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COMMONWEALTH OF AUSTRALIA.

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DEPARTMENT OF SUPPLY AND SHIPPING.  
BUREAU OF MINERAL RESOURCES  
GEOLOGY AND GEOPHYSICS.

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REPORT No. 1949/100  
(Geol. Ser. 68)

NOTES ON THE MAUDE AND YELLOW GIRL  
GOLD MINING CO. N.L., GLEN VALLEY.

by

N.H. Fisher.

DEPARTMENT OF SUPPLY & DEVELOPMENT.

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GEOLOGICAL OUTLINE.

The lodes occur along a fissure which can usually be traced even if no ore is present, in which case it consists of a shear or break with perhaps only an inch or so of gouge or broken rock along it. The proportion of the lode channel that is actually occupied by workable ore is indicated by the extent of the workings relative to blank spaces shown on the accompanying longitudinal section. The ore-bodies come in and die out fairly suddenly, commonly accompanying changes in strike of the lode fissure, and range usually from 2 to 5 feet wide. They consist of broken and mineralised country rock with irregular quartz veins containing sulphides, mainly pyrites. The lodes are nearly vertical and one wall is commonly well defined. The other wall may also, be a definite shear plane, or the ore may grade into country rock without any defined boundary. Pegmatite bodies are common in the lode. These are pre-ore and mineralised but are not considered to have any very strong effect on the lode values. Post-ore faults, usually with right-hand displacement, are not uncommon and a few of these persist throughout the mine. The country rock, apart from the pegmatite and some "lava" dykes (possibly monchignite) is metamorphic, mostly schist and quartzite. The outcrop of a granite mass trends parallel to the lode and half a mile or so to the west. Strike of the lode is roughly northerly, and the adits are driven from the southern slope of the hill.

The lode system as a whole is persistent and of consistent average grade, as shown by the mill head values, although individual assays vary largely. Good ore has been mined from the surface (4 Brothers workings, see plan) 300 feet ahead of the farthest underground workings and the ore in the bottom levels is at least as good as that mined above the adit level. If anything the length and width of the ore-bodies shows a tendency to increase in the lower levels.

ORE RESERVES.

At June 30th 1949 ore reserves were -

Ore broken in stopes	-	3,160 tons
Ore ready to mine	-	28,550 tons
Probable ore not yet opened up for mining	-	<u>31,530 tons</u>
Total	-	<u>63,240 tons</u>

The position of the various blocks of ore which are included in these figures is shown on the accompanying plan. From the examination of mine and plans that has been made these figures appear to be reasonable and conservative. There seems little doubt

that the ore shown as probable ore not yet opened up for mining will be approximately realised and when that is developed probably a similar amount of prospective ore will still be in view. Ore proved per foot of development over the past three years has averaged 6 to 7 tons.

The present state of the mine is that development is very much behindhand, and stoping follows much too quickly on the driving of development headings to enable proper planning of production. All mining is by shrinkage stopes and the mine depends for its current ore supplies almost entirely on stopes that are being worked, instead of having some mined-out stopes full or partly full of broken ore in reserve.

#### EXPLORATION.

None of the ore-bodies worked by the present company has been bottomed (see Longitudinal Section), nor has the northern termination of the ore been found. The 4 Brothers workings on the surface, which are reported to have yielded good ore, lie about 300 feet ahead of the most northerly underground workings and slightly off the present line of lode. It is highly probable that ore will be developed in this section of the mine.

On all the levels the lode fissure persists to the face and further exploration is badly needed, but has been held up by lack of labour. A detailed geological examination of the mine is now being undertaken by the Victorian State Geological Survey and a clearer picture of the factors controlling ore distribution should be available when this is completed. In the meantime, the impression gained is that exploration along the levels has been inadequate. The lodes are known to split in places and ore has been found on parallel shears. It would seem that a small diamond drill could be profitably used continuously to put holes out from both walls of existing workings as development proceeds, with the object of picking up such parallel ore-bodies. Also exploration on at least two levels should be vigorously pushed ahead northwards.

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