

# Application of the PTRC's Enhanced Oil Recovery Research in the Williston Basin

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## **Abstract**

*The Petroleum Technology Research Centre (PTRC) is a not-for-profit research, development and deployment (RD&D) organization in Saskatchewan. Since 1998, the PTRC has managed its Enhanced Oil Recovery (EOR) research program, providing leading-edge and innovation technologies in an attempt to improve the economic recovery of oil while reducing the environment footprint of production. The PTRC focuses its research on three main areas, namely heavy oil, medium-light oil, and enabling technologies.*

*Recently, the PTRC expanded its research to include the Bakken formation as one of the most important light oil plays in North America. Challenges in the Bakken include sharp declines in the primary rate of oil production due to low permeability, the use of water and additives during hydraulic fracturing, and the high production of water during extraction. These challenges mean that secondary and tertiary enhanced oil recovery will become very significant to improve production in the Bakken and other tight oil formations. This presentation will discuss several areas of new and proposed research at the PTRC that address these issues including:*

- *An established project looking into the characteristics of Bakken reservoirs in Saskatchewan and the implications for selection and implementation of production strategies.*
- *Development of better CO<sub>2</sub>-EOR techniques for unlocking resources in tight oil formations.*
- *Cleaning produced water to re-inject for hydraulic fracturing or pressure maintenance/waterflooding programs.*
- *Treating produced and recycled water for improved efficiency.*

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