

4377



CANNON-HICKS ASSOCIATED LTD.  
SUITE 703-744 WEST HASTINGS ST.  
VANCOUVER 1, B.C.

GEOLOGICAL REPORT

ON THE

L. T. CLAIM GROUP

ASHNOLA RIVER, OSOYOGOS MINING DIVISION

LAT. 49° 6' N., LONG. 120° 21' W.

OF

MINERAL MOUNTAIN MINING CO. LTD.

SUBMITTED BY

E. M. RHENDLER, P. ENG.

VANCOUVER, B.C.

SEPTEMBER 28, 1972.

Department of

~~Mineral and Petroleum Resources~~

ASSESSMENT REPORT

NO. 4377 M.P.

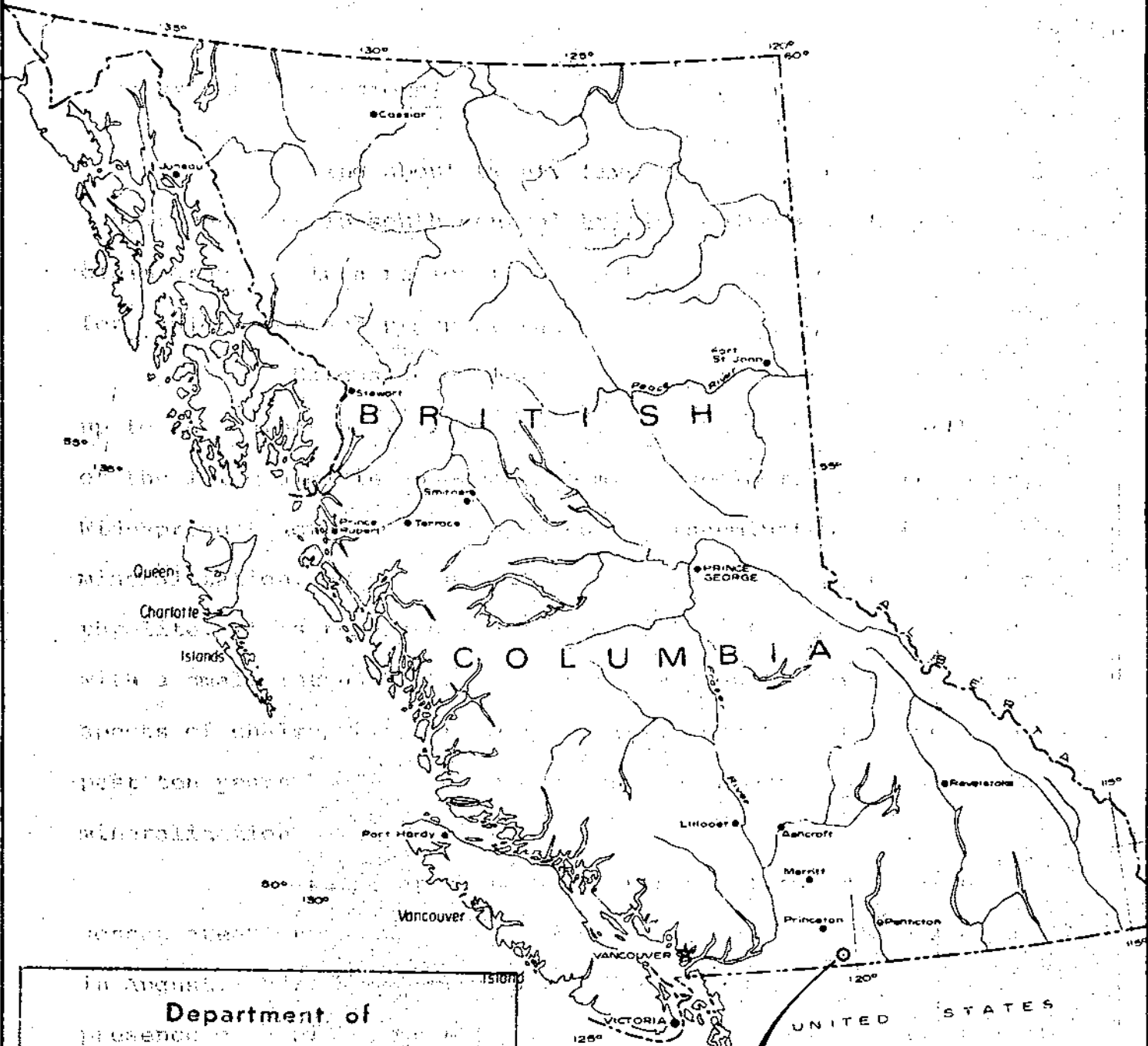
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ILLUSTRATIONS

