ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8
(604) 688-2568

841826

SUMMARY REPORT

on

WESTMIN RESOURCES LIMITED

PREMIER AND BIG MISSOURI PROPERTIES

in the

STEWART AREA, BRITISH COLUMBIA

for

CHEVRON CANADA RESOURCES LIMITED

November 21, 1984

Alan R. Archer, P.Eng. Consulting Engineer

BOX 4127, 3125 THIRD AVENUE, WHITEHORSE, Y. T. Y1A 3S9
(403) 667-4415

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SUMMARY AND RECOMMENDATIONS

Westmin Resources Limited own under option the road-accessible Premier and Big Missouri gold-silver properties in the Stewart area of B.C. Past production from these properties, all from underground operations, produced 1.88 million ounces of gold (third largest in B.C.) and 41.1 million ounces of silver (second largest in B.C.). The properties are less than thirty minutes drive from the deepsea port of Stewart, which has sufficient infrastructure to support a major mining operation. An old hydroelectric plant on the property is capable of being upgraded at low cost.

Westmin has outlined possible drill-indicated reserves of open pit ore totalling 2.167 million tons grading 0.098 opt Au equivalent (using a 42 to 1 silver to gold ratio) from four pits at the Big Missouri and 2.5 million tons grading 0.13 opt Au equivalent at the Premier. There appears to be potential for increasing this tonnage to nine million tons of similar grade. In addition, there is potential for developing several million tons of low grade underground ore (0.1 to 0.2 Au equivalent) at depth at the Premier property. Westmin is considering joint venturing further exploration and development and is asking for a commitment of seven million dollars over the next several years for one-half of their option interests. Westmin also want management control through to and during production.

The main concerns with the properties are:

(1) no metallurgical testing has been done to ensure satisfactory recoveries are possible;

(2) reserves are only at a possible drill-indicated stage and have been calculated using uncut assays; and,

(3) annual recorded snowfall at the Premier prior to the 1950's averaged eleven metres.

These concerns are partially alleviated by the fact that Cominco obtained 95% recovery from ore averaging only 0.08 opt Au equivalent mined from underground at the Big Missouri in 1938 to 1941 and that weather at Stewart has been warmer (with less snow) than normal for the last ten years, possibly indicating a long-term change.

Westmin has a proven reputation as an efficient, low cost operator and will make an ideal partner-operator. The seven million dollars should be sufficient to bring reserves to a drill-proven category and to conduct the metallurigical and feasibility studies required for a production decision. The writer believes that the possible drill-indicated reserve tonnages and grades outlined by Westmin have been reasonably calculated and that participation is justified if Chevron can ascertain that this reserve is sufficient for an economic operation at today's metal prices.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

C. R. Archer.

/mc

A.R. Archer, B.A.Sc., P.Eng.

INTRODUCTION

On October 26, 1984, the writer was asked to review data on the Premier and Big Missouri properties near Stewart, B.C. which are held under option by Westmin Resources Limited. The following was performed.

October 30 - preliminary reports supplied by Westmin and B.C. Department of Mines Bulletin 58 (Geology and Mineral Deposits of the Stewart Area, B.C. by E.W. Grove) were reviewed.

October 31 - detailed exploration data was examined at a meeting in Vancouver hosted by Westmin exploration manager Harlan Meade and staff geologists Paul Wojdak and Shaun Dykes.

November 7 - 10 - travel to the property, followed by examination of surface exposures, drill core and underground workings at the Premier property and drill core from the Big Missouri property. The latter property could not be examined on surface due to snow cover.

November 18 - 19 - reviewed data and prepared summary report.

As of October 1, 1984, Westmin have spent $5,756,763.00 on the two properties. Five companies (Chevron, Esso, Placer, Nippon and Mitsubishi) have been invited to consider joint venturing future development under the following conditions:

(1) the joint venture partner is to provide $7 million for continuing exploration to earn one-half of Westmin's interest (see Appendix I for details), at which point further expenditures will be shared;

(2) Westmin will manage all further work at cost, plus a small markup for overhead that will be negotiable; and,

(3) outstanding option payment commitments will be to Westmin's account.

If more than one company offers to participate, Westmin will make a selection on the basis of which company it believes would make the most suitable partner. Westmin will not make a final decision to joint venture further exploration, even if offers are made, until approval is given by senior management at a meeting to be held in late November or December.

