

TR4-21-23

PROPOSED DRILLING AT MARIPOSA EXTENDED AREA

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LOCALITY

It should be first made clear that the locality under consideration is not the Mariposa area itself but one that lies about a mile to the south-west, on the southern side of the Argent Fault. It is considered that boring carried out by the North Broken Hill Company in 1951 and later by the Mt. Isa Company in the Mariposa area itself is sufficient to reveal preliminary evidence of the ore-bodies there. The area at present under consideration, which may be called the Mariposa Extended, is analogous to both the Mariposa and Oceana localities, in that it contains galena deposits in Gordon Limestone.

This locality is almost four miles to the south-east of Zeehan.

ACCESS

Access may be gained by following the Mariposa Tram from the Zeehan-Strahan Railway (remembering that the bridge over the Little Henty River is down) a distance of two miles; from near the 7-mile peg on the Zeehan-Queenstown road by following first an old timber tram and then the Mariposa Tram, one and a half miles; or by following the old Zeehan-Queenstown Power Line, three miles. All these tracks are at present overgrown, bridges are down and the formation of the tram in places is disrupted so that although they could be easily cleared for walking tracks, it would be extremely costly to put them in order for vehicles.

GEOLOGY

The beds in this area form part of the eastern leg of a steeply dipping syncline. The Gordon Limestone beds which are about one thousand feet in thickness, dip to the west at 70° to 80° and lie between Ordovician Owen quartzite and conglomerate below and Crotty Quartzite of the Silurian above.

The northern extension of the area is terminated by the Argent Fault which displaces the limestone to the north at least a mile to the east. It is these northern displaced beds which contain the Mariposa deposits.

PREVIOUS DEVELOPMENT AND POSSIBLE ORE DEPOSITS

Several old workings have been put in on both the hanging wall and footwall sides of the Gordon Limestone and galena may be found on the dumps on both sides. The same geological conditions exist here as at both the Oceana and Mariposa Mines. That is fairly narrow, steeply dipping limestone beds contained between hard, impervious quartzite and conglomerate (Owen) on the footwall and quartzite (Crotty) on the hanging wall. It is reasonable to suppose that ore channels occurred more readily in the limestone and that the quartzite acted as an impounding structure, so that ore deposits may be looked for on both the footwall and hanging wall sides of

the limestone. It is not possible at this juncture to state the direction of possible galena lodes but, as at the Oceana and Mariposa, they probably parallel the limestone-quartzite boundary.

RECOMMENDATIONS

The area is sufficiently interesting to warrant a drilling programme for the following reasons:—

1. Analogy with the Oceana Area (a producing mine) and the Mariposa (a probable marginal prospect).
2. The appearance of galena in old dumps shows that there is some lead mineralization in the area.
3. The favourable Gordon beds situated between two hard impervious layers. Before an actual drilling programme is planned however, it will be necessary to map the area in greater detail.

A possible deterrent to economic production from the area is the underground water problem. It must be remembered that the host rock is limestone and a stream of considerable size (Dundas Rivulet) flows through the area.

ACCESS FOR DRILLING PLANT

It is considered impossible to move the plant to the site by land without considerable expense, and the reconditioning of old trams and bridges. However, it is possible to get by road to within two

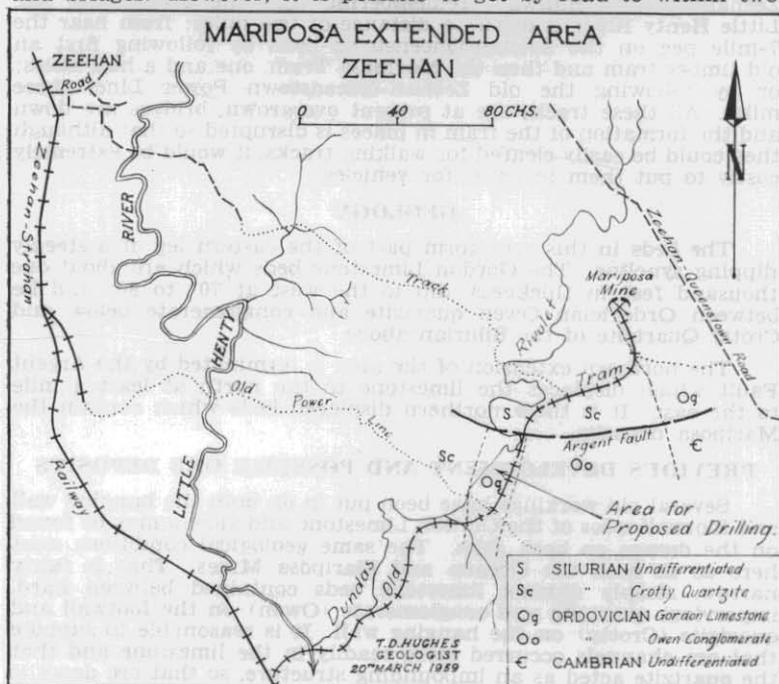


FIGURE 3.

5 cm

miles of the site and from here the plant could be lifted by helicopter. From the road site to the drill site and return should take the helicopter no more than ten minutes. Fewer than twenty trips should be necessary to convey the drill and accessories by Bell Helicopter, so at the normal charter rate of £60 per hour, the cost should be less than £200 to place the drill on the selected site.

As the helicopter stationed in the Zeehan District will be withdrawn by mid April, it will not be possible to consider drilling this season. However, if a detailed geological report is favourable and the drill and helicopter are both available next season consideration should be given to this drilling programme.