

REPORT ON THE PROSPECTING OPERATIONS OF BEACONSFIELD  
GOLD MINES, NO LIABILITY, M.L. 10982/M - 79 acres

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Introduction:

As instructed I made an examination last April of the prospecting operations at Beaconsfield, particularly in connection with work carried out last year, for which financial assistance was granted under the "Aid to Mining Act" to determine the geological features controlling the future development of the property.

The Company holds under lease 10982/M an area of 79 acres on the northern end of Cabbage Tree Hill, approximately half a mile north-west from the old Tasmania Mine, including portion of the old Moonlight, Little Wonder and Olive Branch sections. Confined to two areas on the lease, prospecting operations have been carried on by means of shaft sinking, driving and cross-cutting.

Geology:

Sandstones, grits and conglomerates known as the "Cabbage Tree" series and on lithological and structural grounds regarded as being Cambro-Ordovician in age, occupy the whole of the area under examination. The general strike is north west-south east with a steep north-easterly dip although minor undulations occur and faulting is general.

Cabbage Tree Hill conforms to the general strike of the series and hard sandstones and conglomerates are the axial formations with slates on the western flank and friable sandstone on the eastern slopes. The hill is essentially one of differential erosion.

Prospecting Operations

Prospecting operations have been confined to two areas on the lease. The first, one and a half chains north  $70^{\circ}$  east of the old Wonder Company's whip shaft, on information supplied by S. Statton and known as the 180 feet shaft. The second is situated approximately  $14\frac{1}{2}$  chains south  $49^{\circ}$  east of the first and was designed to test at an intermediate depth the veins prospected to shallow depths on the old Olive Branch section; it is known as the 130 feet shaft.

180 feet shaft

The shaft, a three compartment,  $9' \times 3'$  was sunk to 80 feet where a drive was opened out. This was subsequently mullocked up while sinking the shaft to 180 feet and was not accessible to the writer. P. Broad reported that an isolated block of quartz of considerable size was stoped on this level with encouraging results. The shaft was then continued a further 100 feet making the total depth 180 feet. A cross-cut was driven in a southerly direction for a distance of 160 feet. At 55 feet a "formation" was cut approximately 18 inches wide, striking  $317^{\circ}$  and dipping north east at  $32^{\circ}$ . This "formation" is a belt of shattered country - not a true reef channel; veins and bunches of quartz occur in the loose blocks of rocks but do not pass continuously from one boulder to another; grit and pug fill the interstices. Dish prospects failed to indicate any gold. A small cuddy was driven along it for a few feet in an easterly direction where a hard

clean wall of quartzite coursing  $345^{\circ}$  with a westerly dip of  $65^{\circ} - 70^{\circ}$  cuts it off.

The lode channel that this prospecting was to test was intersected at 120 feet from the shaft. It was a crush zone filled with pug and grit and some quartz. The channel courses south  $65^{\circ}$  east in an irregular manner with northerly dip of  $62^{\circ} - 65^{\circ}$  and has been followed a distance of 60 feet without locating any encouraging prospects. Although clean walls the full width of the drive are exposed in the cross-cut, at the face the channel has pinched to a few inches in width.

To the south, the cross-cut was continued another 40 feet in extremely hard and dense quartzite without success.

At a point in the drive 27 feet from the cross-cut it was decided to cross-cut in a north easterly direction. Nine feet from the drive a rise was put up 40 feet for ventilation purposes. At approximately 33 feet from the drive a "formation" 18 inches wide, and apparently the continuation of the 18 inch "formation" intersected in the main cross-cut at 55 feet from the shaft, was met.

Driving on this crush zone in a general south easterly direction located at 12 feet, 18 inches of gold bearing quartz with rubble and pug etc. A rise was put up on this a distance of approximately 15 feet where it pinched to a mere track as it did in the winze five feet below the floor. P. Broad reported that this stone was payable while it persisted. The drive was continued another 28 feet, making 40 feet in all without further success.

#### 130 foot Shaft

This shaft is approximately  $14\frac{1}{2}$  chains south  $49^{\circ}$  east of the 180 foot shaft and is located just west of the Olive Branch workings and was designed to test the possibilities of the veins prospected to shallow depths on the old Olive Branch sections. It was sunk to a depth of 130 feet and a crosscut was opened out and driven in a south westerly direction for approximately 92 feet. Several small courses and leaders were cut and the lode channel intersected at about 75 feet from the plat. The channel was driven on for a short distance to the north west and over 80 feet to the south east without locating any encouraging prospects. Two clean, hard walls show in the face to the south east, one dipping to the north at  $60^{\circ}$  and the other to the south at  $50^{\circ}$  with a few inches of pug showing in the back of the drive.

#### Conclusions

The objectives to which the prospecting campaign was designed to reach have been attained. But no reef of any value has been disclosed.

In view of the fact that the formations are not true reef-channels but crush zones, the prospects of discovering payable reefs are distinctly unfavourable; moreover the area has been prospected with such intensity by former companies that it can be regarded as thoroughly tested and offers no inducement for further exploration.

Mines Department,  
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