

banding. Most quartz breccias are barren of sulphides, low in trace metals and areally restricted, but a few carry copper-lead-zinc mineralization with anomalous gold and are more extensive. They appear to have few counterparts in the record of mining in the area although the vuggy and crustiform quartz breccias of the Mollie Gibson vein, a past producer may be an analogue.

In the Slocan camp workings on high-grade zinc veins abandoned at the turn of the century may be worthwhile to pursue.

The Greenwood camp appears to have been neglected for copper-gold porphyry potential compared to the Nelson camp, even though it is closer to the Intermontane Belt that hosts these deposit types. Known porphyry prospects in the Greenwood camp include the Lexington.

MINERAL EXPLORATION

GREENWOOD AREA

Battle Mountain (Canada) Inc. has started a major re-evaluation of the immediate area of the Phoenix copper pit for gold. In 1990 a 135-kilometre grid was established, 3400 soil samples taken and ground magnetometer survey completed. Drilling will be conducted in 1991 under an agreement with Kettle River Resources Ltd.

On the Silver Dawn property (old Imperial and Emaline Crown Grants) of Rock Creek Resources Ltd. silver-rich lenses occur within a siliceous (chalcedonic?) breccia that is intercalated with quartz-carbonate rock (listwanite?). Mineralization consists of native silver with fine-grained pyrite, galena and sphalerite. The mineralized zone is reported to be open along strike, flat lying and near surface.

On the Rainbow property Minnova Inc. has drilled mineralization hosted by flat-lying silicified and phyllic-altered quartz porphyry sills intercalated with carbonatized ultramafic rocks.

On the Golden Crown property south of the Phoenix pit, Attwood Gold Corporation did further drilling to increase existing reserves of 57 000 tonnes grading 14.21 grams per tonne gold and 0.70 per cent copper. It conducted a re-evaluation of work to date and concluded that the mineralized zone is continuous between the Winnipeg and Golden Crown workings.

NELSON-SALMO-ROSSLAND AREA

ROSSLAND GROUP (INTRUSIVE AND SHEAR RELATED GOLD-COPPER)

On the Player property Formosa Resources Corporation completed 1525 metres of drilling in two areas on

a northwest-trending polymetallic shear in Elise Formation volcanics. The mineralization is hosted in carbonatized and silicified tuffs and is present up to widths of 8 metres running 0.4 to 0.5 per cent copper, a few per cent combined lead and zinc and 3.12 to 6.24 grams per tonne gold. Further fill-in drilling will include testing the peripheral area of a small monzonitic intrusion.

In the adjacent Great Western Star property, Pacific Sentinel Gold Corporation drilled several targets along a 4900-metre mineralized trend early in the year. Three of the targets (Ron, Eureka, Star) are copper-gold prospects hosted by altered and fractured monzonite which underlies the northwest part of the property. The Alma N showing is at the monzonite-volcanic contact and consists of gold with pyrite. Drilling to the southeast, at the Toughnut claims, explored altered volcanics along the Silver King shear.

Noramco Mining Corporation examined the Kena property for alkalic porphyry copper-gold mineralization. The area is marked by sericitic and siliceous shear zones parallel to the regional foliation and by zones of moderate to intense fracturing. Chalcopyrite and pyrite occur principally in synvolcanic diorites and to a lesser extent in Elise Formation tuffs.

Drilling on the Shaft property by Noramco was generally disappointing except for one area at the contact of Silver King porphyry with adjacent tuffs where anomalous gold, lead, zinc, copper and arsenic warrant further work.

A step-out hole by Noranda Exploration Company Limited on the Kettle property near Salmo returned a 120-metre intersection of 0.15 per cent copper and 0.16 gram per tonne gold, indicating potential for a low-grade, large-tonnage porphyry deposit. The property is underlain by hornblende diorite, Elise Formation tuffs, agglomerate and feldspar porphyry. Alteration is variably propylitic, pyritic, silicic and potassic. The mineralogy consists of pyrite, chalcopyrite and magnetite but magnetite is not coincident with sulphides. Chalcopyrite occurs in stringers and as disseminations, often with calcite or quartz. Further drilling is expected to test the extent of low-grade mineralization.

VEINS

At the southern border of Kokanee Glacier Park, Cove Resources Corporation drilled the eastern extension of the Alpine vein and a subparallel vein, the Gold Crown, to the south. Immediately west of Nelson, Winchester Developments drilled the Nevada vein.

Quartz veins related to shears were also drilled on the Clearwater and Joe properties. One hole on the Clearwater returned 13.4 grams per tonne gold over 2.3 metres.