

Coalbed Methane potential of coalfields in the northern part of the Bowser Basin, British Columbia

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ABSTRACT

The Bowser Basin, which is filled with late Jurassic to Cretaceous sedimentary rocks, covers approximately 50 000 square kilometres, in northwestern British Columbia. The metal resource in the basin is considered to be low, however the oil and gas resource remains to be outlined and a small part of the basin (Klappan and Groundhog coal fields) has coal and coalbed methane (CBM) potential. An increase in oil and gas exploration and possible development in the area will increase the interest and potential for development of the CBM and coal resources.

The combined Klappan and Groundhog coalfields cover an area of about 5000 square kilometers (10% of the Bowser Basin). The coal resource in this area is distributed around a major synclinorium and in the south cumulative coal thickness is in the range of 10 metres and in the north 20 to 30 metres. A total coal resource of 37 billion tonnes may exist at depths of less than 2000 metres. Coal rank in the coalfields is low-volatile bituminous to anthracite. This high rank is not characteristic of the whole Bowser Basin.

The estimated potential CBM resource is 8tcf. There is no specific CBM data with the exception of a single isotherm. However there are many coal exploration reports dating from pre 1990 that can be used to in a discussion of the potential CBM resource. With the renewed interest in the basin it is hoped to generate more CBM data.