Brick-Making Materials near Mt. Rumney

by Terence D. Hughes & F. Blake

General

In recent years difficulty has been experienced in obtaining suitable economic deposits of brick-making materials within easy reach of Hobart by Motor transport.

Following a wide search for such materials in various localities, an examination was requested of two likely areas of shales on the lower western slopes of Mt. Rumney.

Location and Access.

No. 1 Area is situated immediately south of Mt. Rumney Road, ten chains from the junction with Tasman Highway on the top of Tunnel Hill. This area lies within seven miles of Hobart via the Highway.

No. 2 Area is located ¾ of a mile south east of No. 1 Area. Access from Hobart is six miles by way of Tasman Highway to the foot of Tunnel Hill, then southerly along Pass Road for one mile to a by road leading ¼ mile easterly to the south end of the area at the Clarence Sanitary Depot. From this point a sandy road leads northerly to the shale deposits in a distance of three hundred feet.

Geology

The rocks in both areas consist of a shale formation ranging in thickness from 25 feet at the northern end to 60 feet in the south, and dipping to the south-south-west at 4°—5°.

The shales overlie and are succeeded by beds of siliceous sandtones. The overlying sandstones have been largely denuded and only remnants now exist in the areas surveyed. In the northern part of No. 2 Area seventy feet of overlying sandstone beds form a small isolated hilltop.

These rocks are of Triassic age and correlation with the Knocklofty Sandstone and Shale of the Hobart district is likely.

It has not been possible to trace the shale beds continuously between the two areas surveyed and it would appear that faulting had displaced them in that locality.

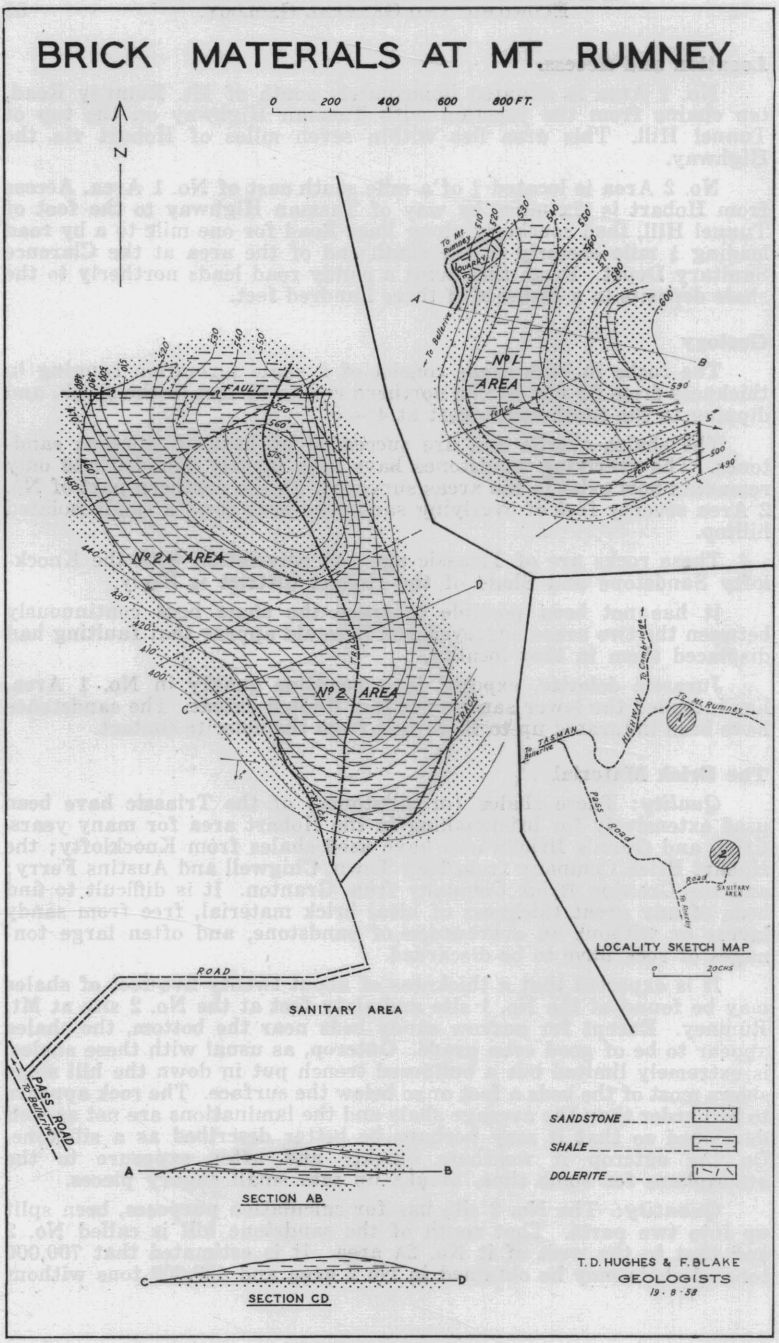
Jurassic dolerite, exposed in a roadside quarry in No. 1 Area, has intruded the lower sandstones to a limited extent. The sandstones have been indurated up to three feet from the dolerite contact.

The Brick Material

Quality: These shales (or siltstones) of the Triassic have been used extensively for brickmaking in the Hobart area for many years. Crisp and Gunn's Brickworks have used shales from Knocklofty; the Hobart Brick Company from New Town, Chigwell and Austins Ferry; and the Granton Brick Company from Granton. It is difficult to find beds of any great thickness of ideal brick material, free from sandy layers or without an overburden of sandstone, and often large tonnages of rock have to be discarded.

It is expected that a thickness of about twenty five feet of shales may be found at the No. 1 site and sixty feet at the No. 2 site at Mt. Rumney. Except for narrow sandy beds near the bottom, the shales appear to be of good even grade. Outcrop, as usual with these shales, is extremely limited but a bulldozed trench put in down the hill slope shows most of the beds a foot or so below the surface. The rock appears to be harder than the average shale and the laminations are not as well developed so that it may perhaps be better described as a siltstone. On the outcrop it weathers quickly and after exposure to the atmosphere for some time, breaks up into small sugary pieces.

Quantity: The No. 2 site has for calculation purposes, been split up into two parts. That south of the sandstone hill is called No. 2 and that to the west of it No. 2A area. It is estimated that 700,000 tons of shale may be obtained in No 2 area and 400,000 tons without


BRICK MATERIALS AT MT. RUMNEY
0 200 400 600 800 FT.
N
No 1 AREA
No 2A AREA
No 2 AREA
FAULT
ROAD
SANITARY AREA
PASS ROAD
SECTION AB
SECTION CD
LOCALITY SKETCH MAP
SANDSTONE
SHALE
DOLERITE
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GEOLOGISTS
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Figure 15

sandstone overburden in No. 2A area. In both places, an overburden of two feet of clay and top soil exists, but most of this material can probably be used in brick making. The No. 1 area contains 225,000 tons of shale free of sandstone overburden. Much larger tonnages can of course be obtained at both sites by quarrying the shale after the removal of up to 70 feet of sandstone overburden. The area to the north of the sandstone hill at No. 2 site has not been considered, as faulting has resulted in the exposure of a different sequence of strata in which sandstone beds can be seen among the shale. The shales in No. 1 area extend to the south east beyond the mapped limits.

Quarrying: Both sites are very favourable for the extraction of the shale but the No. 2 is considered the better and contains a much larger potential tonnage. As the beds dip to the south-south-west, a quarry started at the southern end of the deposit would be worked up a sloping floor of about 5° and the whole of the hill in the No. 2 area could be taken without overburden.