

1992 Hunter Seismic Survey this provided a dataset of some 3500km of seismic (Table 5.1). A significant amount of pre 1977 data is yet to be loaded into Geoquest but a current reprocessing project is addressing this. Data were loaded as normal polarity and interpreted using a variable intensity colour display.

### 5.3 Data Quality

Each dataset has slightly different phase characteristics which although minor enough to be ignored for this regional style of interpretation could be addressed for future more detailed studies.

The grid spacing varies from 1km around Pelican Field to over 4km on the peripherals, however it generally averages 2x4km. The wide spacing of good quality (recent vintage) seismic lines in the strike orientation caused considerable problems during the interpretation making correlation extremely difficult in this highly faulted area.

The combination of a very coaly *M.diversus* section and the high frequency of faults deteriorates the data quality in T/25P, often making correlations ambiguous. Data quality below the *M.diversus* level is poor and subsequently Cretaceous reflectors have not been mapped. Basement produces a reasonable reflector in the southwest ramp province and is vaguely discernible in the Pelican Trough. On the Poonboon Plateau high amplitude, presumably Early Cretaceous reflectors make basement an ambiguous pick.

Igneous activity has corrupted significant areas of data, particularly on the Southwest Ramp. These Oligocene or Miocene extrusives coincide with the basin edge and make it difficult to map structure along this margin due to the data distortion below them. This scenario is also repeated in an area north of the Flinders 1 well. Isolated volcanoes of Oligocene or Miocene age occur elsewhere. In addition to the extrusives, several sills are observed, notably at Flinders and Hunter. The emplacement of these bodies has "popped-up" the section above them, wedging into the country rock rather than assimilating with it. Data quality below the sills is poor.