

Mathinna.

13th March, 1947

SAMPLING OF LIMESTONE FROM SURPRISE RIVER VALLEY

Following a request from Mr. H.S. Barnett, New Town, for information concerning deposits of limestone to be used in the crushed form for agricultural purposes, two samples were cut from outcrops of limestone at the above locality.

Location.

The outcrops are exposed in road cuttings on Lyell Highway at Surprise River Valley, 119 miles from Hobart.

The Deposit.

The deposit consists of massive dark blue dolomitic limestone. It can be traced over a length of approximately 6 chains along the road in deep cuttings. Away from the road exposures are poor, owing to dense vegetation. The rock is deeply weathered along the greater part of the exposure but near the eastern boundary it outcrops in a solid mass over a length of $1\frac{1}{2}$ chains to a vertical depth of 20 feet.

Sampling.

Two adjoining samples were chipped across the limestone beds at the above outcrop.

Results of partial analyses of the samples are as follows:-

1. Across 44 ft. on eastern part of outcrop:

Silica	4.64 %
Lime (CaO)	29.34 %
Magnesium Oxide (MgO)	19.96 %

2. Across 35 ft. on western part of outcrop:

Silica	3.60 %
Lime (CaO)	29.74 %
Magnesium Oxide (MgO)	20.87 %

The above results show that the rock is a dolomitic limestone and that the lime content is low.

Since the effective lime content of crushed limestone as a soil conditioner is considered to be 43 per cent, it would appear that the lime content of the Surprise River rock is too low for use as an agricultural limestone. Although some magnesium is desirable in a limestone for fertilizer, the magnesium contained in the dolomitic limestone sampled excludes this rock for most agricultural purposes.

(Sgd.) F. Blake,
Geologist