

# WINNIPEGOSIS FORMATION OF SASKATCHEWAN AND ADJACENT AREAS

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## ABSTRACT

The Winnipegosis formation of Devonian age extends from eastern Alberta, across the sedimentary portion of Saskatchewan, to its eastern erosional edge in Manitoba and south to its depositional edge in North Dakota and Montana.

In Saskatchewan and Manitoba, the formation consists mostly of tan dolomites. Porosity and permeability are generally well developed outside of the Prairie Evaporite salt edge. Inside the salt edge they are variable.

A pressure gradient existing in the Winnipegosis indicates general northward movement of formation water.

Reef building in the formation was formerly believed to be restricted to a belt along the northern edge of the Prairie Evaporite salt. Additional drilling has shown that this original belt extends southward to the heart of the salt basin in south-central Saskatchewan. The reefs are believed to lie along general northwest-southeast trends. Maximum reef relief noted was 300 feet. The areal extent of the individual features is believed to be several square miles, but this has not yet been proven by drilling.

Poor oil shows have been noted in Winnipegosis samples and cores, but no commercial production is known. Similar salt covered reefs do produce in the Province of Ontario.

The Winnipegosis reefs may be found over much of Saskatchewan and Manitoba. They form potential oil and gas reservoirs whose possibilities have not been adequately explored.