



Mineral Resources Tasmania

REPORT 1993/14

Monitoring of Bovill's Slip — Brooke Street, East Devonport: 1980 – 1991

by G. Benn

LOCATION

This landslide is located to the south of Brooke Street at East Devonport at approximately 449,780 mE; 5,441,050 mN (Mineral Resources Tasmania plan S94). Five lines of pegs were placed across the slip in 1980; three were placed east to west and two south to north. Treated pine posts 60cm long were placed at five metre intervals to a depth of about 45cm and a nail placed in the top of them.

The alignment of those pegs were checked approximately three to four times per year, and their displacement noted.

SURVEY RESULTS

The three east to west lines were called:-

- Bottom Line (nearest Brooke St),
- Middle Line, and
- Top Line.

The two south to north lines were called East Line and West Line.

The results of the measured movements were as follows:

Bottom Line (Distance 0–110m)

Distance	Displacement	Max. height variation
25 m	Up to -45 mm	+15 mm/NIL
35 m	Up to -50 mm	+8 mm/-4 mm
50 m	Up to -72 mm	+15 mm/-33 mm
70 m	Up to -115 mm	+10 mm/-20 mm
80 m	Up to -25 mm	+16 mm/-5 mm

Middle Line (Distance 0–110m)

Distance	Displacement	Max. height variation
10 m	Up to -7 mm	+15 mm/ -
30 m	Up to -60 mm	+20 mm/-15 mm
40 m	Up to -80 mm	+40 mm/-40 mm
54 m	Up to -65 mm	+10 mm/-46 mm
80 m	Up to -7 mm	+10 m/-25 mm

Top Line (Distance 0–110 mm)

Distance	Displacement	Max. height variation
05 m	Up to -8 mm	+15 mm/-5 mm
15 m	Up to -14 mm	+18 mm/-9 mm
25 m	Up to -40 mm	+12 mm/-33 mm
30 m	Up to -67 mm	+12 mm/-29 mm
40 m	Up to -62 mm	+12 mm/-50 mm
50 m	Up to -90 mm	+16 mm/-63 mm
65 m	Up to -87 mm	+9 mm/-58 mm
75 m	Up to -78 mm	+16 mm/-24 mm
90 m	Up to -17 mm	+4 mm/-20 mm

The East Line moved -45 mm to the east, and the West Line moved 30 mm to the west.

GENERAL NOTES

The major period of movement was between 1980 and 1982.

The treated pine posts used as survey stations were rotting out at the top by 1990, therefore ten years was a maximum life for this type of station. Sheep were allowed to graze in the area periodically causing problems with the animals rubbing against the survey stations.

With all landslip monitoring studies the end pegs are always assumed to be in stable ground, and the results are therefore relative to this assumed fact.

[19 July 1993]

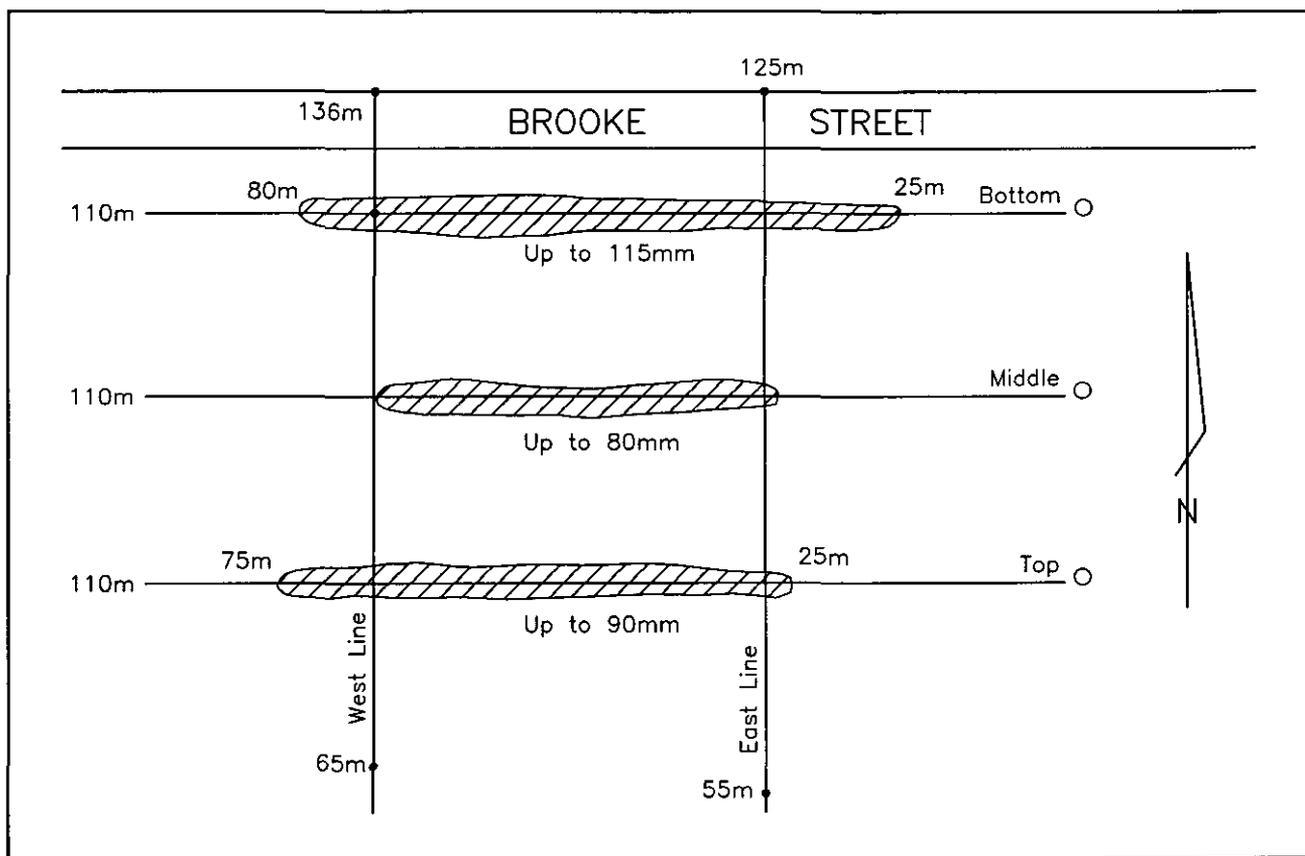


Figure 1

5 cm