

I SUMMARY

(a) Drilling

Clam-1 was spudded in at 10.15 hours on July 19, 1969. A 17½" hole was drilled to 484 feet and then reamed to this depth using a 36" bit. A 26" bit was then used to drill to 1055 feet. The 20" casing was cemented at 1023 feet with a 30" pile joint screwed to the top of the string and 16¾" BOP was installed. The hole was then drilled to 2050 feet and 13 3/8" casing cemented at 1990 feet. From 2050 feet to 5316 feet the well was drilled with a 12½" bit, and from 5316 feet to total depth (5323 feet) the well was cored with an 8 5/16" core bit. Two abandonment plugs were set at 2032 feet and 700 feet.

Figure 5 is a well history chart showing the main operations.

(b) Geological

The Clam-1 well was drilled in the King Island Sub-basin of the Otway Basin, a sedimentary trough located off-shore between King Island and north western Tasmania. It extends some 40 miles in an east northeast direction and 20 miles in a west southwest direction (800 square miles in area) and is connected to the main Otway Basin by a linear graben-like feature trending in a northeast-southwest direction.

Clam-1 was designed to Test Tertiary and Cretaceous sediments deposited over a basement "high" mapped within the sub basin. Younger movement of this basement high resulted in structural closure of basal Tertiary beds while the Cretaceous prospect was a clearly defined updip pinchout against the basement high. The well was located to test both trapping mechanisms.

Clam-1 probably commenced drilling in the Port Campbell Limestone Formation at 427 feet. Cuttings, however, were first collected at 1055 feet. The Tertiary section as known in the Port Campbell area was represented in the Clam well. At 2788 feet a cobble conglomerate was encountered which is similar to Tertiary occurrences known on shore Tasmania. Seismically this conglomerate appears to correlate with the basal Tertiary Pebble Point Formation of the Otway Basin. Palynological evidence, however, indicates an uppermost Upper Cretaceous age.

Upper Cretaceous Sherbrook Group sediments as recognized in the Otway Basin proper were also represented in Clam-1. The top of the Sherbrook Group was picked at 3133 feet coinciding well with original predictions.

"Red beds" disconformably underlying the basal Upper Cretaceous Waarre Formation were encountered at 4272 feet, instead of the anticipated Lower Cretaceous Otway Formation. These deposits are 624 feet thick in Clam-1 and are composed of non-porous conglomerate and massive red siltstone. The age of these beds is most probably Upper Devonian-Lower Carboniferous. At 4896 feet a hard grey shaly siltstone was penetrated before reaching low grade metamorphic Pre-Cambrian phyllite basement at 5053 feet.