

7. Proposed basalt quarry, Parkholme Estate, Bridgewater

A. J. NOLDART

An examination of a proposed quarry site in the Bridgewater district was carried out on 11 August 1969, in company with J. Kennedy of Hobart Quarries Pty Ltd in order to assess the potential of the proposed quarry area. Instrument surveys were not undertaken but surface outcrops, exploratory drill cuttings and topographic features indicate substantial reserves of suitable material.

LOCATION

The area examined comprises that portion of the Parkholme Estate, Bridgewater, bounded on the SW by the Hydro-Electric Commission's transmission line; on the SE by the property boundary and on the NE and NW by the River Jordan. The spur immediately to the NW and bounded by the River Jordan was the subject of an examination by R. Jack in 1963.

GEOLOGY

The only rock type observed in the area is Tertiary basalt. In the NW and N sections the River Jordan has incised gorges of the order of 100 ft in depth exposing excellent sections through the basalt for a distance of approximately 3500 ft downstream from the existing quarry (G. J. Weily and Sons Pty Ltd). Columnar jointing is well developed throughout and averages 9-12 inches in cross section. Layering is evident in the columns indicating a series of flows but there is no interflow sedimentation and only minor evidence of scoriaceous material.

A succession of hammer drill holes to depths of 30 ft, with every third hole to 60 ft, show no change in the composition of the basalt throughout the area tested.

Overburden on the slopes and river flats is clay soil and basalt scree and would present no removal problems. Overburden on the plateau top near the transmission line consists of a fine- to medium-grained sand of unknown depth over a limited area.

RESERVES

Calculations based on an arbitrary base line at 10 ft above river level and contours shown on the accompanying plan indicate reserves of the order of 25 million yd³ of basalt in the area examined. No allowance has been made for rises in basement topography. The basement is anticipated to be Jurassic dolerite (vide Geological Map of Hobart) and as such is also suitable for construction purposes.

REFERENCES

- BANKS, M. R. (comp.) 1965. *Geological Map of Hobart*. Department of Mines: Hobart.
JACK, R. 1964. Investigations for road metal. Quarry site, Bridgewater. *Tech. Rep. Dep. Mines Tasm.* 8: 46-47.