Exploration Proposal for the Pass Claims
Telkwa Pass Area
Omineca Mining Division, British Columbia
for
W. H. Morris

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### SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Gold and silver occur in quartz-sulfide veins on the Pass claims in Telkwa Pass, Omineca Mining Divison, British Columbia. There are many prospect pits on the claims, most of which were dug prior to 1925 and which are now sloughed.

The best exposure on the claims shows a northeaststriking vein 8½ feet wide which assays;

> Gold, 0.571 ounces per ton Silver, 0.94 ounces per ton Lead, 4.31 percent Zinc, 1.44 percent.

The veins occur in an altered quartz-monzonite at the north end of the Howson batholith. This area lies east of the Coast Crystalline Belt and is part of the Intermontane Tectonic Belt.

It is recommended that hand trenches be cut on the many outcrops and sub outcrops of quartz-sulfide veins. The veins should then be sampled and correlated on a large scale topographic base map in order to better understand the structural geology. Geological mapping must proceed any additional exploration work. It is estimated that trenching and geological work with all necessary support will cost \$96,398.

Exploration Proposal for the Pass Claims, Telkwa Pass Area, Omineca Mining Division, British Columbia

### PROPERTY AND LOCATION

Pass claims lie in Telkwa Pass, 45.8 kilometers (28.5 miles) S.70 W. from Telkwa, British Columbia. They are centered about 2.1 kilometers (1.3 miles) south of Top Lake on a north facing mountain at elevations of 884 m. (2400 ft.) to 1707 m. (5600 ft.) (Figure 1).

The claims include Top Lake, which lies at elevation  $854\ \mathrm{m.}\ (2800\ \mathrm{ft.})$  and is about  $2.7\ \mathrm{km.}\ (1.7\ \mathrm{miles})$  in length.

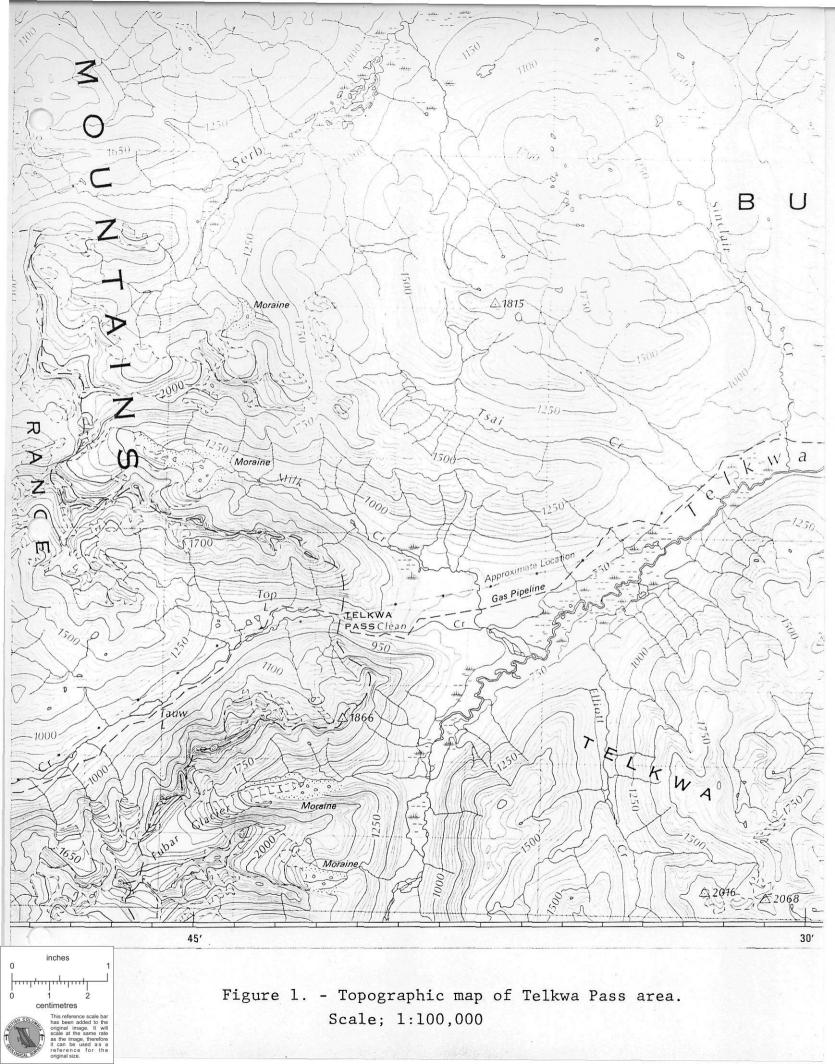
There are 48 units in the six contiguous claims (Figure 2).

