

Introduction

This quarterly report introduces a new exploration concept whereby the Paleocene and Cretaceous sandstone and shale sequence constitutes the objective section of tilted fault blocks located in the southeast corner of the Bass Basin.

The stratigraphic sequence found in the Durroon #1 well is described and tied to mappable seismic horizons. Seismic maps have been constructed and are described.

Conventional cores of the Paleocene/Cretaceous objective section, taken in various wells of the basin, are described as to their lithology and reservoir potential after porosity and permeability determinations.

The prospect and leads are described as to their type, location, mode of occurrence and size.

The source rock potential of the Paleocene and Cretaceous objective section is summarized.

Play Concept

The whole of Exploration Permit T-16-P area has been remapped at several stratigraphic levels. The seismic map horizons are tied to the Durroon #1 well, as it is the nearest and stratigraphically deepest, in the general area.

Several prospects and leads have been identified and mapped, as well as could be, by using all the presently available data. These prospects and leads consist of tilted fault blocks located below, or related to, a very major unconformity, or unconformities, at the southwest margin of the late Cretaceous Rift Stage fault trend of the Bass Basin.

Results of a regional geophysical survey carried by the Bureau of Mineral Resources has been integrated with well results. These indicate that a "New Paleocene/Cretaceous Play" has been identified in the Bass Basin. The lateral facies changes anticipated to take place in this objective section are shown on Figure 3, "Suggested Hydrocarbon Migration" model. The Durroon #1 well, which displays a very sandy section, would be positioned at the right end of this model, to the southeast, while the prospects and leads would occupy the thicker central area of the model where interbedded sandstone and shale constitute the reservoir and source rock objective section, Figures 1,2,4.

Regional seismic lines tied to the Durroon #1 well indicate that the stratigraphic section expands greatly, to the southwest and to the northwest, away from this well. This is especially well illustrated by representative seismic lines WB-82-32, B-69-A-4 and B-69-A-6, Enclosures 6 & 7, 1 & 2.

The play concept calls for a thick reservoir section and a mature source