

Review of Loss-of-Control Tire Marks on a Gravel Shoulder

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Gorski Consulting continues to document loss-of-control tire marks as a way of furthering the ability of investigators to interpret their meaning. One of the sites where we focus our research is at an S-curve on Clarke Road, just north of Fanshawe Park Road on the north-eastern outskirts of London, Ontario, Canada. This site has been the source of many previous articles that have been uploaded over recent years on the Gorski Consulting website (www.gorskiconsulting.com).

The focus of the present article is a set of loss-of-control tire marks that were observed at the Clarke Road S-curve on August 5, 2014. The interesting character of this marks has caused us to post photos of them in an effort to spark an interest in the reader to determine how they were caused. We will make minimal comment about these marks other than to state that they were created by as northbound vehicle that initially travelled onto the east gravel shoulder of the north portion of the S-Curve. After the vehicle exited the east shoulder it produced yaw marks that were visible on the roadway centre-line. The vehicle then travelled toward the west shoulder where it came to test. The reader's assignment is to determine which tires of the vehicle produced the various marks and how those marks were created. Should readers want to know our interpretation we encourage use of the Contact page of the Gorski Consulting website to send us a message. And now, the photos of the evidence...



Figure 1: Since some readers may not be familiar with the S-curve, this photo is a view from a northbound vehicle approaching the curve. The tire marks which we will be studying are located at the north portion of the curve that is in the distant background.



Figure 2: View, from a northbound vehicle approaching the north portion of the S-Curve. The tire marks we will be examining are near the southbound vehicle that is shown in the background.



Figure 3: View, from a northbound vehicle, as it approaches the north end of the north curve. Although the tire marks are not yet visible this view proved some general information about the roadway in the vicinity of those marks.



Figure 4: To complete the general description of the site this photo is from a southbound vehicle approaching the north curve. So this view is opposite to the travel direction of the vehicle that caused the tire marks.



Figure 5: This is also view looking south except that it brings us closer to the tire marks. For example the reader might detect some black, curved marks on the roadway centre-line roughly in the middle of this view.



Figure 6: We already indicated that the northbound vehicle travelled onto the east shoulder so our first assignment is to detect where its tire marks are located on this east shoulder.

The shoulders of this S-curve were freshly re-graded on July 31st or about 6 days before these photos were taken. In Figure 6 we can see the tire mark of the road grader in the middle of the gravel shoulder and we can see how straight it is in comparison to some of the other tire marks in the background. So we know that this tire mark was not one of those caused by the loss-of-control vehicle. We will see shortly that the loss-of-control vehicle came to rest on the west (left of the photo) side of the just before the isolated tree visible in the background.

Figures 7 through 10 provide views, progressively further northward, along the east shoulder to enable the reader to examine the various curving tire marks and select the set that most-likely belongs to the loss-of-control vehicle.

As further assistance, Figures 11 and 12 are views looking south along the east shoulder.

Figures 13 and 14 show views looking to the north east, from the east shoulder and toward the final rest position of the loss-of-control vehicle.

Figures 15, 16 and 17 are views looking north-east, at the black yaw marks on the roadway centre-line. Figure 18 shows those from the opposite (north-east) direction.

The remaining Figures, commencing with Figure 19, show the evidence near the vehicle's rest position.



Figure 7: View looking north along the east gravel shoulder.



Figure 8: View, looking north, along the east gravel shoulder.



Figure 9: View, looking north, along the east gravel shoulder.



Figure 10: View, looking north, along the east shoulder.



Figure 11: View, looking south, along the east shoulder.



Figure 12: View, looking south, along the east shoulder.



Figure 13: View, looking north-east, from the east shoulder toward the vehicle's final rest position.



Figure 14: View, looking north-east, from the east shoulder toward the vehicle's final rest position.



Figure 15: Looking north-east at the black yaw marks visible on the yellow centre-line.



Figure 16: View of black yaw marks on the roadway centre-line.



Figure 17: View of black yaw marks on the centre-line of the roadway.



Figure 18: View, looking south-east, at the black yaw marks on the roadway centre-line.



Figure 19: View, looking north-east at the tire marks near the vehicle's rest position.



Figure 20: View, looking north along the west shoulder at the evidence at the vehicle's rest position.



Figure 21: View, looking south at the evidence on the west shoulder near the vehicle's rest position.



Figure 22: View, looking north, along the west shoulder, near the vehicle's rest position.



Figure 23: View, looking north, along the west shoulder, near the vehicle's rest position.



Figure 24: View, looking north, along the west shoulder, at the vehicle's rest position.



Figure 25: View, looking north-east at the evidence at the vehicle's final rest position.



Figure 26: View, looking north-east, at the evidence at the vehicle's rest position.



Figure 27: View, looking north-east, at the evidence at the vehicle's final rest position.



Figure 28: View, looking north, at the disbursed gravel lying in the west roadside at the vehicle's rest position.



Figure 29: View, looking south-east, from just north-west of the vehicle's rest position.



Figure 30: View, looking south, from just north of the vehicle's final rest position.



Figure 31: View, looking south-east at the tire marks on the west shoulder at the vehicle's rest position. These can be compared to the position of the yaw marks in the background.



Figure 32: Close-up view of the tire marks shown in the previous (Figure 31) figure.



Figure 33: Close-up view of the tire marks shown in Figures 31 and 32.



Figure 34: Close-up view, looking south-east of tire marks at the vehicle's final rest position.



Figure 35: Close-up view of tire marks shown in Figure 34.



Figure 36: View, looking south-east, along the tire marks at the vehicles rest position.



Figure 37: View, looking south-east, along the tire at the vehicle's rest position.

We believe there is sufficient clarity in the characteristics of this evidence that it will be educational to study it. Study of a progressively greater number of such incidents brings the investigator a valuable understanding that is important toward determining how and why a loss-of-control collision occurred.

Gorski Consulting
London, Ontario, Canada

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