

Geological and Geophysical Evaluation of the Leduc Formation in Northeastern Alberta, Canada

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Abstract

Approximately 100 km northwest of the city of Ft. McMurray, the northern terminus of the Leduc Rimbey-Meadowbrook reef trend subcrops beneath Cretaceous clastic sediments of the Athabasca deposit (Figure 1). Previously, the Leduc Formation in northern Alberta was poorly understood because of the limited deep well control and the lack of core information. However, recent exploration activity has provided new subsurface information that has characterized the reservoir potential of the Leduc Formation. With this new data, the Leduc Formation has been identified as an exciting prospect for future bitumen development, and a unique recovery method called Thermal Assisted Gravity Drainage (TAGD) is being tested.