#1 FIG. 1 - LOCATION MAP

#2 FIG. 2 -- GEOLOGICAL MAP OF I T CLAIMS, SCALE 1" = 800'



Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 No. **4377** MAP #1

*R. W. Phendler, P. Eng*  
 June 5, 1973



**CANNON-HICKS ASSOCIATES LTD.**  
 VANCOUVER B. C.

**MINERAL MOUNTAIN MINING CO. LTD.**  
 PROJECT: ASHNOLA RIVER No. \_\_\_\_\_  
 REPORT by: R. W. PHENDLER  
 SCALE: 1" = 136 Miles DATE: OCT. - 72

PART "A"

SUMMARY AND CONCLUSIONS:

Lying about twenty-five miles southeast of Copper Mountain in south central British Columbia, the I T claim group is in a region that can be considered favourable for exploration and prospecting.

Extensive exploration work has been carried on up to the summer of 1972 in McBride Creek a few miles north of the I T claims in an area of similar geological environment. Widespread fracturing, accompanied by disseminated pyrite mineralization, occurs in dacitic crystal tuffs and porphyritic rhyolite. It is reported that the mineralization is associated with a small intrusive plug of quartz monzonite which contains specks of chalcopyrite and molybdenite. Investigation over the past ten years has failed to disclose the presence of commercial mineralization.

In the area under discussion, limonite-stained gossan areas on the west side of the Ashnola River were staked in August, 1972. Prospecting and geological mapping disclosed the presence of a pipe-like breccia zone that measured 1,400' x 600' which has been designated No. 1 Breccia Zone by the writer. This zone is not visible from the valley of the Ashnola River and was first seen during routine geological mapping high on the east side of the valley.

A few geochemical samples taken in the basin below No. 1 Breccia Zone show anomalous copper content. The topography and steep walls of the zone suggest a vent-like structure that may have great depth.

The smaller No. 2 Breccia Zone shows malachite staining and has a vertical dip. It is somewhat difficult of access as compared to the No. 1 Zone, which can be reached by helicopter at present. A road could be put in to the No. 1 Zone from the south side of McBride Creek with about three miles required. The No. 1 Breccia Zone appears to be of sufficient size to warrant additional investigation.

RECOMMENDATIONS:

It is recommended:

1. That five additional claims be staked directly south of the No. 1 Breccia Zone. (See Fig. 2).
2. That a grid be put in on the No. 1 Breccia Zone. (See Fig. 2). The base line (2,000' long) should be N-S and cross lines should be at 400' spacing (1,500' each).
3. That an induced polarization survey be conducted on the grid.
4. That additional exploration work be carried out if the above work has favourable results.

COST ESTIMATE:

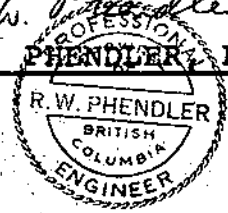
1. Stake 5 claims @ \$ 100.00 per claim	- \$	500.00
2. Two miles of grid line @ \$ 100.00 per mile	-	200.00
3. Two miles of induced polarization @ \$ 400.00 per mile	-	800.00
4. Helicopter mobilization & demobilization 7 hours @ \$ 200.00 per hour	-	1,400.00
5. Engineering and geology	-	500.00
		<hr/>
		\$ 3,400.00
15 % Contingencies	-	510.00
		<hr/>
		\$ 3,910.00
		<hr/> <hr/>

TOTAL

Respectfully submitted,

CANNON-HICKS ASSOCIATES LTD.

*R. W. Phendler, P. Eng.*  
R.W. PHENDLER, P. ENG.



PART "B"INTRODUCTION:

Between September 18 and 24, 1972, the writer was engaged in geological mapping of the I T claim group at the request of Mr. J.E.R. Wood, Managing Director of Mineral Mountain Mining Co. Ltd.

Mr. D. Atkinson of Penticton, who had staked and was prospecting the claims, acted as guide and assistant.

