

UR1973-11

Groundwater prospects near Wyena.

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The property, owned by R.S. Jensen, is situated in Shepherds Valley, 4 km south of Wyena, near Lilydale. A creek, which tends to be too polluted for use in milk production, runs through the property but in dry conditions this dries up.

GEOLOGY

The surrounding hills are composed of slaty beds with quartz veins, (Mathinna Beds). The lineation is approximately N-S, parallel to the valley.

The valley floor is flat and has a layer of alluvium of unknown composition and depth. Pebbles are commonly found at the surface, but shallow cuttings into the alluvium indicate that clay is also present.

GROUNDWATER PROSPECTS

There is a large catchment for the valley and it is likely that the water table is close to the valley floor. It is possible that groundwater could be obtained from the alluvium or from the underlying rocks.

If the alluvium is permeable, quantities of clean water should be obtainable from it.

Previous drilling in the Mathinna Beds has generally been successful, and yields of 75-225 l/min may be expected.

RECOMMENDATIONS

A deep back-hoe pit should be dug on the valley floor to see whether there is a layer of permeable alluvium. With pumping, the pit may provide sufficient water.

If the superficial material does not supply water a bore can be sited on the valley floor. Drilling with a 'down the hole hammer' will give greater yield.

If water is found in a bore, but in insufficient quantities, the hole can be deepened to intersect more joints, up to 60 m.

If no water at all is found after 15 m of drilling it could be because of mud caking on the walls of the hole. In this case surging of the hole, or use of a small explosive charge may help.

If water is still not obtained, then the hole should be abandoned.

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