

Reservoir Distribution Risk - Examples from the Scotian Margin

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Abstract

Deepwater hydrocarbon exploration along the Scotian margin has shown the detection of siliciclastic and carbonate reservoir rocks as a key risk element. This study has identified significant reworking of the margin, and inherent controls on mixed siliciclastic and carbonate shelf-edge depositional systems.

Sediment was often remobilised and transported some distance from the shelf margin through canyon delivery systems, mass transport deposits and contourites. Salt mobilization also impacted sediment redistribution. The consequence of these sedimentary processes is movement of potential reservoir rock to greater depths than previously anticipated. Deciphering forcing functions, sediment pathways and depositional processes provide insights into exploration models for passive clastic margins and recommends that exploration must move to deeper water where shelf-equivalent rocks are transported and deposited.