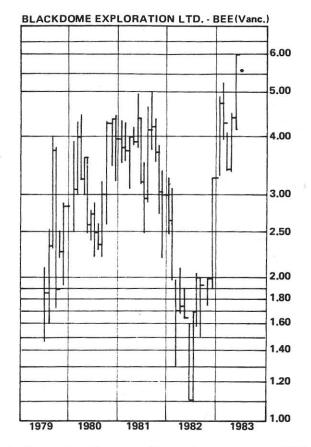
## 861985

# **BLACKDOME EXPLORATION LTD.**

-7GWB



We recommend purchase of Blackdome Exploration (\$5.63) which is currently developing a high grade or 'bonanza' type gold and silver deposit in central British Columbia under Noranda sponsorship. While recognizing the risks inherent in the relatively early stages of such development projects, we are of the opinion that Blackdome will join the growing ranks of new Canadian gold producers over the medium term.

At this time the Blackdome property appears capable of easily accommodating a 200-ton per day operation which would afford a minimum six-year mine life using current reserve estimates. As fast payback of the projected \$20 million capital costs of this operation appears assured by modest tonnages of unusually high grade material now developed, project risk has been greatly reduced; a situation which provides a high probability of a positive production decision by early next year.

One of the more compelling aspects of Blackdome is the somewhat unique nature of its agreement with Noranda. Unlike the usual arrangement whereby a junior company farming out to a major is left with only  $\cdot$  a minority interest in its own property, Blackdome shareholders will retain a 100% interest

in the project because Noranda may earn a 55% equity interest in Blackdome Exploration by way of \$11.25 million in exploration and development expenditures. Therefore the Blackdome shareholder is subject to probably less dilution than that which would have occurred through the typical combination of debt and equity financing by a junior company. Additionally, the fact that Noranda can only realize a cash return on its investment by way of a dividend stream provides Blackdome with superior yield potential.

BUNTING

Douglas H. Nicholson June, 1983

Blackdome File - ( deal

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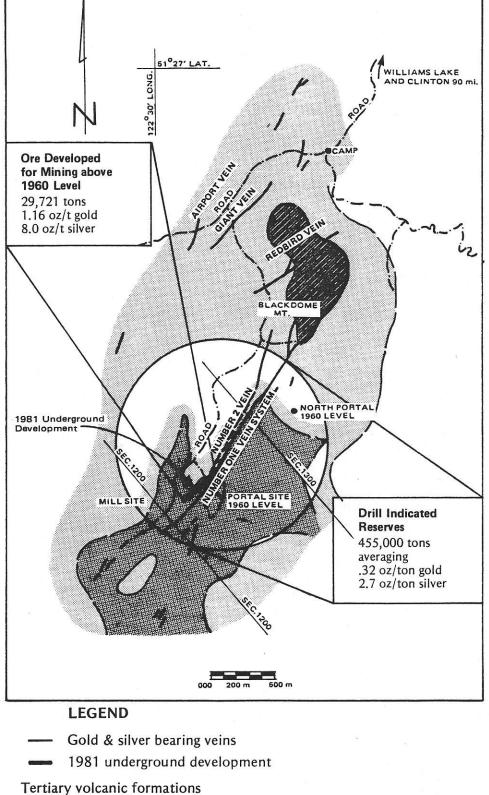
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## BUNTING





Plateau basalt

Andesite lava flows

Volcaniclastics & rhyolite flows

#### I. THE COMPANY

Blackdome Exploration is a junior resource company currently developing, under Noranda sponsorship, a 'bonanza' type gold and silver deposit on Black Dome Mountain near Clinton in southern British Columbia. While this kind of deposit does not lend itself to establishing a large forward reserve base, we are of the opinion that the Blackdome property is capable of supporting a profitable operation over a five-to-ten-year period.