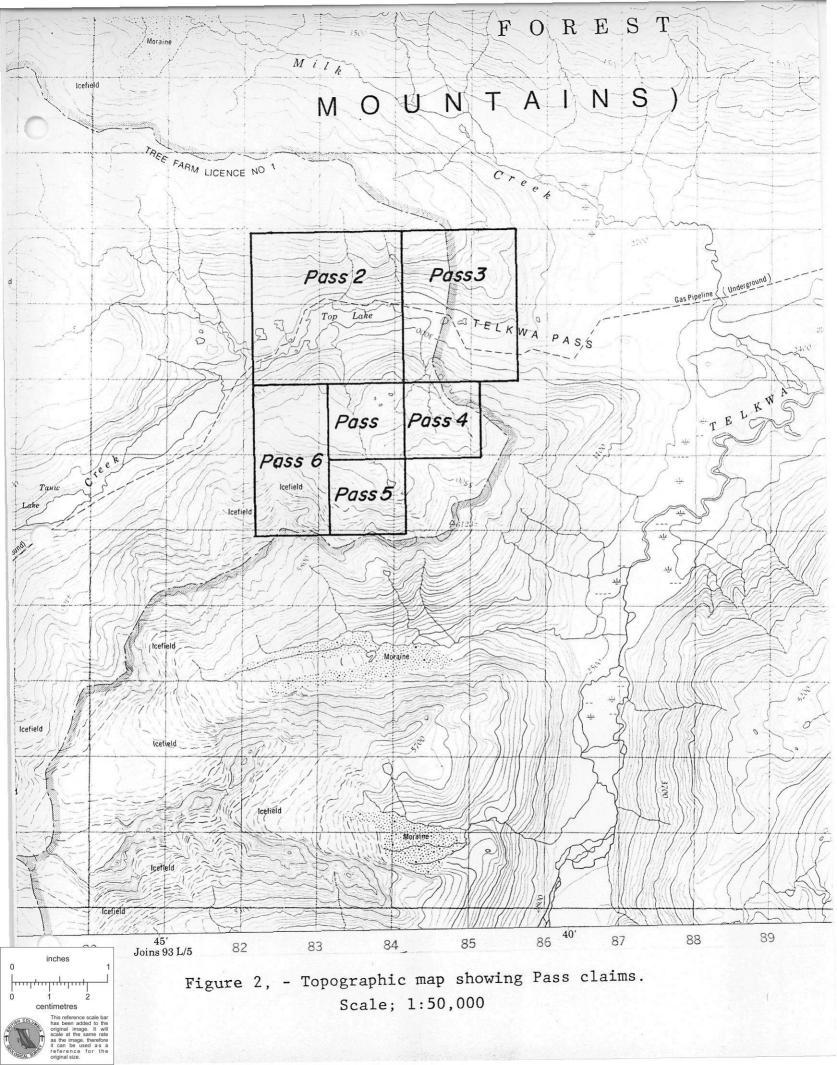
Claim Name	No.Units	Record No.
Pass	. 4	772
Pass 2	16	4950
Pass 3	12	4951
Pass 4	4	4985
Pass 5	4	4986
Pass 6	_8	5622
Total	48 units	

All claims are in good standing at the time of this writing.

A 500,000 volt transmission power line which is owned by British Columbia Hydro and Power Authority traverses Telkwa Pass as does a 10 inch high pressure underground gas transmission pipeline which is owned by Pacific Northern Gas, Ltd.

An unimproved road traverses the pass and follows approximately the route of the pipeline.





### HISTORY

First record of the mineral occurences appears in the British Columbia Report of the Minister of Mines in 1925. The claims were called the Kitchener group and one of the owners was John Goodwill of Telkwa who continued to hold the claims in 1966. He worked on the claims periodically until his death in 1969.

There has been no production from the claims although many test pits were dug by hand in promising quartz-sulfide veins.

### GEOLOGY

## General Geology

The area is underlain by medium grained gray quartz monzonite which is Late Cretaceous or Early Tertiary in age and which intrudes Lower and Middle Jurassic volcanic rocks of the Hazelton Group (Carter, N.C. and Kirkham, R.V., 1969).

Near the quartz-sulfide veins, quartz monzonite is altered. Feldspars are slightly sericitized and ferromagnesian minerals are chloritized. The rocks have a general blocky appearance as a result of fractures caused by jointing and faulting.

