

DEPARTMENT OF MINES

ADELAIDE.

D.M. 40/43

Second Report on Underground Water Supply For S.B.
Manning, Eurelia, Section 29, Hundred of Eurelia.

In response to Mr. Manning's request for a consideration of an alternative boresite selected by C.F. Stott, water diviner, a second visit was made to the property on 17th September 1943.

This site was carefully examined in regard to its possibilities from a geological standpoint and was found to be lacking in the essential attributes with which chances of success are generally associated. In contrast to the original site situated near a watercourse and a quartzite rock formation which, it is assumed, retards the general downward movement of the groundwater causing a corresponding shallowness of the water table, the divined site lies on the flank of a ridge at a higher level and is removed from any water course likely to replenish any water supply tapped.

At either localith the chances of success of intersecting water depend on the bore intersecting fractures in the generally impervious rocks. There is no definite water table and the depth to ground water moving principally along the more open fissures depends upon the ratio of supply of water from rainfall to downward movement, a ratio which is unpredictable without evidence from at least one bore.

The estimated footage given in the first report, namely 450 feet, was given on the assumption that similar opportunities are afforded the absorbed water to descend rapidly to reach a general level of underflow as in similar country to the west. This may not be the case here and there is no evidence to contradict a suggestion of water existing at a depth of 200 feet, but

the 450 feet is considered to be the minimum footage required to cover all contingencies.

The boring recommendation must be looked on in the light of a pioneering enterprise and as such I recommend strongly that the Committee should make provision to pay the full cost and in the event of a successful outcome that Mr. Manning provide the necessary equipment at his own expense. Personal contact with Mr. Manning indicated that he is not prepared to finance any part of the boring operation, chiefly because he is fully aware of the risks involved and also more confident of the diviner's capabilities and promises.

In view of the critical nature of this site, it is advised that the drilling contractor inform this department of his progress from time to time and that final decision on when boring is to terminate be left to the geologist.

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