

PHOENIX COPPER COMPANY LIMITED (N.P.L.)

November 7, 1962

TO..... Mr. P.R. Matthew, Manager
FROM..... Mr. George Addie, Geologist
SUBJECT..... General Area: Motherlode and King
Midas camps

801951

General:

Road traverses were made to the above camps to obtain the geological settings of the ore bodies.

1. The Motherlode, Sunset, Marguerite and Morrison mines all have magnetic ore. The Big Copper, King Solomon, Grayhound, and Buckhorn mines do not seem to have any magnetite.
2. The aeromagnetic map does not indicate any of these mines. However, the ground magnetic map of the Motherlode and Sunset mines made by "Surety Oils and Minerals" clearly indicates the ore zones.
3. The Lone Star (Washington State, U.S.A.) and Lexington mines both have magnetic ores. (The ground magnetic survey of the Lexington Mine by "King Midas Mines Ltd," shows an anomaly in this area)

Motherlode Mine:

The ore is located between long thin fingers, or apophyses, of granodiorite which has intruded the limestone. These ore bodies have 15% to 25% magnetite. (F.H. Fredrick's figures) Thus because of the many diorite fingers and the magnetic characteristic of the ore, the chances of finding new ore are good. The Surety Oil ground magnetometer map shows a number of anomalies with proposed drilling, but it is not known if they completed the program. A few drill logs available seem to be very rough, perhaps logged by the driller? However, four of these holes in the railway grade anomaly were all in ore. Taking the anomaly as the length, the ore zone has a strike of N84°E at - 52°N, and using a tonnage factor of 10 (used in all Motherlode ore calculations?) there may be 134,750 tons in a block 700' x 125' x 15.4' grading a little better than 1% Cu.

The depth and West end of this ore zone remains to be proved by drilling. Probably the West end joins the shaft ore body which according to F.H. Fredrick's report has 430,000 tons of 1.02% Cu. (And I understand from the Caretaker that it has not been mined) Thus together there may be 564,700 tons of 1% Cu.



SCALE 1" = 2 mi.

OCTOBER VEHICLE TRAVERSES
1962