

SOUTHERN SURAT BASIN EXPLORATION RESULTS

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The area of the southern Surat Basin is situated in south-central Queensland. Almost all of the exploration activity in the past 18 months has been concentrated on the western flank of the Mimosa Syncline, including the Roma Shelf and Wunger Ridge. An example of the size of reserves discovered to date is given by the proven and probable figures for Bridge Oil's fields, which stand at 2 billion cubic metres (70 billion cubic feet) of gas and 635 000 kilolitres (4 million barrels) of liquid hydrocarbons.

In the past 18 months approximately 36 wells have been drilled in this area, 12 of which have been completed for production from either the Lower Jurassic Evergreen Formation of the Surat Basin, or from Triassic or Permian formations of the underlying Bowen Basin. Of these 12 completed wells, 4 were oil discoveries and 8 were gas or gas/condensate discoveries. Oil discoveries were made at Samari Plains and Bellbird while two oil wells at Waratah confirmed this pool and gas was tested at Broadway, Yarrabend (2 wells), Yambugle, Roswin, Renlim, Bloodwood, and Blackbutt. All of these discoveries and most of the exploration effort have been situated in, or in close proximity to, the most prospective Authorities to Prospect in the area, namely 145P, 332P and 212P.

The major reservoirs of the area are the Middle Triassic Showgrounds Formation, the Middle Triassic Wandooan (Moolayember) Formation and the Lower Jurassic Evergreen Formation. The Showgrounds Formation, although widespread, is not homogeneous but does exhibit pronounced lateral variation. It can be subdivided into three major facies of fluvial origin, one of which shows evidence of marine modification in a deltaic environment. Reservoir qualities vary considerably but are best developed in the proximal

fluvial facies. West of the Showgrounds Formation pinchout, sands of the Wandoan and Evergreen formations become the primary targets. Both these formations were deposited in fluvial to deltaic environments, lateral variations again being considerable.

The typical trapping mechanism in all these formations is predominantly a combination of both structural and stratigraphic components.

