

# KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

APR 2 1973

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To..... G. M. Hogg ..... From..... W. M. Sirola .....  
WESTERN MINES LIMITED  
Subject..... BUTTLE LAKE, VANCOUVER ISLAND, B.C. .... Date..... March 28, 1973 .....

## INTRODUCTION:

At your request we have reviewed the available recent information on this property.

Paul Kavanagh and I visited the property in 1962? with a view to buying an interest at that time. I believe Paul wrote a report after the visit but I do not have a copy in this office. In any case a decision was made not to attempt any participation in Western Mines.

## LOCATION:

The property is located at the south end of Buttle Lake in Strathcona Provincial Park, 35 miles southwest of Campbell River. The property is connected with Campbell River by a hard surface highway.

## HISTORY:

The property was first staked in 1918 by Cross, Miller and Price. In 1930 Dr. Henry Gunning of the Geological Survey of Canada described the property and implied that there was a possibility of developing a large tonnage of milling grade ore.

In 1959 the Reynolds Syndicate acquired the property and staked additional claims. In 1961 Western Mines negotiated an option purchase agreement with the Reynolds Syndicate and diamond drilling was commenced on the Lynx zone. This work was sufficiently rewarding that senior financing was sought in 1965. A 750-ton per day mill was decided upon and a total of \$11,000,000 was borrowed for equipping the property for production. By this time, Western Mines had already expended more than 4.5 million and the total cost prior to production in August 1966 was a staggering \$15,000,000.

In August 1966 it was decided that the upper part of the Lynx deposit could be mined by open-pit methods. Additional money was raised by the sale of shares to Canadian Faraday Limited and Northgate Exploration Limited. Cominco was already a shareholder through an interest in a Western Mines property at Ainsworth, B.C.

By 1971 Cominco and Faraday had disposed of their shares and Northgate sold its 22.4% interest to W. R. Grace and Company of New York. This company retains management control of Western Mines.

J.H.S.	
P.M.A.	✓
G.M.H.	✓
R.D.S.	
B.C.B.	
L.D.B.	✓
M.D.R.	✓
J.H.F.	

(E.C.J.)

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## GEOLOGY:

The principle rock types on the property are Permian tuffs, agglomerates and lesser andesite flows. These volcanics have been fractured by wide north-westerly trending, steeply dipping shear zone. All of the known mineralization is in gently plunging folds within this shear. Copper, lead, zinc and silver mineralization occurs as lenses and pods in discontinuous modified echelon pattern. The favoured host rock is a light coloured quartz-sericite schist. The ore varies from 2 feet to 40 feet in width and averages six to eight feet.

## ORE RESERVES:

### Lynx zone and ore reserve 1971

1,495,900 tons averaging 1.8% Cu; 0.8% Pb; 7.8% Zn; 0.06 oz Au and 2.1 oz Ag per ton.

### Myra zone and ore reserve 1971

375,000 tons averaging 1.00% Cu; 2.4% Pb; 11.4 Zn; 0.12 oz Au and 7.3 oz Ag per ton.

This zone with its high silver content is considered by management to have the best potential and they are driving a 22,000-foot decline underneath drill intersections. ?

In 1972 management reported that two diamond drill holes at the northwest end of the Lynx zone cut ore grade mineralization approximately 1,000 feet below surface.

## MINING METHODS:

The open-pit mining on the Lynx zone has been contracted to a Vancouver construction firm which employs a crew of 30 men.

Underground mining is done by cut-fill methods using mill tailings as stope fill.

## MILLING METHODS:

The original mill design was for 750 tpd and three concentrates (copper, lead and zinc) were produced. This practice was later found to be impractical and was changed to a copper concentrate and a zinc concentrate. Later on the lead circuit was again installed which contained 7% of the copper. Presumably this is sold separately.

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The regular copper concentrate averages 0.6 oz Au; 9 oz Ag; 25% Cu; 4% Pb and 9% Zn.

The zinc concentrate averages 0.05 oz Au; 3 oz Ag; 1% Cu; 1% Pb and 55% Zn. Copper recovery is 91% and zinc is 79%.

## CAPITALIZATION AND BREAKDOWN:

Western Mines is capitalized at 7,500,000 shares of which 5,206,216 have been issued. The share breakdown (to the extent that we know it) is as follows :

Grace and Company	1,156,571
Bob Pauling (Davidson and Company)	100,000
Harold Wright of Wright Engineers	200,000
(Public)	<u>3,749,645</u>
	5,206,216

It is conceivable that there are some sizeable blocks of shares in the hands of some individuals but in the absence of a shareholder's list we have no knowledge of where these shares might be.

## LONG TERM DEBT:

If we exclude mortgages on land and company houses there is no long term debt as of the end of 1971. Theoretically, the mortgages should be self-liquidating.

## ECONOMICS:

During 1971 the revenue and profit picture was as follows :-

Revenue from the sale of concentrates	\$11,198,388
Operating costs	<u>8,380,208</u>
Operating profit	\$ 2,818,180
Depreciation, exploration, interest	\$ 2,136,460
Provision for taxes	157,500
Net earnings before write-off of Ainsworth plant	1,978,960
Net earnings after write-off of Ainsworth plant	1,611,415
Or 31¢ per share	



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Present value based on \$2,000,000 net earnings and discounted at 12% compound interest is equal to  $\$2,000,000 \times 3.073 = \$6,146,000 = \$1.80$  per share.

## CURRENT ASSETS (WORKING CAPITAL):

\$2,800,000 or 63¢ per share.

\* Rate of return on capital to Grace and Company, based on 1971 dividends is  $\$1,040,604 \div \$3,000,000 \times \$1.20 = 6.9\%$

\* Cost of 20% of issued shares (to Grace and Company) \$3,000,000  
1971 dividend - \$1,040,604

## CONCLUSIONS:

It would appear that Grace and Company who have controlling interest in Western Mines make a modest annual profit on their \$3,000,000 investment.

The Myra zone appears to have the greatest potential for new ore, but in this deposit as in the Lynx zone the ore is lensey and expensive to mine. ||

Earnings should improve in 1973 because of increased prices for all the metals involved. The overall picture appears to be a continuous struggle to provide enough ore to maintain the present milling rate.

It is difficult to advocate on the part of Kerr Addison, involvement in an operation showing the limited profitability of Western Mines unless a continuing improvement in metal prices could be foreseen. On the other side of the ledger, it is reasonable to assume that Western Mines will continue to make a small profit for some years to come. Obviously in the absence of long term debt this year the operation has paid back \$11,000,000 in debt plus interest in 15 years of operation.

WMS/ah

W. M. Sirola

Encl. Copy of Section through Lynx Mine

Copy of Consolidated Statement of Earnings and  
Retained Earnings for year ending December 31/71