

WILLIAM M. SHARP, P.ENG.
CONSULTING GEOLOGICAL ENGINEER

W.M. Sharp

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171 WEST ESPLANADE
NORTH VANCOUVER, B.C.

November 5, 1969.

President & Directors,
Silver Star Mines Ltd (N.P.C.)
704-626 West Pender Street,
Vancouver 2, B.C.

Gentlemen:

Progress Report 69-2: Exploration & Development
Silver Star Mines Ltd. Scranton Project
Slocan Mining Division, B.C.

Preliminary

This report summarizes exploration and development accomplished at the property during the past year. It is based on interim surveying, geological mapping, and sampling accomplished by the writer during September 25-30, 1969 - augmented by progress data periodically forwarded by the Company prior, and subsequent to the writer's recent examination.

A set of detailed working plans and sections, all on a scale of 20 feet to the inch, has been generally completed; however, formal submission of these is being deferred until all current assay data are received and incorporated; the preliminary set, however, has been mailed to the mine for purposes of current reference.

Ore reserve estimates pertaining to the currently developing 5700-5900 orebody are presently confined to computations of tonnage; the corollary grade calculations are contingent on the completion of the 5700-5900 transfer raise, and receipt of the total assay data accruing from round-by-round raise samples.

With this, the writer thankfully acknowledges the cooperation and information furnished by principals of the Company.

PROGRESS SUMMARY

5900 Level:

To September 30, 1969 the drift was advanced an additional 346 feet beyond the southwest end of the 5900 ore section. With this, the total 5900 crosscut and drift advance stands at ~~1100~~⁷⁵⁰ feet of which ~~890~~⁶⁸⁰ feet are on the vein and for its assumed southwesterly extension. Over this interval the vein ranges from one to six feet in width, and consists, typically, of sheared and broken granodiorite which has been variably kaolinized, sericitized, and pyritized. The Au-Ag-pb-Zn (+cd) mineralization occurs as massive fillings, or as multiple parallel bands and lenticular masses in quartz or bleached-silicified, sheared-brecciated granodiorite. Some sections which are principally mineralized by gray, fine-grained (late, or altered) pyrite contain negligible Pb-Zn values, but appreciable to economically important amounts of gold and silver; hence, check-sampling of all mineralized vein material is mandatory.

Of all ~~890~~⁶⁸⁰ feet of vein opened on this level some 270 feet comprise ore-grade mineralization. This consists of:

- (a) Portal Shoot, with a weighted average assay of Au, 0.40 oz/ton; Ag, 6.0 oz/ton; Pb, 6.0%; Zn, 6.0% over an average width of 2.5 feet and length of 110 feet.
- (b) Inner Shoot, with a weighted average assay of Au, 0.524 oz/ton; Ag, 10.77 oz/ton; Pb, 13.5%; Zn, 16.6%, plus a probable 0.3-0.4% Cd over a length of 160 feet and average width of 2.68 feet.

On the inner shoot two raises were driven for an aggregate length of ~~220~~²⁸⁰ feet. The 59.1 raise was driven for a slope distance of 65 feet, at which point it was branched northeasterly and southwesterly. This opened a lower section comprising 60' by 2' @ Au, 0.39 oz/ton; Ag, 6.9 oz/ton; Pb, 11.0%; Zn, 10.8% and an upper section comprising 28' by 2.1' @ Au, 0.19 oz/ton; Ag, 6.84 oz/ton; Pb, 6.54%; Zn, 5.96%. The shorter and more westerly 59.2 raise was driven ~~70~~¹⁰⁰ feet to open a 45' by 2' section averaging Au, 0.37 oz/ton; Ag, 8.5 oz/ton; Pb 13.2%, Zn, 11.7%. It is proposed to turn both raises to a true up-dip course and advance them to at least the 6040 adit horizon where the West Sunset vein interval was originally exposed.

Drifting to the southwest of the inner ore shoot opened a strong but generally sparsely mineralized quartz vein for an additional 100 feet of strike length; this comprises a potentially-mineralized target for subsequent exploration from the 5900 and 5700 levels.

The latter 150 feet of drift on 5900 level follows a relatively weak, stranded vein structure. Also, it appears highly probable that this represents only a minor element of the generally strong Scranton lode, and that the main south-westerly continuation of the structure lies either in the hanging wall or footwall of the section beyond the existing test holes. Consequently, diamond drill exploration is proposed for an adequate geological determination of the section.

5700 LEVEL

Drift

Preparations for the start of this drive at elev. 5675' were made late in 1968. A portal bench was excavated, tunnel plant installed, and some 70 ft. of crosscutting completed; at this point of advance winter weather and various other development priorities led to the decision to suspend these operations until the following spring.

In late April, 1969 crosscutting was resumed, and the vein, containing appreciable but strongly oxidized Pb-Zn-Fe mineralization, was intersected at roughly 160 feet from the portal. From this point (sta. 57.5), and concurrently with the 5900 level development, the 5700 drift was advanced 750 feet as of September 27th, 1969. The inner, or main ore shoot was intersected between 570-680 ft. from sta. 57.5 for a currently delimited length of 110 feet. Subsequent hanging-wall slashing and drifting further to the southwest has opened an additional 70 ft. of locally mineralized quartz vein with widths ranging between 1½' - 4', but averaging approximately 2½ feet. This has been sampled by the mine staff-with assays pending.

