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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT
BUREAU OF MINERAL RESOURCES
GEOLOGY AND GEOPHYSICS

RECORDS:

1942/36

BOWAN PARK DIATOMITE DEPOSIT

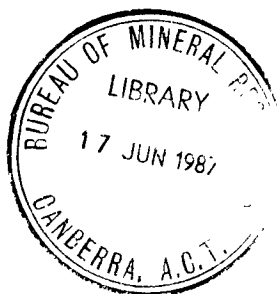


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N.H.FISHER.

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107. N.

24th December, 1942.

MEMORANDUM FOR:

The Director,
Mineral Resources Survey,
Department of Supply & Shipping,
CANBERRA.

BOWAN PARK DIATOMITE DEPOSIT.

In company with Mr. L.A. Richardson an inspection was made of this deposit on Friday, December 4th. The workings were plotted and examined, though those sections off the main drives could not be inspected very thoroughly owing to having no lighting available except matches.

Access to this deposit is by the Orange-Cargo Road for 16.6 miles, then through a gate on the right into a lane which is followed for about 3/4 mile, and finally through another gate on to Bowan Park station. The diatomite lies only a few hundred yards north of the house, and a reasonable road goes right to the drying shed at the mouth of the main adit. The different workings are connected by surface tramline.

Mr. Kenny informed me that O.T. Lempriere's carried out extensive tests on this diatomite, presumably for filtering, but found it unsuitable for their requirements. It is at present being worked sporadically by Newbold's Refractories Limited. The diatomite described by Mr. Morrison, quoted in Mr. Kenny's Diatomite Survey, Bulletin No. 15, U.S.W. Department of Mines, is part of the same deposit, but according to Mr. Reid of Lemprieres, is about 60 chains distant. This may be the cut on the opposite side of the valley indicated on the plan, which was plotted in by triangulation, or it may be another exposure not located by us.

Surface exposures are poor, the country consisting predominantly of basalt, which underlies and overlies the diatomite, though the junction could not be observed. Conglomeratic beds outcrop east of the dump of No. 4 tunnel at an horizon just below the diatomite and diatomaceous shaly beds were noticed above the No. 1 tunnel. In the drives themselves no bottom to the diatomite is exposed, and no definite back, though what was probably transitional material was noticed in the face of No. 3 tunnel, where the beds dip down into the hill. Over 15 feet thickness was observed in places and it is probable that the deposit is at least 20 feet thick.

In general the beds are gently undulating with a slight general dip into the hill, possibly averaging 1 - 2 degrees. Moisture content is high, probably at least partly on account of this dip, beds near the surface being comparatively dry. When wet the diatomite has a faint brownish-pink clayey colour, but dries fairly white. Different beds in the deposit vary slightly in colour and in degree of lamination. Selective sampling of a vertical section by Lemprieres showed a silica content from 81 to 87 per cent. after eliminating the moisture which amounted to more than 60 per cent of the whole.

It will be seen from the accompanying plan that the deposit is fairly extensive. The lateral limits have not been determined, nor the distance which it persists into the hill under the basalt, nor even the thickness. From the exposures in the workings mapped, taking a factor of 75 cubic feet per ton for diatomite in dry block form, some 20,000 tons may be considered to have been proved, with a strong probability of many times that amount.

(N.H. Fisher)
Chief Geologist.

107. II

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Department of Supply & Shipping,
Census Building, CANBERRA.

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(N. H. Fisher)
CHIEF GEOLOGIST.

