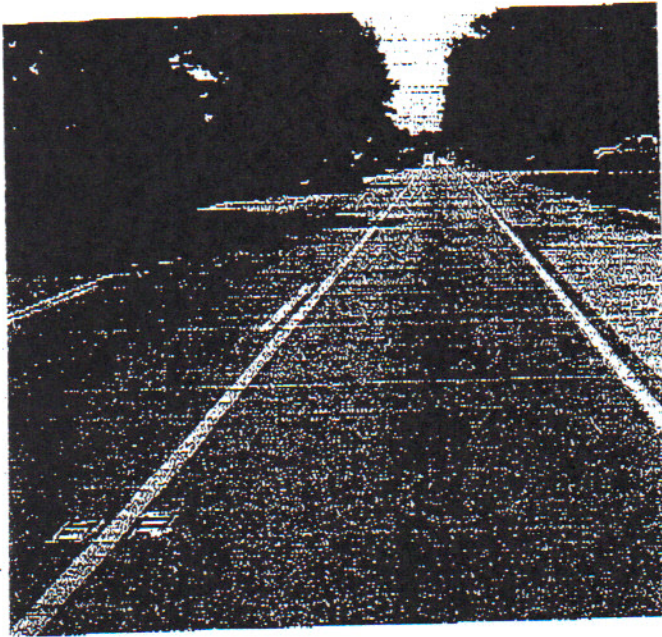
Tire Impression

Tree

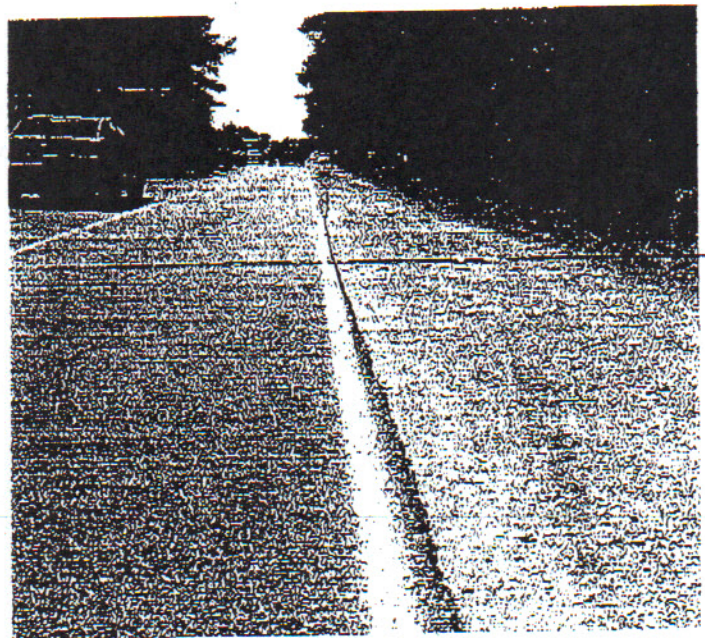
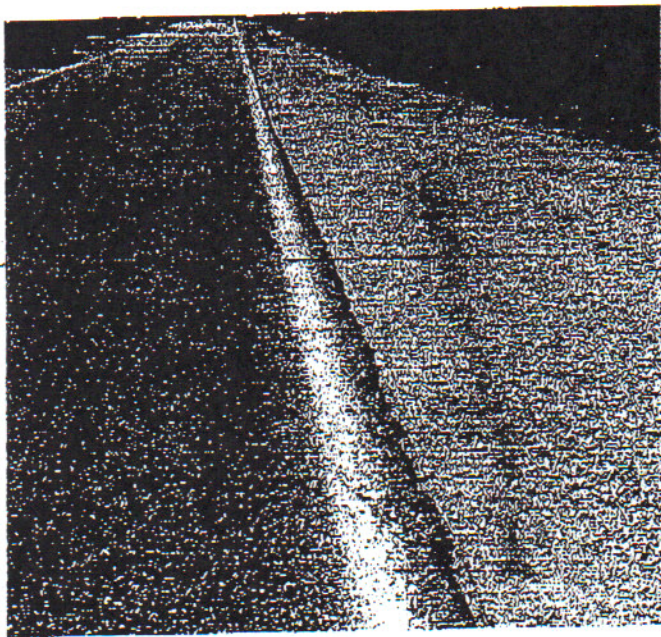
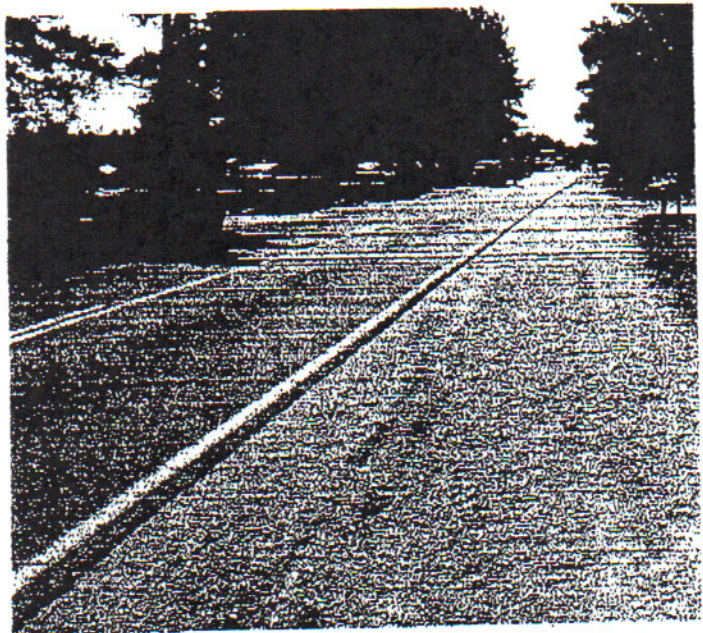
