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SAMPLE REPORT · FICTIONAL CASE FOR DEMONSTRATION

THIS REPORT IS PREPARED FOR

Sample Mutual Insurance Company

Special Investigations Unit

REGARDING

2022 Volkswagen Tiguan vs. GMC SUV

REPORT DATE

October 29, 2026

Contact	SIU Claims Desk
Date of Loss	08/14/2026
Claim Number	SMIC-26-0481137
Accident Dynamics USA Case No.	DR-26-SAMPLE
Prepared By	Zachary Sprague, Collision Reconstructionist

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FINDINGS AT A GLANCE

Question	Finding	Basis
Did a collision between the Tiguan and the GMC occur?	**Yes, at low speed**	EDR event matches the date, the contact and a momentum check
Did it occur as the insured described?	**No**	Pulled away from a stop with the wheel turned right, reaching about 11 mph; not straight at 40 mph
What did the Tiguan's airbag control module record?	**Non-deployment frontal event, delta-V 5.6 mph**	Bosch CDR report (Figure 2)
Is the Tiguan's bumper and grille damage consistent?	**Consistent**	Cosmetic, low-energy damage (Figure 3)
Is all of the GMC's claimed damage consistent?	**NOT consistent**	Sharp, edge-loaded creases along the door frame and rocker (Figures 4, 6, 7)
Are there indicators of Artificially Enhanced Damage (AED)?	**Yes, on the GMC**	See the AED section; inspection recommended

ASSIGNMENT

Accident Dynamics USA was requested to determine whether the property damage to the involved vehicles and the Event Data Recorder (EDR) information recovered from the 2022 Volkswagen Tiguan are consistent with the circumstances reported for this loss, and to evaluate both vehicles for any signs of Artificially Enhanced Damage (AED).

DOCUMENTS REVIEWED

1. Assignment letter.
2. Bosch CDR report for the 2022 Volkswagen Tiguan, including the data limitations.
3. Field inspection photographs of the Tiguan at the storage facility.
4. Photographs of the GMC supplied by the claimant.
5. Scene photograph taken by the insured.
6. Recorded statement and examination under oath (EUO) of the insured driver.
7. Repair estimate for the GMC.

CONCLUSIONS

Based on a thorough review of the submitted material, collision reconstruction training, and professional experience, it is the opinion of this expert that a low-speed collision between the

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Volkswagen Tiguan and the GMC occurred on the reported date, but that it did **NOT** occur as the insured described, and that the damage to the GMC's right-side door frame and rocker is **NOT** consistent with this collision.

The Tiguan's EDR recorded a non-deployment frontal event with a delta-V of 5.6 mph. The pre-crash data shows the Tiguan pulling away from a stop with the steering wheel turned to the right and reaching about 11 mph with no braking. This does not match the insured's account of driving straight through a missed stop sign at about 40 mph. The Tiguan's bumper and grille damage is consistent with the recorded event. The GMC's damage includes sharply localized, edge-loaded creases that a vehicle bumper would not produce, and indicators consistent with possible AED were identified. AED cannot be confirmed without a physical inspection of the GMC.