During the examination, six soil samples and three rock samples were taken for determination of copper content.

The nearby Prism ground (north of McBride Creek) was also visited and drill core and surface outcrops examined. These claims were optioned to a syndicate headed by Getty Mines Ltd. and were extensively explored by geochemical, geological and geophysical surveys and by diamond drilling during 1972. It is reported that the option was dropped in early September.

LOCATION AND ACCESS:

The claims are located at an elevation of 4,000' - 7,000' about 26 miles south southeast of Princeton in south central British Columbia.

They are accessible from the Princeton-Keremeos Highway (Route 3) by a gravel road which leaves the pavement four miles west of Keremeos and follows the Ashnola River for 32 miles.

The claims straddle the Ashnola River between miles 26 and 31.

An alternate access route was used during the exploration program on the Prism claims. This route leaves the Hope-Princeton Highway at the Pasayten River and crosses over Placer Mountain. This road covers about 30 miles and is presently passable through to the Ashnola River road which was washed out during the spring run-off of 1972.

#### PROPERTY AND OWNERSHIP:

The I T claim group consists of 74 claims and they were staked by Walter Bonin and Dennis Atkinson between August 12 and 14, 1972, for the Ashnola Prospecting Syndicate.

The claims are presently under option to Mineral Mountain Mining Co. Ltd.

#### HISTORY:

The I T claims cover ground which does not appear to have been staked before, although much exploration activity has taken place a few miles to the north near McBride Creek.



The first record of work done on McBride Creek was in 1960 when Kennco Explorations (Western) Ltd. under C.S. Ney held 81 claims. They were explored by geological, geochemical and geophysical methods; 3,000' of diamond drilling was carried out and twelve miles of road were constructed. No results are available.

In 1966, the Meridian Exploration Syndicate held 157 claims and carried out 3,100 feet of trenching in seven trenches and additional geological, geochemical and geophysical work was done under J.H. Montgomery.

In 1968, Quintana Minerals Corporation geologically mapped the property (now 166 claims) and drilled six NQ holes, totalling 2,957'. The Minister of Mines report for that year states that "the Kingsvale acid volcanic rocks are intruded by quartz porphyry and a plug of biotite quartz monzonite. Quartz vein stockwork and/or pervasive silicification are locally strong; fracturing and pyritization are extensive. Sericitization and kaolinization are also present. Mineralization consists of abundant and widespread pyrite with minor chalcopyrite, molybdenite and possible chalcocite. Fracturing and wallrock alteration crudely conform to a circular pattern centered on a small body of quartz monzonite."

The work was supervised by J.H. Montgomery.

In 1970, the 166 claim group composed of the ASH, NOLA, JAM, Q, CAR, MAX and McBRIDE fraction were held by Prism Resources Ltd. Induced polarization (35 line miles), magnetometer work, soil sampling (1730 samples) biochemical sampling, and surface trenching was carried out.

It was reported that disseminated pyrite, chalcopyrite and molybdenite were present in rhyolite porphyry and quartz diorite. The host rhyolite was severely leached in many places with quartz eyes remaining in the fine grained matrix.

In 1972, the Prism ground was optioned to Getty Mines Ltd. & Union Miniere Exploration & Mining Corporation and extensive trenching, geochemical and geophysical work was carried out. This was followed by percussion and diamond drilling with some zones grading 0.10 % Cu. - 0.20 % Cu. over narrow widths (personal communication). The option was dropped in September, 1972.

Widespread limonite staining in fractured rhyolite was observed by the writer in many of the trenches during the present examination. A study of some of the drill core showed that brecciated rhyolite with disseminated pyrite exists and was intersected in the drilling as were granitic rocks with speckled chalcopyrite and molybdenite. The latter drilling in the granitic rocks was apparently carried out by Quintana Minerals Corp. in 1968.

GEOLOGY AND MINERALIZATION:

The area in which the I T claims are located is underlain by granitic rocks of the Coast Intrusions of Jurassic age, overlain by Lower Cretaceous acid volcanics of the Kingsvale group. Minor amounts of Nicola volcanics of Triassic age are believed to exist at the western edge of the claims.

Two distinct phases of the Coast Intrusions have been identified. East of the Ashnola River are numerous outcrops of "red" granodiorite known as the Cathedral Body. This rock is fine grained and light coloured with a predominance of pink orthoclase.

