

Great South Basin

Key facts

Where

An offshore basin of approximately 100,000 sq km near the southeast coast of the South Island.

Geology

The basin initially formed by Cretaceous rifting and the deposition of thick coal measures followed by regional subsidence and a long period of tectonic quiescence with little deformation. Mid-Cretaceous to Quaternary basin fill over 8 km thick.

Wells drilled

Eight offshore wells.

Discoveries

Kawau-1 flowed 6.8 mmcf. Tora-1 had strong shows.

Prospects

Structural traps include fault traps associated with Cretaceous normal faults, sediment drapes over structural highs, and anticlines formed during Tertiary shortening along the northwest margin of the basin. There are many undrilled structures at several levels. Structural traps associated with potential mid-Cretaceous reservoirs have not yet been assessed in detail, and stratigraphic traps are unexplored.

Potential source rocks

Cretaceous and Paleocene coals and coaly sediments, which may have a significant marine influence, and Cretaceous to Paleocene marine mudstones.

Potential reservoir rocks

Late Cretaceous to Eocene terrestrial-paralic-nearshore sandstones, Late Cretaceous to Eocene coal measure sandstones, and possibly Paleocene to Eocene turbidites.

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