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# DOLLY VARDEN MINES - SILVER DEPOSITS

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### SUMMARY and CONCLUSIONS:

(1) The Dolly Varden property has a reserve of 1,216,665 of proven, probable and possible ore contained in the Wolf, North Star, Torbrit and Dolly Varden veins. The average grade is 9.15 oz. of Ag per ton and less than 1% combined Pb-Zn.

(2) The veins are classically epithermal and the Dolly Varden and North Star bottom levels are notably zincy, suggesting definite depth limitations

(3) This reserve of silver (with minor Pb-Zn) is not economic at the present silver price of $1.65-$1.70 per oz. and indeed would require a silver price of $2.50 per oz. to return new capital plus the Dolly Varden vested interest.

(4) A Chapman, Wood & Griswold feasibility report dated June 1969 indicates a capital cost of $4,427,470. This does not include interest on the money and working capital is limited to $185,000 which is less than the cost of one month of operation. The interest calculated at 9% for two years would be $832,520. The total capital cost (without escalation) plus interest, plus working capital for three months would be $4,427,470, plus $832,520, plus (3 times $200,000) equals $5,860,000.

(5) Peter Cromie, President of Dolly Varden, feels that there should be an annual expenditure for exploration and/or development of $300,000 until production can be achieved. He further feels that all of the money spent by such companies as Sunshine Mining Company, Newmont and Bralorne should be considered as an equity which must be returned to Dolly Varden out of 20% of the cash flow. Cromie's estimate of this sum is $3,000,000. The total capital to be repaid from the operation before any division of profits would therefore be $5,860,000, plus $3,000,000, for a total of $8,860,000.

(6) The $8,860,000 to be repaid would require the following:

(a) The total known ore reserve of $1,216,655 tons having a net smelter return of $19.00 per ton;

(b) A mill capacity of 700 tons per day;

(c) A silver price of $2.50 per oz.;

* (d) An operating cost beginning at $9.85 per ton and escalating to $12.25 per ton during the last year of operation.

(7) The division of profits (according to Mr. Cromie) should be on a basis of 51% to Kerr Addison and 49% to Dolly Varden after Kerr's capital costs and Dolly Varden's $3,000,000 equity have been returned.

(8) Since all of the known reserves at $2.50 per oz. of Ag are only adequate for the return of capital with interest, any profit would have to be derived from a higher silver price or from new ore reserves. We can only speculate as to what additional ore might be found, but this additional ore might be in the order of 200,000 tons based on the known vein structures. This is less than one year's supply at 700 tons per day and would net the operation approximately $8.00 per ton or $1,600,000 after roughly six years of operation.

(9) It should be recognised that the Dolly Varden posture may be largely for bargaining purposes and that they would settle for a work commitment of $150,000 per annum and perhaps a return of $1,500,000 of the $3,000,000 equity they now claim. It might also be possible to take down the shares of Dolly Varden for work done. These shares would have a certain market value (currently 38¢) even if the project had to be closed down for any reason, such as a time lag in silver prices. However, it would still be necessary to negotiate a better distribution of profits than the 51%-49% quoted by Mr. Cromie. A 70%-30% division of profits would enhance the picture considerably, but Mr. Cromie has told us that he would not entertain such a division.

* from C.W. & G. 1969 feasibility report

(10) In conclusion we are compelled to take the view that while the Dolly Varden vein system constitutes a future reserve of silver ore, the framework for entry by Kerr Addison Mines does not appear to exist. It does not exist because we are unable to indicate that sufficient additional ore could be found by further exploration, and because the requirements of Dolly Varden Mines are too high to provide for an adequate margin of profit for any new company entering the picture.

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