# Update of Devonian Hydrostratigraphy in the Athabasca Mineable Oil Sands Area, NE Alberta

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## Abstract

The Devonian hydrogeology setting underlying the mineable Athabasca Oilsands Area in northeast Alberta is within the thinning edge (<300 m thick) of the Western Canadian Sedimentary Basin. Historically, these Devonian strata have been conceptualized as consisting primarily of lower permeability units ($10^{-7}$ m/s or less) in the upper Devonian units with a regional aquifer within the Keg River Formation. In past years, this aquifer was referred to as the Methy Formation, a now obsolete stratigraphic term. Since 2010, there has been a significant increase in the number of Devonian wells drilled by oil sands operators to improve the understanding of the Devonian geology and hydrogeology in the region. The objectives of this presentation are to update the Devonian hydrostratigraphy in the Athabasca Mineable Oil Sands Area in northeast Alberta and discuss the properties and connectivity of a highly transmissive Devonian aquifer.

## Reference Cited

Grobe, M., 2000, Distribution and Thickness of Salt within the Devonian Elk Point Group, Western Canada Sedimentary Basin: Alberta Geological Survey Earth Sciences Report 2000-02.