Cetane Performance and Chemistry
Comparing Conventional Fuels and Fuels Derived from Heavy Crude Sources

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POSTER P-25
CETANE PERFORMANCE AND CHEMISTRY
COMPARING CONVENTIONAL FUELS AND
FUELS DERIVED FROM HEAVY CRUDE SOURCES

• Oil sands derived fuels can have different chemistry than conventional crude fuels
• New engines, emissions controls, and combustion strategies may provide an opportunity for fuel optimization or change
• Our project, an open collaboration between ORNL, NCUT, and PNNL, plans to:
  – Improve characterization and understanding of new blendstocks and fuels
  – Determine lubricity and HCCI effects of new fuel chemistries
  – Help ensure compatibility of future fuels and future engines

• Canada currently supplies 15% of US crude oil and refined petroleum products
• Canada oil sands hold 175 billion barrels of recoverable bitumen derived crude (reserves second only to Saudi Arabia)
  – Current production is greater than 1 million barrels per day

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– Stump the experts about NMR, GCMS, HCCI, and lubricity
– Learn about fuel chemistry
– Share fuel experiences
– Provide input and suggestions