

## Expanding foothills exploration in Muskwa - Kechika

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### Abstract

Muskwa - Kechika is a foothills area in the British Columbia portion of the Western Canada Sedimentary Basin which has shown and continues to show potential to produce prolific amounts of oil and gas. Although technical and operational challenges for working in this area exist, previous successes provide insight into the extant untapped resources.

The challenge therefore includes: How do you explore efficiently and cost effectively in the Muskwa - Kechika foothills area? How can we utilise previous successes to guide the way forward? In this paper, we will look at two previous successes in Muskwa - Kechika: wells drilled in 1966 and 1989. We will discuss how we can use these two examples as analogs to help explore in other areas whilst avoiding costly mistakes.

In the summer of 2005, ARKeX Ltd. in conjunction with JEBCO Seismic Canada began acquiring an airborne geophysical survey covering 3,000 sq Km. The data acquired provide the explorationist with previously unattainable high resolution airborne gravity gradiometry, magnetic gradiometry and LIDAR data. This combined dataset reveals new and detailed information on geologic structures over this large area.

With the benefit of hindsight, we can now analyse the reasons for successful and unsuccessful attempts at exploration in the Muskwa - Kechika area. Furthermore, through qualitative and quantitative interpretation of the new ARKeX/JEBCO geophysical dataset, we can define an exploration strategy for previously unexplored areas of the foothills.