

Oil and Gas Potential of the Yukon Territory

Riona Freeman* and Tammy Allen
Oil and Gas Resources Branch,
Department of Energy, Mines and Resources, Whitehorse, YT
riona.freeman@gov.yk.ca

There are eight petroleum regions in the Yukon Territory: North Coast; Old Crow Basin; Kandik Basin; Eagle Plain; Bonnet Plume Basin; Peel Plateau; Whitehorse Trough; and Liard Plateau. The Kotaneelee field in southeast Yukon has two active gas wells with cumulative production of 180 Bcf (5,100,000 10^3m^3) for less than 160 months. There are 4 suspended oil and/or gas wells in Eagle Plain and numerous oil and gas shows throughout the regions.

The Yukon government has published assessments of conventional petroleum resources by both the NEB (1994, 1997, & 1999) and the GSC (1999, 2000 & 2001). These indicate the territory is generally gas prone, with about 9.6 Tcf (270,000,000 10^3m^3) in-place gas and approximately 800 MMbbls (2,600,000 $\times 10^3\text{m}^3$) in-place oil, including offshore plays. Specifically, median marketable gas resources are estimated at 0.84 Tcf, 1.57 Tcf and 2.36 Tcf for Eagle Plain, Liard Plateau and Peel Plateau respectively.

Coal-bed methane is another important resource in the Yukon, particularly in two areas, Bonnet Plume Basin, where an initial assessment suggests 5 Tcf in-place reserves, and Whitehorse Trough, where further work is currently underway. The Oil and Gas Resources Branch has partnered with the Yukon Geology Program and the Geological Survey of Canada to further define and delineate the petroleum resources of the Yukon Territory. With the resolution of land claims and pipeline issues expected in early 2002, it is anticipated that petroleum exploration and development in the territory will be dramatically affected.