

Tight Gas Sandstones of the Uppermost Nikanassin Group

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Abstract

This study analyzes rocks from the Nikanassin Group, a well-known gas bearing strata in the Deep Basin of Alberta. The Late Jurassic – Early Cretaceous Nikanassin Group is unconformably overlain by the Cadomin Formation and conformably overlies the Fernie Formation. It contains the Monteith, Beattie Peaks, and Monach formations, from oldest to youngest, respectively¹. Original gas-in-place from the Nikanassin Group has been recently estimated to range from 10 to 100 billion cubic feet per section². The wide range of production rates is likely a function of the abundance of natural fracture networks and the complexity of the reservoir facies along the Deep Basin and the Alberta Foothills³.

The study area is located approximately 400 km northwest of Edmonton, Alberta, and partly covers the north and southeast portion of the Wapiti gas field and the northwest portion of the Red Rock gas field. It encompasses 2000 km² and is bound in the NW by township 67 range 11W6 and in the SE by township 64 range 7W6.