

"Results, in general, are typical of basaltic cover. Geologic noise caused by the variability of basalt thickness, chemistry and remnant magnetization dominates the zone east of line 9840 m E and south of approximately 10300 m N. In this area noise fluctuations in excess of 1500 nT are not uncommon. The discrete anomalies which are present are typically high amplitude and steep - indicative of shallow lying sources.

Areas containing no basaltic cover, on the other hand, are generally devoid of large scale geologic noise - 200 nT being about the maximum. Unfortunately, these areas are also devoid of any attractive anomalies, excepting the anomaly encountered on 10920 m E.

### Modelling Results

An attempt was made to model the more coherent anomalies occurring in the basaltic area.

Line 10080 m E The anomaly occurring 10010 m N was modelled primarily because it coincides with a known dolomite occurrence and thin basalt cover. Although strong interference is quite evident, the model shown in Figure 1 was arrived at. The high susceptibility of the model, together with bore data suggest this is not basalt caused.

Line 10320 m E A low frequency anomaly centred on 10025 m N may be more typical of a source beneath basalt. The model, Figure 2, indicates a source at eighty metres depth - far deeper than the supposed basalt thickness. The two smaller modelled bodies reflect basaltic variations and their influence on the major anomaly.

Line 10440 m E A magnetic high trend can be traced across eight traverses in the centre of the grid. This trend may reflect either the axis of basalt thickening or a distinct flow within the basalt or a distinct lithology beneath the basalt. In most cases the anomaly is well within the noise envelope of the basalt, however it is persistent and distinct. Figure 3 shows the results of modelling this high. Once again, its high susceptibility suggests an alternative to a basaltic source, however the fit is not good and the model remains inconclusive.

Line 10920 m E This line is dominated by a relatively large response containing both high and low frequency signatures. Unfortunately, the anomaly, located at 10350 m N, occurs only a few metres north of the northern edge of the basalt and in an area of steep topographic relief. Modelling does not show an anomaly consistent with a flat lying basalt flow to the south - on the contrary it requires a flat lying body to the north (Figure 4). This line is, in fact, very poorly modelled and would require a great deal more information about the local geology. I suspect major remnant magnetism to be also involved.