

MEMORANDUM

VANCOUVER

1982 September 9

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TO: D. A. Barr

FROM: T. W. Law

Baker Mine - Reserve Forecast (Revised)

The "Roscoe forecast", issued 1982 March 15, estimated the Baker Mine reserves, using the mining experience available (as of 1982 January 01).

<u>Location</u>	<u>Tons</u>	<u>Au(oz/t)</u>	<u>Ag(oz/t)</u>	<u>Dilution</u>
55 level	33,300	0.84	15.87	38%
54 level	40,800	0.47	11.10	38%
Stockpile	<u>9,400</u>	<u>0.50</u>	<u>9.0</u>	
	83,500	0.62	12.76	

Based on this forecast, operations plans were prepared that defined the total operating life at 3.2 years (1984 July 01) and project value recovery at 63.8% for gold and 59.2% for silver.

After applying 1982 mining and milling experience, and re-evaluating some of the risk judgements made earlier in the year, the reserve forecast is now estimated to be (as of 1982 January 01):

<u>Location</u>	<u>Tons</u>	<u>Au(oz/t)</u>	<u>Ag(oz/t)</u>	<u>Dilution</u>
55 level	30,275	0.735	13.92	55%
54 level	40,800	0.47	11.10	38%
*54 level	42,385	0.42	7.20	60%
Stockpile	<u>9,400</u>	<u>0.55</u>	<u>10.88</u>	
	122,860	0.538	11.04	

With these reserves the attached operations plan defines the total operating life at 4.3 years (1985 August 01) and a project value recovery of 79.1% gold and 74.1% silver.

The significant changes are:

1. Fewer tons and ounces will be mined from the 55 level due to the high incidence of faulting and the presence of barren zones. Overall grade will be lower because of the higher dilution.
2. Blocks of "possible" reserves at the 54 level, not yet confirmed, have been added at some risk. These were excluded from the Roscoe forecast because of the risk factor. The additional 42,385 tons may be difficult to mine economically, but the probability that this can be accomplished is acceptable. Development to upgrade the rating of these reserves is underway.
3. Mill material balance experience in 1982 indicates the opening stockpile values in the Roscoe forecast had to be higher than originally estimated. Stockpile values were adjusted.
4. Milling throughput was increased 1983-1986 based on most recent experience, and anticipated improvements in our filtering process.

Comments on Operating Plan

- . Mining would conclude in 1984 and the stockpile would be run-out in 1985 at minimum cost.
- . Because of lower grades and higher throughputs, gold and silver recoveries will not improve. Low grades in 1985 will adversely affect silver recovery.


TWL/krl

enc.

BAKER MINE
OPERATING PLAN BASED ON REVISED RESERVES
"BASE CASE"

1982 SEPTEMBER 03

	1982	1983	1984	1985
Milling (t/mos)	2,780	2,850	2,850	2,850
Grade Au (oz/t)	0.60	0.61	0.61/0.39	0.39
Ag (oz/t)	13.56	12.74	12.74/6.66	6.66
Months	12	12	5.7/6.3	7.3
Recovery Au%	92.0	92.0	92.0	92.0
Ag%	86.8	86.8	86.8	85.0
Month Metal Au	1,535	1,599	1,599/1,022	1,022
Ag	32,720	31,516	31,516/16,476	16,134
Annual Metal Au	18,415	19,193	15,559	7,465
Ag	392,650	378,195	283,438	117,777
Operating Cost 1982 \$/month	585	560	560	420
<u>Comments:</u>			All mining completed in 1984. No mining cost in 1985.	Runout of reserves at mini- mum cost.

TOTAL METAL:	1981	8,955	157,022
	1982	18,415	395,650
	1983	19,193	378,195
	1984	15,559	283,438
	1985	<u>7,465</u>	<u>117,777</u>

TOTAL RECOVERED:	69,587	1,332,082
PROJECT:	<u>88,000</u>	<u>1,798,000</u>

79.1%	74.1%
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