KNOB HILL ZONE

This area occurs on the western side of the property on the Bell 2 claim. Mineralization in the form of pyrite and chalcopyrite with varying amounts of chalcocite in a gangue of quartz and calcite was initially discovered in open cuts in quartz- and chlorite-sericite schists prior to 1920. Around 1920, while driving an adit in to cross-cut the zone on surface a second parallel zone of similar mineralization was intersected earlier on in the adit.

Descriptions of the adit from work programs carried out in 1966 by Spheno Mines Ltd. indicated the first (or easternmost) shear zone to be approximately 35 to 47 feet in from the portal. The zone was described as in a sericite-chlorite schist with mineralization occurring lensy and parallel to schistocity. Heaviest mineralization occurs in quartz, shingels. Sulphides consist of pyrite with chalcocite seen locally. Copper assays from this zone reported in 1923 by the Minister of Mines were as high as 4.2% Cu. No assay values were reported from this material in 1966 by Spheno Mines Ltd. Inspection of part of this zone in August, 1991 by the author indicated at least 75 cm of massive pyrite mineralization in a quartz $\pm$ carbonate gangue. At this point in the adit a considerable amount of the roof material has caved in so as to not yet allow for a thorough examination of the zone's full width. A chip sample was taken across the 75 cm of massive pyrite and has been sent in for analysis.

The Spheno Mines Ltd. description from 1966 describes the second shear zone as being between 87 and 93 feet in from the portal entrance. Here, talc-sericite schist is reportedly heavily mineralized in lenses occurring again as pyrite with occasional chalcocite seen in a quartz $\pm$ carbonate gangue. Copper staining was reported. The sulphides are found associated with quartz parallel to schistocity, soft, crumbly and leached. This zone has not yet been seen by the author.

In 1927, the Minister of Mines reports that a picked sample of ore from one of the shear zones assayed gold - trace, silver - 0.60 oz/ton, and copper - 9.8%.

Select samples of mineralized pyritic dump material outside the adit in 1990 produced the following results from sample 95806: 7.43% Cu, 2.34 oz/ton Ag, and 0.03 oz/ton Au.

During the fall of 1966, Spheno Mines Ltd. drilled two holes to apparently test the mineralized shears along strike to the south. Drill hole one appears to have been collared approximately 100 to 125 metres south of the adit. This hole is reported by Spheno to have intersected both zones which would suggest the zones continue for at least 100 to 150 metres along strike and to depth. No significant copper assays were indicated. Gold does not appear to have been assayed for. As well, in the assessment report no assays are given for any mineralized intervals.

Exploration Potential and Discussion

Mineralization encountered in the Knob Hill adit and one drill hole from 1966 indicate that two separate parallel lenses of sulphide mineralization occur parallel to schistocity and/or foliation in quartz- and chlorite-sericite schist units. These rocks probably represent altered felsic-intermediate volcanic units. Although the Knob Hill area stratigraphy seen to date does not appear to be as intensely altered as at the Red Star massive sulphide showing, this area does possibly represent another area on the project claims where a volcanogenic massive sulphide system may have been at work.