

ADVISORY REPORT

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PRESENT CONDITION OF CATAMARAN COLLIERYIntroduction

This report may be taken as supplementary to that prepared by the writer in 1921 and recorded in the Coal Resources of Tasmania in 1922. At that time the Company held two leases only; one of 100 acres, the other of 128 acres. Today the holdings are much more extensive and coal seams have been proved over 300 acres by pitting and drilling. As the result of the use of the Government drill an anthracite seam of considerable value has been discovered and its extent has been proved over a large area.

The present Company was organised a few years ago to take over the assets of the late Company and open and equip a colliery on modern lines. In this work, it is reported, £100,000 has been disbursed; but that sum, I think, is inclusive of the value of coal marketed, a not inconsiderable amount. However, a very large sum has been spent on the following list of works:-

1. Construction of a railway (about 1½ mile) from the mine to the loading station at seaboard,
2. Erection of an automatic grading and loading station capable of handling 260 tons in 8 hours,
3. Construction of wharves,
4. Erection of full surface equipment, workshops, etc.,
5. Power Station - Electricity generated by modern steam plant
6. Haulage and pumping plants,
7. Opening three mines.

From the foregoing brief statement it will be seen that a great amount of work has been accomplished. But, although the surface equipment is capable of receiving and handling a large output (up to 2000 tons per week), the development underground is not far enough ahead of mining. In consequence of this an output of more than 150 tons a day could not be maintained, and just before closing the developed reserve was very low. A mistake was made in opening the anthracite seam, because at that time a market had not been found for that class of coal, and because the funds available were insufficient for the purpose and could have been put to better use elsewhere.

The Company were almost at the end of their resources when the difficulty arose as to the handling of coal at the wharf.

The Realisable Assets of the Company

The assets of the Company may be divided into three classes namely:-

1. The mineral leases
2. The mine openings and surface works, and
3. The mine equipment

One asset depreciates greatly if not based on its value as a part of the whole.

1. The value of the mineral leases depends upon the proved reserve of coal. The amount available as based on exposures on mine, openings, pits and bores is not less than 1,200,000 tons, made of 360,000 tons in main seam, and 840,000 tons in anthracite seam.

2. The value of mine openings is estimated in round figures at £10,000.

3. The value of the machinery - the salvage value - is not less than £4,000.

Method of Operations

The present method of operation is that of the Pillar and Stall system in which only 33 per cent of the coal is excavated in the first cut; later a part of each pillar is removed and another portion amounting to 33 per cent is mined, leaving a loss of 34 per cent. Not only is that method costly and wasteful but it is more dangerous in mines where the roof and floor are unstable. Moreover, the successful operation of this mine on the Pillar and Stall system is open to question.

It is proposed, therefore, to adopt the longwall system, and construct plants for the mechanical handling of the coal from the working faces to the main headings. By this means it is expected that the output per man will be increased from 2½ tons to 5 tons of coal per shift of eight (8) hours. The advantages of this system are too numerous to mention in this brief report.

Preparation of the Mine for the Longwall System of operation and cost of Plant -

Main headings will be cut 300 feet apart and back headings cut connecting them. The first set of openings will be cut at the north-eastern end of main workings to provide for two sets of coal handling plants. That work can be performed within a month. The proposed coal-handling plants consist of chain gear with wing pieces running in a line of wooden troughs and driven by 5 horse-power electric motors. This gearing, travelling at the rate of 150 feet per minute, is capable of delivering coal into trucks at 10 cwt. per minute. The cost of each plant placed in position is estimated at £150. It is expected that from the time of delivery of chain gear the plant could be put into operation within three weeks.

Employment of Miners -

The two working faces thus prepared and equipped would allow of the employment of 20 miners per shift or 40 in all. The hewing of coal will not be continued through the night shift, when removals and repairs will be effected. In the faces equipped with mechanical handling appliances the miners will work in parties under contract - the only practicable scheme.

Within three months - the time necessary to open other working faces - 60 miners could be employed.

Cost of Mining

The present hewing rates at Catamaran are as under:

Pillar & Stall system	8/4d. per ton
Longwall system	8/- " "

A little variation is made in rates in accordance with the variation in thickness of seams.

The rates thus fixed allow of very little difference in cost, yet under the Longwall System the hewing rate per man is much greater under normal conditions. With the use of mechanical handling appliances the output per man should be 5 tons per shift; therefore, I suggest that the hewing rate be reduced to 6/6 per ton when the conveyor is in use, or a return of 32/6 per man per shift.

Marketing the Coal

Coal from main seam is of the humic or bituminous class and the lump and nut grades finds a ready local market for up to 200 tons per day. The coal is sold in three grades:

1. lump at 35/- per ton
2. nut " 25/- " "
3. slack 20/- " "

The slack coal which constitutes 35 per cent of the whole was sold to Maria Island Cement Works at the rate of 260 tons per week, and small lots were sold to other users, but a difficulty will be experienced in getting rid of the whole output when the mine is producing over 1000 tons per week.

It may be briquetted; and if the latest processes are sound, it may be converted into oils.

As regards the anthracite, the lack of this desirable coal in Australia is the indirect cause of the difficulty in finding a market. It can be burnt under forced draught on special grates and inclosed furnaces. It badly decrepitate in an open hearth.

Amount necessary for immediate requirements

The mine manager estimates that the total cost of extending development and equipping the mine with two sets of coal-handling apparatus would not exceed £500. I have carefully examined the workings and have enquired into the cost of the new plant and think that at least £900 will be required to place the mine on a workable basis.

Proposed scheme of repayment

The Company is prepared to pay a royalty of two shillings per ton on the run-of-mine coal towards the liquidation of a loan if granted. On the basis of 100 tons per day the Government would receive £60 per week. That appears satisfactory.

A loan from the Mining Trust Funds

Under the amended Aid to Mining Act the Governor has power to Grant up to £300. The granting of a larger sum is at the hands of Parliament only.

Is assistance justifiable?

This mine when fully developed is capable of an output of 50,000 tons of coal per annum for a number of years, thereby placing the state in a position independent of Newcastle. In addition to that advantage is the distribution of £90,000 yearly.

This coal is the best of its kind in Tasmania, and the anthracite seam is only one of importance known to the writer.

I therefore have pleasure in recommending the granting of assistance for the workings referred to herein.

A. McIntosh Reid
DIRECTOR OF MINES.

Mines Department,

16th December, 1927.