

Energy, Mines and Resources Canada Geological Survey of Canada 100 West Pender, Vancouver V6B 1R8 Énergie, Mines et Ressources Canada Commission géologique du Canada 100, ouest, rue Pender, Vancouver

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October 28, 1993

Your file

Votre référence

Our file

Notre rétérence

D. Visagie Senior Geologist Newhawk Gold Mines Ltd. #860 - 625 Howe Street Vancouver, B.C. V6C 2T6

RE:

Newhawk Gold Mines Ltd. - GSC IPP Project - Brucejack maps, zoning, alteration

Dear Dave:

This letter is intended to bring you and the company up-to-date on the IPP project and to make proposals for the remainder of this year's work.

Last summer I was able to complete several more traverses on the Brucejack Creek and Snowfield 1:5000-scale sheets and an additional 71 grab samples were collected for lithochemistry. Most traverses on the Brucejack Creek sheet were in the northwestern corner of the area where the least amount of mapping had been done in the past. On the Snowfield sheet emphasis was along the west side of the sheet with parts of several traverses ending in the nerthwestern corner and one traverse on the east side of the sheet near the Brucejack Fault. I did not concentrate on the Snowfield Au Zone or quartz stockwork to the north as the Newhawk Joint Venture has done considerable work in this area.

More porphyry-type Cu(Mo ± Au?) mineralization was observed in the northwestern part of the Snowfield sheet south of the Moly Zone, including one area with abundant quartz veins with pyrite, chalcopyrite, tennantite and galena, and an interesting porphyry-type quartz vein stockwerk with modest pyrite and choicopyrite was observed in a small stream valley west of the Hanging Glacier. Unfortunately, however, the stockwork was not observed in nearby stream valleys. Electrum and ruby silver were also found in a few small calcite gash veins near areas west of the Hanging Glacier sampled previously. About a 4-to 6 m-wide polymetallic quartz vein system mapped mænly en Plader Dome's ground(?) north of the top of Mitchell-Sulphuret ridge apparently crosses the claim boundary ento to Newhawk ground (I am not sure of the precise location of the boundary). Analyses are needed to determine if this vein system contains precious metals. Also near the claim boundary on Mitchell-Sulphurets ridge offsets were documented on several branches of a north-south, steeply-dipping fault system. The easternmost branch of the fault projects into the area of the Snowfield Gold Zone.

According to my latest estimate about \$2700 (mainly on helicopter charters) has been spent of the total GSC budget of \$12 000. I assume that with Steve Roach's salary in the spring and room and board in the Brucejack camp for GSC personnel last summer, that Newhawk's \$12 000 budget for the IPP project has been consumed entirely. If the





Newhawk Joint Venture agrees I would recommend that the remaining GSC funds be used for lithochemical analyses (about \$1000 for Au and 33 element neutron activation analyses for samples collected last summer and in previous years) and for salary fer a geologist to work on the two 1:5000-scale geological maps. If at all possible I would like Steve Roach to continue this work, as he is familiar with the maps and has extensive geological and exploration experience in the area. If possible I would like to see Newhawk's extensive 1:250-scale mapping over the past 2 years incorporated into these maps to produce a combined GSC-Newhawk product, especially an extensive update to the Brucejack Creek 1:5000-scale sheet.

As we discussed last summer, although we do not currently have budgets for analyses, I would like to obtain pulps for future chemical analyses and possible alteration studies from several diamond-drill holes. The pulps should be more representative than small pieces of core and permit correlation of assays with detail chemical analyses. The holes are as follows: Snowfield #418 and 423; Josephine #424; Galena Hill #422, and possibly SG, Maddux and Gossan Hill Zone holes. Although we have no analyses yet, as you may recall, we sampled previously a Golden Marmot hole giving possibilities of developing some sort of vertical profile extending from the Snowfield area to the Electrum Zone. Such three-dimensional data would add greatly to the interpretation of surface lithochamical ond mineralogical results. For the Snewfield area I thought that every third pulp would be a suitable sample density but much closer sample spacing would be needed across mineralized zones in areas with precious metal-bearing veins. I would like to obtain logs for every hole sampled.

Please let me know Newhawk's opinions about this suggested further work.

Yours truly,

R.V. Kirkham

RVK/bv

cc: A.G. Plant, Director, Coordination and Planning Division W.D. Sinclair, Acting Head, Mineral Deposits Subdivision