

**High Resolution Sequence Biochronostratigraphic Analysis of Late Jurassic – Cretaceous, Raghavapuram - Golapalli – Tirupati – Razole Petroleum System, Onland Krishna – Godavari Basin, India**

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Krishna-Godavari Basin is a continental passive margin pericratonic basin. It contains about 5 km thick sediments with several cycles of deposition, ranging in age from Late Carboniferous to Pleistocene. The basin came into existence following rifting along eastern continental margin of Indian craton in early Mesozoic. Krishna-Godavari basin is a proven petroliferous basin with commercial hydrocarbon accumulations in the oldest Permo-Triassic Mandapeta Sandstone onland to the youngest Pleistocene channel levee complexes in deep water offshore. The basin has been endowed with four petroleum systems, which can be classified broadly into two categories viz. Pre-Trappean and Post-Trappean in view of their distinct tectonic and sedimentary characteristics. The Pre Trappean Petroleum systems comprised of two systems viz. (1) Permo-Triassic Kommugudem-Mandapeta-Red Bed Petroleum System and (2) Late Jurassic-Cretaceous Raghavapuram-Gollapalli-Tirupati-Razole Petroleum System.

The present study is concentrated on Late Jurassic-Cretaceous Raghavapuram-Gollapalli-Tirupati-Razole Petroleum System. The main objective of dinoflagellate cyst based high resolution sequence biochronostratigraphic analysis is to establish age range of Golapalli, Raghavapuram and Tirupati formations for biochronostratigraphic applications and sequence stratigraphic interpretations to fully understand this petroleum system in the onland part of the basin.