At the inner ore shoot the difference in elevation between the 5700-5900 drifts is 210 feet; cross-sectional correlations indicate a continuous dip-length of 250 feet. In regard to total dip extensions, the writer conservatively estimates that the inner ore shoot will have plus-5900 and sub-5700 dip extensions of about 100 feet each. With this, the respective dip, and strike-dimensions of the ore shoot will be roughly 450 feet and 135 feet for a length; breadth ration in excess of 3:1-indicating the major significance of the possible dip-dimensions of the several short, to intermediate strike-lengths of actual, and near-ore grade mineralization so far indicated by underground development and diamond-drill exploration.

* Chip-channel samples at 5-foot strike intervals along the 5700 ore intersection returned an average grade of Au, 0.09 oz/ton; Ag, 7.88 oz/ton, Pb, 8.32%, and Zn, 6.3% (plus Cd) over an average width of 3.03 feet and length of 110 feet.

Lead-zinc-iron sulphide mineralization in minor to significant amounts is evident through most of the current drift advance. Several more substantially mineralized intervals are being close-sampled; the results of these are pending. Exploration raises are proposed for three, or possible four such intervals, and exploratory drilling for possible dip-extensions is being considered.

57-59 Raise.

This will contain a manway and two ore-waste compartments. The raise was started on October 16, 1969 and full timber carried to 30 feet above the 5700 drift back. Since then the pilot raise, comprising one half of the full 4' x 14' raise section, has been advanced 110 feet above the 5700 collar, opening a continuous dip-length of good, to excellent ore ranging from 1½' - 4' in width. The raise is expected to hole through on the 5900 level at about the mid point of the 5900 ore section.

ORE BLOCKS

I. Tunnel and Trench-Indicated:

	Tons @	oz/ton Au.	oz/ton Ag.	% Pb.	% Zn.
57-5900, Inner (West Sunset)	9,200	Pending raise assays.			
A. 59-6040, Inner (West Sunset)	1,830	Pending raise assays			
56-5700, Inner (West Sunset)	1,590	Pending raise assays,			
Sub Total	12,620	Pending raise assays			
B. 5900 Outer (West Sunset) <i>16,495</i>	3,875	Pending raise assays			
D. S.W. Sunrise	12,000	0.092	3.27	9.1	5.1
Total, Category I	* 28,495	(A) & (B) raise assays.			
		<i>0.235; 7.0; 9.1; 7.6 (Cd)</i>			

II. Diamond-Drill Indicated:

C. Sunrise Basin	15,000	0.03	6.9	4.9	2.0
E. Sunset Stope Sill	3,750	0.20	10.0	8.0	6.0
Total, Category II	* 18,750	0.064	7.5	5.5	2.8
Total Indicated Ore	** 47,245	tons, grade estim. pending.			

In addition, inferred ore-as highly-possible extensions of presently-indicated ore blocks-amounts to 30, 500 tons at a projected grade of 0.09 oz/ton Au; 5.8 oz/ton ag; 5.7% Pb; 3.7% Zn (Plus Cd). Also, on the assumption that the projected development program will, on completion, cover some 20-25 per cent of the gross projected area of the west half of the Scranton code alone, an additional tonnage of 3 to 4 times the above total seems to be a reasonable possibility.

SUMMARY

The initial phase of exploration and development on the southwesterly half of the Scranton lode has resulted in a firmly indicated tonnage of ore of four times the total past production and of substantially higher average grade. With largely increased ore reserves, the present competent mine management, an improved mine road, and its possession of an efficient concentrator, the Company is in a good position to commence profitable production to sustain a long-range exploration-development program.

RECOMMENDATIONS

In general these comprise the continuation of recommendations made in the writer's February, 1969 report. Supplementary, or detailed recommendations pertaining to current development operations are as follows:

5700 Level

Drive exploration raises @ :

1. Sta. 6 +60', to 40' - 50' above drift, and sample.
2. Sta. 9 + 15', to 100' - 125' above drift, and sample.
3. ~~Sta. 10 + 15', to 150' - 175' above drift, and sample.~~
4. Sta. 13-Face --- one or two short to intermediate raises, pending evaluation of drift assays pending.

*Voided
see Nov. 6/69
Recommendation
for three
@ 57-H-5'*

5900 Level

*add Sta. 11 + 20' @ 40' - 50' as indicated sample
Sta. 13 + 50' @ 40' - 50' ✓ compl. Feb. 15/70
Sta. 14 + 40' @ 40' - 50' ✓ compl. Feb. 15/70*

(A) Exploration raises @:

1. Sta. 4 + 15', to ~~40' - 50'~~ above drift, and sample.
2. Sta. 5 + 30', to 75' - 100' above drift, and sample. *(avg. 90')*

(B) Exploratory diamond drill holes from the southwest end of the drift, normal to the vein trend, into both foot, and hanging wall; these should be drilled to at least 100' into the footwall, and 125' into the hanging wall.

Respectfully submitted,

W.M. Sharp
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