TEL.: BUS. 682-4144
RES.: 987-9520

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

ROOM 1. 425 HOWE STREET
VANCOUVER 1. B.C.

August 30, 1968

801078

The President and Directors,
Silver Star Mines Ltd. (N.P.L.),
606-626 West Pender Street,
Vancouver 2, B.C.

Dear Sirs:

Consolidated Summary of

Consulting Engineer's May 26, 1967 formal report, August 23, 1967 progress report, and subsequent Company progress reports and communications, Scranton Mine Exploration - Development Project.

The Company's Scranton Mine property consists of a northeasterly-trending, linear group of eight adjoining claims; this covers a 1½-mile interval of one of the principal members of a system of gold-silver-lead-zinc lodes occurring within this easterly part of the general Slocan silver-lead camp. The group consists of six Crown-granted and two located claims, as follows: Tecumsie, Lot 2261; Pontiac, Lot 2265; Sunrise, Lot 5991; Granite, Lot 6278; Grandview, Lot 6279; Scranton, Lot 7452; Big Ed, Record No. 10096M; Scranton Fr.; Record No. 1011M. All claims are situate in the Slocan Mining Division, British Columbia; the Crown-granted claims lie within the Nelson-Slocan Assessment District and the Kootenay Land District. All claims lie closely within the east boundary of the Kokanee Glacier Provincial Park. The majority of the claims were staked prior to the creation of the Park.

In addition to its mineral claims, the Company owns, or has readily available on very favourable rental terms, a modernized, spacious mine camp and fully adequate exploration-development plant and service facilities. Existing, useable underground workings comprise some 4200 feet of drifts and crosscuts; roughly three-fourths of this total was incidental to comparatively shallow exploration, development, and mining work undertaken on the Sunset-Lower Pontiac loade interval. Additionally, several hundred feet of old, currently-inaccessible, relatively shallow underground workings occur within the 'S.W. Sunrise', 'Grandview', and 'Upper Pontiac' sections.

The mine camp, at about the center of the claim group, is situated 6½ air miles due west of Kootenay Lake and 22 air miles north-northeast of Nelson, B.C. - the local source for mining equipment, supplies, and services. The camp is situated within a large flat area of upper Pontiac creek valley at the 5600 foot elevation. The vein-surface profile ranges between 5600-7000 feet in elevation. The mine camp and main portals area are readily accessible via 10-11 miles of well-graded, all-weather gravel road, departing westerly from the Nelson-Kaslo highway at some four miles north of

Ainsworth, B.C. - the site of the modern 150 t.p.d. custom mill controlled by the Silver Star - Blue Star operating group.

Specific mining and exploration localities along the course of the through-going Scranton lode are, from the southwest property line, designated the 'Granite', 'Sunrise', 'Grandview', 'Sunset', 'Lower Pontiac', and 'Upper Pontiac' sections. The 'Grandview' and 'Upper Pontiac' comprise the earliest workings.

HISTORY

Mining within ground covered by the present claim group commenced during the late 1890's. The resulting shipments, to the old Northport, Washington smelter, comprised small lots of sorted, hand-mined ore from the Grandview and Upper Pontiac workings. Dr. C.E. Cairnes noted (1927) that "they (the veins) occur in shattered and sheared mineralized zones 30 feet or more in width, each zone carrying, probably, several quartz veins and more irregular quartz deposits."

The Lower Pontiac lode section was prospected prior to 1927. The original Scranton Mines group carried out significant underground exploration and development during 1939-40; these operations being terminated by wartime restrictions. Between 1945-48, $95,000 was expended on construction of the original 12-mile access road - seriously depleting Scranton Mines' cash reserves. Between 1948 and 1953 that company developed and mined small orebodies within the Lower Pontiac and Sunset lode sections, producing over 5600 tons of ore averaging gold, 0.22 oz./ton; silver, 10 oz./ton; lead, 11.9%; zinc, 10.6%, plus a significant cadmium content. The concurrent and subsequent exploration for local ore extensions was not based on detailed geological studies -- hence was not effective; this merely resulted in a general dissipation of accumulated cash reserves.

