

Manitoba Oil Facts Did You Know That

- Manitoba has two potential areas for oil and gas production, southwest Manitoba and the Hudson Bay lowlands.
- Oil was discovered in Manitoba in, and has been produced since 1951.
- Manitoba's current oil production is located in southwest Manitoba along the northeastern flank of the Williston Basin, a sedimentary basin that also occupies portions of southern Saskatchewan, North Dakota, South Dakota and Montana.
- Potential hydrocarbon bearing-formations in southwest Manitoba occur to depths of up to 2 300 metres (7,500 feet).
- The majority of the approximately 6,000 wells drilled in Manitoba have only been drilled to Mississippian formations; this represents approximately one half of the potential hydrocarbon bearing formations.
- Production in 2005 was 805899.7 m³ - 5,071,123 Barrels. The month of December 2005 had the highest production on record - 92,714 m³ (583,402 Bbls) or 18,819 Bbls per day.
- There is over 70 kilometers of core from wells drilled in Manitoba available for examination.
- All pre-1980 oil production originated from Mississippian Lodgepole and Mission Canyon formations at depths that range from 600 to 1 050 metres (2,000 to 3,500 feet). These formations currently account for approximately 51% of Manitoba's production.
- Oil was discovered in 1980 above the Mississippian in the Jurassic Amaranth Formation. Approximately 19% of Manitoba's production originates from the Amaranth Formation in the Pierson-Waskada area.
- In 1985 oil was discovered in the Mississippian Bakken Formation in the Daly area. Production from the Bakken makes up 4% of the provincial total.
- In 1993, oil was discovered in the Jurassic Melita Formation in the St. Lazare area.
- In 2001, oil was discovered in the Devonian Three Forks Formation in the Daly Field, marking Manitoba's first pre Mississippian Production.
- Manitoba's 2005 estimated oil production was 805,899 m³ (5 million barrels) up 26% from 2004. Total production to the end of 2005 was 37.6 million m³ (236.6 million barrels).

- Manitoba's oil is of good quality, and in 2005 the average selling price for light sour blend crude was \$402.82 per cubic metre (\$64.00 CDN per barrel). The estimated value of oil sold in 2005 was approximately \$324 million.
- There are approximately 1,863 producing oil wells in Manitoba, 153 of which were put on production during 2005.
- In December 2005, average production rate for horizontal wells in the province is 2.87 m³ per day (18 barrels per day), compared to an average production rate of 1.16 m³ per day (7.3 barrels per day) for vertical wells. During 2005, horizontal wells accounted for 25% of the province's total production.
- Currently there are 15 designated oil fields and 166 oil pools in southwest Manitoba.
- Manitoba's crude oil production is equivalent to approximately 25% of the province's refined petroleum products requirements.
- Approximately 8.2 million m³ (51.4 million barrels) of salt water were produced in 2005, that's 10.06 m³ of salt water for every 1 m³ of crude oil produced. Salt water must be separated from the oil and re-injected into subsurface formations.
- Approximately 380 wells are used for purposes other than production, such as disposal of produced water
- The current cost to drill and complete a well in Manitoba ranges from \$275,000 to \$1.2 Million depending primarily on depth.
- 285 new wells were drilled in Manitoba during 2005 including 18 horizontal wells; of these 115 (96%) were cased as potential oil producers.
- Only 10 to 15% of the oil discovered in Manitoba is recoverable under natural depletion. Recovery may be increased to over 30% by water flooding.
- Approximately 48% of the producing wells are in waterflood projects and presently account for approximately 50% of the oil produced.
- As of December 31, 2003, the remaining established oil reserves were estimated to be 4.3 million m³ (27.2 million barrels).
- Approximately 80% of the oil and gas rights are owned by private individuals or companies (freehold), the remaining 20% are owned by the Crown in the right of Manitoba.
- With a geothermal gradient of 1.3°C/m in the Virden area, thermally mature oil and gas can be generated in the rocks as shallow as a depth of 335 m. This means the Cretaceous shales in Manitoba are excellent candidates for shallow gas exploration in most of the extreme southwest corner of Manitoba.
- Royalties payable to private oil and gas rights owners were estimated at \$34 million in 2005.
- Total oil industry expenditures in Manitoba in 2005 were approximately \$243 million.

Conversions

1 cubic metre = 6.29 barrels

1 barrel = 35 gallons (Imperial)