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NOTES ON CLAY DEPOSIT AT BUNGENDORE.

by

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Dr. Woolnough, in 1928, reported on a deposit of clay on the western side of the railway line, between the railway station and the stock loading yards at Bungendore, New South Wales. I recently examined the area and found that the deposit has not been developed since 1928, and, as may be expected, most of the exposures of clay mentioned by Woolnough in that year have been filled in.

Three small irregular pits were found near the site of Lundy's shaft, 600 feet north-west of the stock-loading yards, on land now owned by Donnelly, Auctioneer of Bungendore. These pits have been partly filled in with in-washed alluvium and are at present holding water. The practice, over the years, of using these pits as repository for dead stock from the trucking yards has not made the investigator's task any easier. No satisfactory sample of clay could be collected from these pits but one sample of clay was obtained from old spoil dumps nearby. This material is weathered schist or slate. Original cleavage and schistosity can be easily detected and the material can be powdered into clay. However, this material has weathered for many years on the dump and probably represents one of the harder, less-weathered beds in the deposits. Somewhat similar material was described by Woolnough in 1928 from the eastern shaft on Griffin's Block, near the railway line between the station and the stock-loading yards.

The collar of Lundy's shaft has been timbered over for many years. The depth of the shaft, in 1928, was at least 70 feet, and it is possible that a useful section of the clay deposit may still be provided by portion of the old shaft. Two shafts, 20 feet deep were sunk on Griffin block in 1928. These were, apparently, filled in but I did not investigate Griffin's block for reasons discussed below.

In the absence of samples and exposures little can be added to the reports of Dr. Woolnough in 1928. However, the following points are of importance -

1. There is every chance that deposits of clays, similar to that examined by Woolnough could be found to the immediate north and west of the known deposits. Some clay may be expected also south and south-west of the known deposits. However, there are no natural exposures and prospecting would have to be done by auger holes. The reserves of clay, similar to that examined by Woolnough, may therefore be very large in the Bungendore area.
2. Woolnough's reports provide some details of test by pits and auger holes, but as no plan is available to show the number and distribution of the test holes, there must be some doubt as to whether the area of 17 chains by 12 chains, mentioned by Woolnough, has been adequately tested; particularly since the problem of the existence of resistant, unweathered strata within the clay deposits seems a very real one.
3. Woolnough's reports provide some information on the quality of the clay, and if the Department of Works and Housing find this encouraging, it is suggested that steps should be taken to provide samples for further examination. These could be

provided by drilling a number of auger holes across the deposits, from east to west on Griffin's Block. If these samples proved satisfactory, a small drilling campaign (with augers) would be necessary to check on the quantity of clay available and on the possible presence of beds of hard, little-weathered rock.

4. If the information at present available is considered sufficient to warrant any further investigation, the problem of tenure and right to enter should be considered as a necessary first step. It will be remembered that, in 1928, when it became evident that the Commonwealth was interested in the clay, the owner of the land (Griffin) secured the mining rights of the land and sought to sell these rights to the Commonwealth (or Federal Capital Commission) for \$500. Unfortunately, the story is not continued in our files, but I infer that the project was dropped shortly after this impediment was raised.

In my recent visit to the deposit, I purposely did not contact the owners of the land, but, before planning any further investigations it would be wise to determine the best course to adopt. The known deposit is ideally situated for railway transport, but is very close to the town and the landowners will probably not co-operate unless forced to do so under mining regulations or induced by liberal compensation.

If the Department of Works and Housing proposes further investigations of the Bungendore clay I suggest that the known deposit, north of the stock-loading yards, together with the paddock immediately south of the yards, should be pegged to allow the Commonwealth the right of entry and the right to mine. If subsequent investigation shows that quantity and quality of the clay is up to expectation, but that the compensation payable to landowners is too high it should be possible to find another area close to the railway line north of Bungendore in which prospecting for clay would be well warranted.

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