REPORT ON POSSIBILITIES OF OBTAINING UNDERGROUND WATER SUPPLIES ON THE PROPERTY OF MR. L. TONKS, TEA TREE.

The property of Mr. L. Tonks is situated on the Strathallern Rivulet about half a mile west of Tea Tree Railway Station. The road from Brighton to Campania runs parallel with the railway and also provides ready means of access.

The valley of the Strathallern Rivulet is wide and open in this area. To the south the hills rise fairly steeply to a spur of Gunn's Sugarloaf. The rise to the hills to the north is much more gradual.

An alluvial flat, occupied by Recent gravels, etc., occurs along the Strathallern Rivulet, but is mainly confined to the northern side of the stream. In the eastern part of the property, the bed of the stream is occupied by Ross sandstones, the overlying gravels, etc. being 10 to 15 feet thick. In the western part of the property, the stream has not eroded its course to the same extend and the underlying rocks are not exposed. Still further west, basalt occurs in the bed of, and on both sides of the stream. This represents the eastern edge of the basalt flow which extends along the Bagdad Rivulet and Jordan River.

The underlying rocks in the flat open country in this vicinity are the sandstones and shales of the Ross series of the Triassic system of Tasmania. They consist of the typical medium grained and false-bedded sandstones and the thinly bedded sandy mudstones and shales. The general strike along the Strathallern Rivulet is approximately east and west. The dips are to the south at low angles, which, however, increase up to 40° near the junction with the diabase to the south.

The sandstones are bounded to the north and south by diabase which is intrusive into them.

The general geological structure is a low lying tract of sandstone country trending from south-east to north-west with transgressive bodies of diabase to the north and south which form the hills in those directions.

There is a possibility of obtaining underground water supplies in the area occupied by the sandstones. Bore-holes have been put down in similar rocks at Richmond and two localities at Tunbridge and have yielded supplies. It is necessary not to sink too close to the junction between the sandstones and the diabase. In selecting a site near the house, it is inadvisable to choose one further south than the low hill on the north side of the creek opposite to the house. The southerly dip of the sandstones should render this site a fairly suitable one even though it is fairly close to the boundary of the sandstones. A more satisfactory site would be still further north, but this would involve further piping to bring the water to the house.

Very little can be said as to the quantity and quality of the water likely to be obtained From general experience, it is expected the quantity should be in the vicinity of 200 gallons per hour.

The quality is likely to be such that the water will be useless for household purposes; fair for water stock; and probably only suitable for watering plants if the soil has a very good drainage.

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