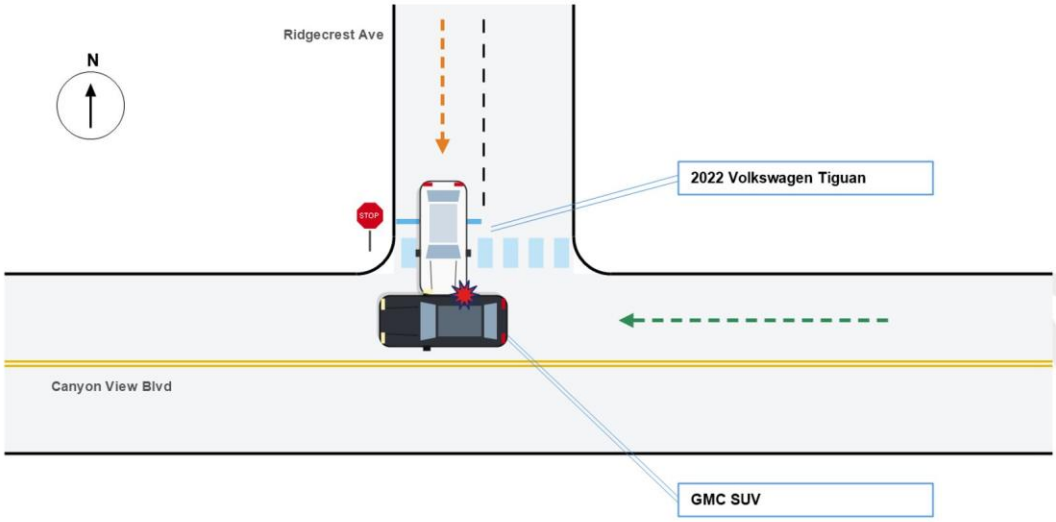
DISCUSSION

The only questions considered for the purpose of this report are those requested in the case assignment.

BACKGROUND INFORMATION

The loss was reported to have occurred at about 10:30 p.m. on August 14, 2026, at the intersection of Ridgecrest Avenue and Canyon View Boulevard in Sample City, California. Ridgecrest Avenue is controlled by a stop sign at Canyon View Boulevard. According to the insured's recorded statement, he had been driving from a nearby store, stopped for an extended period "to think," and then proceeded downhill on Ridgecrest Avenue, where he "missed a stop sign" and collided with a GMC traveling west on Canyon View Boulevard. The claimant reported damage along the right side of the GMC.

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Collision Illustration

Not to scale. Reported loss as described in the insured's statement, with the point of rest from the scene photograph. Speeds and exact paths were not documented.

Figure 1 Accident Dynamics USA Illustration

VEHICLE DESCRIPTION

2022 Volkswagen Tiguan	
Year	2022
Make	Volkswagen
Model	Tiguan, SUV
Color	White
Weight	3,765 lbs (curb weight)
Odometer	72,940 miles
VIN	Withheld in this sample

The GMC was not inspected, and its model was not identified in the materials provided.

INFORMATION FROM BOSCH CDR REPORT

The Event Data Recorder (EDR) in the Tiguan's airbag control module (ACM) was downloaded with the Bosch CDR tool. The VIN reported by the module matched the vehicle. The report documents one stored event:

Event type	Frontal, non-deployment
Vehicle clock at event	2026-08-14, 22:27:13
Vehicle mileage at event	72,924 miles (recorded as 117,360 km)
Ignition cycles, crash / download	5,912 / 5,927
Maximum delta-V, longitudinal	5.6 mph at 110 ms (recorded as −9 km/h)
Maximum delta-V, lateral	0.6 mph at 40 ms (recorded as 1 km/h)
Driver seat belt	Buckled
Airbag and pretensioner deployment	None commanded

The module's clock places the event at 10:27 p.m. on the reported date of loss, and the event mileage is 16 miles below the odometer reading at inspection. Together these indicate that the recorded event is the reported collision and that the Tiguan was driven only a short distance afterward.

