Travel Direction of Tanker Truck Mis-Reported in Double Fatal Collision North of Embro Ontario

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Several local news media have mis-reported the travel direction of a feed Tanker truck that collided with a 2004 Chevrolet Avalanche on Saturday morning February 25th, 2012, on Oxford County Road 6, north of Embro, Ontario.

It is being reported that the Tanker Truck was travelling north on County Road 6. In fact the physical evidence clearly indicates that the truck was southbound.

Below is a view of the site looking north from south of the area of impact. The Tanker Truck was travelling toward the camera while the Avalanche was travelling away from the camera. The Tanker truck came to rest on the west (left) side of the road while the Avalanche came to rest on the east (right) side of the road.

Gouges at the west edge of the southbound lane indicate that the Avalanche crossed the road centre-line and that the driver of the Tanker Truck likely steered to the right in an attempt to avoid the collision.

The photo below shows a view looking north taken from the west roadside and south of the final rest position of the Tanker Truck which came to rest in the west ditch.

You might be able to observe in the above photo that the truck struck a utility pole and fractured it. A small amount of diesel fuel escaped from the fuel tank of the truck and this is why some earth was removed around the ditch where the truck came to rest.

In the background of the above photo you should see our car parked on the east shoulder with several orange cones surrounding it and this should provide you with further orientation as to where the photos are taken with respect to that reference. The Avalanche came to rest in the east ditch to the right of this view.

We get closer to the utility pole in the photo on the following page. That view is looking generally northward from the south side of the struck pole. The Tanker Truck came to rest at the struck pole. If you look past the pole you will be able to see an area of the west roadside that is sloped down into the ditch and this sloped area is missing the

snow cover that exists everywhere else. This bare area is where the Tanker Truck left the roadway on its approach to final rest.

The photo below shows that slope and you can see the tire marks that indicate how the tanker truck moved off the road and toward the impact with the pole. You can also see my vehicle and cones in the background to orientate where this evidence is located.

This evidence should clearly indicate to you that the truck was moving southward as it left the road, not northward, as reported by the news media. For comparison, we can look at the area of the road just south of the pole impact as shown in the photo below.

You should recognize in the above photo that the Tanker truck was towed out of its rest position toward the camera and you should see a thin trail of diesel fuel that trickled from the rest position and then formed a black stain in the centre of the southbound lane as the tow truck momentarily stopped pulling the vehicle out, possibly to adjust something. You might also see the tire marks on the west shoulder that were caused through that towing operation. So clearly, this is evidence of towing operations; it is not evidence of pre-crash travel of the Tanker truck into impact.

Furthermore, we can look at the resting angle of the stuck pole. as shown in the photo on the following page. The photo below was taken from the north side of the pole, looking south. In the foreground you can see the vertical portion of the pole which is the upper half. The bottom portion of the pole is still anchored in the ground and it can be seen just to the left of the vertical upper half. You should be able to recognize the steep angle of the bottom portion of the pole and how it has been pushed toward the southwest. You might also be able to see a tire mark in the muddy bank caused by the right front tire of the Tractor portion of the Tanker truck. If the Tanker truck had been

travelling northbound it would have pushed the pole toward the northwest, not toward the south west. All this evidence clearly indicates that the Tanker truck was southbound.

The travel direction of the Tanker truck is further evidenced by the position of the gouges on the pavement which indicate the area of impact. This is shown in the photo below which is looking southward with the gouges in the foreground and the Tanker truck rest position in the background.

The character of these gouges is typical of what you might see at an area of impact. It clearly shows that, after impact, the very large mass of the Tanker truck continued to move southward, off the road surface, and into the west ditch where it struck the utility pole.

The final rest position of the Avalanche was in the east ditch. The photo below is looking southbound from the northbound lane and toward the west ditch. You can see one of the orange cones on the east shoulder and you can appreciate that my vehicle is parked on the shoulder, directly behind the camera.

To the left of the visible cone is the rest position of an object, likely one of the fuel tanks of the Tanker truck. The actual rest position of the Avalanche is further toward the south in the background of the above photo.

The top photo on the following page shows a hole in the east ditch adjacent to that visible cone. This is a view looking north-east from just south west of the rest position of the object in the ditch. This hole was caused during clean-up of the diesel fuel that spilt into the ditch. At the top left of the photo there are markings which indicate how the object entered the ditch and in the bottom right of the photo you can see the markings in the snow indicating how the object was dragged out of the ditch.

The bottom photo on the following page is a view looking southeast from northwest of the final rest position of the Avalanche. You should be able to recognize the tire marks in the snow as the vehicle slid in a southeast direction through the slope and into the ditch. There were additional markings further to the south indicating how the Avalanche was pulled out of the ditch from its rest position.

The photo below is a view looking south from the final rest position of the object (fuel tank?) on the east shoulder and in the background you can see the final rest position of the Avalanche.

