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THE VICTOR GROUP  
MAUS CREEK  
FORT STEELE MINING DIVISION  
BRITISH COLUMBIA

November 30, 1968

George L. Mill, P.Eng.

INTRODUCTION

This report, written at the request of Messrs. J.R. Moore and Ralph Sostad, both of West Vancouver, British Columbia, has reference to a group of mineral claims located in the Ft. Steele Mining Division of British Columbia. The area contained within the boundaries of the group comprises the major portion of the old Victor Mine holdings, formerly owned and operated by the Victor-Silver Leaf Mining Company. As these claims were staked and recorded during the current month, snow conditions rendered surface examination and access to underground workings impractical at the time. The writer has therefore no personal knowledge of the property and the information contained in this report has been derived from an unsigned report dated December 1, 1951, in which the author recommends an exploration programme, from various maps showing the surface and underground workings of the Victor Mine and from the British Columbia Minister of Mines Reports for the years 1918 and 1921.

SUMMARY

As an initial stage in the investigation of the potential of the Victor Group - formerly the Victor Mine - the writer recommends a programme calling for a capital outlay of \$25,000.00. Essentially, this programme involves 150 feet of drifting and 800 feet of diamond drilling. Available information pertaining to the work done by the former operators is very limited in scope and although, in 1921, ore reserves were considered sufficient to warrant construction of a small concentrator, milling operations were suspended within a few months. Judging from underground maps, the undertaking of milling operations was premature as the only underground work of any consequence consisted of drifting along the vein on two horizons.

The writer bases his recommendations on the strength and continuity of the vein where exposed - though it admittedly varies as to width and grade - on the complete lack of exploratory or development work between levels and on the extent of the "backs" - approximately 1,000 feet - lying above the No. 1 or 6,880 foot level.

PROPERTY

The property comprises a group of eight contiguous mineral claims held by right of location. These claims were recorded in the Government Office,

Cranbrook, British Columbia and can be identified as follows:

| <u>Claim Name</u>  | <u>Record Nos.</u> | <u>Date of Record</u> |
|--------------------|--------------------|-----------------------|
| Victor Nos. 1 to 8 | 13357 - 64         | November 13, 1968     |

LOCATION AND ACCESSIBILITY

The claim group is located in the Ft. Steele Mining Division, close to the headwaters of Maus Creek which is a tributary of the Kootenay River. It lies approximately nine miles east of the Village of Ft. Steele and is accessible from that point via the road constructed to service the former Victor Mine operation. The writer is advised that this road would require rehabilitation at several locations to provide access to the property by 4-wheel drive vehicles.

PHYSICAL FEATURES

As indicated on the enclosed claim map, the underground workings of the old Victor Mine are located on the present Victor No. 3 mineral claim. The three existing adits are collared on the face of a bluff at elevations between 6,600 and 6,900 feet above sea level. Heavy snowfall conditions can therefore be anticipated but climatic conditions should not be unduly severe. Ample timber is available for all purposes and the Maus Creek water supply is more than adequate for an exploration programme.

HISTORY OF THE VICTOR MINE

The property, which later became known as the Victor Mine, was discovered at the turn of the century and was worked intermittently until the year 1922. During that period a vertical quartz vein, cutting a narrow ridge south of Maus Creek and exposed along the face of a precipitous rock bluff, was explored by drifting along its strike at three different horizons with all three portals located in the face of the bluff. With reference to these adits, the following data have been gathered by the writer from old plans made available to him:

| <u>Adit Number</u> | <u>Portal Elevation</u> | <u>Length of Advance</u> |
|--------------------|-------------------------|--------------------------|
| 1                  | 6,880'                  | 387'                     |
| 2                  | 6,785'                  | 427'                     |
| 3                  | 6,670'                  | 285'                     |

The portal of No. 3 Adit is located at the foot of the rock bluff and that of No. 1 Adit is estimated to lie approximately 1,000 feet vertically below the top of the ridge. Records indicate that the two upper levels were driven prior to 1918 and the lower level in 1920. During the latter

