

CONFERENCE ABSTRACTS

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Coastal-shallow marine depositional system of cretaceous sediments of Jessu Formation, northern Benue Trough, Nigeria

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Abstract: The Jessu Formation is one of the marine Cretaceous formations in the Northern Benue Trough of Nigeria. Facies analysis, facies associations, facies successions and stratigraphical relationships was carried out on the Jessu Formation outcrops, in order to re-construct the paleodepositional environment and propose a depositional model for the studied successions. Five composite sedimentary logs were measured. Ten (10) facies were identified on the bases of lithology, grain size, sedimentary structures and degree of bioturbation. These facies form four (4) facies associations, namely: the FA-1 (offshore marine), FA-2 (lower shoreface), FA-3 (middle shoreface) and FA-4 (upper shoreface). These facies associations form coarsening upward units from offshore marine to shoreface which suggests a regressive shoreface deposit for the Jessu Formation. The coarsening upward nature of the facies succession indicated a storm and wave influenced coastal-shallow marine depositional system.

Keywords: Shoreface, coastal, shallow marine, Jessu Formation, Yola Sub-basin