

Subsurface Evaluation of the Heterostegina, 1st Camerina, and Cibicides Hazzardi Sand Intervals in Bell City Field, Calcasieu Parish, LA

Joshua K. Reamer

University of Louisiana at Lafayette / PetroQuest Energy

A detailed subsurface evaluation of the Heterostegina, 1st Camerina, and Cibicides hazzardi sand intervals in Bell City Field reveals dip closure downthrown to a regional growth fault striking east to west. Detailed well log correlation was used to develop a geologic framework for structural traps within the area of study. Units are described as interbedded sandstone and shale deposits in delta marine environments. A cross section, and structural and fault plane maps were prepared to illustrate the influence of growth faults on sedimentation in the area. Each displays a pronounced thickening of section downthrown to the fault relative to the upthrown section. Regionally, significant oil and gas reserves have been found in all three horizons as well as other sand intervals not mapped. Detailed subsurface maps of this area are presented to evaluate the extent and nature of local structure at these horizons as well as the relative economic importance of potential hydrocarbon traps.