

TURBIDITE ARCHITECTURAL STYLES OF THE OLIGOCENE/MIOCENE SANDSTONES, CAMPOS BASIN, BRAZIL

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Facies and process studies, supported by seismic and electric log data, allowed the recognition of three different architectural styles in the Oligocene-Miocene sandstones. They are named here from base to top: a) mixed turbidite/reworked lobes, b) braided-like channel complex and c) canyon-fill sand-poor channel complex. The main inferred controls are sea-level fluctuations, slope gradient, source area and number of canyons feeding points.

Mixed turbidite/reworked lobes, up to 40 m-thick, are composed of fine to very-fine grained, well sorted, massive sandstones deposited by turbidity currents, intercalated, in abrupt contact, with fine to very-fine grained, well sorted sandstones with parallel and multi-oriented ripple-cross lamination, representing bottom-current reworking facies. The lower portion of this succession is enriched in massive sandstones, whereas the upper portion is dominated by laminated sandstones.

The braided-like channel complex is composed of amalgamated wide and shallow channels, which develop up to 120 m-thick of fine to medium grained, poorly sorted, massive sandstones with individual sand bodies up to 2 m-thick.

Canyon-fill sand-poor channel complex, up to 60 m-thick, is composed of thin-bedded interlaminated shale/fine to very-fine grained sandstones intercalated with fine grained massive sandstones and debris-flow deposits. This sequence resulted from the retrogradation of the braided-like channel complex.