

DEPARTMENT OF MINES

SOUTH AUSTRALIA

Rep.Bk.No. 19/277
E.W.S. 359/44

ADVICE ON BORE,

PROPERTY OF MR. H.E. PFEILER, LOBETHAL

Pt. Section 50 Hd. Onkaparinga.

Advice is desired on the prospect of obtaining additional supplies of water from underground sources by boring to be used for irrigation purposes. At present a supply of water is obtained from a borehole 365ft. in depth, and situated in the northern part of the property.

The rocks underlying the greatest portion of the region under review, consist of argillaceous (clayey) and siliceous slates having irregular thin bands and lenses of very clayey decomposing felspathic sandstone and a bed of ferruginous very felspathic sandstone interbedded in the slates. The formations have been considerably disturbed by geological faulting.

Slates are not as a rule regarded as a favourable aquifer, or waterbearing rock, for on decomposing it forms a clay which is carried down into any cracks or joints in the formation by percolating ground water and seal them up. Sandstones on the other hand where situated under favourable geological conditions, usually prove very satisfactory as water-storing rocks.

The bed of sandstone mentioned above, appears to offer very good prospects as an aquifer. A site to drill a borehole "A" has been selected, therefore, in the south-western corner of the property on the northern side of the main gully flats. The exact spot has been pointed out on the site.

The maximum depth to which drilling should proceed is from 170 - 180ft. It is very probable that water will be struck at a much shallower depth, but it is recommended that drilling proceed to the depth stated in order that a pump can be fixed

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well below the ground water table, and the cone of depression formed in the water table during pumping, particularly during the late summer months when the ground water will be at its lowest.

A sample bottle of the ground water should be forwarded to this Department together with a copy of the driller's log, at the completion of any pumping test carried ~~at~~ out.

If touch is kept with this Department during drilling operations further advice will be given if desired.

RES:JB
16.2.44

GEOLOGIST.