PROPERTY FILE

years of activity the property was owned by the Victor-Silver Leaf Mining Company with headquarters in Spokane, Washington. This company constructed a small gravity concentrator in 1921 but its operating life was presumably very short. In fact, records show only two small shipments from the property, one of crude ore and the other of concentrate. Both shipments were made to the Bunker Hill Smelter at Kellogg, Idaho in October, 1921 and the following data were obtained from that smelter's files:

| Lot Number      | Dry Weight<br>(Lbs.) | Gold<br>(oz/ton) | Silver<br>(oz/ton) | %<br>Lead | %<br>Zinc | %<br>Copper |
|-----------------|----------------------|------------------|--------------------|-----------|-----------|-------------|
| 1 - Concentrate | 3,578                | .13              | 30.6               | 61.0      | 8.7       | 0.4         |
| 2 - Crude       | 10,648               | .11              | 22.0               | 31.2      | 8.7       | 0.6         |

It is interesting to note that the only upgrading of any consequence from crude to concentrate reported in the lead content. In all probability the crude ore was hand-sorted prior to shipment which would account for the general similarity in metal content between the two shipments.

Available underground maps show only two areas in which stoping operations were carried out and the total tonnage extracted could not have exceeded 50 tons. Any other production would have come from drifting on the vein. In the B.C. Minister of Mines Report for the year 1921, A.G. Langley, P.Eng. states that, at the time of his visit to the property in July of that year, the workings were not connected and that no raising or sinking on the vein had been attempted.

#### GEOLOGY AND MINERALIZATION

The vein, which is of the fissure type, lies in the Creston formation. In the Minister of Mines Report for the year 1921, A.G. Langley states:

"The vein is massive quartz varying in width from a few inches to five feet. The general direction of the strike is S 15 degrees W and the dip vertical. The country rock consists of shale, the strike of which is north and south and the dip 70 degrees. The metallic contents of the vein are argentiferous galena and zinblend associated with iron pyrite in a quartz gangue; the mineralization occurs in small lenticular shoots and thin streaks along the footwall, also occasionally disseminated through the quartz and although persistent for the length of the vein at present exposed, has only workable thickness in places. The ore is complex and although a fairly clean galena and zinc product can be obtained by careful sorting a large percentage of the ore consists of an intimate mixture of galena and zinblend. A sample taken across a 34-inch width of vein in the upper tunnel (No. 1 drift) gave the following results:

Gold - 0.06 oz/ton, Silver - 14.3 oz/ton, Lead - 16%, Zinc - 8%.

Another sample taken across a 4-inch streak at the face of the upper tunnel gave:

Silver - 7 oz/ton, Lead - 12%, Zinc - 3%.

Most of the recent work has been confined to the lower tunnel (No. 2) where the ore shows greater continuity than in the upper tunnel and the values appear to be more concentrated. A sample across a 16-inch width of the vein gave the following returns:

Gold - 0.02 oz/ton, Silver - 13.2 oz/ton, Lead - 27%, Zinc - 17%."

Following his 1921 visit to the property, Langley states that other samples taken in the two upper tunnels would indicate the value to average about as follows:

Gold - 0.05 oz/ton, Silver - 10.5 oz/ton, Lead - 14%, Zinc - 9%.

A surface plan of the Victor Mine vein indicates that, at the top of the bluff, the vein encounters a fault zone striking east-west and dipping 70 degrees southerly. At this point the vein shows an eastward displacement of approximately 70 feet. This fault zone was intersected on No. 1 level. A cross-cut from the drift along the footwall of this fault zone, shows an advance of only 40 feet - 30 feet short of its objective assuming that the vein maintained its vertical attitude at that horizon.