#### II. THE BLACKDOME PROPERTY - A PERSPECTIVE

As the large majority of gold production in this country has been derived from the Canadian shield, the potential of smaller high grade deposits in western North America tends to be less well understood. There are few who are not familiar with the many colourful, but mostly fictional, accounts of the development of the gold deposits of the American southwest in the last century. The temptation of literary licence to transform the efforts of a modest entrepreneur working a small shoot (pocket) of ore in a somewhat chaotic legal framework into a true blue hero complete with smoking pistols and assorted feats of derring-do is understandable. While such small scale individual efforts were often successful, their piecemeal approach denied a clear understanding of the true nature of these deposits and their ultimate profit potential. It is this romanticized view of a distinct geological environment which does, however, provide an accurate perspective on the Blackdome property as a small mining camp in its own right capable of sustaining profitable production over a much longer period than current known reserves would suggest.

In its simplest terms, Blackdome is a 'bonanza' type of deposit in which high grade ore shoots occur along a major shear zone (the dominant structural feature on the property) as well as in subsidiary fault systems. Therefore, accurate assessment of the potential of such a deposit is more dependent on an appreciation of **the extent of such host structures than on proven reserves**. A common distinction between gold and base metal properties is the relatively small reserve base of the gold operation resulting from gold ore zones being distinct units which are expensive to delineate accurately. The gold operator with a good knowledge of his immediate geological environment is therefore normally content to develop proven reserves sufficient only to provide a reasonable mine life and ample warning of reserve exhaustion. In a high grade situation such as Blackdome, this concept is quite pronounced with a production decision being largely dependent on visible payback with a comfortable rate of return on invested capital. As previous development of the south zone has provided sufficient reserves to recoup capital costs, a production decision would appear highly probable:

#### **III. PROGRESS TO DATE**

#### Background

Based on the presence of a number of high grade gold showings and what has since proven to be a keen understanding of western North American gold deposits, the Black Dome Mountain property was acquired in 1978. Previous work on some of the gold occurrences had failed to establish sufficient continuity of reserves for economic consideration. However, by acquiring a relatively large claim block (by local standards), Blackdome Exploration was able to use an exploration approach suitable to this type of geological environment. Discovery in 1980 of a strong mineralized zone containing about 313,000 tons of 0.35 ounces per ton of gold aod 3.34 ounces per ton of silver led to an underground development programme the following year. While a number of high grade shoots were successfully delineated, the underground project was terminated in late 1981 when the virtual collapse of the junior resource market made it impossible to raise the funds needed to continue. At this moribund stage, Noranda assumed sponsorship for this project through Heath Steele Mines, a wholly-owned subsidiary. Alfred Bunting & Co. Limited acted as the introductory agent for the agreement which was signed in February 1982.

#### The Noranda Agreement

Under the terms of the agreement, Noranda may earn 3.25 million shares of Blackdome (constituting a 55% equity interest in the company) in return for the following schedule of expenditures.

Feb. 1982 to Feb. 1983 - \$0.6 million Mar. 1983 to Aug. 1983 - \$0.9 million Sept.1983 to Feb. 1984 - \$1.5 million Apr. 1984 - Production decision deadline; Noranda commits \$8.25 million to Blackdome for final equity purchase.

Characteristic of this senior company, Noranda has more than honoured its commitments having spent, as of December 1982, \$1.25 million on surface exploration and diamond drilling and has now embarked on a \$2 million underground exploration programme scheduled for completion by year-end. This should put the company in a position to make a sound production decision by the April 1984 deadline.

There are a number of features in this agreement which, when compared to the usual property option agreement, benefit the minority shareholder. The value of the Blackdome property, essentially the company's only asset, would have been seriously eroded by the more usual arrangement whereby a project is farmed out in return for a small retained interest. Under this agreement the Blackdome shareholders retain a 100% interest in the property while being subject to possibly less dilution than what might have occurred if the company had undertaken a combination of debt and equity financing. An additional consideration here is that the parent company can only realize a cash return from this project by way of a dividend stream, a situation which would benefit all shareholders equally.