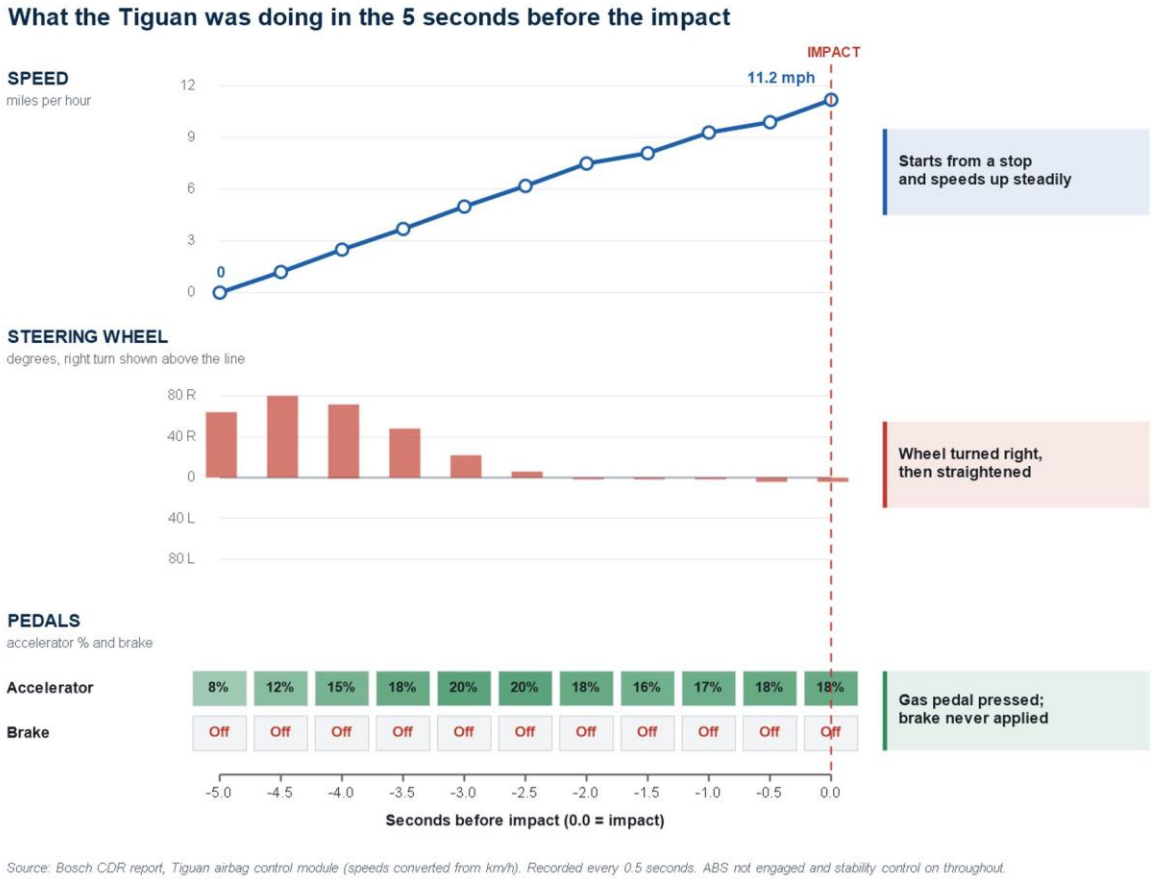


Figure 2 Bosch CDR Report Data

The Bosch CDR reports speeds in kilometers per hour; they are converted to miles per hour throughout this report. The five-second pre-crash data shows the Tiguan at 0 mph five seconds before the event, then accelerating steadily to 11.2 mph (recorded as 18 km/h). The

accelerator pedal was applied throughout, between 8% and 20%. The service brake was recorded as "Off" for the entire pre-crash period, ABS was not engaged, and speed increased at every sample, so no braking occurred before the event.

The CDR data limitations define positive steering values as clockwise, a right turn. The steering input was 64 to 80 degrees to the right at the start of the record and unwound toward center as speed increased, reaching zero 2.0 seconds before the event. At the low speeds involved, the Tiguan's heading would have changed only slightly. The data is consistent with a vehicle starting from a stop with the steering wheel turned to the right and then straightening, not with continuous straight travel through the intersection.

As a check, conservation of momentum was applied to the reported contact. The GMC model was not identified, so its weight was bracketed between 3,500 and 5,800 pounds, the approximate range of GMC SUVs. The Tiguan's weight with its driver is approximately 3,950 pounds, and its speed at impact was 11.2 mph. Because the GMC was crossing in front of the Tiguan, it contributed essentially no speed in the Tiguan's direction of travel.

Momentum is conserved during the collision, and the coefficient of restitution describes how much the vehicles rebound from each other:

$$m_1 v_1 + m_2 v_2 = m_1 v_1' + m_2 v_2' \qquad v_2' - v_1' = e\,(v_1 - v_2)$$

m_1, m_2	weights of the Tiguan and the GMC
v, v'	speeds in the Tiguan's direction of travel before and after contact
e	coefficient of restitution (0 = no rebound; low-speed vehicle contacts are typically 0 to 0.2)
V_c	closing speed, $v_1 - v_2 = 11.2 - 0 = 11.2$ mph

