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LIMESTONE AT WINDUSS' PROPERTY, GUNNS PLAINS

Since my report on Gunns Plains Limestone (31.10.51) boring has been carried out on this deposit by the North Western Farmers Lime Company Ltd. The analyses of the cores of the first six holes has provided confirmation of the surface sampling and indicated which beds are of the higher grade.

The Company is anxious to quarry limestone of high grade almost immediately and as they will not be ready for some months to produce crushed lime for agricultural purposes, it is necessary to obtain the higher grade material with as little overburden of the lower grade as possible.

The beds are striking at 300° and dipping to the South West at $35 - 40^{\circ}$; the face of rock is outcropping along a bearing of 320° , which means that although there is a component of dip inwards the main dip is along the face. The lines of bores are north and south and east and west.

The plan accompanying this report illustrates the position better than any text but a brief explanation must be given. First of all the analyses show that the individual beds are remarkably constant over an area of 140' by 150' and for a thickness of 45 feet. The average CaCO_3 content of this block is 91%, acid insolubles 7% and MgO 1.1%. These beds are those that can be seen boldly outcropping and extend from the top of No. 3 Bore downward. The quantity of stone proved by boring is $\frac{140 \times 60 \times 45}{27}$ cubic yards or about 28,000 tons. Boring has also shown that cavities and clay seams are few so an estimate of 25,000 tons should not be excessive. A large block of these beds also remains between the first line of bores and the outcrop and this should contain at least 20,000 tons. Very little soil occurs above the limestone and for the first 50 feet in from the outcrop there should be no beds of lower grade above these beds. This means that little or no lower grade material will have to be stacked for the production of the first 10,000 tons of the 91% material.

I do not propose to mention methods of quarrying the stone as these were discussed with Mr. L.R. Murphy of Rosebery and company representatives on the site; all I need stress is that beds of 45 feet in thickness exist which show an average lime content of 91% and an MgO content of 1.1% and that the contents of these beds are very constant along the strike. This stone can be obtained at first with a minimum of overburden.

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20th August, 1952.