DOVE PROPERTY 861554

REPORT ON THE DOVE PROSPECT NEAR VALEMONT

A. SUTHERLAND BROWN
CONSULTANT
546 Newport Avenue, Victoria, B.C.

INTRODUCTION

The DOVE property is located in the Malton Range of the Monashee Mountains, 26 kilometres south of Valemont. The property is held by Redbird Gold Corp. of Kamloops, B.C. The main showings are located on The BC Hydro transmission lines at 1065 m elevation just north of Robina Creek with easy access from Highway #5.

Use of geological maps of the main showing by V. Levson at 1:400 scale expedited the property examination. The maps appeared to be generally accurate but I would interpret some of the geology differently. The property beyond the main showings was not examined. Rob Pease examined the drill core data but I did not.

LITHOLOGY

My interpretation of the lithology of the main showing is shown in the following table. Obviously the quartzite and micaceous quartzite were originally quartzose arenites and quartz arenites with intercalated shale laminae and beds. One possible channel cross bedding structure was seen in the lower quartzite that, if real, would indicate the sequence faced upwards.

Table of Lithology

Symbol	Lithology	Thickness
Qm	Quartzose quartzite	> 20 m
aGq	Quartz lens micaceous quartzite	10 +/- m
Gh / Gq.S	Amphibole gneiss grading upward to two mica quartz schist with intercalated quartz lenses at the top	6 +/- m
aGq	Quartz lens micaceous quartzite	6 +/- m
Gh / Gq.S	Amphibole gneiss grading upward to two mica quartz schist	0-4 m
Qm	Quartzose and micaceous quartzite	> 20 m

The quartz lens micaceous quartzite (augen quartz gneiss) could be an arenite with abundant boudinaged quartz veinlets or beds. Boudinage is certainly a factor in the strain of the local rocks but the distribution and pattern of the lenses likely precludes this interpretation. Furthermore quartz lenses occur in the two mica quartz schist transitional to the lensy quartzite. The most likely interpretation is that the lenses are flattened quartz pebbles and small cobbles and that the rock was originally a quartz pebble conglomerate. The lenses are in fact flattened rods that occur in the foliation and lineation characteristic of the area and have a shape with the ratio of 1:5:20; *c*:*a*:*b*.

The mafic members are similar and are composed of a basal amphibole quartz feldspar (?) gneiss that grades upward to a two mica quartz feldspar (?) schist. The gneiss is composed of ragged but not highly deformed crystals of amphibole

(hornblende ?) in a fine matrix (ca 1 mm) of quartz, amphibole, feldspar and magnetite. The large amphiboles are up to two cm across and clots of crystals up to 6 cm across, both normal to the lineation. The transition to the mica quartz schist is a sharp gradient. The schist may be the more highly deformed equivalent of the gneiss. These rocks may have been channel-filling mafic volcanic rocks overlain and partly intercalated with conglomerates.

The repetition of stratigraphy might be chance or may result from unrecognized faulting, possibly even that associated with the slickensides. The lower unit definitely wedges out to the north (*a* direction).

STRUCTURE

The attitudes recorded on Levson's map are accurate. Foliation = bedding with a strike of 085° +/- 5° and dip of 13° +/- 2° south. Mineral lineation = quartz lens lineation = slickenside lineation = *b* at 100° +/- 10°. Slickenside surfaces mainly strike 015° +/- 15°, dipping 50° +/- 10° westward. A few are subhorizontal or dip eastward. Prominent joints, which are most evident in the orthoquartzites, strike 335° to 350° and dip 75° to 80° east.

The intense rodding and flattening affect the micaceous rocks most and probably extensively thins them. The massive quartzite seem relatively unaffected but there must be pull

aparts, thinning or folding. The *b*-axis is oriented ca 100°. The intraformational faults (slickenside surfaces) have the same lineation and the west sides appear to have moved down. One small easterly striking fault had the north block dropped. A few microfolds (2-4 cm) had their axes parallel to the area lineation and showed the upper rocks moved northward. One such fold affected a quartz lens.

VEINS AND MINERALIZATION

In the area of the showings there were numerous quartz veins but these would not total 1% of the mass. There were none larger than 0.3 m seen locally. Most were either parallel to the foliation or at a small acute angle to it and dipping more steeply southward. All appeared "rootless" and generated by metamorphic processes locally. They are as common in the mafic units as the quartzites and are mineralized in the former and much lsss so in the latter. In the mafic units the veins contain small nests of bornite and rare visible gold as well as malachite coatings and rare rosettes. In the lower mafic unit there is also common chalcocite. Malachite is also widely distributed in the two mica quartz schists as coatings particularly in the upper parts. It also coated the slickensides in these units. The impression given by all the malachite is one of quite strong mineralization but other evidence indicates it is really quite sparse except for some spectacular hand specimens. Unless copper sulphides and gold occur also in the schists,

where it is difficult to identify, the overall grade would be low. The grades of the drill holes would be understandably low considering the poor core recovery. The "disappearance" of the gold in the surface sampling is more difficult to reconcile.

The mineralization does appear to be statabound and confined chiefly to the mafic units and much less to the lensy quartzites. It appears to be partly remobilized from the strata to the veins. The possibility exists that the mineralization originated as a paleo-placer deposit at the base of the pebble conglomerate.

RECOMMENDATIONS

The deposit is interesting and the tonnage possibilities good. However the grade needs to be confirmed before exploration for the continuance of the deposit. Therefore I would recommend:

* The excavation of a series of small bulk samples across the mafic units and the base of the lensy quartzites.
* If grade warrants then continuity to the east along the *b* axis of deformation should be tested by one or a few large diameter drill holes.