

DISCUSSION (See Enclosures 5,6 and 7).

A Vertical Seismic Profile was shot in the Pelican-5 well on March 4, 1985. A total of 149 levels were shot between 78 and 4240 metres below KB with 113 levels being used in the final VSP processing.

The VSP was shot from 4240 metres to 2830 metres below KB using a water gun source and above 2830 metres using an airgun source. Some levels between 2870 and 2930 metres have been shot with both sources for comparison purposes. All shot times have been corrected to the vertical and to a nominal datum of Mean Sea Level.

This survey was shot as a standard offshore Vertical Seismic Profile. The tool was run to T.D. and a number of shots were made between 4240 and 2830 metres below KB using the 400 cu. in. water gun. Some problems were encountered over the lower levels (4240 - 3630 metres below KB) probably due to the high downhole temperatures. A low signal/noise ratio reduces the value of these levels. Above 2830 metres data was recorded using the airgun due to the failure of the water gun. This data was mainly of very good quality. Some levels were repeated using the airgun between 2870 and 2930 metres for comparison with the water gun data.

A total of 149 levels were shot between 78 and 4240 metres below KB.

The levels from 78 to 1400 metres below KB were recorded for check shot purposes only and have not been included in the VSP processing. Of these levels the data at 78, 300, 700 and 800 metres below KB was poor and distorted by noise possibly due to casing arrivals. These levels were not used in the sonic calibration or computations.

Between 2870 and 2930 metres a number of levels were shot with both airgun and water gun for comparison purposes (see 4.0 Airgun/Water Gun Comparison). The levels shot using the airgun in this zone were omitted from the VSP processing.

An additional number of levels have also been omitted from the VSP processing due to the high levels of noise recorded in the data. These were mostly recorded using the water gun and are marked "omitted" in Table 2 of the report. For some levels the recorded data was so poor that no stack was made. These levels have been marked "Not Stacked" in Table 2 of the report. The final VSP processing includes 113 levels of which the general data quality was good.