

3280 Chesterfield Avenue,
North Vancouver, B.C.,
June 2, 1960.

SCRANTON

Directors, Scranton Mines Ltd.,
c/o Mr. R. H. Sleeth,
14647 N.E. Schuyler Street,
Portland 30, Oregon.

801074

Dear Sirs:

With this please find attached my report
"Proposed Development Program, Scranton Mines, 1960-61"
as a result of my visit to the mine May 21-23
week-end and conference with Mr. Charles Lind.
Authorization was provided by Mr. R. H. Sleeth's
letter of May 6, 1960 and the visit made on
receipt of a telegram from Mr. Lind.

Four to six feet of snow at Scranton elevations
prevented a complete tour of the showings. With
the present cool weather it is doubtful that
fieldwork can begin much before June 15.

You will note some changes in the sequence
of recommendations following as compared with
my Progress Rept. No 4, 1954. However the
program presently outlined is thought, by both
myself and Mr. Lind, to be in closer accordance
with the particular objective of developing a
self-sustaining operation as quickly as possible.

Pending favorable results from the program
outlined, longer range exploration of previously
indicated target areas - namely the "6090-Summit"

(5)

development" may be considered. Possibly in this same category is the more extensive program previously planned for the "upper-partiac" low-level development."

At this point I would like to express my appreciation of Mr. Sird's ready cooperation and his many sound suggestions during my recent hurried trip. His considerable background of experience in the Alcan mining district coupled with his objective of conducting future operations with care and economy will provide the type of management for the program outlined.

at this point it should be emphasized that the outline is meant to be a rather general guide towards development, and that unpredictable developments may require some changes within it. Hence, some flexibility of judgement may be fully expected.

With best wishes for a successful and well-coordinated mining organization

Yours very truly,
W. M. Sharp P. Eng.
Consultant.

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H.O.S.

PROPOSED DEVELOPMENT PROGRAM
1960-61 ON
SCRANTON MINES, AINSWORTH, B. C.

PROPERTY

The Scranton group of claims is situated in Kootenai Glacier National Park, along Portiac Creek, a tributary of Woodbury Creek. The mine camp is at 5600 feet elevation and $1\frac{1}{2}$ miles west of the Nelson - Kaslo highway. Nelson, the local source of mine supplies, is 3.5 miles south, and Trail, the site of C.M. ~~smelting plant~~ ^{smelting plant} at 88 miles from the junction of the mine road with the main highway.

Camp buildings are in sound condition, and the mine plant adequate for all future work presently contemplated.

The claim group ^{consists} of fourteen claims including six key Crown-granted claims. All claims are held in good standing.

General Geological Situation

The Scranton vein system lies within the Kootenai intrusive - a northerly portion of the main Nelson granite batholith which is generally believed to be the source rock of most mineral deposits in the district. More locally the property is situated approximately a mile from the easterly contact of the granite with Kootenay Lake members of the Alcan sedimentary series.

The vein strikes northeasterly across the trend of the general contact and dips southeasterly at generally

steep angles. This vein trend conforms with those of the main productive veins and lodes of the Slocan district.

Vein exposures have been traced as part of a continuous system extending, within the property - from the Granite ^{workings} on the southwest to the upper Pontiac workings on the northeast. Typically the vein is quartz-filled fissure or lode varying from a foot to over 10 feet in width, which has been refractured and mineralized with lead, zinc, and iron sulfides. An average vein width would be approximately 18 inches, with productive sections varying from 2 - 6 feet and partly to completely filled with ^{banded} sulfides. Locally high gold assays, of 2 ^{oz} per ton or over have been obtained, as well as important values in cadmium and tungsten. Milling is generally necessary for the separation of mineral constituents. A modern custom mill at Airsworth, approximately 18 miles from the mine, is available for this purpose.

History of Production.

The earliest ~~recorded~~ production was from the Upper Pontiac and Grandview workings in 1898-1906. Recorded production is given as 1251 tons @ 0.15 oz. gold, 16 oz. silver, 6% lead and about 5% zinc. Old records indicate production was derived from a vein section 400 feet in length and 190 feet in depth. Records of reported direct shipping are are not available, although a considerable amount was said to have been transported by horse trains in earlier days.

During 1939-1940 a considerable length of exploratory drifts and crosscuts were driven at the site of the present Lower Pontiac workings - much of it off the vein or in unfavorable structure.