# Geology of the Prospects

There are at least two distinct vein systems on the property. One vein system strikes about N.40° E. and dips about 35 degrees S.E. The other vein system strikes N.10° E. and dips  $50^{\circ}$ . Both are mineralized with quartz, galena, sphalerite and pyrite which carry values in gold and silver. A large prospect pit on a good northeast striking vein exposes a true width of  $8\frac{1}{2}$  feet. A group

of four samples over the width of the vein assayed as follows (hanging wall to footwall);

		Assay	(Oz./T)	Assay	(%)_
Sample No.	Width	Au	Ag	Pb	Zn
0793 0794 0795 0796	2.5 ft. 1.0 3.0 2.0 8.5 ft.	0.136 0.274 0.772 0.962	0.85 1.08 1.44 4.48	0.66 1.40 4.65 9.85	0.38 1.25 2.97 0.57

Weighted average of the values over the full width of the vein are:

Au; 0.571 oz./T. Ag; 0.94 oz./T. Pb; 4.31 percent Zn; 1.44 percent

A small prospect pit partially exposes a north striking vein at the site of the principal helipad. A respresentative dump sample of quartz-sulfide vein material assayed as follows:

Au; 0.772 oz./T. Ag; 3.19 oz./T. Pb; 8.83 percent Zn; 7.29 percent

### EXPLORATION RECORD

Several prospect pits were dug on quartz-sulfide veins during the time that the claims were owned by John Goodwill. The Report of the Minister of Mines for 1925 noted (p. A138) that many of the open cuts were caved, so they were made prior to 1925. In the 1960's a few short Winkie drill holes were put into a large quartz vein about 100 meters south of the helipad, but no core remains at the site.

No geological, geochemical nor geophysical work has been done on the claims. The many vein occurrences which are known to exist on the property have never been mapped and correlated and no complete sampling record is known to exist.

#### CONCLUSIONS

There are many occurrences of quartz-sulfide veins on Pass claims which contain good values in gold and silver. Sulfide content in some of the veins is up to 15 to 20 percent. Ratios of precious metals to base metals are about 1/2 ounce gold and 3 ounces silver to 3 or 4 percent of combined lead and zinc. Copper values are negligible.

A vein width of  $8\frac{1}{2}$  feet is noted above and the trench at this exposure is not sloughed. All other trenches are sloughed. Very little work has been done on the claims since 1925.

Access to the area is relatively good. Telkwa Pass road is usable during the summer and a trail of  $1\frac{1}{2}$  miles reaches the claims from the road. If a drill is to be placed on the claims, equipment would be staged at a convenient clearing on the road to be lifted to drill sites by helicopter.

The 48 units of the Pass claims comprise an area of 1200 ha. (2964 acres) which is adequate for any mine development which may take place.

### RECOMMENDATIONS

Geological mapping and hand trenching are recommended as the first stage in evaluating the Pass claims. Large scale aerial photographs are available from surveys which were done for the electrical and gas transmission lines in Telkwa Pass, and those airphotos should be utilized in geological mapping. Large scale topographic mapping may also be available.

A geologist and geological assistant and two teams of hand trenchers should evaluate all known occurrences of mineralization. Trenches should penetrate the vein outcrops to a depth adequate for defining strike, dip, and width of the vein.

No recommendations are made for geophysical surveys nor diamond drilling until preliminary geological work is completed. Geological work may show that EM surveys should preceed diamond drilling.

Estimated cost of the first stage of exploration as described above is;

Geology and engineering	\$23,500
Assays	7,925
Trench and sample Trails	12,000 2,000
Transportation	9,200
Camp and food	22,650
Communications	400
Administration	6,150
Sub total	\$83,825
Contingencies, + 15 percent	12,573
Total	\$96,573

Respectfully submitted,

Willard D. Tompson

## REFERENCES CITED

- B.C. Minister of Mines, 1925; Kitchener group, p. A138.
- Carter, N.C. and Kirkham, R.V., 1969; Geological compilation map of the Smithers, Hazelton, and Terrace areas: B.C. Dept. Mines and Petrol. Res. map 69-1.

## CERTIFICATE

I, WILLARD D. TOMPSON, of Smithers, British Columbia do hereby certify:

- 1. THAT I am a consulting geologist, residing at Van Gaalen Road, Smithers, British Columbia;
- 2. THAT I hold a Master of Science Degree (Geology) from Montana State University;
- 3. THAT I am a Fellow of the Geological Association of Canada;
- 4. THAT I have practised my profession for more than 24 years;
- 5. THAT I examined and sampled mineral occurrences on the Pass claims on August 19, 1982;
- 6. THAT I have not received, directly nor indirectly nor do I expect to receive any interest, direct or indirect, in the property.

DATED at Smithers, British Columbia this 14th day of April, 1984.

Willard D. Tompson, Consulting Geologist