Solving these two equations for the Tiguan's change in velocity gives:

$$\Delta V_1 = [\, m_2 \div (m_1 + m_2) \,] \times (1 + e) \times V_c$$

Light GMC (3,500 lb, e = 0):

$$\Delta V_1 = [\, 3{,}500 \div (3{,}950 + 3{,}500) \,] \times (1 + 0) \times 11.2 = 0.470 \times 1.0 \times 11.2 = \mathbf{5.3\ mph}$$

Heavy GMC (5,800 lb, e = 0.2):

$$\Delta V_1 = [\, 5{,}800 \div (3{,}950 + 5{,}800) \,] \times (1 + 0.2) \times 11.2 = 0.595 \times 1.2 \times 11.2 = \mathbf{8.0\ mph}$$

The recorded delta-V of 5.6 mph falls within the expected range of 5.3 to 8.0 mph, which supports that the event was produced by contact with the GMC. The average deceleration over the 110 milliseconds in which the maximum was reached is:

$$a = \Delta V \div \Delta t = (5.6\ \text{mph} \times 1.467 = 8.2\ \text{ft/s}) \div 0.110\ \text{s} = 74.7\ \text{ft/s}^2 \div 32.2 = \mathbf{2.3\ g}$$

The results are summarized below.

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Input / Result	Light GMC	Heavy GMC
GMC weight (lb)	3,500	5,800
Tiguan weight with driver (lb)	3,950	
Tiguan speed at impact (mph)	11.2	
Coefficient of restitution	0	0.2
Expected Tiguan delta-V (mph)	**5.3**	**8.0**
Recorded Tiguan delta-V (mph)	**5.6**	