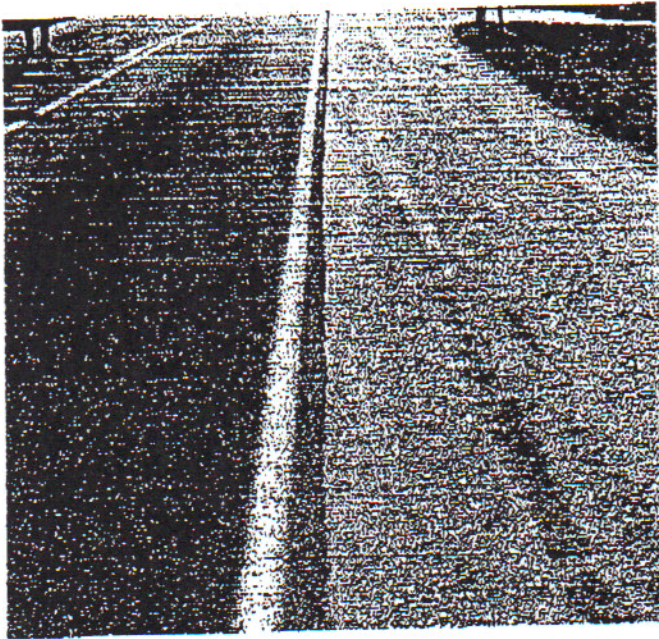
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Scene Photographs

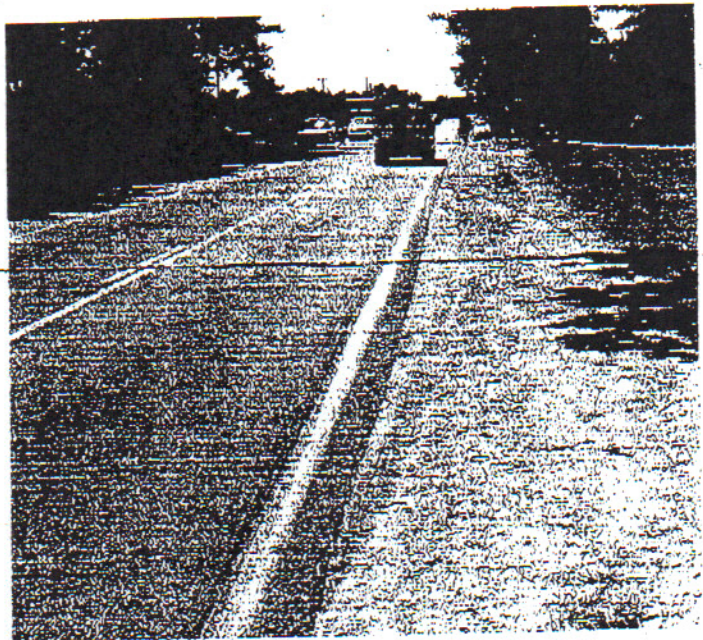