#### **Exploration and Development**

In 1982 the extensive surface drilling programme carried out by Noranda under the terms of the agreement was based on revised geological and geophysical studles, and discovered a strong mineralized zone about 4000 feet north of the original 313,000 tons of 0.35 ounces per ton of gold and 3.34 ounces per ton of silver mentioned earlier. Reserves were therefore increased to 455,000 tons grading 0.32 ounces per ton of gold and 2.7 ounces per ton of silver at the end of last year. However, the 1981 underground programme had clearly demonstrated that surface drill sampling was an inaccurate indicator of grade. Two factors contribute to this: relatively poor core recovery in the shear zones in which ore shoots are concentrated, and the loss of contained free gold in core handling. Accordingly, grades in both silver and gold were consistently 65% higher in underground sampling than in drill core analysis. Noranda's recently initiated underground programme is designed to test properly the new mineralized area which would appear to contain larger target zones than those encountered to date. A major cost consideration here is that the high relief of Black Dome Mountain allows underground access by means of horizontal adits, a substantially cheaper undertaking than shaft sinking. Assuming that the grade discrepancy between drilling and direct sampling is at all similar to that which occurred in the south zone, this property would undoubtedly be brought to immediate production.

#### IV. OUTLOOK

At this time, the Blackdome property appears easily capable of accommodating a 200-ton per day or 70,000ton per year operation which would afford a minimum six-year mine life using current reserve estimates. While average grade will be largely determined by the present underground development programme, fast payback of the estimated \$20 million capital costs of this project appears assured. Indicative of the type of material encountered in this property is the 30,000 tons of ore grading 1.16 ounces per ton of gold and 8 ounces per ton of silver developed prior to the demise of the 1981 programme. Milling this in addition to about 4,000 tons of surface stockpile material grading 0.8 ounces per ton of gold and 4.4 ounces per ton of silver in the first six months of operating would provide about 32,365 ounces of gold and 196,000 ounces of silver. An early 1984 production decision would result in full production by 1985. Assuming gold and silver prices of US\$600 per ounce and US\$15 per ounce respectively at that time, the estimated \$20.0 million capital costs would be entirely recouped in the first six months as per the following schedule.

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	\$ million
Revenues - Gold	23.4
- Silver	3.5
	26.9
Operating Costs @ \$135/ton	4.5
Operating Profit	22.4
Debt Charges	0.7
\$10 mm @ 13% for 6 months	$\frac{0.7}{21.7}$
Cash Flow	21.7

#### First 6 months Operating Using Available Material from South zone\*.

\* Assumptions

Metallurgical Recoveries 95% Gold and 85% Silver

ii Dilution factor 10%

Pending finalization of grade estimates upon completion of the present underground programme later this year, metal production and profitability are difficult to estimate with any degree of precision. However, the following simulated earnings and cash flow stream provides a conservative, but reasonable, indication of the level of profitability of which we believe Blackdome is capable on a sustainable basis.

#### V. SIMULATED INCOME STATEMENT

#### (Estimated Average Grade Operation at 70,000 Tons Per Year)

Metal Production - 35,000 ounces of gold and 350,000 ounces of silver.

Gold Price	(US\$) (Cdn\$) @ Cdn\$1=US\$0.83	500.00 602.40	600.00 722.90
Silver	(US\$)		15.00
Silver	(Cdn\$)	12.50 15.06	18.07
	(Cuns)		
		\$ m	illion
Revenues	Gold	\$21.1	\$25.3
	Silver	5.3	6.3
		26.4	31.6
Operating Cost	s @\$135/ton	9.5	_ 9.5
Operating Prof	it	16.9	22.1
Depreciation &	Depletion (5-year write off)	4.0	4.0
Income Before	Taxes	12.9	18.1
	ng Taxes (full 58% theoretical rate)	7.5	10.5
Net Earnings			
-		5.4	<u> </u>
EPS*		\$0.90	\$1.30
Cash Flow		\$9.4	\$11.6
CFPS		\$1.60	\$1.95
Metal Price Sen	isitivity:		
	er share/\$10/oz. change in price	\$0.03	
	per share/\$1/oz. change in price	\$0.03	
511761. ¥ p	er snarel + i loar enange in price	+0.05	

These forecasts do not take into account the milling of the high grade ore upon which payback is based. Earnings in the first year would benefit from this as well as a lower tax rate due to availability of earned depletion and could therefore be higher than average.

\* Shares outstanding December 31, 1982 - 2,777,750

Fully diluted after Noranda option purchases - 5,947,750



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