INFORMATION FROM PHOTOGRAPHIC EVIDENCE

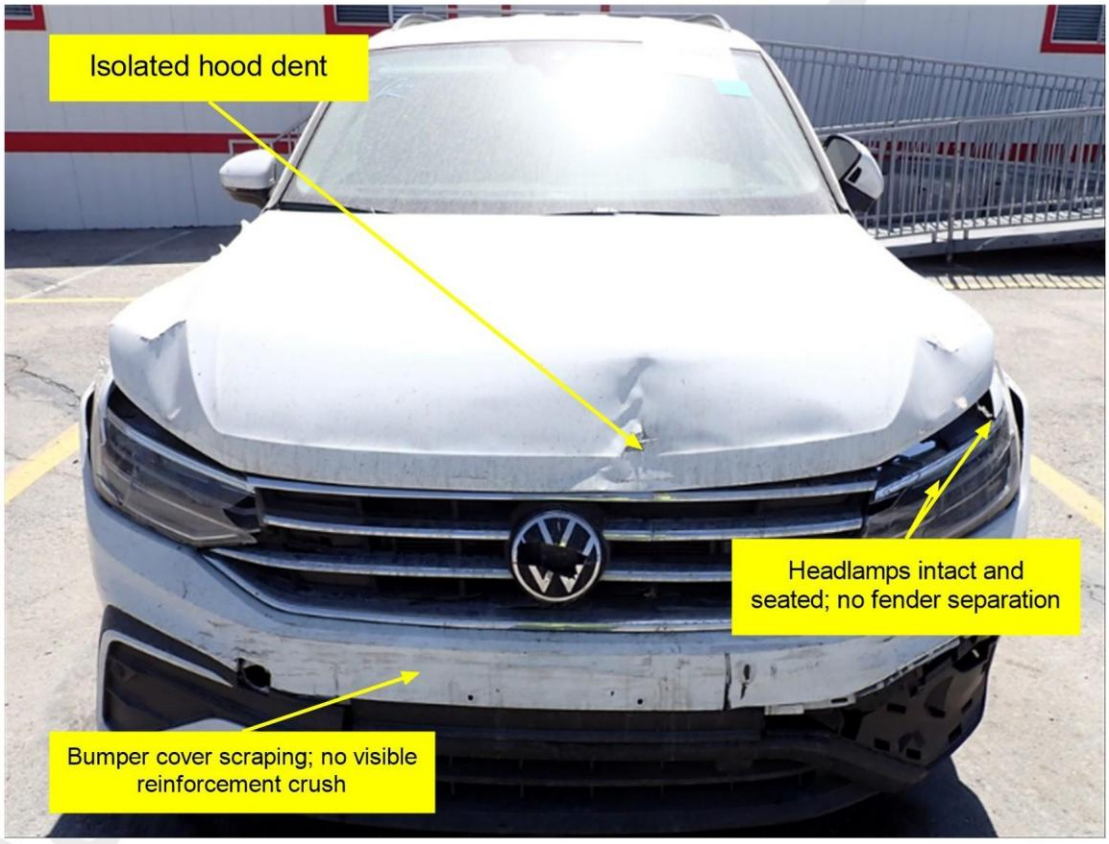


Figure 3 Field Inspection Image

The front of the Tiguan shows damage limited to the bumper cover, the grille, and a small area of the hood. The bumper cover is scraped and torn at its lower edge, and the grille is cracked. There is no visible displacement of the bumper reinforcement or radiator support, the headlamps are intact and seated, and the fender-to-bumper gaps are even. This low-energy, cosmetic damage is consistent with the 5.6 mph delta-V recorded by the ACM.

The hood has a shallow, isolated dent near its centerline. At the point of rest (Figure 5), the Tiguan's left headlamp area is against the GMC; the center of the hood is not in contact with any part of the GMC. The hood dent may be from a separate event. A prior-loss search and prior photographs, if any exist, would clarify this.

