Crash Detection Report

Structured Report

Crash Likelihood: High

Detected Anomalies:

1. Sudden Deceleration:

• At 00:01:14, the vehicle speed drops from 126.939 km/h to 1.408 km/h in one second, accompanied by a sharp deceleration of -0.907 g.

• At 00:03:20, the vehicle speed drops to 0 km/h with a deceleration of -3 g, indicating a sudden stop.

2. Erratic Speed and Acceleration:

• Frequent and extreme fluctuations in speed and acceleration are observed throughout the data. For example:

• At 00:00:04, the speed drops from 125.691 km/h to 72.975 km/h in one second.

• At 00:01:31, the speed increases from 109.059 km/h to 145.714 km/h in one second, followed by a sharp drop.

3. Engine RPM Spikes:

• The engine RPM frequently reaches the maximum limit of 7000 rpm, indicating aggressive driving or potential mechanical stress.

4. Throttle Position Fluctuations:

• The throttle position varies drastically, from 0% to 100%, within short intervals, suggesting erratic driver input or system malfunction.

5. Coolant Temperature Spikes:

• The engine coolant temperature reaches critical levels (e.g., 131.650 ! at 00:03:33), which could indicate overheating or cooling system failure.

Possible Causes:

1. Collision or Impact:

• The sudden deceleration at 00:01:14 and 00:03:20 strongly suggests a collision or impact event.

2. Aggressive Driving:

• Frequent and extreme changes in speed, acceleration, and throttle position indicate aggressive or erratic driving behavior.

3. Mechanical Failure:

• Overheating (high coolant temperature) and repeated engine RPM spikes could point to mechanical issues, such as engine or transmission failure.

4. System Malfunction:

• Erratic throttle behavior and sudden stops could also indicate a malfunction in the vehicle's electronic control systems.

Recommendations:

1. Immediate Inspection:

• Conduct a thorough inspection of the vehicle for signs of collision damage, mechanical

failure, or system malfunctions.

2. Driver Behavior Analysis:

• Review driving patterns and provide feedback or training to address aggressive driving habits.

3. Diagnostic Check:

• Perform a diagnostic check on the engine, transmission, and electronic control systems to identify and resolve any issues.

4. Cooling System Maintenance:

• Inspect and service the cooling system to prevent overheating and potential engine damage.

5. Safety Systems Review:

• Ensure that safety systems (e.g., airbags, ABS) were activated during the suspected crash events and are functioning correctly.

This analysis indicates a high likelihood of a crash or severe mechanical issue. Immediate

action is recommended to ensure safety and prevent further damage.