UR1951/168

TDH:3 22nd November, 1951.

MEMORANDUM:

COAL BEARING STRATA AT SPREYTON

The Crown Land referred to in this application lies to the south of the Tarleton - Sheffield Road about one mile from the Bass Highway, and consists mainly of lightly timbered undulating country with no permanent stream running through it. The surface is covered with a gravelly wash which precludes, except in road cuttings, the possibility of outcrop. However, certain information is available from old bore-holes, abandoned mines and the general geology of the district.

The rocks occurring nearest the surface in this locality belong to the Permian age. Here, this system consists of an upper and lower Marine series divided by a coal bearing series which has been correlated with the Greta Coal Measures of N.S.W. These Permian rocks rest on Lower Palaeozoic Strata which structurally occur as portion of a large syncline. In places the coal measures outcrop at surface, in places they occur to a depth of 100 feet and in others they have been removed by denudation leaving the Lower Marine at surface. These rocks all dip to the north at angles averaging 9°.

The accompanying plan indicates the position of the land sought. Just to the south of this, two coal mines, the Tarleton and the Southern Star have been worked by tunnel methods, indicating that coal outcropped to or near the surface. To the south of the area are old tunnel workings now collapsed and inaccessible. On the plan accompanying Geological Survey Mineral Resources No.8 Volume 1, A.M.Reid indicates the position of two bores and in the text gives details of these. No.2 Bore was put down by the Mines Department in 1884 and a coal band of 18" was intersected between 50 and 60 feet. The bore bottomed at 400 feet in Ordovician Limestone. Some 25 chains to the north-west of this No.18 bore of the Adelaide Oil Exploration Company passed through 296 feet of Permian Strata (probably Lower Marine) without intersecting the coal measures. Below this the bore passed into Cambrian Quartzite. It would have been expected that the coal band would be intersected between 180 and 200 feet in the second bore and as this was not so, a major fault must occur between the two bores. Faulting is very common in this district and the records of all the coal mines show numerous faults both large and small.

It would appear that in the southern portion of the area sought, coal occurs near the surface but in the northern portion (if the bore records are correct) the coal measures have been removed and only Lower Marine Sediments, which do not carry coal, remain. Due to the extensive faulting to which the strata has been subjected it is not possible, except after extensive drilling, to predict the depth below the surface of the coal at any given location.

Signed: T. D. Hughes,
GEOLOGIST.

The Director of Mines.