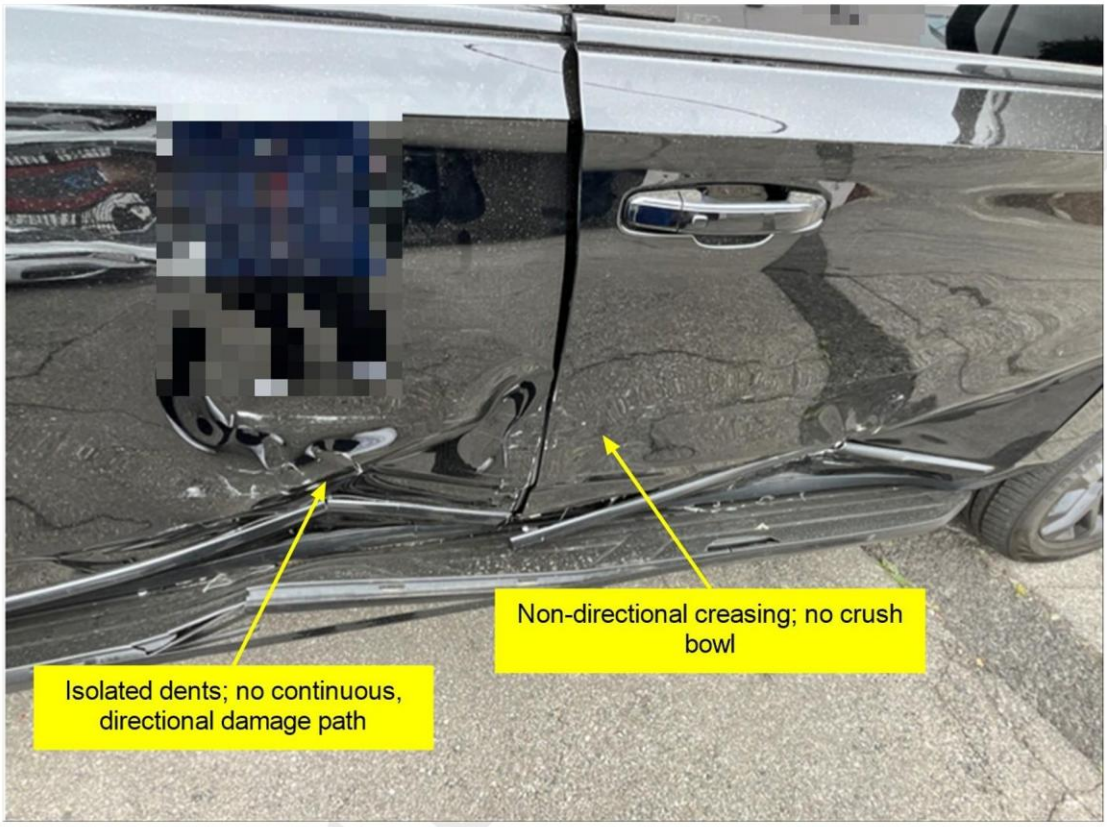


Figure 4 Supplied Image

This photograph shows the right-side doors of the GMC. The damage consists of shallow inward deformation across the lower portion of both doors and into the rocker panel. The metal displays non-directional creasing and surface scratching without a defined crush bowl or a clear point of force application. When a vehicle strikes the side of another, the contact usually leaves a defined area of crush shaped like the striking vehicle's front, often with directional scrapes and paint transfer. Here, the dents are isolated and point-specific, and they extend along both doors rather than being concentrated where the Tiguan came to rest.

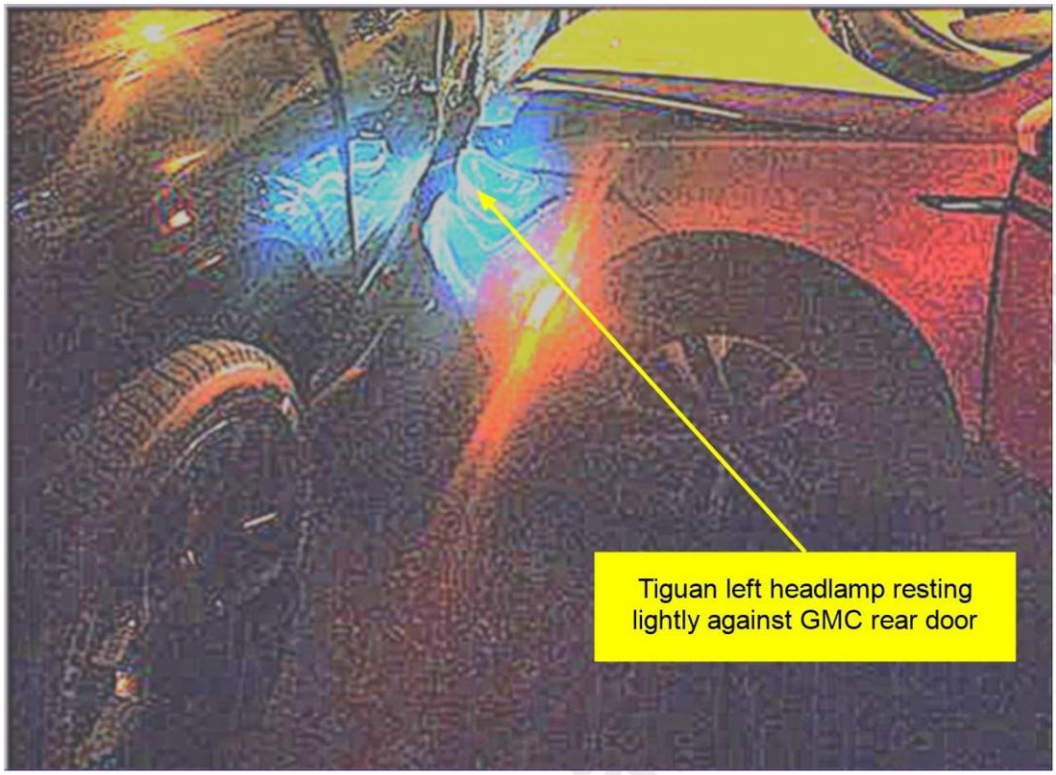


Figure 5 Supplied Scene Photograph

The scene photograph, taken at night, shows the Tiguan's left headlamp area resting against the rear passenger-side door of the GMC, with no separation between the vehicles. Light contact at rest with no post-impact travel is consistent with a low-speed collision of the severity recorded by the ACM.

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Figure 6 Supplied Image

With the front door open, the door frame and sill show sharply localized deformation rather than broad, evenly distributed loading. The light-colored marks along the frame are consistent with exposed primer where the black paint has fractured and flaked, rather than with white paint transferred from the Tiguan. This area sits behind the closed front door, forward of where the Tiguan came to rest.