#### CONCLUSIONS AND RECOMMENDATIONS

While the vein shows continuity over its explored length on two horizons it apparently shows wide variations in width and grade. As normally expected the wider the vein the lower the grade. However, it should be emphasized that all the work done to date has been concentrated along these specific horizons with no information available relative to what lies in the 95-foot vertical area existing between these horizons. In the case of No. 3 level drift, which lies 115-feet vertically below No. 2 level drift and which was being driven at the time of his July, 1921 visit, Langley states that "no ore of commercial importance has yet been encountered". There are discrepancies in the information available relative to the overall attitude of the vein. If it exists at this horizon, (6,670') and if it maintains its vertical attitude, as indicated between No. 1 and No. 2 levels, then the No. 3 level drift lies west of its vertical plane. Furthermore, it has not been advanced far enough southerly to reach the down-dip projection of the more favourable zones reported on No. 2 level. All the above comments assume the accuracy of the plans showing the underground workings.

In considering these points, together with the fact that the No. 3 level horizon is the logical one for the provision of haulageway facilities, the writer concludes that this drift, if not on the vein, should be advanced, with a 5 degree eastward correction, until it intersects the vein. In any event, it should be continued for a minimum distance of 150 feet to bring it beyond the down-dip projection of the ore exposed on No. 2 level. This advance should be on the same vertical plane as the No. 2 level drift. If the vein is not encountered in the course of this advance, its location and attitude can be checked by lateral drill holes. Provision for such lateral holes has been made in the attached cost estimates.

So far as the eastward displacement of the vein south of the fault is concerned, its potential in this area has not been investigated. The writer suggests that a minimum of 3 holes be drilled eastward from the face of No. 1 level drift to intersect the vein at its new location. This will provide information - though limited in extent - for future planning if the results of the initial programme as recommended for No. 3 level so warrant.

In his recommendations for a limited exploration programme as outlined below, the writer has included a resurvey of all underground workings. This will call for the re-opening of each of the three levels to the following extent:

- |                     |   |
|---------------------|---|
| <u>No. 1 Level:</u> | To provide access for diamond drilling, surveying and sampling. |
| <u>No. 2 Level:</u> | To provide access for surveying and sampling.                   |
| <u>No. 3 Level:</u> | Rehabilitation to permit minimum 150 foot advance of headings.  |

Should the condition of the two upper levels be such that too great a capital outlay is required to provide the necessary access, alterations in the recommended programme will have to be considered. The writer is given to understand, however, that they were still readily accessible thirty years after the suspension of operations.

An initial exploration programme as outlined below is recommended:

1. Repair the road to a sufficient extent to permit transportation of equipment.
2. Reopen all three levels - if economically feasible - to the extent indicated previously.
3. Re-survey all workings.
4. Carry out sampling programme.

5. Drill a minimum of three holes eastward from the face of No. 1 level drift to intersect vein at its indicated new location.
6. Advance No. 3 level drift a minimum of 150 feet.

Should the results of this initial programme call for a more extensive investigation of the potential of the property, a substantially higher capital outlay than that appearing in the attached cost estimates would be required.

Respectfully submitted,

"George L. Mill"  
George L. Mill, P.Eng.

#### COST ESTIMATES

|   |                    |
|---|--------------------|
| Road Repairs                                  | \$ 1,500.00        |
| Re-opening of workings                        | 2,000.00           |
| Re-survey of workings                         | 750.00             |
| Sampling                                      | 750.00             |
| Diamond Drilling - 800 ft. @ \$5.00/ft.       | 4,000.00           |
| Equipment Requirements:                       |                    |
| Compressor and Drill Rentals                  | \$1,500.00         |
| Rail, pipe, etc.                              | <u>3,000.00</u>    |
|   | 4,500.00           |
| No. 3 level advance - 150 feet at \$50.00/ft. | 7,500.00           |
| Administration and engineering                | 2,000.00           |
| Contingencies                                 | <u>2,000.00</u>    |
| TOTAL   | <u>\$25,000.00</u> |

#### REFERENCES

REPORT on Victor Mine - December 1951 - Author unknown.

PROFILE and LEVEL plans of Victor Mine - Undated - presumably 1951  
British Columbia Minister of Mines Reports for the years 1918 and 1921.