ACCESS AND SERVICES

The two properties are old producers and are located about five kilometres apart, some twenty-one kilometres by secondary road from Stewart, through Hyder, Alaska. The secondary road was used to acess Granduc Mines when it was in production and is presently used and maintained year-round by Scottie Gold. The Premier lies at 650 metres ASL, while the areas of interest at the Big Missouri are between 900 and 1100 metres ASL. Stewart is a "mine friendly" community with a deep water port and a population base that has varied from 500 to about 2,000 in recent years (presently around 500). It is accessible by paved highway, has serviceable lands for a population of 5,000, elementary and secondary schools, a resident dentist and doctor and a ten bed hospital. The biggest operating problem in this area will be heavy snowfall which starts in early November and does not clear until late May. Records for the Premier property prior to 1950 indicate average annual precipitation of 220 cm, including average snowfall of 11 metres. However, more up-to-date weather records for Stewart show a warming trend (less snow) during the past ten years.

None of the old buildings on either property remain standing and Westmin is presently operating out of a forty man trailer camp at the Premier property. The only usable asset remaining is a hydroelectric plant that serviced the old mine. A study conducted by M.A. Thomas & Associates in late 1981 indicated that the plant could be upgraded to produce 2,100 KW with an expenditure of $2.5 million. Annual cost of maintaining the plant was estimated at less than $50,000.

PROPERTIES

General

The two properties are a consolidation of all significant old producers in the camp. Past production from operations on the Premier property totalled 4.72 million tons grading 0.384 opt Au, 8.03 opt Ag, 2.5% Pb, 3.0% Zn and 1.9% Cu while the nearby Big Missouri produced .822 million tons grading 0.077 opt Au and 0.06 opt Ag. All ore was mined from underground.

In total, mining operations on the two properties have produced 1,878,432 ounces of gold and 41,084,350 ounces of silver for an overall ranking of the third largest gold and second largest silver producing camp in British Columbia.

Both properties are in volcanic and sedimentary rocks of the Lower Middle Jurassic Hazelton Group. Mineralization at the Big Missouri occurs in sericite-quartz-pyrite alteration zones within cherty tuff horizons and is considered to be stratabound by Westmin. Mineralization at the Premier occurs as discontinuous high grade lenses (veins?) in a similarily altered 600 m

long, crescent-shaped zone of brecciation up to 50 m wide which dips about 60° down the hill. Westmin geologists believe that this zone is taking on a stratiform character at 200 m below surface.

Gold and silver are associated with sphalerite, galena and pyrite at both properties. Limited metallurgical data from previous operations indicates that as much as 30% of the gold is recovered in native form from jigs and the remainder reports in the lead and zinc concentrates. Native silver, electrum, native gold and ruby silver are found near surface at the Premier and grade into more sulphide-rich ore at depth, suggesting the possibility of surface enrichment. The south end of the Premier zone is more silver-rich than the north end.

Big Missouri

This property was the focus of Westmin's attention until the end of 1983, at which time four open pittable deposits had been outlined by 10,220 m of diamond drilling and 2,932 m of percussion drilling done over a five year period. Undiluted reserves for these deposits are calculated by Westmin as follows.

DEPOSIT NAME	TONS X 10^6	EQUIVALENT OPT AU	CUTOFF EQUIV. OPT AU
Dago	.740	.103	.05
Province	.340	.073	.04
S1	.200	.093	.05
Martha Ellen	.887	.105	.02
TOTAL	2.167	0.098	

Stripping ratios average a little over 2 to 1. These reserves have been calculated using uncut drill assays and a tonnage factor based on actual specific gravity measurements of core. The gold equivalent assay has been calculated under the assumption that 42 parts of silver is equivalent to 1 part of gold; whereas the actual ratio is currently about 46 to 1. Westmin believes there is potential for doubling this reserve.

Because the drill hole spacing is relatively wide and because assay results are often strongly variable between adjoining intersections, these reserves can only be categorized as possible drill-indicated.

There was no evidence of either loss or enhancement of assay values in core examined by the writer. Mineralized sections contain relatively coarse-grained mixed pyrite, sphalerite and galena in patches and/or veinlets usually exceeding 25 mm in width. Although the sulphide mineralization looks as if it would be easy to mill, no tests have been conducted by Westmin. Similar ore mined underground in this area by Cominco from 1938-1941 is reported to have had a 95% recovery.

Premier

The Premier property has potential for both open pit and underground ore, as illustrated on the figure on the following page. The open pit area of interest at the Premier is the near surface portion of the 600 m long crescent-shaped zone of alteration and mineralization that was selectively mined underground on the original Premier Gold property and is now called the Glory Hole zone. This zone is named after the Glory Hole which is a 240 m long and 55 m wide cave that is up to 40 m deep. The cave

METERS

Glory hole projected north to section

SE 1.32:1

SE 6.25:1

ULTIMATE PIT
SR = 5.63:1

ROAD

ROAD

ROAD

ROAD

?