West of the Ashnola River the grey granodiorite predominates. It varies from a medium grained quartz diorite to a granodiorite with mineral constituents being plagioclase, quartz orthoclase as large crystals, biotite (the principal ferromagnesium constituent) and amphibole.

Minor pegmatite dykes were seen at the south end of the map area as was a one-foot wide late lamprophyre dyke.

The granitic rocks are relatively fresh with occasional weak limonite coating, probably due to weathering of the ferromagnesium minerals.

The Kingsvale volcanics in the Princeton map area are mainly volcanic breccias of andesitic to basaltic composition but in the Ashnola River area are somewhat different. This mass is known as the Young Creek body and the bulk of the formation consists of lava and unsorted or poorly sorted crystal tuffs and are brown, buff, pale green and white in colour. They all contain fragments of rocks and minerals but their presence is not always readily apparent. In composition they approximate rhyolite or dacite and are peculiar only in the presence of the fragments and phenocrysts mentioned above. Most conspicuous throughout is the presence of glassy quartz shards and crystals.

The volcanics rest uncomformably on the nearby granitic mass to the south and are overlain by the Tertiary volcanic rocks of the Princeton group.

Nicola volcanics are believed to exist near the No. 1 Breccia Zone (see Fig. 2) near the west side of the I T claim. This rock is fine grained and dark purplish in colour.

Two gossan areas exist on the I T claims, one in claim 4 and one in claim 14.

#### No. 1 Breccia Zone

The larger of the two, shown as No. 1 Breccia Zone on Fig. 2, measures 1,400' by 600', the long dimension striking

north. It lies in an amphitheatre-like depression at an elevation of 6,500' and shows strong limonite staining and brecciation. The surrounding unbrecciated walls are composed of fractured and silicified andesite with abundant kaolinization (see specimen 7).

The breccia zone appears to have a vertical dip and irregular shape. Although no malachite staining was observed, geochemical samples indicated the presence of anomalous copper. Samples are as follows:

			<u>Location</u>
A 1	-	41 ppm Cu.	South end of zone
A 2	-	48 ppm Cu.	200' N of A 1
A 3	-	110 ppm Cu.	600' N of A 1
A 4	-	126 ppm Cu.	1,000' N of A 1

Additional samples were taken about two miles southeast of the breccia zone as follows:

			<u>Location</u>
A 5	-	39 ppm Cu.	Claim 50 - granodiorite
A 6	-	4 ppm Cu.	South of I T claims - granodiorite

Extensive regional geochemical work by personnel of Cannon-Hicks Associates in 1971 has established that background for copper for the area is about 35 ppm Cu. and that any values greater than 75 ppm Cu. can be considered to be anomalous.

Two rock geochemical samples were taken from the No. 1 Breccia Zone as follows:

<u>Sample No.</u>	<u>ppm Cu.</u>	<u>Location</u>
8539	39	South end of Breccia Zone
8540	116	1,000' North of previous sample

No. 2 Breccia Zone

The No. 2 Breccia Zone lies 4,000' NE of the No. 1 Zone in claim No. 4 at an elevation of 5,300'. It measures 500' by 300', the long dimension striking N 10° E. Although the intensity of the brecciation is somewhat less than that seen at the No. 1 Zone, malachite staining is present.

One rock sample (No. 8538) was taken by the writer and assayed 0.19 % Cu. This sample was taken across about 50' where malachite staining was strongest.

GEOCHEMICAL:

Samples taken by Cannon-Hicks personnel in 1971 show that anomalous copper and zinc exists in McBride Creek, while Ashnola River upstream from McBride Creek has nothing of interest. McBride Creek drains the area on which the Prism ground is located. Stream sediment samples taken up McBride Creek are as follows:

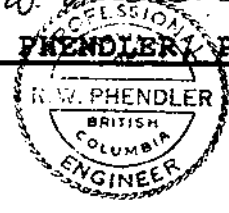
<u>Location</u>	<u>ppm Cu.</u>	<u>ppm Zn.</u>	<u>ppm Mo.</u>
600' above Ashnola River	1,080	1,000	12
4,000' above Ashnola River	1,240	1,000	12
10,000' above Ashnola River	420	130	-
12,000' above Ashnola River	320	120	-

Respectfully submitted,

CANNON-HICKS ASSOCIATES LTD.

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