

# **Subsurface Architecture of the Late Triassic Brigadier Formation in the Goodwyn Field Area, Northwest Shelf, Australia**

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Reservoir management and field development planning within the Goodwyn area rely on the ability to resolve the complex reservoir architecture of the Late Triassic Brigadier Formation. The reservoir heterogeneity of these marginal marine deposits is captured by a high resolution depositional and sequence stratigraphic framework which allows for subdivision of the reservoirs on a flow unit scale. Interpretation is based on the integration of representative cores and logs, high resolution seismic imaging, and significant pressure and production/ injection/ tracer study data in an unfaulted field. The Brigadier Formation in the Goodwyn area comprises downdip depositional equivalents to the underlying fluvial Mungaroo Formation; it is characterized by tidally-influenced, lower delta plain and marginal marine deposits. The succession comprises individual progradational parasequences that retrograde in response to lower order transgression. The depositional model and sequence stratigraphic framework form the basis for defining and evaluating reservoir opportunities and further optimisation of development planning in the Goodwyn Field area.