

**Tucuman Plain, the South Extension of the Cretaceous Rift Basins. NW-Argentina.**

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In the NW-Argentina the Cretaceous and early Paleocene are recognized as Salta Group, its represent the episodic extensive events before the development of the Miocene Andine Mountain Chain.

Subsurface data and outcrops exposure point out four subbasins for that time: Olmedo; Metán; Alemanía and Susques. The thickness of the sedimentary pile reaches a maximum value of about 6000m in the Olmedo Subbasin. On the basis of recent seismic data acquisition for the industry in the Tucumán Plain its reveal a narrow trough delimited by normal faults as a rift basin geometry, seismic analysis shows even six sedimentary sequences, two of which are close linked with the evolution of the rift stage, the thickest sedimentary section involving the Neogene is coincident with a high conductive plane located at 10 km depth.

The W fault border of the rift narrow to the Aconquija range is partially inverted and built a blind backthrust, at the E border the rift geometry is weakly disturbed. The areal extension of rifting stage during Cretaceous in NW-Argentina is not restricted to the mentioned subbasins its extend also southern in the Pampean Ranges.