Following the completion of road construction in 1948, the Lower Pontiac and ^{ore} Sunset outcrop orebodies were developed and through 1948-1953 produced 5613 tons at an average grade of 0.22 oz. gold, 10 oz. silver, 11.9% lead, and 10.6% zinc. This was derived from two separate small orebodies, each mined to "assay limits" on strike and dip. No attempt was made to explore and develop direct extensions of these orebodies; instead, a considerable amount of prospect drilling was undertaken in the search for - possibly - parallel veins.

Available smelter settlements for 1500 tons of typical Sunset-Pontiac ore milled in 1952-1953 give an average value of over \$50⁰⁰ per ton.

A shipment of 17 tons of ore from an old surface pillar at the Sunset mine was made by leasers in 1954.

Summary of Geological Investigations.

1952 The first inspection of Scranton ground was made on June 13. Geological mapping of the Sunset-Lower Pontiac workings was accomplished and preliminary recommendations made in a report to the President of the Company. It was advised to generally terminate long-hole prospect drilling into an unknown structural environment and substitute a program of short-hole drilling for direct extensions of the former orebodies with more extensive exploration to follow up possible indications.

1953. A program of drilling - planned by Company officials - to test the Grandview vein at depth was diverted, after drilling two holes through non-recoverable oxidized vein material, to testing strike extensions southwesterly across Sunrise Basin. From 1500 feet of drilling in this zone an orebody of low-grade milling ore estimated to contain 10,000 tons of material at an indicated net smelter value (1954) of \$18.05 per ton.

Mapping and sampling of the S.W. Sunrise drift allowed an estimate of 8600 tons of medium-grade milling ore @ \$23.73 per ton net smelter.

It was concluded from the above results that although higher-grade ore sections would possibly exist within the two ore zones that the cost of exploration and development would be better deferred until more accessible ore zones could be developed and brought into production.

While running survey control from the sunset workings over Grandview Ridge the 6040 open cut & stub-drift was located. Following preliminary sampling hard-steel miners were engaged and the drift extended 25 feet. A strong vein structure - presumably the N.E. extension of the Grandview vein - with encouraging mineralization was disclosed.

at the end of the season it was recommended (Prog. Rept. No 3) that future exploration and development should be directed to more easily accessible target areas in Pontiac - Sunset ground. It was suggested that there was a reasonable possibility of developing sufficiently high-grade ore at minimum cost to sustain an eventual longer range program of the 6040 - Sunrise - Granite vein section.

1954

A cool short summer allowed the completion of only part of the ~~field~~ program planned. Old open cuts on the lower Pontiac N.E. vein extension were cleared out and several new cuts made closer to the mine workings. Weather permitted sufficient drilling to prove that vein and mineralization were continuous from the former orebody to the most distant open cut - a strike-distance of approximately 1000 feet. The actual vein structure is complicated by warping and faulting - a favorable situation for the localization of ore, but ^{one} which could be difficult to trace.

Finally with the approach of winter weather, it was evident that the full program of drilling and open-cutting could not be completed, but that there was perhaps sufficient time to complete a geophysical survey over Sunset-Pontiac ground.

In spite of the usual limitations of disseminated mineralization and rough topography, this work was moderately successful in substantiating earlier geological postulations and indicating other targets within the area. The actual cost to the company was felt to be quite low for the results obtained.

1955-1959.

Geological field work and formal consultation were suspended during this period. Current developments at the property - mainly additional stripping of the 6090 vein extension - ^{and other plans} were discussed through informal correspondence.

an access road to the upper Pontiac workings, recommended in Prog. Rept No 4, was constructed.

* new page

RECOMMENDED PROGRAM, 1960-

A. Lower Pontiac N.E. Extension.

Strip and cross-trench vein outcrop to generally expose the vein to the northeast of the old stope. Following inspection of the exposures a point to be selected for the start of underground development, drifting, crosscutting, and raising to be done within the granite at a horizon slightly

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above the granite-argillite contact. From previous mapping it is believed that Pontiac ore is localized to this zone, but ~~where~~ the vein enters the underlying argillites it ^{generally} weakens and splits along flat bedding rolls. Total displacements of the vein, dip-wise, in traversing the argillite panel are unknown. On the other hand, the presence of ^{warping} and fault offsetting within the optimum horizon are believed favorable for the localization of ore shoots.