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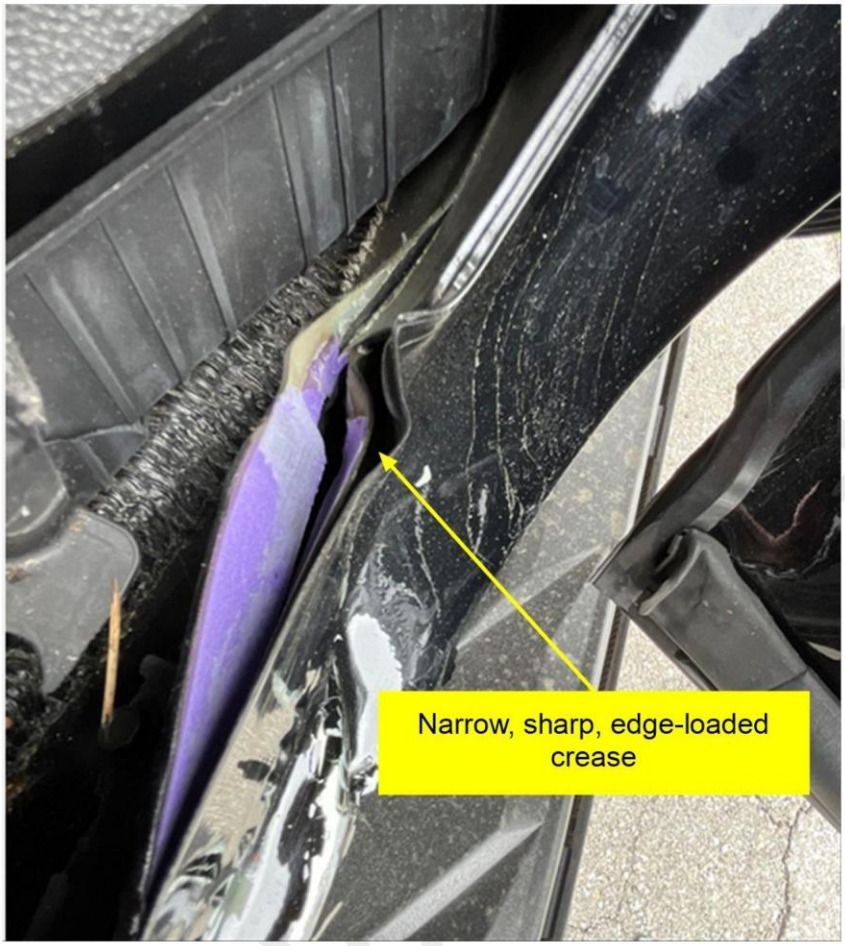


Figure 7 Supplied Image

The close-up shows a sharp inward crease, fractured paint, and exposed inner material. The narrow, irregular, sharply defined deformation indicates point-specific, edge-loaded contact rather than the broad loading expected from a vehicle's bumper cover and reinforcement, which are wide and rounded. These characteristics are evaluated in the AED section below.

ARTIFICIALLY ENHANCED DAMAGE (AED)

Artificially Enhanced Damage (AED) is a process of using many different materials, tools, and objects to visually enhance or create damage on body panels, components, and wheels to mimic collision damage and inflate the repair estimate.

Both vehicles were evaluated for indicators of AED using the photographs provided. An indicator is a characteristic commonly associated with AED; no single indicator establishes that damage was enhanced.

Indicator reviewed	Vehicle	Observation
Narrow, sharply defined, edge-loaded creases	GMC	**Present: door frame, sill and rocker (Figures 6–7)**
Damage concentrated at the area of contact	GMC	**No: extends along both doors and behind the front door (Figures 4, 6)**
Damage shape matches the striking vehicle's front	GMC	**No: point loading, not broad bumper contact**
Paint transfer from the Tiguan (white)	GMC	Not identified; light marks appear to be exposed primer
Severity of damage matches the recorded delta-V	Tiguan	**Yes: cosmetic damage, 5.6 mph event**
Tool marks, pry marks, or impressions from a hand tool	Both	Cannot be determined from the photographs

No indicators of AED were identified on the Tiguan. Its bumper and grille damage is consistent with the recorded event, and its hood dent is addressed above as a possible separate event.

