

Interpretation of Gravity and Magnetic Data at the Krishna-Godavari Basin, East Coast India

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The eastern continental margin of India has a long exploration history because of its high hydrocarbon production potential. The area of interest for this study is located in the Krishna-Godavari Basin at the eastern continental margin of India.

The objectives of this study were to understand the origin of the two basement highs at the southern portion of the survey area and to determine the source of the series of strong gravity anomalies at the northern perimeter of the survey area. The objectives were accomplished through the interpretation of a suite of filtered gravity and magnetic grids, both detailed and regional, and the 2.5D and 3D modelling of the detailed gravity and magnetic data. Seismic data were used to constrain the gravity and magnetic interpretation.

The two basement highs at the southern portion of the survey area were interpreted as being intrusive in origin. The series of strong gravity anomalies at the northern perimeter of the survey area were interpreted as caused by oceanic crustal thinning.