

GENESIS OF ANTIFORMS OBSERVED ON SEISMIC PROFILES OF THE TUCANO-JATOBA RIFT (NORTHEASTERN BRAZIL)

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Antiforms observed on seismic profiles of the Tucano-Jatoba Rift were formed essentially by six distinct mechanisms: rollovers, faults related to the basement, compaction, variations in fault displacement along major faults, local compression associated to transtension and forced folds. Folds associated to rollovers are predominant and may be divided into the following categories: simple rollovers (single folded structure), double rollovers (synthetic and antithetic conjugate faults are present); ramp-flat-ramp rollovers. Folds originated by variations on both fault displacement and differential compaction are the most common feature observed next to the South Tucano border fault. Forced folds appear close to the Central Tucano border fault. Transtension played an important role in the rift Northern Domain. As a result, there is a concentration of folded structures in that region. Folds caused by basement-related faults widespread along the rift. Analogue models were successful in generating the structures as interpreted in the seismic profiles. Fault geometry, the main contour constrain for the analogues, was provided by an interpreted seismic profile and its correspondent balanced geological section. From the experiments was possible to conclude that preexistent weak zones in the basement played a fundamental role in the generation and the geometry of the structures. Their influence on those structures are apparently more important than the stress orientation.