CERTIFICATE

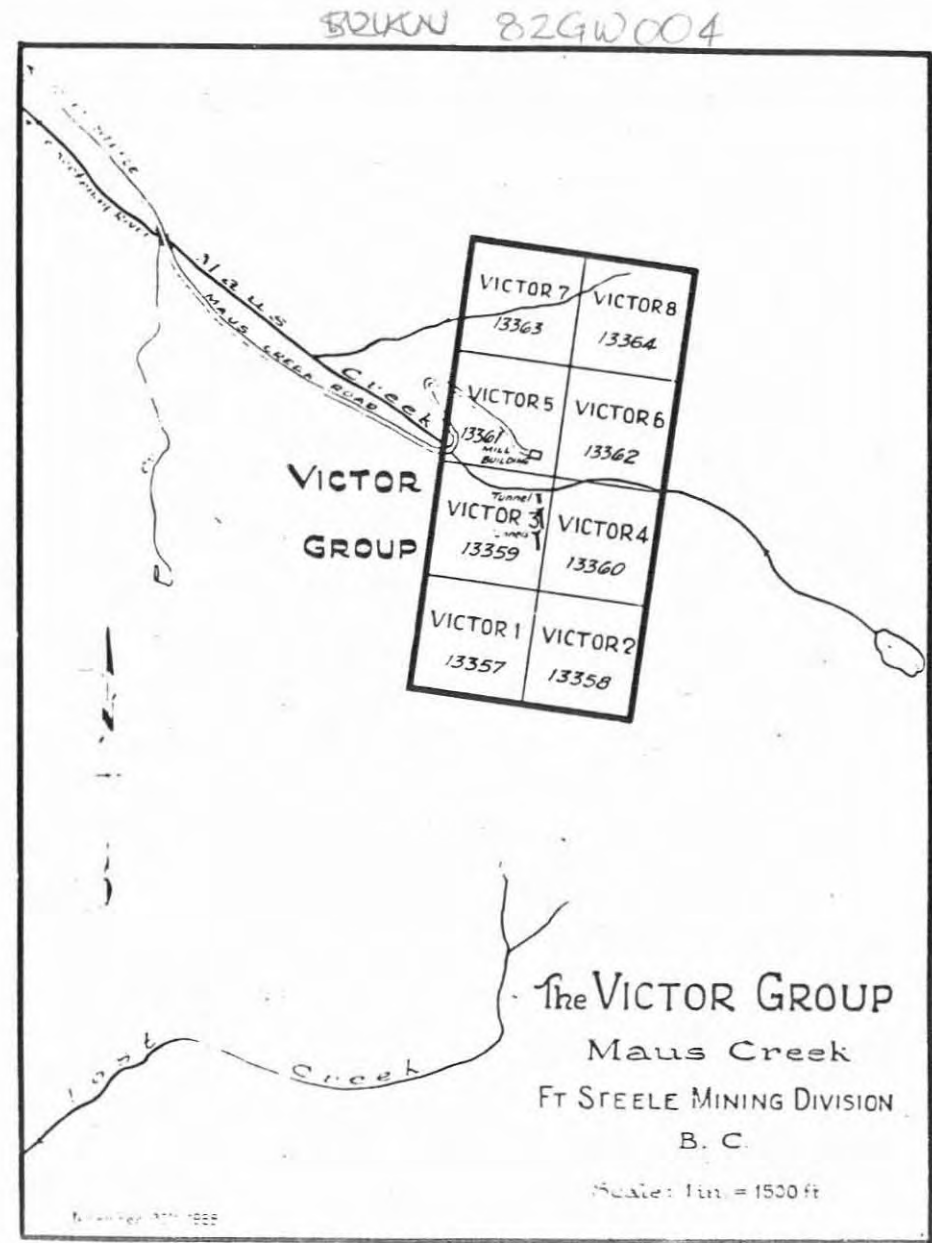
I, GEORGE L. MILL, hereby certify:

