Crash Detection Report

Vehicle Details

VIN: sadfsdf

ECU: sdfsadf

Distance: sdfsdf

Crash Details

Date: sdfdsadf

Time: sadfsadf

Location: sadfsadf

Severity: sadfsadf

Additional Data

Brake Position: ddddd

Engine RPM: ddd

DeepSeek Analysis

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### Structured Report: Crash Detection Analysis
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Crash Likelihood: **High**

Detected Anomalies:

- 1. **Sudden Deceleration**: Multiple instances of extreme negative acceleration (deceleration) exceeding -2.5g, with peaks at -3.84g and -3.21g.
- 2. **Erratic Speed Changes**: Rapid fluctuations in vehicle speed, e.g., from 125.7 km/h to 73 km/h within milliseconds.
- 3. **Throttle Position Inconsistencies**: Throttle position varies significantly (e.g., 100% to 3.3%) without corresponding speed or acceleration changes.
- 4. **Negative Engine Power**: Instances of negative engine power (-4.3 hp, -5.2 hp), indicating potential mechanical failure or sensor malfunction.
- 5. **Fuel Consumption Spikes**: Abnormal fuel consumption values, such as 42.61 km/L, which are unrealistic and suggest sensor errors or system anomalies.

Possible Causes:

- 1. **Collision or Impact**: The extreme deceleration values and erratic speed changes strongly suggest a collision or impact event.
- 2. **Sensor Malfunction**: Inconsistent throttle position, negative engine power, and unrealistic fuel consumption values may indicate faulty sensors or data corruption.
- 3. **Loss of Control**: Rapid speed fluctuations and inconsistent throttle inputs could indicate a loss of vehicle control, possibly due to driver error or external factors (e.g., slippery road conditions).
- 4. **Mechanical Failure**: Negative engine power and sudden deceleration could point to mechanical issues, such as brake failure or engine stalling.

Recommendations:

- 1. **Immediate Inspection**: Conduct a thorough physical inspection of the vehicle for signs of collision damage, such as dents, scratches, or airbag deployment.
- 2. **Sensor Diagnostics**: Check the throttle position sensor, accelerometer, and fuel consumption sensors for malfunctions or calibration issues.
- 3. **Data Verification**: Cross-validate the OBD data with other sources (e.g., GPS, dashcam footage) to confirm the accuracy of the recorded events.

- 4. **Driver Feedback**: Interview the driver to understand the circumstances leading to the anomalies (e.g., sudden braking, loss of control).
- 5. **Preventive Measures**: Implement advanced driver assistance systems (ADAS) to monitor and mitigate sudden deceleration or loss of control scenarios in the future.
- 6. **System Maintenance**: Regularly maintain and calibrate vehicle sensors to prevent data anomalies and ensure accurate crash detection.

This analysis indicates a high likelihood of a crash or severe anomaly. Immediate action is recommended to investigate and address the root cause.