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GOLDEN BALL

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BULK GOLD PROSPECT

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GOLDEN BALL PROJECT

CONCLUSIONS

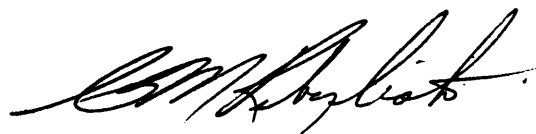
Geological and geochemical information indicates that the geological environment in the Golden Ball project area is favourable for the formation of synvolcanic alkaline intrusive associated gold deposits.

The extensive auriferous alteration zone is a prime unexplored exploration target with excellent potential to host a bulk tonnage gold deposit.

An aggressive exploration program involving detailed geological mapping and extensive multi-element rock and soil geochemical surveying is required to assess this high potential gold prospect.

RECOMMENDATIONS

1. Stake the alteration zone.
2. Engage a geologist with a sound knowledge of synvolcanic alkaline intrusive associated gold deposits to map the area and to manage the exploration program.



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Introduction

Recent exploration in the Upper Triassic and Lower Jurassic volcanic rocks of the Quesnel Trough has identified several significant gold prospects associated with synvolcanic alkaline intrusions. Preliminary geological and geochemical exploration indicates that this prospective geological environment is repeated within the Golden Ball project area. A proposal is made to launch an exploration program to search for bulk tonnage gold deposits.

Background

In 1976, under my supervision, Newconex Canadian Exploration Ltd., (a member of the Goldfields Group), initiated a modest program to explore for gold-rich porphyry copper deposits associated with Lower Tertiary felsite/quartz-feldspar porphyry intrusions in the Stikine Arch. The program principally involved conventional prospecting of the felsite stocks and was complimented by the sampling of streams draining the intrusions. In one of the project target areas an extensive pyrite-carbonate alteration zone was discovered. Widely-spaced sediment samples from streams draining this alteration zone contained geochemically anomalous concentrations of gold and silver.

A recommendation was made to Newconex to continue exploration on this gold anomaly. However, as the principle thrust of the program was directed to porphyry copper deposits, and as a result of severe budget restrictions, no follow-up was undertaken.

Geology

In the region of the Golden Ball project, a thick sequence of subaqueous augite andesite flows, pyroclastics and derived volcanoclastic rocks of Upper Triassic age are interbedded with argillite, arkose and conglomerate and with trachytic volcanic units (see Map 1).

Small hornblende diorite plugs and syenite dykes intrude the Upper Triassic assemblage. These synvolcanic intrusions were followed by the injection of a swarm of northeasterly trending dykes, sills and small stocks of Upper Cretaceous-Lower Tertiary age. While containing the range of zero to 20% pyrite, none of these felsite intrusions host copper mineralization.

The youngest rocks in the area are thin erosional remnants of arkosic sandstone containing large blocks of petrified wood.

Geochemistry and Alteration

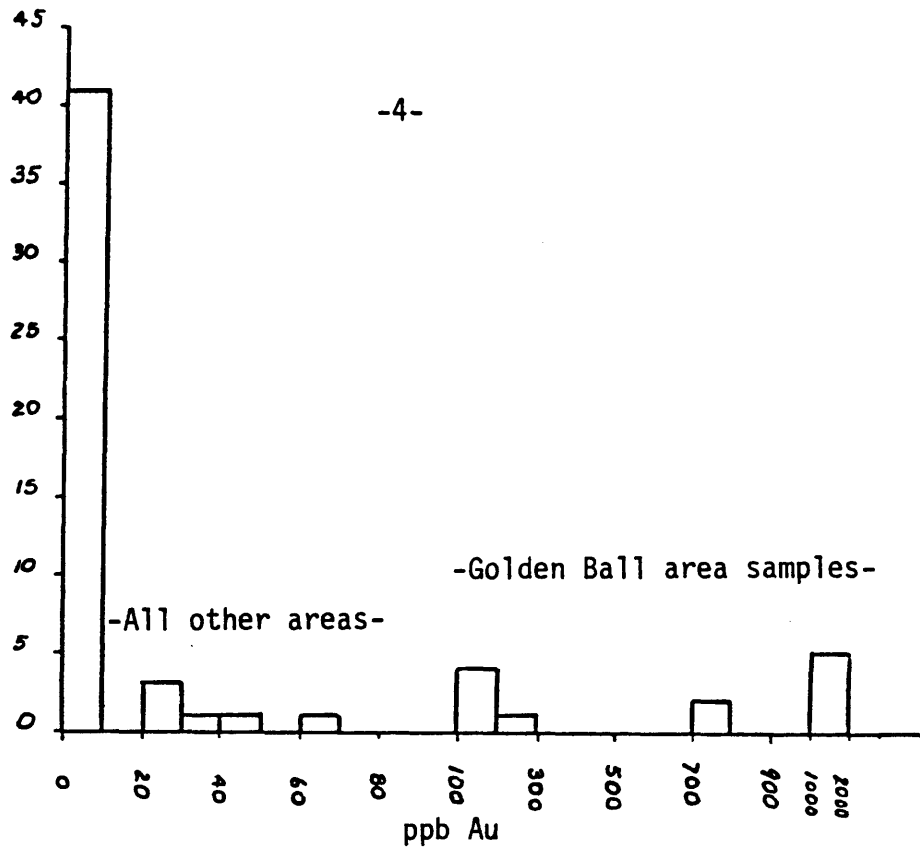
During the course of the project, 97 felsite/quartz-feldspar porphyry dykes, sills and stocks were examined. Of these, the 37 that were pyritic were sampled. Fifty-nine sediment samples were also collected from streams draining the felsite intrusions.

