Seismic Sedimentology Interpretation with Comprehensive Information in Shallow Sea Area, Gentle Slope Belt of Chengning Uplift, China

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The fast development of reservoirs makes sedimentology research a more delicate work while the use of seismic data makes it a more comprehensive research. Seismic sedimentology shows good prospect and potentiality in sedimentology research with seismic data and geophysics technologies. In this paper, seismic sedimentology research is made in shallow sea area, gentle slope belt of Chengning Uplift, Bohaiwan Basin. In shallow sea area with sparse well coverage, it was difficult to characterize the architecture of reservoirs with traditional method based on wells. In this research, a new interpretation method to resolve the above problems is build: 1) information on plane and in section are inter-calibrated with each other; 2) recognize the isochronic surfaces by frequency decomposition and interpret the depositional character with technology of stratal slicing; 3) make a comprehensive research with the stratal slice interpretation and the dissection of well group. In this research, the depositional model of this area is built and used in the architecture analysis of area without wells. This research revealed the character of the pan-connected sand bodies in braided rivers. And the result has also been proved by the production information of the new horizontal wells in this area.