

12 June /86

Gold @ \$325^{U.S.}, Rec. 90%, Pay say 100%
 Copper @ 60¢/lb U.S., Rec. 90%, Pay say 70%

Geological Res. = 326,340 tons.

Tons Res. (Tack) (Mineable ore by blasthole open stoping) = 245,000 tons @ 1.02% Cu, 0.16% Au
 Alan Reed July 31/81. & 0.17% Au.

Recoverable Metal: $\frac{Cu}{Au} = 245,000 \times 1.02\% \times 90\% = 4,498,200 \text{ lb Cu}$
 $= 245,000 \times 0.16 \times 90\% = 35,280 \text{ lb Au}$

Recoverable Gross Value of ore body: Cu = $4,498,200 \text{ lb} \times .60 \times 70\% = \$1,889,244$
 Au = $35,280 \text{ lb} \times \$325 \text{ U.S.} = \$11,466,000$

TOTAL GROSS VAL. = $\$13,355,244 \text{ U.S.}$
 $= 18,430,236 \text{ CAN.}$

OR $\$54.51 / \text{ton of ore}$
 equiv. to $54.51 \times 1.38 = \$75.22 \text{ CAN.}$

MINING + MILLING COSTS (incl. financing/capital) = $\$50 / \text{ton} (= \$36.23 \text{ U.S./ton})$

OPERATING PROFIT = $75 - 50 = \$25 / \text{ton}$

TOTAL OP. PROFIT = $245,000 \times \$25 / \text{ton} = \$6,125,000 \text{ CAN.}$

If all geological reserves could be mineable ore then, 0. Profit = $326,340 \text{ tons} \times \$25 / \text{ton} = \$8,158,500 \text{ CAN.}$

CAPITAL COST FOR PLANT $\$50,000 / \text{ton cap.} \times 200,000 = \$10,000,000 \text{ CAN.}$

INSUFFICIENT RESERVES TO PAY BACK CAPITAL COSTS. N.G. POSSIBLE ADD. ORE DOWN PLUNGE, COSTLY DEALING - DEEP, TONS LIMITED - BOUNDARY. PROPERTY OR ORE ENDS, STRIKE OFFSET?

FOR CUT-OFF GRADE: CUT-OFF VALUE = 54 CAN. OR 36.23 U.S. recovered. (Approx 50% ore in place)

Say constant 1% Cu: $20 \times 0.60 \times 70\% \times 90\% = 8.40 \text{ recovered + profit}$

then Au value in ore would have to be $\$11.60$

and Au_{ore} assay grade " " " " $\$11.60 \div 325 \div 90\% = 0.045\% \text{ Au}$

Au equiv of Cu is $\frac{7.56 \text{ U.S.}}{325} = 0.0233\% \text{ Au per } 1\% \text{ Cu in ore.}$

1% Cu @ 60¢/lb	= 12.00 U.S.
1693 Au @ 325 U.S.	= 29.25 U.S.
	41.25 U.S.
	x 1.14
	47.15 CAN.
per 1% Cu	20 x 70% = 14% Au
	x 60¢
	8.40 U.S.
	x 90% Rec.
	7.56 U.S.
per 1% Au	325 / 90%
	= 362.5 paid.