The rock and sediment samples from most areas contained less than 10 ppb gold with the exception of the proposed Golden Ball project area, which returned consistently anomalous concentrations of gold and, to a lesser extent, silver. Gold concentrations in the felsites and stream sediments range up to 660 ppb and 1800 ppb respectively (see histograms). Results from the rock and stream sediment samples are plotted on Map 1.

The andesites intruded by the geochemically anomalous felsite dykes host an extensive pyrite-carbonate alteration zone which is, in part, drained by the anomalous streams. This large alteration zone is unique to this specific area of felsite dyke injection. At all other felsite localities alteration is restricted to minor hornfelsed aureoles extending only a few metres from the intrusion's contact.

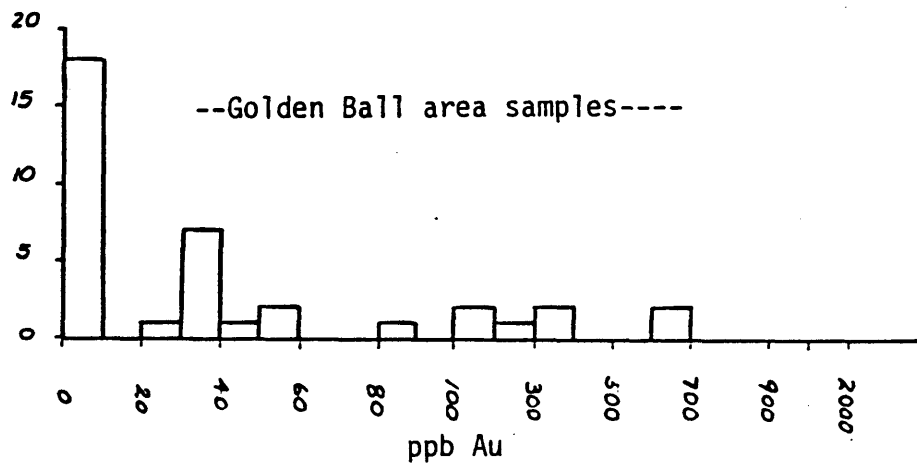
It was originally thought that the felsite dykes were the source of the gold and the cause of the propylitic alteration. Re-assessing this data in light of the recent discoveries in the Quesnel Trough, it is more likely that the dykes intruded a pre-existing zone of altered auriferous andesite resulting in some of the gold being remobilized into the dykes.

FREQUENCY
(n=59)



GOLD IN STREAM SEDIMENTS

FREQUENCY
(n=37)



GOLD IN ROCKS

HISTOGRAMS

PROJECT Golden Ball	
NTS	DISPOSITION
WORK BY CMR	SCALE
DRAWN	DATE 1983

Summary and Discussion

Reconnaissance geological traverses indicate that small subvolcanic diorite and syenite bodies intrude the Upper Triassic volcanic assemblage. These rocks are the age equivalent of the Nicola Group in the Quesnel Trough which hosts several important gold prospects.

The large pyrite-carbonate alteration zone is similar to one of the auriferous zones near Ta Hoola Lake and, to a lesser degree, the carbonate (\pm pyrite) alteration zone associated with the Quesnel River deposit. In support of this, the presence of four highly anomalous streams draining the alteration zone confirms that an extensive gold-enriched zone exists within the project area.

An intensive exploration program involving detailed geological mapping and multi-element rock and soil geochemistry is required to adequately evaluate this intriguing anomaly.