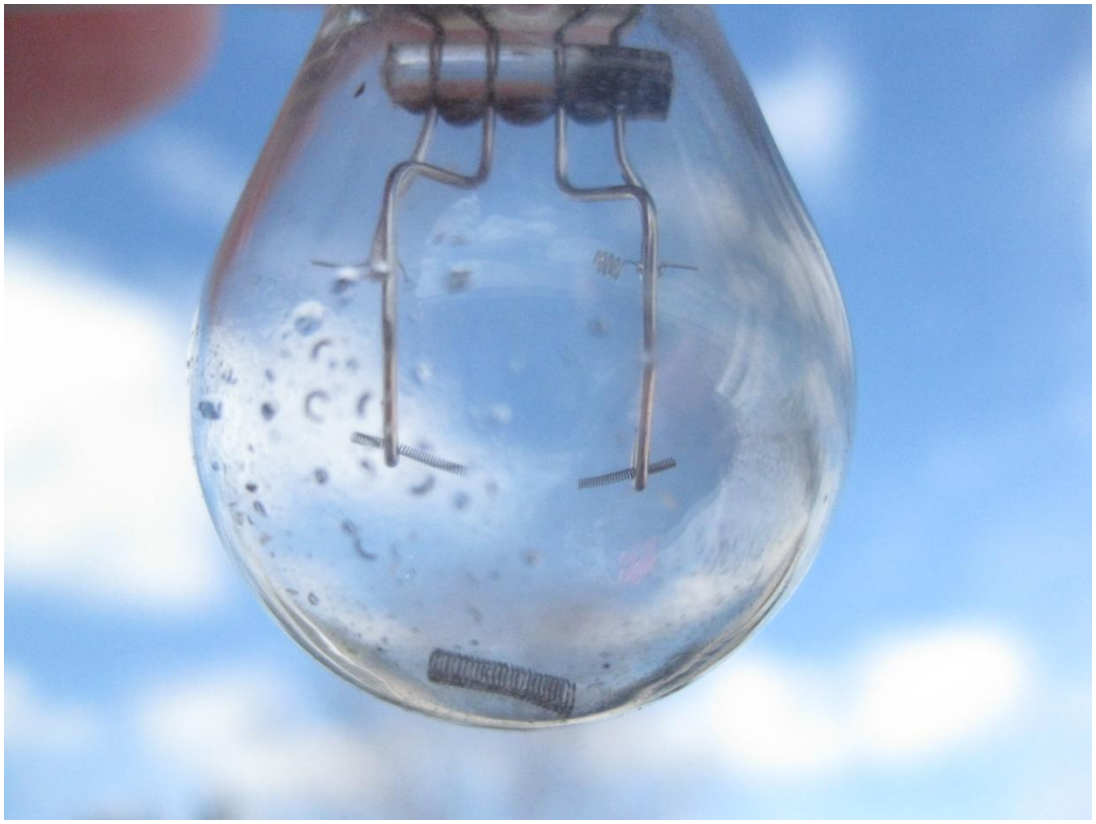
The peculiar aspect of this collision is the degree to which the Avalanche was pushed back and across the road after the impact. If we consider the typical scenario where the driver of the Avalanche loses directional control of his vehicle, the vehicle then moves in a northwest direction, across the centre-line of the road and then it strikes the Tanker truck near the west edge of the southbound lane. The impact force then propels the Avalanche backwards and to the east to its own side of the road. While that is not contradictory, the extreme angle at which the Avalanche was directed eastward, in a short southward distance is what is somewhat peculiar.

We say this because, an impact like this would normally involve the left portion of the front end of the cab of the Tanker with some further direct contact along the front of the left side of the Tanker truck. So this should suggest a somewhat non-central impact to both vehicles. But in particular, the non-central impact to the Avalanche should apply a force to the left (driver's) side of its centre of gravity and this should cause a counter-clockwise rotation. It should also make it more difficult to stop the Avalanche's motion in a northerly direction. But the Avalanche's northerly direction of travel was obviously stopped as this is clearly evidenced in the roadway markings and the southerly rest position of the Avalanche with respect to the area of impact. Study of the data from the event data recorder on the Avalanche along with examination of the physical evidence on both vehicles should provide police investigators with objective evidence of how the Avalanche moved into impact. But one can also study small bits of evidence lying around on the ground to determine a lot about what might have happened.

