



## **Evaluation of the tectonic influence on the stratigraphy of the pre-salt interval in the South Campos Basin area**

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The Gondwana rupture and the South Atlantic formation have controlled the Campos Basin tectonostratigraphic evolution, configuring an oblique extensional rifting system that formed a series of accommodation zones and horsts oriented NE-SW to NNE-SSW. Likewise, the stratigraphy framework is divided into three main phases: Rift, Post-Rift, and Drift, in which the Pre-Salt interval of Campos Basin comprises only the Rift and Post-Rift phases. The Basin's stratigraphic and structural complexity results in a wide tectonostratigraphic variation which complicates the application of a single model across the whole area. In this context, the Rift and Post-Rift classifications denote, respectively, stratigraphic units deposited during tectonic periods of activity and quiescence. However, that division is not clear in practice due to basement structure reactivations. Besides, there are few works regarding the seismostratigraphic interpretation of the Campos Basin Pre-Salt interval, and the relationship between the sedimentation and structures is rarely approached. In this context, the present work intends to make a seismostratigraphic description of a 3D seismic survey, in the south portion of the Campos Basin, Pre-salt interval to discuss the tectonostratigraphic evolution of this area as well as the relationship between seismostratigraphic units and the structural conditioning on sedimentation and deformation. The study utilizes a seismic 3D grid with the data at depth domain (TVD), covering an area of approximately 1400 km<sup>2</sup> and interpreted on the software Petrel. Furthermore, the dataset also comprises two wells, both drilled from Ubatuba Formation (Drift phase) to Atafona Formation (Rift phase). The data analysis is from the interpretation and integration of seismic and well data, including seismic-well calibration; evaluation of seismic reflection parameters and the geometry of Pre-salt seismostratigraphic units; besides the structural and seismostratigraphic interpretation through the delimitation of seismic sequences and sismofacies characterization, helping in understanding the structural and sedimentation association. The faults interpreted in the area show the main structural framework of the block is in the NE-SW direction, compounded by a synthetic and antithetic fault system. The normal faults have formed tilted blocks on the northwest portion and formed a series of grabens and half-grabens in the rest of the study area. Moreover, listric faults control the main structural lows of the area. Currently, the study is developing the horizons and stratigraphic intervals mapping to debate the control of the structural over the Pre-salt units.

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