

UR1974-60

Groundwater prospects on R.F. Bailey's property, Riverside.

W.L. Matthews

Mr Bailey owns 65 ha of land on the north and east side of the Riverside golf course [EQ088155]. He requested advice on groundwater prospects for watering stock and for use on a garden about 1300 m² in area.

RELIEF AND GEOLOGY

The property is situated on very low lying land beside the Tamar River. The house is situated on a slightly higher area than most of the property.

Tertiary sediments have been mapped (Longman et al., 1964) on most of the property with areas of Quaternary alluvium and swamp deposits near the river. Jurassic dolerite underlies the rising land to the west of the West Tamar Highway.

DISCUSSION OF GROUNDWATER PROSPECTS

The Tertiary sediments around Launceston and to the south consist of clay, sandy clay and sand beds, and in some areas considerable quantities of water can be obtained from the sand beds. There are no known drilling records near this property but sand beds have been struck in shallow drilling at St Leonards, South Launceston and Deviot to the north. In each of these cases, the water is too saline (total dissolved solids 4000-5000 ppm) for use on a garden under most circumstances but would be suitable for stock. Further to the south and west of Launceston, good quality water has been obtained from water bores.

Resistivity probes were made in the locations marked on the plan (fig. 1) and the results are plotted on the graphs (fig. 2). A low resistivity is indicated, suggesting the presence of near surface clay and, or, saline water.

CONCLUSIONS

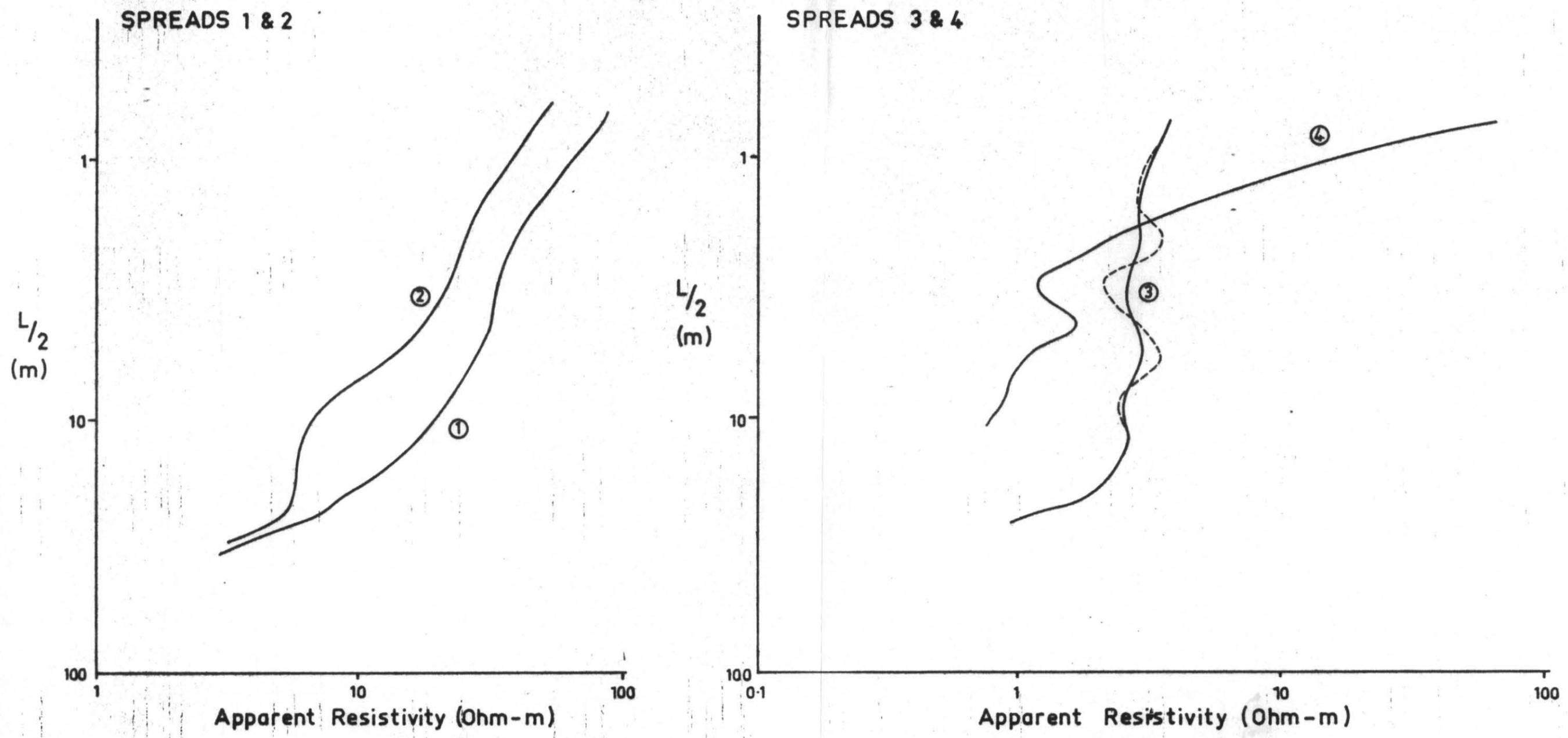
As in other areas where Tertiary sediments occur around Launceston, water bearing sand beds may occur interbedded with the clay. From shallow drilling in other areas together with the resistivity results, there is a definite risk of obtaining water which would be too saline for garden use. However, drilling would be required to determine this definitely.

A catchment dam is an alternative to boring for water because of the possibility of the absence of sand beds or of encountering saline water near the surface. The property is flat and surface runoff could be directed towards a dam by using drains.

REFERENCE

LONGMAN, M.J.; MATTHEWS, W.L.; ROWE, S.M. 1964. Geological atlas 1 mile series. Zone 7 Sheet 39 (8315S). Launceston. Department of Mines, Tasmania.

[30 July 1974]



RESISTIVITY PROBES

R. BAILEY'S PROPERTY RIVERSIDE

