

TR10-21-22

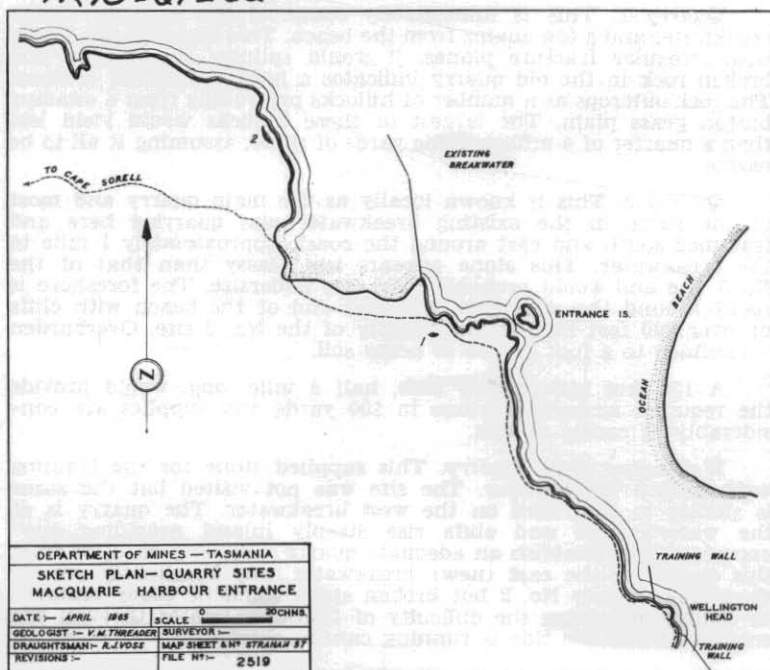


FIGURE 5

5. RECONNAISSANCE AROUND STRAHAN AND CAPE SORELL FOR STONE AND CONCRETE AGGREGATE SUPPLIES

by V. M. Threader

It is understood that approximately 4 million cubic yards of run-of-quarry stone are required for a rock-core breakwater, plus additional selected material to serve as an armour and possibly for repairs to the existing breakwater. The run-of-quarry stone is required in the size range of 100 lbs to 2 tons with a maximum of 20% undersize. On the basis of 2 tons per cubic yard, the size range is 9 inch cubes to yard cubes.

There are three quarry sites on Cape Sorrell from which stone was removed for the existing works. They were all in unmetamorphosed Precambrian quartzite in which the bedding is clearly defined and glassy beds alternate with fissile beds.

5 cm

Quarry 1. This is immediately south of the existing (west) breakwater and a few chains from the beach. This material was glassy with irregular fracture planes, it would splinter on blasting and broken rock in the old quarry indicates a high proportion of fines. The rock outcrops as a number of hillocks protruding from a swampy button grass plain. The largest of these hillocks would yield less than a quarter of a million cubic yards of stone, assuming it all to be usable.

Quarry 2. This is known locally as the main quarry and most of the stone in the existing breakwater was quarried here and trammed south and east around the coast, approximately 1 mile to the breakwater. This stone appears less glassy than that of the No. 1 site and would probably yield less undersize. The foreshore is rocky around the cape from the west end of the beach with cliffs up over 200 feet high in the vicinity of the No. 2 site. Overburden is confined to a foot or two of peaty soil.

A 150 feet high quarry face, half a mile long, would provide the required amount of stone in 100 yards and supplies are considerably in excess of this.

Wellington Head Quarry. This supplied stone for the training walls within the harbour. The site was not visited but the stone is similar to that used on the west breakwater. The quarry is at the water's edge and cliffs rise steeply inland providing good opportunity to establish an adequate quarry face. The distance from this quarry to the east (new) breakwater may be slightly greater than from quarry No. 2 but broken stone could be easily removed by lighter, providing the difficulty of towing a lighter through the entrance when the tide is running can be overcome.