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Shallow drilling at Princess Street, Burnie.

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Following a report (Matthews, 1974) of a surface inspection of the stability of two blocks of land in Princess Street, Burnie [DQ072551] that Mr L. G. Hodgkinson is considering buying, three shallow holes have been drilled. The first was drilled to a depth of about 3 m in the middle of the land and struck fairly clean coarse sandy grit with very occasional pebbles over most of the depth. From the surface to a depth of one metre consisted of some chocolate soil but mainly of clayey grit. Two holes, uphill from this first hole and to the south and south-east, were drilled to about 1.5 m and each struck the grit bed towards the bottom of the hole. The south-east hole struck about 1.3 m of clayey soil and clay near the surface while the hole directly to the south of the first hole struck clayey grit at the surface.

From the drilling, it is apparent that the gritty sand bed underlies a large proportion of the two blocks. Its presence is probably an aid to the quick drainage of groundwater.

In the development of the land, excavations should be kept to a minimum and retaining walls should be installed in front of them. The material removed in excavations would give support to material uphill from them and retaining walls should be designed to replace this support. Particular attention should be given to ensuring that drainage of the material behind the retaining walls is good, so that a damming effect is avoided. Excavations should be retained quickly after digging because rapid erosion of the loose sandy grit would occur during heavy rain. The eastern portion of the land has thicker surface clay and has more potential for the development of instability.

#### REFERENCE

MATTHEWS, W.L. 1974. Stability of land in Princess Street, Burnie. *Unpubl. Rep. Dep. Mines Tasm.* 1974/59.

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