

# **Updates on Faults and Structural Framework of the Peace River Arch Region, Northwest Alberta, Obtained using a New Approach**

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Abstract/Excerpt

Peace River Arch is one of the most extensively studied tectonic features in Western Canada Sedimentary Basin (WCSB). Descriptions of faults in the sedimentary cover of this region have been carried out for 50 years. In general, the conventional approach for structure study uses potential field data including aeromagnetic and gravity data for detecting the basement structures, and geophysical well log data (combined with seismic data when available) for interpreting the sedimentary cover structures. With respect to well log data, the main approach is to interpret faults from isopach and structure top contour maps. For the Peace River Arch region, descriptions of faults, as presented by Sikabonyi and Rodgers (1959), Jones (1980), Cant (1988), Barclay et al. (1990), Dix (1990), O'Connell et al. (1990) and O'Connell (1994), are all based on use of well log and sedimentological data to identify fault locations and trends, as well as magnitudes and types of offset.