

REPORT ON THE POSSIBILITY OF OBTAINING UNDERGROUND
WATER ON MR. NICHOLSON'S PROPERTY (TRULANDS)

This property is situated 4 miles east of Campbell Town Railway Station.

Two localities on it were inspected in connection with supplies of underground water. One was close to the homestead where it was desired to supplement or replace the present domestic supply obtained from the Elizabeth River. Basalt of Tertiary age and diabase of Upper Mesozoic age are the only rock types occurring near the homestead. The basalt has a thickness of several hundred feet and filled the valley of the ancestor of the present Elizabeth River which was diverted into a new course by these basalt flows. The valley of this ancient river was composed entirely of diabase at this locality, and this rock forms the hills to the north and south of the basalt and also underlies the basalt. It is possible that small thicknesses of ancient river deposits may occur under the basalt. The only possibility of obtaining underground water would be to put a bore hole through the basalt to the bedrock of diabase. Supplies might be obtained in some layers of the basalt and also under the basalt, especially in any river deposits occurring between the basalt and the diabase. The quantity and quality of the resulting supplies cannot be stated. As the water would be required for domestic purposes, it would have to be of good quality. The bore hole would have to be put down to the north or north east of the homestead where the basalt is thinnest. Further south, two hundred feet and over of basalt would have to be passed through.

The other locality was situated somewhat over a mile to the west down the small creek flowing past the homestead. This supply would be utilised for watering stock. The creek flows over a flat plain composed of basalt and has built a small alluvial plain along its course. Small supplies could be obtained in these alluvial and gravel deposits and greatest advantage would be obtained by sinking holes in them down to the basalt bedrock. For deeper and more reliable supplies a borehole would have to be sunk through the basalt. It is difficult to determine the thickness of the basalt here, but it should not greatly, if at all, exceed 100 feet. Underlying the basalt Tertiary sands, gravels and clays would probably be met with overlying a bedrock of diabase. Supplies would probably be obtained in the basalt and the underlying Tertiary deposits if they exist. The quantity and quality of any supplies obtained would be suitable for watering stock.

(Sgd.) P. B. Nye.
GOVERNMENT GEOLOGIST.

Hobart.

6th July, 1925.