During 1953, 1800 feet of EX core drilling within the West Grandview-Sunrise (basin) lode interval, and channel sampling of a 200-foot length of good lead-zinc mineralization in the Sunrise adit ~~has~~ indicated approximately 27,000 tons of probable mill-grade ore -- the mineralization being similar but of somewhat lower grade than ore mined within the Sunset-Lower Pontiac workings -- situated some 2400-3200 feet on strike to the northeast, and 800 feet lower in elevation.

During 1954-59 a shortage of funds permitted only modest programs of geophysical, diamond drill, and trench exploration. Work during the 1960-1964 period comprised the construction of a mile of road to the Upper Pontiac west portal area, driving of a 93-foot adit on the Lower Pontiac vein extension, and driving of 350 feet of crosscut and drift to explore possible depth extensions of the old Upper Pontiac ore zone. Most of this work was accomplished by Blue Star Mines Ltd., who obtained a lease from the Scranton group in 1964. Corollary surface exploration during 1964 comprised an E.M. Survey and five short core holes on the Sunset-Pontiac lode interval -- the latter working disclosing an appreciably mineralized connective segment. In 1965, the main access road was improved and the '6040' tote road constructed. This was followed by trench-exploration of the lode in this locality.

To 1967, when Silver Star Mines Ltd. (N.P.L.) was incorporated to undertake major exploration-development work, a recorded total of 7,063 tons of ore averaging: gold, 0.216 oz./ton; silver, 11.1 oz./ton; lead, 10.7%; and zinc, 9.1% had been produced via a number of uncoordinated, small-scale mining ventures. The considerable amount of gold-bearing zinc-pyrite material, rejected as dump waste or stope backfill during the earliest periods of production, is not included in the foregoing total.

No significant exploration was done in 1966. During 1967, operations were concerned with preparations for the recommended 2000'-plus drive, starting below the '6040' prospect adit at the 5900' elevation, and with attendant raising and diamond drilling, on the Sunset-Sunrise section of the Scranton lode. Preparatory work comprised reconstruction and improvement of much of the 10-mile access road, construction of the '5900' tunnel access road, camp rehabilitation, equipping of the camp and development plant, and commencement of the 5900 drive to the southwest. The latter was advanced westerly via 130 feet of crosscut; thence southwesterly via 18 feet of drift. Financing problems and difficult access conditions on newly-constructed roads made it advisable to suspend operations at this point of tunnel advance.

Several mineralized stringers were exposed during excavation of the 5900 portal bench. The first lode strand was intersected at the 98-foot point of crosscut advance; the main lode, striking southwesterly and dipping southeasterly, was intersected between ~~120-130~~ 128-129 feet. Locally, the structure comprises foot and hanging wall veins, with intervening, fractured, mineralized granite. The Company's sampling of this section provided:

No. 1,	grab,	broken material:	Au, .06	oz./ton;	Ag, 16.85	oz./ton;	Pb, 29.5%
2,	12 inches,	footwall vein:	Au, .26	" ;	Ag, 6.05	" ;	Pb, 8.6%
3,	12 "	" "	Au, .06	" ;	Ag, 27.95	" ;	Pb, 38.15%
3(a),	21 "	" "	Au, 0.07	" ;	Ag, 8.75	" ;	Pb, 2.14%
4,	12 "	" "	Au, .025	" ;	Ag, .55	" ;	Pb, 0.80%
5,	12 "	" "	Au, .005	" ;	Ag, .05	" ;	Pb, trace
6,	15 "	" "	Au, .46	" ;	Ag, 17.05	" ;	Pb, 12.80%

It is estimated that dip extensions of the 6040 mineralization, opened by a stub-adit at about 150 feet up-dip, will be intersected within the next 100 feet of drift advance -- assuming a ~~normally~~-steep southwesterly (?) plunge of this mineralization. From this point the recommended 2000-foot drive will explore the structurally favourable, potentially ore-bearing lode interval containing the successive 6040, Grandview, Sunrise basin, Sunrise adit, and Granite ore and/or mineral zones previously explored at horizons 400 to 800 feet above the 5900 drive.