B. Lower Pontiac S.W. Extensions

As the depth extension of the favorable zone to the southwest of the old slope may lead to new ore raking below sill elevation, it is recommended that an inclined winze be sunk in this direction. This should be driven at least 60 feet for a minimum test of the possibilities. - Not too expensive (for 1971)

As a further development a crosscut may be driven 50'-60' into the hangingwall to provide a drill station from which additional extensions on the rake may be tested - or for vein extensions below the argillite panel.

C. Upper Pontiac Extensions.

The first and most obvious development is to reopen a section of the lower drift from the S.W. portal. With an adequate section ^{should} be opened up, the slope sill should be cleaned out and sampled as a test for possible depth

extensions. The length to be opened up will depend on the relative ease or difficulty of rehabilitation of the drift and whether or not old backfill in the sill, preventing actual vein sampling is encountered.

Depending on the results gained from the above, the next step would be to investigate the vein extension to the S.W. of the portal as far as such excavation by "cat." is feasible. Where deep overburden exists cross trenches may be excavated. Finally, three drill sites on bedrock at 80'-100' on the hanging wall (S.E.) side of the estimated vein outcrop should be prepared for subsurface drilling. The first could be near the toe of the lower dump and the other two at approximately 200 centers along the strike. If possible drilling should follow closely behind the preparation of drill stations so that further trenching may be planned in accordance with the results of drilling at any station.

The above work should provide an adequate test of the "warp" indicated by geophysical work.

D. Sunset Stope-Sill Investigation

First, pumping-out tests should be made on the flooded stope section after the main run-off. If pumping proves feasible the stope should be dewatered and the sub-level sill cleaned

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up and sampled at 5-foot, or at such an ^{anted} interval as is warranted.

E. Sunset Vein Extensions

If stop-sill mineralization is encouraging it is further recommended that a vein should be sunk from the stop-sill and additional exploration and development, as indicated, be done from this lower horizon. This may involve further sinking, drifting, or drilling, depending on the results obtained.

Recommendations (D) & (E) are based on visual examination of sub-level stop remnants in 1952 while mapping. It appeared that a considerable length of the ore left behind would average over 10% combined lead + zinc sulfides, with pyrite, over a 5-foot width.

F. Possible Additional Work

Unforeseen developments under any of the foregoing recommended projects may require additional investigation. To ensure satisfactory ^{and costly} completion of the program an adequate reserve for contingencies should be set up. (and costly postponements)

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ESTIMATED COSTS, PROPOSED PROGRAM. 10.

A. Lower Pontiac N.E. Extension

"Cat." stripping incl. labor, transport (7 days) - 400⁰⁰
Underground development, min. 300' @ 35⁰⁰ - 10,500 \$ 10,900⁰⁰

B. Lower Pontiac S.W. Extensions

alternative (a) Winge 60' @ 60⁰⁰ = 3600⁰⁰
" (b) H.W. X-cut 60' @ 40⁰⁰ = 2400⁰⁰ }
plus d. drill 300' @ 4⁰⁰ = 1200⁰⁰ } 3,600⁰⁰

C. Upper Pontiac Extensions

Reopen, lower adit, etc - - 2500⁰⁰
Cat. Stripping Surface Vein - 500⁰⁰
Drilling 400' - 450' @ 4⁰⁰ - 1800⁰⁰ 4,800⁰⁰

D. Sunset Slope - Sill Investigation

Pumping-out, clean up etc - - - - - 1,000⁰⁰

E. Sunset Vein Extensions

Winge 50' @ 80⁰⁰ - - - - - 4,000⁰⁰

F. Possible Additional Work

- - - - - 5,000⁰⁰

G. Camp Repairs & Improvements

- - - - - 1,000⁰⁰

H. Indirect Managerial, Engineering etc.

12,500⁰⁰

I. Sampling, miscell.

200⁰⁰

Total, Exclusive of Salaries, Gen. Overhead = 33,000⁰⁰

Summary & Conclusions

In view of the several possibilities presented to develop profitable ore bodies for a relatively small direct expenditure, it is recommended that the program outlined be fully implemented.

From past experience on such programs, it is suggested that sufficient funds be provided at the outset so that the program may be completed without costly postponements and consequent increased overhead expense.

With the camp and mine plant in good order, much of the underground work may be done during the winter months leaving the summer months open for work which can be done most efficiently on clear ground.

In conclusion, the persistence of a strong, well-mineralized vein for over 7000 feet across Scranton ground, plus the excellent grade of ore which may be expected by reason of previous mining operations, should provide the necessary incentive to develop the property without delay.

Respectfully Submitted,
W. M. Sharp, P. Eng.
Consultant.