

STRUCTURAL FEATURES OF THE ALBERTA OIL FIELDS*

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The interest which has been aroused in prospecting for oil in the foot-hills of southern Alberta, and in the oil-possibilities of the known gas-fields situated in the less-disturbed areas, called for a much closer examination of structure, thickness, and composition of the underlying rocks of the region than had hitherto been made. The areal geology of the larger part of the great plains was outlined by Dawson, McConnell, and Tyrrell, between 1881 and 1885. The foothill area was not critically examined at that time, owing to the

tions south into Montana have been critically examined.

The structure of the outer portion of the foothills has been partly mapped and a comprehensive view of its general character may be gained from the accompanying sketch and sections, Figs. 1 and 2. It will be seen from them that there was an uplift of the lower measures toward the mountains, accompanied by profound fracturing throughout the disturbed zone. Since the lines of fracture penetrate below the beds containing the possible oil supply the fault

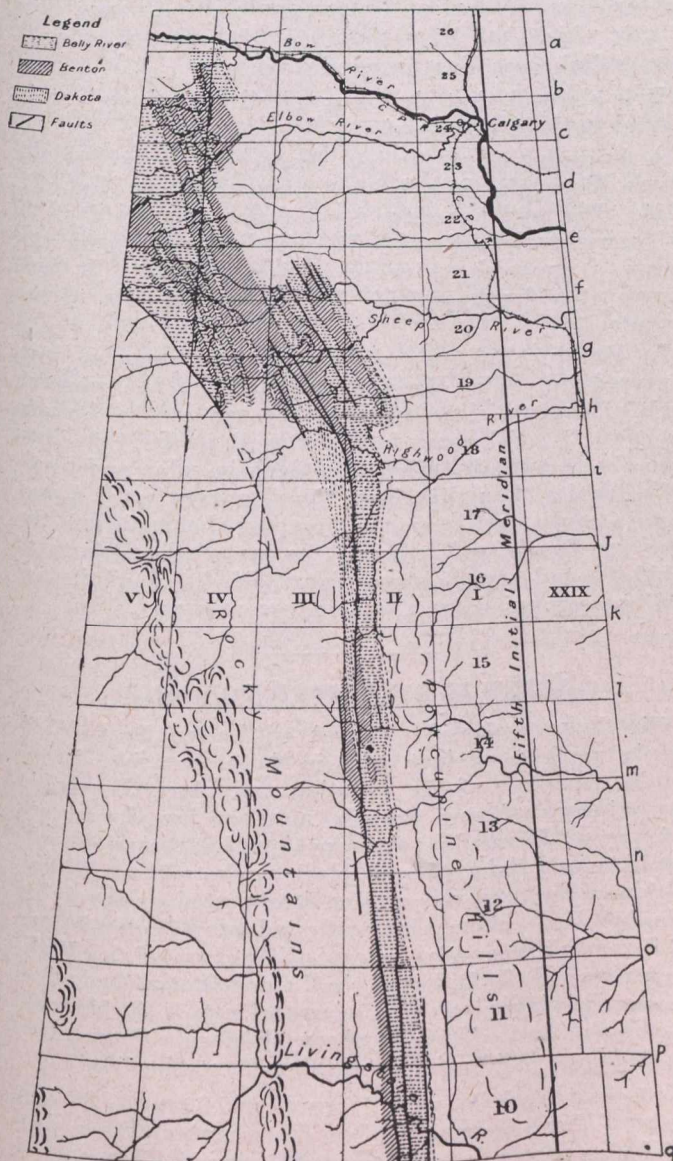


Fig. 1. Perspective diagram, Foothills of Southern Alberta

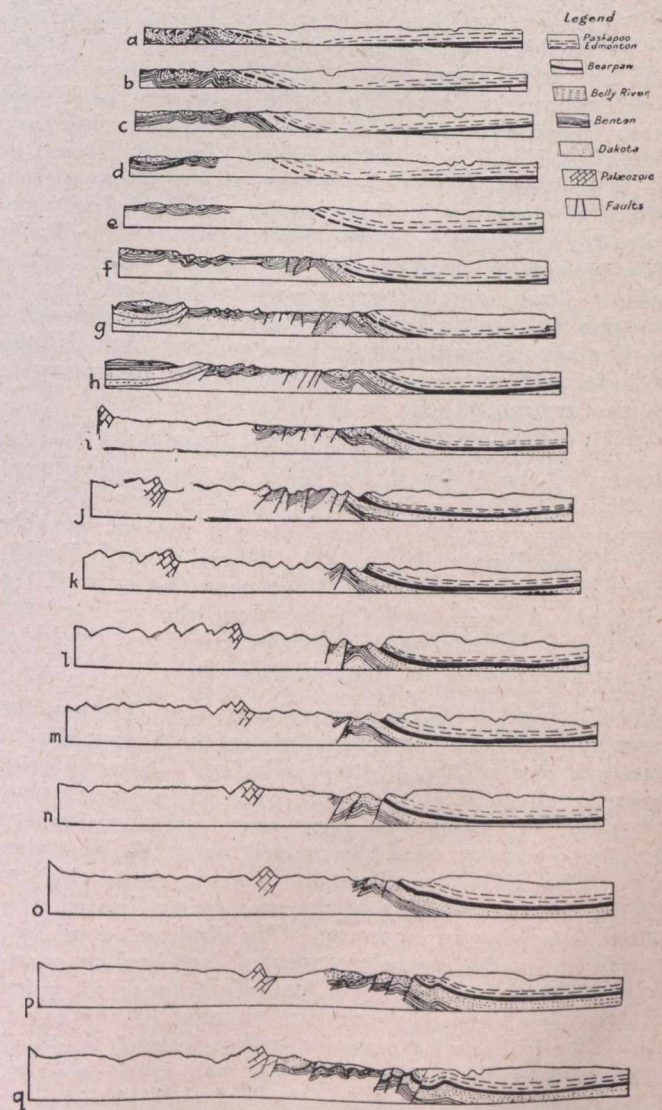


Fig. 2. Structure section, Southern Alberta Oilfields.

time which would have been required for its proper study and the difficulty that was found in recognizing in the foothills the divisions which had been adopted in the mapping of the formations of the plains. This was due in great measure to the paucity of exposures in continuous sections of the lower divisions of the Upper Cretaceous. Since the pioneer work in the plains was published, the beds which form continua-

blocks have necessarily a limited oil-drainage area and do not afford promising ground for wells. Our field of study has been limited, therefore, to the eastern edge of the broken country in the hope of finding anticlines in close connection with the less-disturbed beds of the Alberta syncline which lies to the east. One of these on Sheep Creek is being thoroughly prospected and one well is now producing a small quantity

*Extracts from a paper to be read at the San Francisco meeting of the American Institute of Mining Engineers, Sept., 1915.