

→ GIB → Property File **016887**
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KEMESS SOUTH

EL CONDOR & ST. PHILIPS

Introduction

Kemess South is a very large, shallow flat lying copper/gold porphyry located in the Quesnel Trough, a geological trend striking NW/SE through the Toodoggone district of Northern British Columbia. The deposit is known to extend westwards into ground controlled by Rio Algom.

Ownership - 1:	El Condor - 60%
Ownership - 2:	St. Philips - 40%
Reserve:	228 m tons @ 0.23% copper
	228 m tons @ 0.019 oz/t gold
Maximum Depth:	+/- 1,300 feet
Metallurgy:	Apparently excellent
Forecast Output:	44,000 t/day
	212,000 oz of gold/year
	60 m lbs of copper/year
Capital Requirements:	+/- C\$325-350 million
Life:	15 years +
Capital Costs:	C\$300 - 325 million

Comment

On the JV property, the Kemess South deposit is known to be 4,600 feet long (E-W), 2,000 feet wide (N-S) and be up to 800 feet in thickness. This blanket-like monzonite orebody dips at a shallow angle from surface towards the west and now has a reserve known to contain 4.3 m oz of gold and 1.05 bn lbs of copper.

Initially, mining will take place on the eastern portion of the deposit where the stripping ratio in the first four years will be very low, around 0.40 : 1.00 - an overall life of mine stripping ratio of 1.28 : 1.00 has been calculated. Above average recoveries of around 91% are expected for copper and 78% for gold, with significant silver and molybdenum by-product revenues.

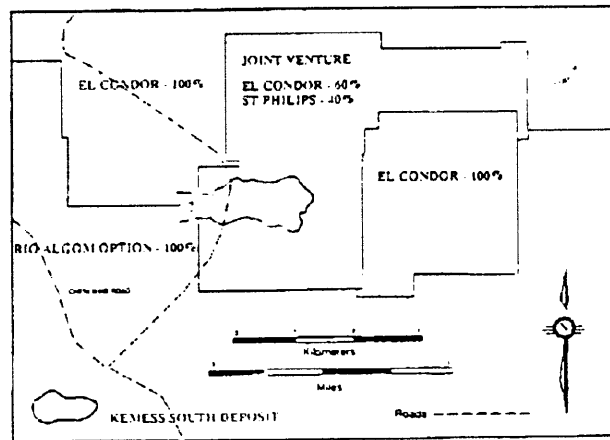
Environmental considerations are becoming of increasing importance, consequently the fact that the ore is low in sulphides and has a considerable carbonate content is a major plus, in that it will not be acid generating.

Gold and copper values are exceptionally consistent, having been evenly distributed

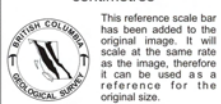
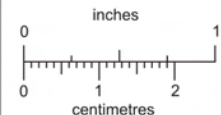
throughout the deposit and consequently there will be insignificant amounts of internal waste generated during mining operations.

In addition to gold and copper, there will also be significant by-product credits from the recovery of molybdenum and silver. A total resource (as opposed to reserve) of 252 million tons has so far been calculated, but this excludes (i) a minor amount of ore known to exist on ground wholly owned by El Condor to the north west, and (ii) a considerable resource (as yet undrilled) under option to Rio Algom to the west.

The economics of operating a deposit so far north are heavily dependent on the size of operations. It was generally believed a minimum ore reserve of 200 million tons would be required before the viability of the project could be assured. With a **mineable reserve** of 228m tons on the JV property, this has now been achieved. Also however, as an extremely rough guesstimate, there is an additional 20 - 30m tons, plus a minimum of 50 - 100m tons on the neighbouring El Condor and Rio Algom properties respectively.



Although located in the sparsely populated north of British Columbia, the project has much better infrastructure than might be expected: (i) a rail link less than 80 kms to the SW over softly undulating ground, (ii) a



hydro-electric power site less than 12 kms distance, and (iii) the road to Cheni's Lawyers Mine crosses the property.

Unlike Fish Lake, the mining company which will eventually develop the property has already been clearly identified. Rio Algom (52% owned subsidiary of multinational giant RTZ) already owns 9.9% of El Condor and 30% of St. Philips (effectively 51% after exercise of outstanding share purchase options).

In addition, the metallurgy of the ore deposit is believed to be excellent and capable of producing quality copper concentrates attractive to foreign smelters. The deposit's work index of around 11 is relatively low and also the ore appears to be exceptionally clean, i.e. free of unwanted minerals, (such as arsenic, lead and mercury) either deleterious to the concentrate produced or the surrounding environment.

Approximately 15 - 20% of the Kemess South ore deposit is unique in that it occurs in the form of native copper - in the geological past a reducing atmosphere removed the sulphide mineralisation. This supergene zone overlies much of the deposit and has a slightly lower work index of 10, compared to the 11.7 for the underlying hypogene sulphide ore.

The Kemess South property is owned outright by the JV partners and is located in an intensely mineralised area of the world: (i) to the NW lies Cheni's polymetallic Lawyers Mine, (ii) to the north, the Kemess North deposit (100% El Condor) is found containing a mineral resource of 128m tons grading 0.19% copper and 0.011 oz./t gold - mining of this much lower grade orebody may commence sometime between the years 2015 and 2020 following the exhaustion of the Kemess South deposit, (iii) El Condor is believed to have found evidence of promising gold and copper mineralisation between the two Kemess deposits, and (iv) Rio Algom is rumoured to have encountered attractive porphyry mineralisation about 3 kms west of the JV boundary.

The climate is not hostile, winter produces only light snowfall. A major plus is that the rivers in the region flow into the Arctic and consequently there are no concerns with

regards to salmon spawning. In consequence meeting the requirements of the Federal Department of Fisheries is unlikely to be onerous.

Conclusion

There can be little doubt now that (i) the Kemess South deposit will become a mine, and (ii) its likely operator will be Rio Algom. The first stage of the mine development program is now underway with the filing of a "Pre-Application for a Mine Development Certificate" which provides a comprehensive review of technical, environmental and socio-economic aspects for a 44,000 t/day open pit project.

LOG NO:	32
ACTION:	
FILE NO:	

Geological Survey Branch

SEP 28 1992