825489 Jolly

8.1 Geology

Although the AH-CH claims have not been mapped, a general impression of the local geology has been gained from examination of showings and Ministry of Mines reports. Most of the rocks seen in the western part of the prospect are apparently of sedimentary origin, whereas gold occurrences in the eastern part of the prospect are in veins which occur in metavolcanic or intrusive rocks. Significant fault structures which are mapped north of the prospect probably extend into the prospect area, or at least influence structural events within the area. Block faulting is apparently later than veining. Mafic intrusive rocks are present in far more substantial quantities than initially believed, at least in the eastern part of the AH-CH Claims.

8.2 Mineralization

On the basis of surface examination, limited drilling, and descriptions of occurrences in Ministry of Mines reports, five types of mineralization can be identified.

- 1) Shear and breccia zones containing angular clasts of the country rock. Pyrite is disseminated throughout the breccia matrix.
- 2) Gouge zones represented by very soft, recessive, fine grained, clay, talc and carbonate zones. Fine grained pyrite is disseminated throughout, and the zone may contain base and precious metal mineralization. This is the type of feature believed to host the best mineralization on the Old England and Victoria Crown Grants.
- Quartz-dolomite and/or quartz-calcite filled veins which often contain disseminations and stringers of pyrite, and in places contain galena, sphalerite and gold and silver. This type of mineralization was encountered in hole 81-01, occurs in outcrops

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in the creek bed downstream from the Lemon adit, was encountered in driving tunnels from the creek to the major veins on the Victoria Claim, and is believed to be the same as occurs across the creek from the Snowdon adit.

- 4) Pyrite dissemination as single euhedral crystals, and as aggregates of fine pyrite. Favored lithologies for this type of mineralization include greenstone, altered greenstone, and diabase.
- 5) Disseminated copper sulphides in greenstone and gabbro-diorite.

8.3 <u>Geochemical Survey</u>

A number of soil geochemical anomalies have been identified. The most significant of these anomalies are the Lemon and Victoria anomalies located on or near the Lemon and Victoria Claims.

Evidence available to date indicates that the most significant gold values are associated with galena. It must be noted, however, that the single most important accessory base metal sulphide at the Caribou-Amelia Mine (3 to 4 kilometers east) was sphalerite. In addition free gold was apparently associated with chalcopyrite in the original workings on the Lemon Claim, and with only pyrite in quartz veins on the Gold Standard Crown Grant. Any strong base metal anomaly is potentially significant.

8.4 VLF-EM Geophysical Survey

Three significant conductors were identified. The most significant conductor was identified on the Victoria Claim, coincident with a soil geochemical anomaly. This conductor apparently parallels the vein trend on the Victoria and Old England Claims. A weak conductor was identified south of the Snowdon Claim which may be related to mineralization. The third conductor, also weak, was identified at 720N, east of the base line, also parallel to vein trends on the Old England and Victoria Claims. This

northern conductor is open to the north and the Victoria conductor is open to the south.

8.5 Drilling Results

None of the drill holes intersected the mineralized and veined shear exposed in the adit upstream from the placer camp. This mineralized shear may pinch out or may be offset by block faulting. Significant gold values were encountered only in hole 81-01.

8.6 Summary

The geological setting is favorable for the occurrence of economic concentrations of gold (and silver). The area has similarities to producing gold districts in Ontario and Quebec. Favorable exploration targets include short, narrow veins or shoots which may or may not be associated with shearing, and mineralized shear zones which may have a substantial strike length.