

ii/. Probable faults. These are located by constructing a number of cross sections between various pairs of holes and recognising that a small scale vertical displacement exists. An alternative interpretation would be to absorb the displacement in folds but it is considered that the coal and sandstone would be competent and would prefer to break rather than fold when subject to stress. The regional tectonic setting is one of graben faulting and small faults would be expected within every major fault block.

iii/. Inferred Faults. These are abrupt lateral discontinuities in the coal measures which are considered to be faults rather than local sedimentological variation. The vertical displacement on this category of faults is much greater than on category ii.

The isopach maps for both the coal and the overburden have not changed in essence since the last revision (see six monthly report 17/10/1982 - 16/4/1983). The total coal thickness is greatest on the southern part of West Hill and along the northern edge of East Hill. In the latter area four seams are present, seam D occurring below seam C. This fourth seam, which has been recorded in holes B1 (1944), B6 (1944), and H -20, accounts for the relatively high gross coal thickness. However, as Dwg. 83/5 shows, if the three seam set only is considered, the minimum coal thickness occurs in the area of the old underground workings, on the eastern side of East Hill, and the maximum thickness is at the southern end of West Hill. The shape of the isopach contours implies a more or less concentric arrangement with a relatively thin core area and a thickening of the coal seams towards the S.W. The pattern has been distorted by post depositional faulting and erosion.

The isopach maps for Shale I and II and III, ie., the mudstone units separating the coal seams within the Langloh series (Dwgs. 83/9 and 83/10) are important for the purpose of mapping total overburden plus interburden in the context of assessing the economic feasibility of the prospect. In addition, the 15cm isopach contour for Shale I defines the boundary between Shale I being classed as interburden ($\leq 15\text{cm}$) or classed as a "dirt band" within a combined seam A and seam B ($\text{ShI} < 15\text{cm}$).

The Overburden Isopach Map Dwg. 83/4 shows that on West Hill the limit to any mining operation would be due to faulting and the presence of the H.E.C. transmission lines along the northern boundary. The maximum overburden plus interburden to total coal ratio is of the order of 5:1 on a thickness basis. On