

Nexen Rosebank Unit – An Overview

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The Rosebank Frobisher-Alida pool is a mature oil field, located in southeast Saskatchewan in Townships 4 and 5, Range 32W1M, approximately 225km southeast of Regina. The Rosebank pool was discovered in 1955 and developed on an 80-acre well spacing until 1964. Unitization of the pool occurred in 1969. Vertical infill drilling in the central portion of the pool was conducted from 1971 to 1973, with subsequent vertical edge wells drilled beginning in 1987. Horizontal drilling parallel to the regional fracture trend and axis of the pool's structure began in the 1990's and are still ongoing.

Oil from the Rosebank pool is produced from the Mississippian Frobisher and Alida carbonates and the Kisbey sandstones/carbonates at a depth of about 1070 m. The Rosebank pool is located on a northeast trending erosional high. Progressively older units subcrop to the northeast starting with the Frobisher beds, followed by the Kisbey and the Alida, which subcrops at the northeast end of the pool. A trap is created by a combination of structural and erosional relief near sub-crop edges and stratigraphic top and lateral seals. The original reservoir pressure has been largely maintained by a strong bottom-water drive aquifer but consideration has been given to the potential for EOR strategies at Rosebank.