

New and Known Petroleum Prospects and Development Opportunities in Manitoba

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Southwestern Manitoba occupies part of the northeastern flank of the Williston Basin. Paleozoic, Mesozoic and Cenozoic rocks form a basinward thickening-wedge of sedimentary strata that reach a total thickness of 2300 m in the southwest corner of the province.

To date, oil production in Manitoba is restricted to the sandstones of the Jurassic Melita and Amaranth formations, Mississippian Bakken Formation and Devonian Three Forks Formation, and the carbonates of the Mississippian Lodgepole and Mission Canyon formations.

Limited deep exploration in southwestern Manitoba has revealed the presence of potential reservoir horizons below established targets. Oil shows have been documented in Ordovician, Silurian, and Devonian formations - the Winnipeg, Red River, Stony Mountain, Interlake, Winnipegosis, Dawson Bay, Souris River, Duperow and Birdbear. Evidence of reservoir development and trapping mechanisms analogous to typical pre-Mississippian Williston Basin play types within these largely undrilled horizons, indicate that further exploration may lead to new, undiscovered resources.

This paper outlines the exploration and development opportunities in Manitoba and initiatives Manitoba Industry, Trade and Mines has undertaken to attract oil and gas investment to Manitoba and enhance the competitive advantages enjoyed by operators in the province. A brief description of the geology and reservoir characteristics of producing horizons, recent activities and exploration and development prospects in Manitoba are discussed.

A brief overview of the factors that create a favourable investment climate in Manitoba including; a low Crown land price; low drilling costs, low drilling density, competitive and stable petroleum fiscal regime, drilling and exploration incentives, digital information access and unrestricted access to markets, is also presented.