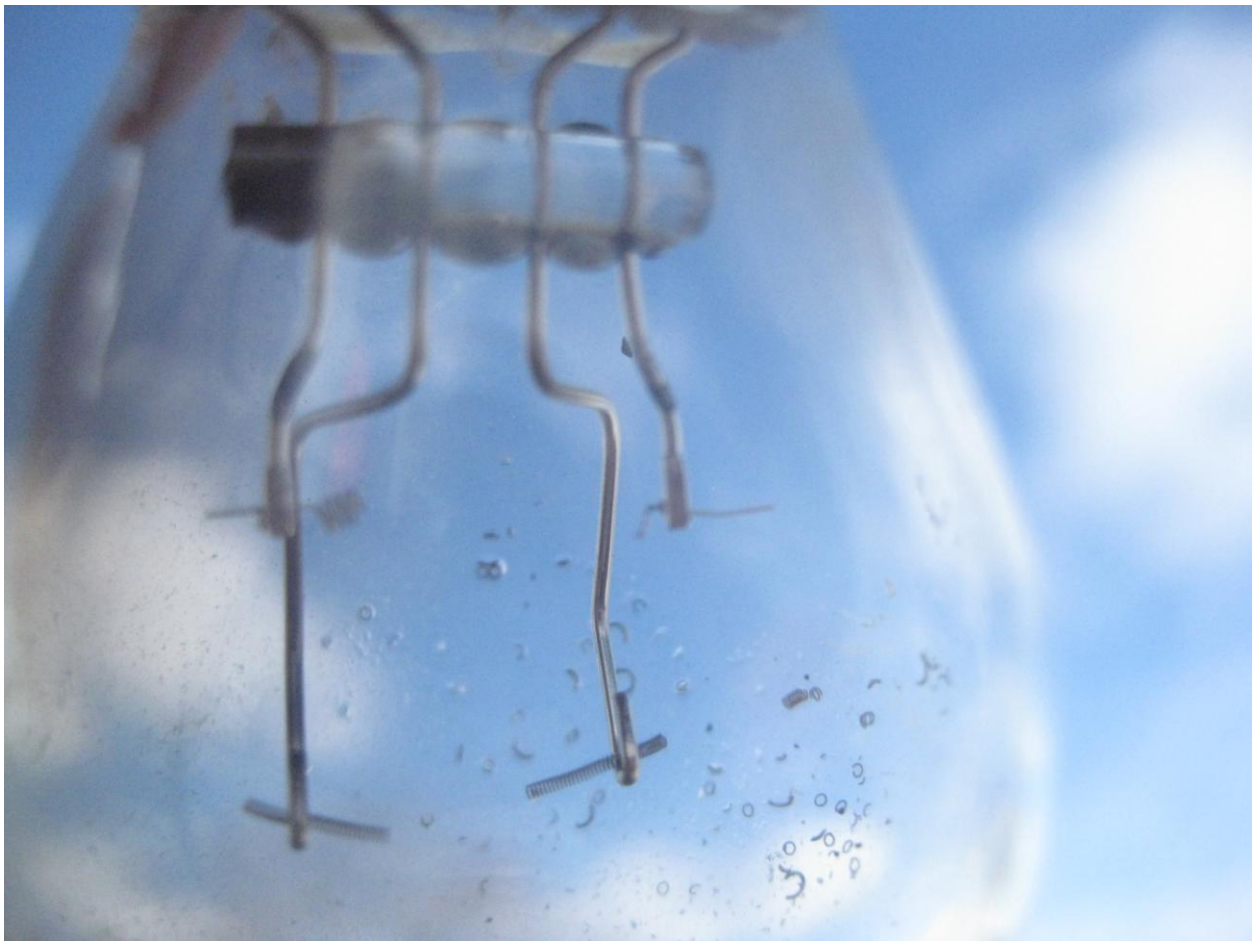
Consider the crushed metal lying on the west roadside and is shown in the top photo on the following page. The red markings on the crushed material indicate that the red painted surface of the Avalanche was in contact with this object and this object is likely from the Tanker truck. One can look at the pattern of marking on the top of the crushed material as shown in the bottom photo on the following page.

Both the manner of crush as well as the angle of the red marks and scratches into the metal can tell you how the two vehicles interacted when this contact occurred. Note that upon the early stage of impact (i.e. first 100 milliseconds) there is little rotation or sliding between contacting surfaces when there is substantial engagement between the structures (i.e. not a sideswipe collision). Since I have not seen the two vehicles nor do I expect to be involved in an official investigation of this incident I will not say anything further but let you imagine what this evidence might mean.

We can also study other minor evidence such as the light bulb housing shown in the top photo of Page 12. By lifting the bulb upside down you can see in the bottom photo that there is a fractured tungsten filament lying loose on the bottom of the glass and that the four posts indicate that this bulb contains filaments for the brake light as well as the parking (identification) light. These kinds of bulbs are normally found in the rear tail-light housing of light vehicles and I am going to hazard a guess that this is related to either the left for right rear corners of the Avalanche. Now, what characteristics do you see in the tungsten filaments?



Let us recall that when a light is "on" the tungsten becomes soft and when an impact force occurs "near" its location it will stretch. When a light is "off" the tungsten is brittle and if an impact force occurs "near" its location it may fracture. Just to give you more information, below is another view of the bulb. Look closely at the sides of the glass. Enough said.



As I am not part of any official investigation I will stop my comments for now.

I just want to confirm again that the various news outlets that are writing that the Tanker truck was northbound are wrong. I think I have presented some fairly convincing evidence to support this comment.