2000'

1800'

1600'

1400'

1200'

1000'

800'

600'

609.6

548.6

487.7

600 m

500 m

400 m

1 Level

110 Sublevel

2F STOPE

2 Level

OPEN PIT AREA

3F STOPE

3 Level

40 STOPE

4 Level

10 B STOPE

1220 Sublevel

5 Level

POSSIBLE UNDERGROUND ORE

Northern Light zone projected south 100' to section

6 Level

Fig. 1
SILBAK PREMIER MINE
GEOLOGY CROSS-SECTION CX
N 40° W

Workings
Stope area
Area of alteration-mineralization

Scale 100 0 100 200 Feet

...pany Bulletin 58 British Columbia Department of Mines and Petroleum Resources 1970

was apparently partially precipitated by a failed attempt to recover underground ore pillars. A total of 47 holes have been drilled here by Westmin in 1983 and 1984, mainly on the northern half of the zone. The southern half is difficult to drill from surface because of the Glory Hole cave. Westmin is preparing to explore this latter portion by drilling from underground openings which are presently accessible and requires only minor upgrading for use.

Possible drill-indicated reserves for the portion drilled to date is 2.5 million tons grading 0.13 opt Au equivalent using a 42 to 1 conversion factor for silver. Overall potential appears to be at least 5 million tons in a pit about 170 m in depth with a 3 to 1 stripping ratio. Similar to the Big Missouri, these reserves have been calculated using uncut drill grades and actual specific gravity of core for the tonnage factor. In addition, Westmin believes there is potential for at least 2 million tons of underground ore grading between 0.15 and 0.2 opt Au equivalent at and below the old 5 level (about 300 m below surface) which is accessible through a low level (No. 6 Portal) adit. Evidence is based on underground chip sampling, old drill hole assays and a reinterpretation of the geology. The writer agrees that this potential exists and believes it could be drill-tested cheaply from existing underground openings.

APPENDIX I

Chevron can earn 50% of Westmin's interest. i.e 35% of project.

WESTMIN'S INTEREST

Big Missouri

Westmin can earn a 70% interest in the property by purchasing 700,000 shares of Tournigan at 100,000 shares annually at prices increasing from $1.00 to $2.25 per share, and spending a total of $1,700,000 on exploration and development before December 31, 1984 (see Table below). A feasibility report is to be completed by June 1, 1985.

Year	# Shares to be purchased *	Price	$ Value of Work to be done	Minimum Amount Work in Year
on signing	100,000	$1.00	$ -	$ -
1979	100,000	1.00	200,000	-
1980	100,000	1.50	500,000	50,000
1981	100,000	1.50	800,000	50,000
1982	100,000	1.75	1,100,000	50,000
1983	100,000	2.00	1,400,000	50,000
1984**	100,000 done	2.25	1,700,000 done	50,000

* Payment to be made by December 31st.

SHRS ISSUED: 4,969,962 ✓
SHRS: 10M shrs,

** and give Tournigan notice of completing a feasibility report prior to June 1, 1985.

- after 1985 option renewable @ 50,000/year for the first three years and 150,000/year thereafter.

Westmin's Expenditures to end of 1983

	Engineering	Environmental	Total
1979	$ -	$ -	$ 300,527.85
1980	16,000	2,500	494,550.40
1981	38,000	65,000	900,417.39
1982	-	9,000	517,072.69
1983	4,000	5,000	236,633.65
	$58,500	$81,500	$2,449,201.90

Tournigan's Royalty Interest

- Tournigan's royalty is a 30% net profits carried interest after payback of all capital costs and preproduction expenditures. Westmin may reduce this interest to 22 1/2% by making a payment

interest + prem + / ≈ 10% BC tax rate

of $1,000,000 to Tournigan within 90 days of Commencement of Commercial Production.

- During the payback period, Tournigan receives $100,000 or 5% of net profits, whichever is greater, as an advance royalty payment.

Silbak Premier

Westmin can earn a minimum 50% interest in 87 Crown-granted claims from British Silbak Premier Mines Ltd. (BSP) by expending $4.7 million on exploration and/or development by December 31, 1987. Westmin also has the option to purchase a non-dilutable 10% net profits royalty by a series of five annual $300,000 payments to 1987, accumulating 2% by each payment. After 1987, BSP can elect to participate at a 50% level in a joint venture or drop to a 20% carried net profits royalty with Westmin gaining an 80% interest. Westmin's expenditure to the end of 1983 is $959,561.

The expenditure schedule is:

Date	Cumulative Expenditures
by December 31, 1984	$1,300,000
by December 31, 1985	$2,300,000
by December 31, 1986	$3,500,000
by December 31, 1987	$4,700,000