2024MY Telluride Engine Valve Spring Basis of Safety Defect Determination 573.6(c)(6)

November 15, 2023	Kia North America (Kia NA) receives techline case from dealer identifying customer complaint of hearing a "pop" noise while driving followed by smoke emitting from the engine compartment of a 2024MY Telluride (incident vehicle). Dealer inspects vehicle and identifies a hole in the engine block.
November 20, 2023— November 21, 2023	Kia NA Safety Office inspects incident vehicle at dealer and identifies damaged internal engine components, a hole in the front side of the engine block, and localized melting on the engine underbody shield. Kia NA Safety Office works with dealer to obtain engine for further evaluation.
December 5, 2023— December 15, 2023	Kia NA Product Quality identifies increasing number of engine replacements for 2024MY Telluride vehicles with low mileage and begins collecting engines for further analysis. Kia NA Safety Office performs preliminary field data analysis and identifies 47 techline cases involving 2024MY Telluride engine replacements with low mileage. Kia NA Safety Office escalates matter to SEL for further investigation.
December 18, 2023— January 10, 2024	Kia NA collects engines, identifies damaged valves and broken springs and ships parts to Kia HQ for further analysis.
January 23, 2024— January 29, 2024	Kia HQ conducts Scanning electron microscope (SEM) analysis of broken engine valve springs. All show signs of fatigue cracking.
January 31, 2024	Kia HQ informs Kia NA Safety Office that valve spring may become damaged during manufacturing at the supplier and that such damage can increase valve spring(s) susceptibility to fatigue cracking. Kia HQ investigation with supplier identifies all evaluated valve springs manufactured on same day. Kia HQ identifies potential scope based on traceability to suspected engine production date. Kia NA Safety Office updates data analysis and identifies 83
	unique VINs potentially related to the subject condition from warranty, techline and customer complaints (dates of receipt 10/25/2023—1/26/2024).
January 31, 2024	Kia NA decides to recall certain 2024MY Telluride vehicles. One (1) fire (localized melting). No crashes, injuries, or fatalities.