On the GMC, the narrow, edge-loaded creases in the door frame, sill and rocker are the strongest indicator. Damage of this shape is commonly associated with tool-based loading or prying. It does not resemble the loading produced by the Tiguan's bumper, and part of it is located behind the closed front door, an area the Tiguan's front end could not reach without first deforming the door skin over it.

Other explanations were considered. Concentrated creases can also be produced by contact with a small rigid object, such as a post, a curb-side fixture, or the corner of another vehicle, in a separate event. The photographs do not allow these possibilities to be excluded, but none of them is consistent with this collision.

Based on the photographs provided, indicators consistent with possible AED were identified on the GMC. AED cannot be confirmed from photographs alone. A physical inspection of the GMC's right-side doors, door frame, sill and rocker, looking for tool impressions, pry marks and paint-layer disturbance, would confirm or rule it out. Repairs listed on the GMC estimate for these areas should be reviewed against the findings in this report.

INSURED'S STATEMENT COMPARED WITH THE EVIDENCE

In his examination under oath, the insured stated that he was driving downhill on Ridgecrest Avenue toward Canyon View Boulevard, "did not notice the stop sign," and continued straight into the intersection at approximately 40 mph, braking just before the impact. He stated that both vehicles stopped immediately.

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Insured stated	Evidence shows	Consistent?
Traveling straight downhill	Started from 0 mph with 64–80° of right steering	No
Speed about 40 mph	11.2 mph at the event	No
Braking before impact	Brake "Off" for all 5 seconds; accelerator applied throughout	No
Both vehicles stopped immediately	Light contact at rest; 5.6 mph delta-V	Yes
Collision on 08/14/2026 at night	ACM event at 22:27 on 08/14/2026	Yes

LIMITATIONS

- The GMC was not inspected, and its model, weight and event data, if any, were not available. The momentum check uses a bracketed weight range.
- Tool marks cannot be identified or excluded from photographs. The AED findings are indicators only.
- The opinions in this report are based on the photographs and documents listed. Inspection of either vehicle, or additional records, could change them.

SUMMARY

The Tiguan's EDR recorded a single non-deployment frontal event at 10:27 p.m. on the reported date of loss, at a mileage consistent with the vehicle's odometer. The recorded delta-V of 5.6 mph matches the cosmetic damage to the Tiguan's bumper and grille, the light contact shown at the point of rest, and the range expected from a momentum analysis of contact with the GMC at about 11 mph. A collision between the two vehicles occurred.

The collision did not occur as the insured described. The pre-crash data shows the Tiguan pulling away from a stop with the steering wheel turned to the right, accelerating to 11 mph without braking, not traveling straight through a missed stop sign at about 40 mph.

The GMC's damage is only partly consistent with this collision. Its door frame, sill and rocker show narrow, edge-loaded creases that the Tiguan's bumper would not produce, including damage behind the closed front door. These are indicators consistent with possible Artificially Enhanced Damage, which a physical inspection of the GMC would confirm or rule out.

CONCLUSION

- A low-speed collision between the Tiguan and the GMC occurred on the reported date. The Tiguan's ACM recorded a non-deployment frontal event with a 5.6 mph delta-V, consistent with a momentum analysis of the contact.

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- The collision did **NOT** occur as the insured described. The Tiguan was pulling away from a stop, with the steering wheel initially turned to the right, and reached about 11 mph with no braking.
- The damage to the Tiguan's bumper cover and grille is consistent with the recorded event. The isolated hood dent does not align with the contact and may be from a separate event.
- The narrow, edge-loaded creases in the GMC's door frame, sill and rocker are **NOT** consistent with this collision.
- Indicators consistent with possible Artificially Enhanced Damage (AED) were identified on the GMC. AED cannot be confirmed from photographs; a physical inspection of the GMC is recommended.

The opinions expressed in this report are based on the information available as of the writing of this report. As such, this expert reserves the right to alter those opinions if additional information is made available. Additional information, however, would require a re-evaluation of the facts.

Respectfully submitted,



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