

UR1974-65

Further investigation of Block 3, Adams' subdivision, Windermere.

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This 2-hectare block [EQ024260] contains a knoll which slopes towards the road (south) and a creek (west) at up to 14°. The prospective purchaser wishes to build a house and swimming pool on the shallow sloping area on top of the knoll.

The hill slopes are slightly hummocky, but do not show any topographic evidence of significant slipping. Five holes were dug by back-hoe to enable further investigation (fig. 1).

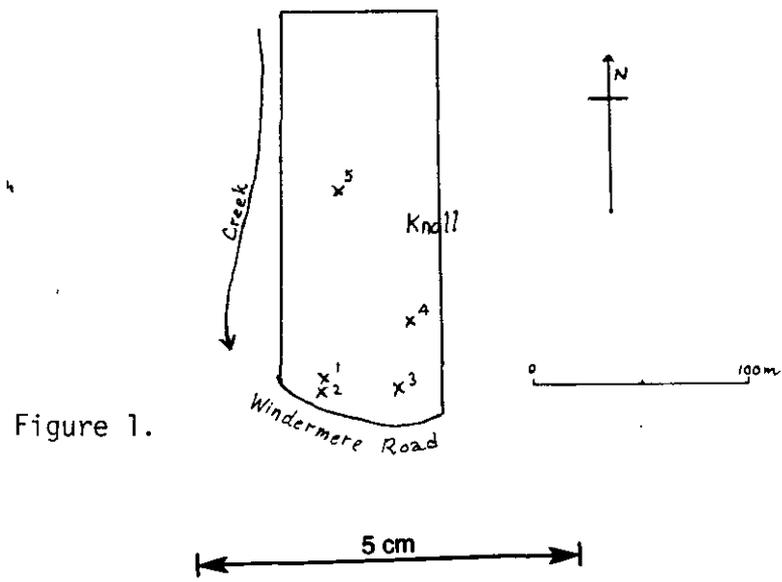


Figure 1.

TRIAL PIT RECORDS

HOLE 1

Depth (m)	Description
0-0.7	Soil and humic clay.
0.7-1.3	Fairly soft silt; water seepages.
1.3-2.0	Mottled, grey and orange, fragmented clay, fairly stiff.

HOLE 2

0-0.4	Soil.
0.4-1.2	Soft silty material; water seepages.
1.2-2.0	Mottled grey and orange clay. The grey tends to be plastic with polished surfaces. The orange material is softer.

HOLE 3

0-0.3	Soil.
0.3-1.3	Soft mottled clay.
1.3-2.0	Stiff, fragmented grey clay.
2.0-2.5	Uneven band of ironstone (position of ironstone varies by 0.3 m, overlying clayey dry sand).

HOLE 4

Depth (m)	Description
0-0.2	Soil.
0.2-1.4	Soft mottled clay.
1.4-2.4	Stiff fragmented grey clay.

HOLE 5

0-0.2	Soil.
0.2-1.3	Soft mottled clay with seepages.
1.3-2.8	Hard grey clay and lignite.

GENERAL STABILITY

Trial pit results and topographic features suggest that on the slopes the top 1-1.3 m of soil is subject to movement, either as superficial slipping, or slower creep movement. However, there is no evidence of deeper seated instability and the block is suitable for a residential building.

RECOMMENDATIONS

The building may be constructed subject to the following provisions:

- (1) The house should be situated on land which slopes at less than 7° (1 in 8).
- (2) Sullage should be piped and directed more than 40 m away from the house.
- (3) Stormwater should be piped to the creek.
- (4) No unsupported cut should be more than one metre in depth.
- (5) No fill should be deeper than one metre above the natural ground slope of the site.

A swimming pool must not be built on the top of the knoll, but may be constructed on land which slopes at less than 7° (1 in 8), in the north-west of the block, adjacent to the creek.

REFERENCE

KNIGHTS, C.J. 1973. Stability of land at Windermere, East Tamar. *Unpubl. Rep. Dep. Mines Tasm.* 1973/91.

[23 August 1974]