Geologia da Bacia de Santa Lucía - Uruguai

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Tesis de Doctorado, Universidade Estadual Paulista - Unesp, 1999,.152p. gerardo@fcien.edu.uy
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This work proposes a new tectonic-sedimentary model for the Mesozoic section of the Santa Lucia basin wich is developed in the pre-cambrian Uruguaio-Sul-Rio-grandense shield in southern Uruguay. The basin is an ENE oriented Mesozoic intracontinental rift, approximately 150km long and 45km wide with an outcropping area of about 8000km2. Traditionally, its genesis was associated with the fragmentation of Gondwanaland and opening of the South Atlantic ocean during the Upper Jurassic - Lower Cretaceous. This new model was based on regional and stratigraphic information that proceeded from hydrocarbon exploration in the area during the 50s and 70s. The Santa Lucia basin is interpreted as pull-apart basin with a complex structural framework characterized by an asymmetrical transverse section composed of a conjugated system of listric normal faults. These ENE synthetic and antithetic faults define grabens and horses. A secondary structural configuration, due to the activity of N-S transfer faults, promoted the development of isolated depocenters. The sedimentary and volcanic-sedimentary filling is more than 2,450-m thick and was divided into four tectonic sequences: SL-A (Jurassic), SL-B (Neocomian), SL-C (Albian) and SL-D (Senonian). The depositional systems were analyzed in detail, and therefore, it is proposed a new origin for the carbonate-rock "Calizas del Queguay". It is also established a new stratigraphic column, which represents the time and spatial distribution of the units according to new ideas. A comparative analysis between these units and those of neighboring basins will assist in a better understanding of the Mesozoic evolution of the region.