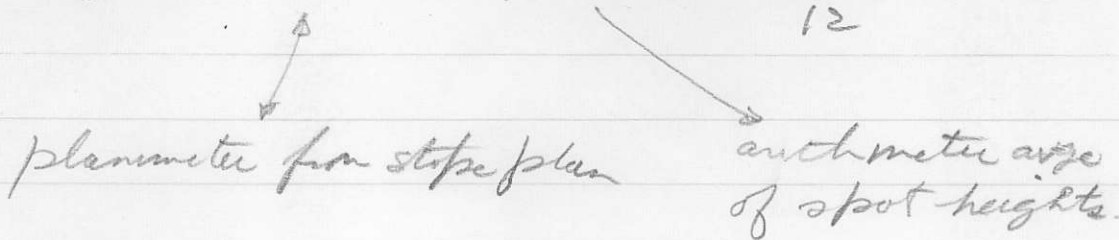


Buck 672522  
82E/4

① Measure stopes - area x ave ht =  $\frac{\text{volume}}{12}$  = tons.



② Grade - arithmetic ave of car samples.  
Average grade mined calculated by ① x ② - weighted average.

③ % Dilution calc by ratio of ave ht to 5'.

④ Tons x ore reserve grade for each stope - total

i.e. ore reserve grade 8.8% x % dilution say 20% → 7.04

Aug to Jan.

7.04 x 729 tons = 5000.025  
etc etc

Total tons into total 025 = 140.4  
= ore reserve diluted grade - in Jan 14.7

Factor of 0.85-0.90 applied to mine samples to compare with George's calc. assay - except in Nov - use as of 25th.

Extracted grade (Expl. dil. to grade)

	Stope	Stope Prep. (Stope Dev?)	Total Mined	Slide (1300 @ 15)	Milled:
Aug.	2542 @ 19.3	2039 @ 15.7	7283 @ 15.7	600 @ 5	4877 @ 16.0
Sept.	5810 @ 16.0 (4 incl)	771 @ 5.2	6581 @ 15.7	694 @ 5	8175 @ 14.5
Oct.	2781 @ 18.2	3359 @ 12.3	7283 @ 13.4	66 @ 4.2	8093 @ 12.8
Nov.	4367 @ 15.3	2419 @ 12.4	7166 @ 13.7	144 @ 5.0	7,310 @ 13.5
Dec.	5562 @ 17.4	1894 @ 14.0	7982 @ 15.8	912 @ 2.2	8294 @ 14.4
Jan.	6776 @ 14.7	1019 @ 7.7	9559 @ 12.1	344 @ 3.3	10,178 @ 12.0
Feb.	5940 @ 14.9	3018 @ 7.4	9902 @ 12.0	1366 @ 4.1	11,258 @ 11.0
March					

5028      41,973      6,420      54,178  
838

4257

3426 ↓  
6 or 8 samples per month

45133

Aug to 1 Jan

Jan

Dev - prep & stockpile -	52.1%	20,576
Stoping	47.9%	<u>18,915</u>
		39,491

Stope Dev. (Exploration)

3 headings x 1 rd/day - 3 rounds x 8 x 4 tons/ft = 9600 tons/month  
of which 800-900 tons/month is ore.  
Visual decision - sampled afterwards.

Stope preparation

Visual mostly - sampled afterwards

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Calc stope  
extra grade

One reserve  
grade

Sept

16.0

17.2

Jan

14.7

14.4

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One reserve - proven or measured - 110,000 tons @ 15.1

# Investigation re Economics of milling "Exploration" & "Slide" Ore

## (A) Exploration

1 ton of "exploration" ore - assays 4.86 ozs. Ag per ton  
after selection. - mine assay -

Ozs. Ag recovered -  $85\% \times 4.86 = 4.13$  ozs/ton after  
Revenue per ton of ore =  $2.00 \times 4.13 =$  \$ 8.26.