The Scranton lode traverses, on a general north-easterly course, central and easterly contact areas of the regional Nelson granite-granodiorite batholith. As one of the stronger members of the easterly group of Slocan lodes, it has been explored for over two miles inward of the main granite contact. Structural control of mineralization is principally effected by strong deflections of lode strike. Within the Company's property these occur at the Sunrise-6040, Sunset, Lower Pontiac, and Upper Pontiac lode intervals. The Scranton vein-lode varies from a single, quartz-filled fissure, to a filled

multiple-fracture zone from a few feet to 20 feet, or more, in width; the interventing porphyritic granite country rock, as well as the separate vein strands, is frequently fractured and veined by quartz and minor siderite, which contain the typical pyrite-galena-sphalerite and associated gold and silver, mineralization. The resulting clean, rather coarsely-textured sulphide assemblages are easily milled to produce separate, high-quality lead and zinc concentrates; the latter generally contain over one percent Cadmium by weight. In addition, the veins locally carry minor amounts of tin and tungsten minerals. Within ore sections, individual veins pinch and swell between one and six foot widths. Some of the 1953 core holes locally intersected composite widths of 20 feet; Dr. C.E. Cairns (1927) has noted a 30 foot wide zone of shearing and fracturing within the old Grandview workings. The 5900 drive will explore, as a first stage of the program, a 2200 by 600 foot strike-dip area of the lode; of this less than 10 percent has been effectively prospected by past surface-based exploratory and mining activities. Ultimately, a 4200 by 800-1000 foot potential lode area, extending from the Sunset through the S.W. Sunrise workings may be explored by tunnelling from the Sunset (5600') horizon.

Surface diamond drilling and underground sampling carried out within the southwesterly, or Grandview-Sunrise lode interval have indicated two, and possibly three mill-ore shoots. These are tentatively estimated to contain: (a) Probable (drill core, and drift and trench - indicated) -
27,000 tons @ Au, .04 oz./ton; Ag, 4.9oz./ton; Pb, 6.8%; Zn, 3.4%
(b) Possible (drill - indicated) -
7,500 tons @ Au, .029 oz./ton; Ag, 6.9 oz./ton; Pb, 4.9%; Zn, 2.0%

From positive evidence of existing ore and mineralization, and the probability that favourable structural situations will generally prevail within the Sunset-Sunrise interval of the lode, the writer infers this to have a 50,000 ton minimum potential. The inferred ore grade is assumed to be equivalent to that of the average Sunset production, or gold, 0.2 oz./ton; silver, 10 oz./ton, lead, 8%; zinc, 6%, plus cadmium. In view of the encouraging observed frequency of substantial mineralization along the lode, and from the probability that several thus-far undetected ore shoots occur, the writer is inclined to assume a considerably greater ultimate tonnage of essentially similar material.

The current net smelter value of the expected (Sunset) ore grade is estimated at $56.00 per ton
Gross mining costs are estimated as 26.50 " "
Giving an indicated net profit of $29.50 per ton

Total net profit per 50,000-ton base	$1,475,000
Estimated mine pre-production costs	250,000
Indicated, undiscounted profit	$1,225,000

As a lengthy period of profitable operation appears highly feasible, it is recommended that the 5900 exploration drive, with corollary raising and diamond drilling, be recommended as quickly as financing permits.

The direct cost of this phase of the general program estimated as follows:

STAGE I	Main access roads; reconstruction and rehabilitation, 4 mi. @ average $4500/mile	$18,000
	Mine camp; rehabilitation and construction ...	22,000
	Tunnel plant equipment	35,000
	5900 drift, preliminary section; 130' crosscut plus 20' drift - 150' @ $60/ft.	9,000
	Provision for administration, engineering, travel, and head office, estimate ...	6,000
	Total, Stage I (generally completed)	$90,000
STAGE II		
	5900 Drift, 2000' drifting, raising, and crosscutting @ $60 per lin. ft.	$120,000
	Sub-total Stages I and II	$210,000
STAGE III		
	To entail supplementary exploration-development and possible stope preparation; Detailed cost estimates to be based on results of Stage II exploration ...	

"completed"

Respectfully submitted

W.M. Sharp, P.Eng.