Aeromagnetic Survey

Two northwest trending broad bands of strong positive anomalies are recognized on the Total Magnetic Intensity Map of the general Durroon #1 well area, Figure 5. Both bands, along with the inbetween low area, appear to be related to basement.

In addition, a distinct northeast trend, or series of trends, is also recognized. This northeast trend is associated with discontinuities, termination and offset of the northwest trends, Figure 6.

The anomaly, on trend and slightly to the northwest of the Durroon #1 well, gives a calculated depth to magnetic basement of 2100 feet from a thin sheet, sill model. At the Durroon #1 well location, the depth to magnetic basement is calculated to be very near 3000 feet below sea level.

The Durroon #1 well results indicate that several basalt flows are present below approximately 5175 feet, drill depth. In addition, several lithic sandstones, containing volcanic grains, are described. The well was abandoned at a drill depth of 9922 feet without penetrating basement. Apparent discrepancies between the calculated depth to basement and the well results may be due to the magnetic susceptibility of the volcanics, or the model used. Also unexplained is the depth of the magnetic low located between the two northwest trending high trends. Seismic interpretation tied to the Durroon #1 well shows this trough to be several thousand feet deeper than is indicated by the calculated depths to basement. No well has been drilled in the trough.

In addition to the two major trends or alignments mentioned previously, a third trend with an east-west orientation is shown. This third trend is also recognized on seismic.