1. That I am a mining and metallurgical engineer, residing at 1802 - 1616 Pendrell Street, Vancouver 5, British Columbia.
2. That I am a graduate of Queen's University, B.Sc., and a registered member of the Association of Professional Engineers of the Province of British Columbia.
3. That I have practised my profession for 36 years.
4. That I have no financial interest, direct or indirect, in the subject property nor in the securities of any company with which Messrs. Moore and Sostad are associated and that I do not expect to obtain any such interest.
5. That the information contained in this report has been derived from an unsigned report relating to the old Victor Mine, together with a number of maps showing its surface and underground workings - both provided me by Mr. Sostad - and from data published in the British Columbia Minister of Mines Reports for the years 1918 and 1921.

"George L. Mill"

George L. Mill, P.Eng.

To accompany report on Victor  
Group, Ft. Steele Mining Division  
November 30, 1968



Mr. Ralph Sostad, President,  
Victor Mining Corporation Ltd. (N.P.L.)  
818-510 West Hastings St.,  
Vancouver 2, B.C.

Re: The Victor Group  
Fort Steele Mining Division  
British Columbia.

Dear Mr. Sostad:-

Under date of November 30, 1968 the writer prepared a report, requested by you and your associates, covering a group of eight mineral claims located in the Maus Creek area of the Fort Steele Mining Division of British Columbia. This group of contiguous claims contains within its boundaries the underground workings of the former Victor Mine which was operated, intermittently until 1922, by the Victor-Silverleaf Mining Company, with headquarters in Spokane, Washington. When this report was written snow conditions did not permit a personal examination of the property and the recommendations contained therein were based on information appearing in the British Columbia Minister of Mines Reports for the years 1918 and 1921 and on reports and maps prepared by engineers in the employ of the operators.

On June 10th. of the current year the writer carried out an examination of the property. At that time the portal of No.3 level (elevation 6670') was still below the snow line in the Maus Creek Valley and the portal of No.2 level inaccessible due to a combination of rock and snow slides. Access to No.1 level was readily gained through-out its total length (approximately 400 ft.). This level is a drift along the vertical vein which shows strength through-out the advance but pinches and swells to a varying degree.

Following his personal examination the writer concludes that:

1 - The No.3 level advance definitely appears to lie westerly of the strike of the vein as indicated on No.1 and No.2 levels.

2 - The re-opening of No.3 level might prove rather costly as it appears to be collared in a slide area and might require as much as 100 feet of re-timbering over its reported 285 feet length to provide safe access.

3 - It is apparent that waste rock from this No.3 level drive was utilized to construct a dam across Maus Creek to provide a water storage area for milling operations.

Because of the terrain the No.3 level (or 6670 foot horizon) must be recognized as of major economic

(2)

importance relative to a production feasibility study. If the vein system carries on down-dip at least to this horizon and still maintains its potential - both as to width and average grade - then the investigation of its up-dip potential is fully warranted.

It is suggested, therefore, that, prior to the initiation of the program recommended in the writer's report of November 30, 1968, the following reconnaissance program be adopted:

1 - Drill three holes collared at least 75 feet west of the apparent strike of the vein as indicated on the No.1 and No.2 level horizons.

2 - The first hole should be collared just south of the portal of No.2 level, the second midway between No.2 and No.3 levels portals and the third in close proximity to the portal of No.3 level.

3 - All three holes should be drilled on a bearing of 105 deg. azimuth and at a maximum dip of minus 45 degrees, if site locations permit.

Completion of these three holes should not exceed a total footage of 600 feet. Inclusive of the use of a gas "plugger" for site preparation, mobilization costs and contingencies the capital cost outlay should not exceed \$12,000.00

The outcome of this preliminary investigation would undoubtedly call for a revision of the cost estimates outlined in the writer's report under date of November 30, 1968.

Respectfully submitted,

*Geo. L. Mill*  
Geo. L. Mill, P. Eng.  
1802-1616 Pendrell St.  
Vancouver 5, B.C.

August 17th. 1970.