

MOORE'S VALLEY AREA CONTD.

any magnetic high (only minor ones) must be to the south.

Note that in the vicinity of PPs 32 and 31 there is a uniform gradient decreasing from west to east which can be regarded as regional. It should be recognised also that in such a generally flat area, unavoidable small control errors due to non-linearity of diurnal drift, can lead to considerable distortion.

(x) If the magnetic N-S contours south of PP 31, which are considered to arise from magnetic control, can be shifted west, a better picture is obtained and the south boundary fault could be shifted south.

(xi) Two possible explanations of the pattern near PPs 126 and 127 are

(a) there is lateral thinning of Ordovician Owen over Cambrian Dundas which is the explanation preferred, or (b) magnetic variations exist within the Ordovician Owen.

(xii) Similarity exists between the Cambrian Dundas magnetic highs, of magnitude of the order of 150 gammas on each side of the Lyell Shear. This can be accounted for by greywacke conglomerate.

(xiii) There is one point from the E.M. picture worthy of consideration. It has been observed that the south western edge of the Tertiary sediments are faithfully followed by a high E.M. trend. It is significant that this is irrespective of flight line direction and that areas to the north-east are generally flatter. The cause could well be that the E.M. high complex area lies on the Tertiary overlap which results in different drainage and/or lithology.

Supporting this idea is the fact that these sediments could be considered more likely to be of the upper stratigraphical series and thus more argillaceous in character. To the north a corresponding E.M. high trend is absent. This sharp contrast could be due to the fact that there is no major overlap here because of subsequent erosion due to increasing elevation of the land to the east and hence drainage to the west.

(xiv) It is important to realise that numerous assumptions have been made in postulating these fault positions which may or may not be valid. The conclusions reached based on these assumptions are considered to be the most probable ones and have been drawn because it is hoped that they could provide a basis for further investigation. It should be appreciated also that when faulting is referred to, as can be seen from known geology in other areas,