

Essential Elements of Petroleum Systems in the Nechako Basin

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Abstract

Completion of an accurate petroleum system events chart for the Nechako Basin of British Columbia is hampered by a scarcity of surface and well data due to sparse outcrop and a limited exploration history. Essential elements of the system – source rock, reservoir, seal rocks and overburden – have been identified with some confidence, but the timing of the processes of trap formation and generation, migration, and accumulation of hydrocarbons are not adequately constrained. Recent and ongoing vitrinite reflectance and apatite fission track studies are will improve understanding of the tectonic history of the Nechako region in specific areas, but completion of a petroleum events chart will not be possible until further exploration drilling is conducted.