

Biodiesel Impact on Engine Lubricant Oil Dilution

**Xin He, Aaron M. Williams,
Earl D. Christensen, Jonathan L. Burton,
Robert L. McCormick**
National Renewable Energy Laboratory

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Motivation

- Modern diesel engines utilize post-injection for aftertreatment system regeneration. This post-injection event can lead to increased dilution of the engine oil.
- Due to its higher boiling point, biodiesel that enters into the crankcase is less likely to evaporate out of the lube oil, potentially causing higher levels of oil dilution.

Objectives

- Gain fundamental understanding of the entrainment and evaporation behavior of ultra low sulfur diesel (ULSD) and biodiesel in the engine lubricant.
- Test the impact of biodiesel on engine lube oil dilution for a Tier 2 Bin 5 certified light duty vehicle.

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