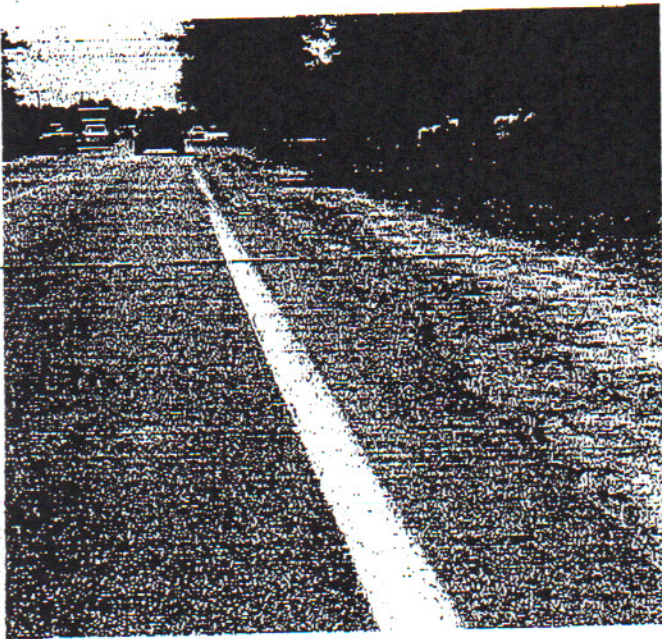
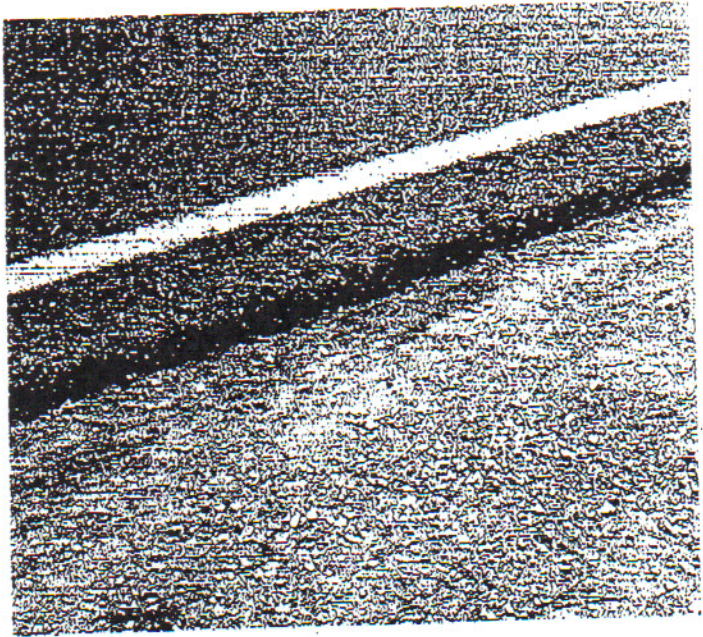
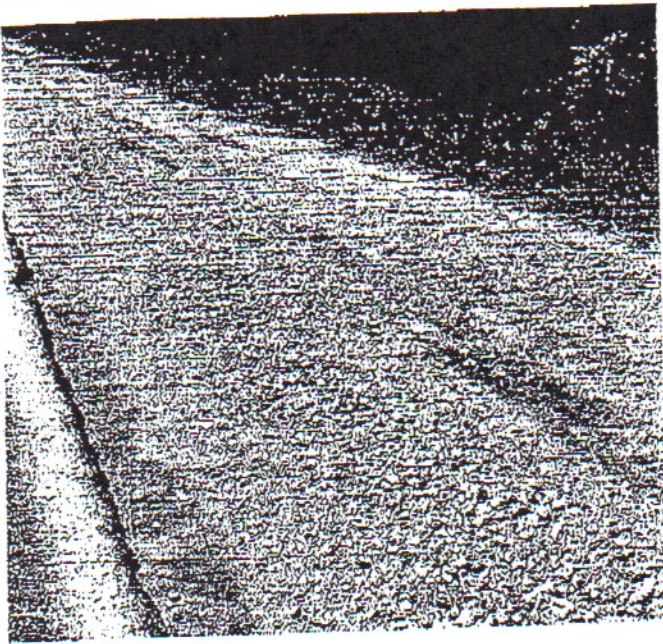
Taken By: Trp. Fisher



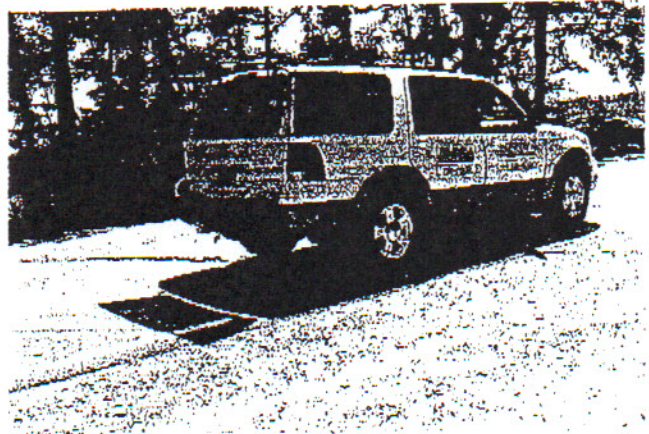
