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Lower Cretaceous Glen Rose "Patch Reef" Reservoir in the Chittim Field, Maverick County, South Texas

Biohermal buildups, or "patch reefs," have become an important play type in Maverick County in southwest Texas. Their primary method of discovery is by 3-D seismic analysis. The bioherms produce mainly gas and condensate. The porous biohermal section and associated facies are >70 feet thick and consist from the base upward of (1) burrowed, mud-dominated lime packstone that increases in grain content upward and includes fragmented and whole requienid rudists, (2) mud-rich lime packstone containing abundant whole requienids, stromatoporoids, corals, and a few caprinid rudists, (3) lime boundstone (bafflestone and bindstone) consisting of requienids, stromatoporoids, corals, *Chondrodonta*, rare caprinids, echinoid and mollusk fragments, and binding stromatoporoids and *Lithocodium*, and (4) coarse-grained lime grainstone (rudstone) that has the same components as the boundstone. The biohermal section has an average porosity of 9.2% and an average permeability of 2.9 md.

The bioherms are found in the highstand systems tract of the lower Glen Rose high-frequency sequence (third-order-sequence 7 of Kerans and Loucks, 2003) within the longer term Glen Rose composite highstand sequence. It is anticipated that in this setting, strings of subparallel isolated buildups will be encountered rather than a continuous barrier that would be associated with a late highstand prograding system at the shelf margin.