## Costs

### Per ton of ore

- (1) Framming - incurred in any case
- (2) Haul to mill & general costs - say \$ 1.00.
- (3) Milling - supplies only -  $\frac{1}{2} \times 1.70$  0.85.
- (4) General extra handling - say 0.35
- (5) Extra men re weekend work -  
cost - 8 days/month  $\times$  6 men  $\times$  30/day  
or 1440

1 Ton of Exploration ore - after selection = say <sup>4.86</sup> ~~5.00~~ 025.  
 By recovery = 85% ~~x 5.00~~ x 4.86 = 4.13025.  
 Revenue = 2.00 x 4.13 = \$ 8.26      8.26

Costs - extra

Based on	(1) Framming - incurred in any case	P.D.T.
Mar 68	(2) Haul to mill + general - say	\$ 1.00
	(3) Milling - 1/2 x 1.70 (supplies)	0.85
	(4) General extra - say	0.35
		\$ 2.20
	Extra costs re. men	
	Marketing -	1.00
		3.20

~~48~~  
 8 days x 6 men.  
 = 48 ms x 30  
 =  $\frac{1440}{1536}$  - say 1.00  
 For

Profit \$ 5.01 / ton

Add for slide material - say 1.50

Total costs      4.70 / ton  
 Revenue slide material = 3.57 x 85% x 2.00 = \$ 6.07  
 Profit - slide material ~~3.56~~  
\$ 1.37 / ton

Profit

e.g. Feb. February,

444 tons @ 5.00	=	<del>2220</del>	2220
1366 ton @ <del>3.56</del>	=	<del>4863</del>	1871
		1.37	
		<del>6190</del>	<u>\$ 4091</u>

Total for Oct to Feb

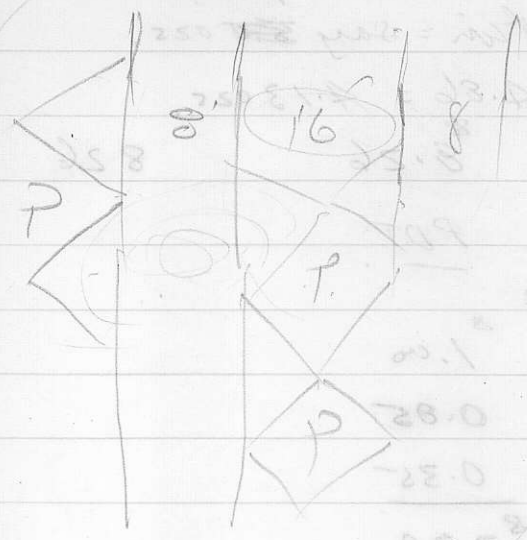
(a) 4257 tons @ 5.00 = 21,280  
 (b) 3426 tons @ 1.37      4,694  
\$ 25,974  
 a wage of  $\frac{25,974}{5} = \underline{\underline{\$ 5,195 / mo}}$

Losses re shut down & start-up.

5 days x <sup>52</sup> ~~100~~ weeks = 260 days or 22 days/ms x 450 = 9,900 T.P.M

45  
 22  
 90  
 90  
 180





(1) Gaining - material in one case  
 (2) Price of material + gain - say  
 (3) Profit - 1/2 x 1.70 (approx)  
 (4)  $8.32 \times 2 = 16.64$   
 $16.64 - 1.80 = 14.84$   
 $14.84 \times 1.10 = 16.324$   
 $16.324 - 1.80 = 14.524$   
 Profit 2.00/ton

5  
 8-6-8  
 8-8-8

Cost for other material - say 1.80  
 Total cost  
 Revenue other material =  $3.52 \times 88 / \times 500 = 6.07$   
 Profit other material  
 $1.37/ton$

Profit  
 2.7  
 $1380 \text{ ton} \times 2.00 = 2760$   
 $1871$   
 $1.37$   
 $2523.77$   
 $1871$   
 $646.77$

Factor for Oct 5 Fat

(a)  $4527 \text{ ton} \times 2.00 = 9054$   
 (b)  $3452 \text{ ton} \times 1.37 = 4729.24$   
 $9054 - 4729.24 = 4324.76$   
 $4324.76 / 2 = 2162.38$   
 or cost of 22,917 = 21,192/ton

Losses in what does start-up.  
 2 days x 2000 = 4000 or 55 days / max 420 = 1,900,791  
 $4 \frac{1}{10} - 1 \frac{1}{10}$