

Sequence Stratigraphic Evolution of Bolivia during the Gondwana Break-Up

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A re-interpretation of both regional and local Bolivian geological literature was carried out, focused from a sequence-stratigraphic point of view. The region was considered as an integrated part of the supercontinent of Gondwana during most of the Phanerozoic. Paleogeographic environmental distribution throughout this time is reflected in a series of paleomaps. Time and spatial relationships of the different geological units are shown in chrono-stratigraphic charts as a synthesis from the paleomaps. From the petroleum industry point of view, the paleogeographic re-construction of potential generating intervals would help, along with the thermal modeling of seismic lines and wells, to identify the most important generation pods in their original depositional setting, before structural deformation affected the area. This should be complemented with petroleum systems charts, oil-source genetic correlations and maturation-organic richness maps, among others. Regarding the reservoirs, the implications of this paleogeographic analysis in delimiting the best hydrocarbon-bearing facies are obvious. As per the seal rock, the comprehension of the environmental genesis would help to understand the reservoir-seal relationship in a very complicated system like the Carboniferous, one of the most important producing intervals in the Foothills and Chaco Plains of Bolivia.