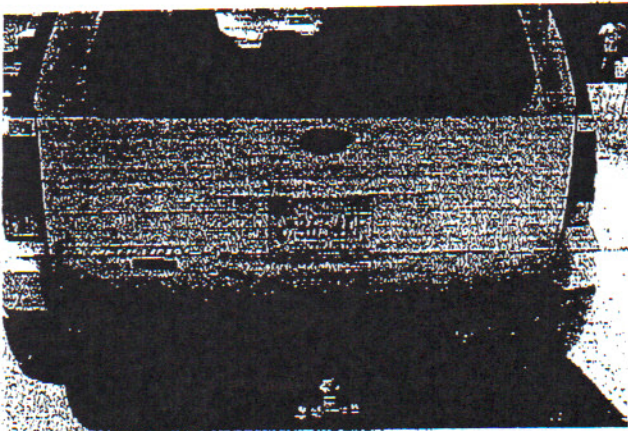
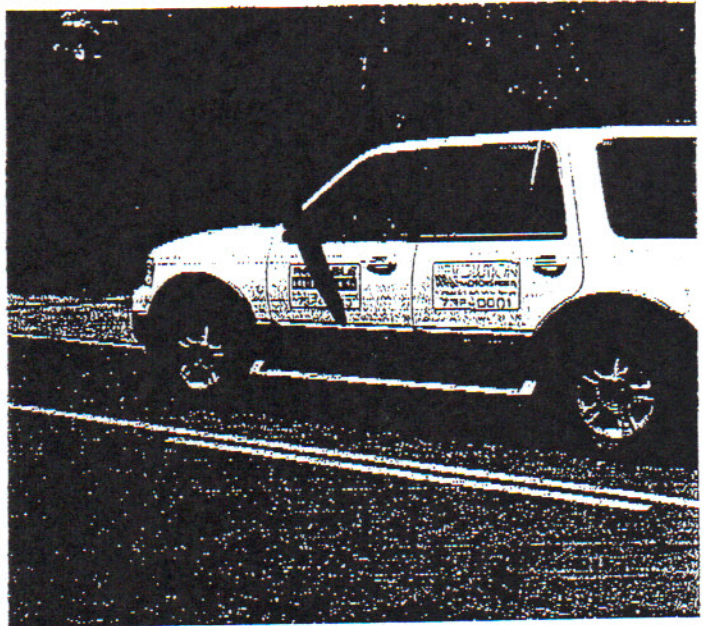
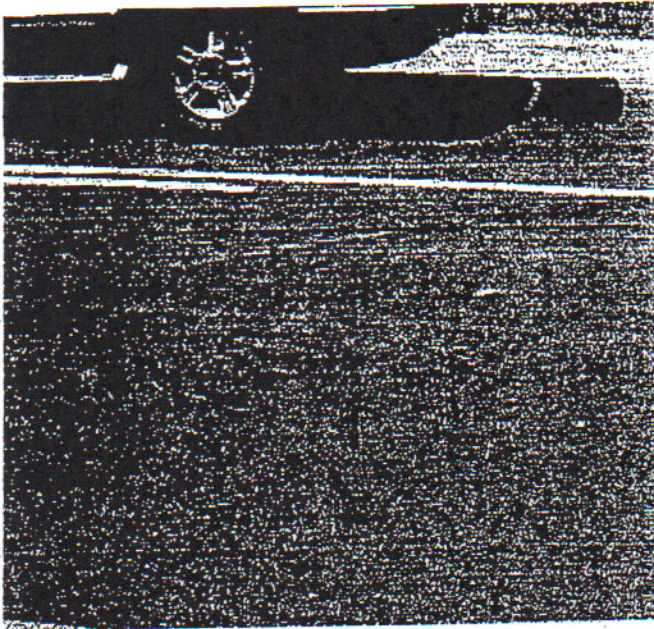
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