

RIFT SEQUENCE STRATIGRAPHY OF TALANG AKAR FORMATION, SOUTH SUMATERA BASIN, INDONESIA:  
BASED ON WIRELINE LOG, PALEONTOLOGY, AND CORE DATA

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Field "X", Talang Akar Formation is one of hydrocarbon producing field located in South Sumatera Basin, Indonesia. Based on well log, paleontology, and core interpretation it is predicted that there are syn-rift deposit which support tectonic as a major factor of accommodation space controlling. In this area, a sequence stratigraphy research was conducted to define the architecture of syn-rift sediment, deposition systems, and the history of basin. The analysis consists of paleontology, lithofacies, facies association, depositional environment, electrofacies, sequence stratigraphy correlation, isopach map, and paleogeography model each sequence. The facies association are Alluvial Fan, Fluvial Channel (Braided Channel and Meandering Channel), Floodplain, Distributary Channel, Mouth Bar Delta, and Prodelta. There are three sequences bounded by sequence boundary and six parasequences bounded by flooding surface and maximum flooding surface. The sequence stratigraphy marker consist of 3 SB, 1 TS, 2 FS, and 1 MFS. This area were established by LST 1, TST -HST, LST 2, HST, and TST. The result are six models of isopach map and paleogeographic block diagram, showing the overall coarsening upward stacking pattern through the progradation of fluvial facies over deltaic facies.

Keywords: Sequence Stratigraphy, Sequence Model, Rift Basins, Talang Akar Formation, South Sumatera Basin

