# KERR ADDISON MINES LIMITED

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То	Mr. D.A.	Lowrie		From	Mr. W.M.	Sirola	820065
Subject	TREASURY	MOUNTAIN	PROPERTY,	TERRACE,	Date	November 30	, 1976
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Herewith John Lund's impressions of the subject property.

Despite reasonably good grades (1.5 - 2.0% cu), this property would appear to have definite size limitations (200 ft. x 20 ft. x 100 ft.), even if we were to locate twice the tonnage that is presently known.

It might be argued that this deposit has definite down-plunge possibilities but I believe that underground mining would be too costly even at higher copper prices to permit any kind of viable operation.

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KERR ADDISON MINES LIMITED

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November 16, 1976

# TREASURE MOUNTAIN PROPERTY, TERRACE, B.C.

#### Introduction:

The Treasure Mountain property consists of two claims giving a total of 6 units, owned jointly by Rodney Knappett (45%) of Rexdale Ontario, Garnet Marks (45%) of Campbell River B.C. and W. Mackle (10%) of Kenora B.C. There is an apparent overlap of one unit leaving an area covered of slightly over 5 units. Claim names are Mark and Knapp.

The property was brought to the attention of our office through Jim Campbell of Kerr's Kenora office.

#### Access:

There are helicopter pads on the property and for examination purposes, this would be the best way to go. It may be reached by way of 22 miles of gravel road (Copper Mtn. Rd.), that leaves Highway 16 four miles E of Terrace, thence across the river by means of the B.C. Tel. cable car. A good gravel road (7 miles) leads to the No. 1 and No. 2 showings.

## Geology:

Dr. Sutherland-Brown describes the rocks as a sequence of purplish lapilli tuffs and vitrophyre that are part of the Hazelton formation intruded by a brown feldspar porphyry sill.

In the No. 1 zone (Upper Zone) the pyroclastic units and, to a lesser extent, the vitrophyre are well mineralized with bornite, malachite and chalcocite over a strike length of 200 ft. and width of 80 ft. True width is in the order of 20 to 25 ft. Mineralization is on fractures, disseminated and in vesicles. This zone lies above the porphyry sill.

On the No. 2 zone, mineralization is reported to be associated with pink potassic alteration of feldspar phenocrysts and in matrix of fragmental rocks. This zone occurs below the porphyry sill.

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In Douglas D. Campbell's report (1964), he describes the rocks as maroon aphanites, tuffs and agglomerates that have been intruded by a feldspar porphyry sill. Bornite and chalcocite "replace" tuffaceous matrix between fragments of agglomerate in fine fractures and in incipient openings along flow structures. He states that "..... obvious from megoscopic and microscopic study of ore specimens that the bornite and chalcocite have been introduced into the rocks ......".

This deposit is one of several that are associated with Hazelton volcanoclastic rocks and are typically pyrite poor. One of the better known of these is probably that held by Cominco on Skutsil Knob near Bear Lake, where mineralization is in more massive volcanoclastic rocks and lava flows, but is the same mineralogy and approximate grade. To date no large deposits have been developed. This does not mean, however, that they do not exist. Grade typically runs between 1.7% cu and 2% and the deposits as group deserve further study.

There have been 16 drill holes put down on the No. 1 showing since 1956. This work has outlined a zone averaging 21 ft. thick, 220 ft. long with a down dip extent of 160 ft. Using a factor of 10 cu ft./ton, this would imply a possible reserve of 73,000 tons with an average grade of 1.96% cu.

Sections imply an east south easterly plunging structure with the better mineralization following this direction.

Mineralization strikes N.N. Easterly. It dies out to the north but remains open to the north east. Drill hole 73-3 is barren, cutting off the down plunge easterly extent to the zone. Drill hole No. 9 intended to test the southern extension was drilled down dip completely in the aphanite (Vitrophyre) and may well be under the favourable agglomerate and consequently under the southern extension of the mineralized zone. There are then two directions that remain inconclusively tested. That is to the north easterly and southerly directions.

The lower zone remains essentially untested and may be expected to produce a similar reserve. It is, however, my belief that at best, present reserves may be doubled in both zones. If this could be done, the most that could be expected would be slightly less than 300,000 tons.

## Conclusions:

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- Deposits of this type are related mainly to early Jurassic Hazelton volcanoclastic rocks and to a lesser extent flow rocks.
- 2. They are notably pyrite-poor, consisting mainly of bornite and chalcocite.

- 3. To date deposits of this type have proven to be small and discontinuous. Close geologic control is necessary to guide drilling.
- 4. The Treasure Mountain deposit has a close spacial relation to a known porphyry sill. Further study may show also a close genetic relation.
- 5. Drilling to date on the Treasure Mountain property suggests a maximum potential of 300,000 tons or less with a grade of just under 2% cu.
- 6. These type deposits require further study to determine their economic potential. They should, however, be placed in a regional setting first, followed by detailed work on properties that fit regionally into the most favourable geological environment.

### Recommendations:

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Any participation or interest in the Mark and Knapp claims should be accompanied by a regional study of these type deposits **us**ing this property as a type study area for an expanded exploration program.

Because of the limited size of these deposits from exploration to date, the probability of success must be considered low to moderate and no participation is recommended at this time.

John le Sen









