416

## STATEMENT OF QUALIFICATIONS

of

PERSONS EMPLOYED DURING THE INVESTIGATION OF THE KIM AND THE MIKE GROUPS OF CLAIMS

(1) Supervision by - Henry L. Hill, P. Eng.

(2) Magnetometer Survey by - T. Lisle, B.Sc. University of British Columbia.

7 years intermittently as exploration geologist with the firm of H.Hill & L. Starck & Associates Ltd.

(3) Geology Field Work and Soil Sampling by - A. D. Stanley, M.Sc. (U.B.C.), B.Sc. (London, Eng.)

2 years as mine geologist in a B.C. gold mine.

3 summer seasons as exploration geologist.

Post graduate courses in petrology, mineralogy, structural geology and geochemistry.

(4) Assisting During All Surveys - L. H. Hill

10 seasons exploration and development work.

92I/2W

# REPORT

on

## THE KIM NOS. 1 to 4 & THE NIKE NOS. 2 to 5 MINERAL CLAIMS ON PROMONTORY HILL IN THE NICOLA MINING DIVISION

by: H. Hill & L. Starck & Associates Ltd.

May 29th, 1962.

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MAPS:


1. Magnetometer Survey of KIM 1 - 4 and MIKE 2 - 5.
2. Geological and Geochemical Survey of KIM and MIKE Mineral Claims.

May 29th, 1962.

# REPORT

on

THE KIM NOS. 1 to 4 & MIKE NOS. 2 to 5 MINERAL CLAIMS ON PROMONTORY HILL IN THE NICOLA MINING DIVISION.

This report covers a geological, geophysical and geochemical survey of the Kim No. 1 to No. 4 and Mike No. 2 to No. 5 Mineral Claims.

## INTRODUCTION

The Kim Nos. 1 to 4 inclusive and the Mike Nos. 2 to 5 inclusive mineral claims south of Craigmont, in the Nicola area, were acquired by the Copper Soo Mining Company in 1961. These claims were surveyed, and a magnetometer survey made late in 1961. Early in 1962 it was reported in the Traders' Investment News Bulletin for May 9th that Hurley River Mines Ltd., drilling on a property to the south, had intersected a zone which gave interesting copper assays. Because the Kim and Mike groups are situated between Craigmont Mine and the Hurley River drill hole, it was considered that a detailed investigation of the groups was warranted.

The groups are located on a northerly trending ridge formed by the Kingsvale group. This group overlies the Nicola Volcanics; the geological work was done to determine the attitude of the Kingsvale group and to ascertain the thickness of the volcanic rocks above the more interesting Nicola group.

Soil samples were taken over the claims where there was no outcrop to outline any anomalous areas for further investigation.

## LOCATION

The group of eight claims called the East group is composed of the Kim and Mike claims on a northerly trending ridge of the Promontory Hills area, just south of the Craigmont mine in the Nicola Mining Division, B. C.

The charges incurred in the investigation are to be applied as assessment work on the following claims:

| | |
|---|---|
| Kim No. 1 | Record No. 14564 |
| Kim No. 2 | Record No. 14565 |
| Kim No. 3 | Record No. 14566 |
| Kim No. 4 | Record No. 14567 |
| Mike No. 2 | Record No. 15277 |
| Mike No. 3 | Record No. 15278 |
| Mike No. 4 | Record No. 15279 |
| Mike No. 5 | Record No. 15280 |

## METHOD

Transit and stadia traverses were made over the entire area to locate accurately all the valid claims bordering the Kim and Mike groups. Using the surveyed claim location lines as base lines, tape and compass picket lines were run in a north and south direction on the Mike group, and to the south on the Kim group, at intervals of 500 feet. These lines were used to locate the rock outcrops and the positions of soil samples.

A magnetometer survey was made on a 300 foot grid over the Mike group, together with a series of 30 unlocated readings in the valley south of the Craigmont tailings pond. Sharpe #2 magnetometer Recording vertical intensity.

## GEOLOGY

Using the system of north-south tape and compass picket lines as reference, the areas of outcrop were located within the claim boundaries.

The Kim and Mike groups, that comprise the East Group of the Copper Soo Mining Company, are located across a northerly trending ridge composed of volcanic rocks identified by Dr. H. Carr as part of the Kingsvale group (B.C. Dept. of Mines Lode Metals 1960, page 32). This group is considered to be unmineralized and the present work was undertaken to determine the attitude of the Kingsvale group and locate any possible contacts with the underlying Nicola group, in order to determine the thickness of the Kingsvale group prior to consideration of diamond drilling.

The Kingsvale group underlying the area of the Kim and Mike groups is formed by massive, purplish colored fine grained volcanic rock with no definite structures to distinguish the individual beds, and no interstratified sedimentary material.

Most of the area is covered by glacial silt and clay material with well rounded cobbles and boulders of coarse grained, granitic rocks, but bedrock is exposed in two main areas

The exposures of bedrock are formed by undifferentiated purple or sandy colored fine grained andesites, containing 5 to 15 percent phenocrysts of euhedral plagioclase and acicular, dark brown to green hornblende up to five millimeters in length. Generally, there is a poorly developed trachytoid texture and a rough planer alignment of the phenocrysts. Elsewhere the andesite is massive with very poorly developed small irregular phenocrysts.

No definite structures could be identified such as pillows, regular variation in size or distribution of vesicles, in order to ascertain the way up, or identify any marker horizon. Irregular patches of agglomerate were identified at the highest elevations on the Kim No. 3 claim. One contact of the agglomerate and the massive andesite dips 25° towards the southeast. Elsewhere the contacts were obscure. The agglomerate is formed by rounded to angular fragments of volcanic rocks up to two feet in size within about 40% fine grained volcanic material similar to that of the massive andesite. The fragments are coated by malachite, which is not present in the fragments or in the matrix of the agglomerate.

Throughout the area there is a constant jointing and poorly developed cleavage which dips northerly at steep angles. This is not considered to be the bedding plane, but a superimposed plane of schistosity due to earth movements.

From the small amount of information obtained it appears that the group dips towards the southeast.

MAGNETOMETER SURVEY

Rock exposures are limited. In late 1961 a geophysical survey was conducted over the area by T. Lisle using a Sharpe A-2 magnetometer.

The Kim No. 3 and Kim No. 2 claims were investigated using four east-west picket lines 300 feet apart with readings taken every 100 feet.

The Mike group was investigated on a grid pattern with 300 foot centers. The readings were adjusted for daily variations by reference to observations taken in the morning and evening in a known locality.

The magnetometer readings obtained in the survey varied between 58,390 gammas and 59,290 gammas, with a northerly trend. This trend probably represents the trend of the ridge. No anomalous areas were located.

GEOCHEMICAL SOIL SAMPLES

Because of the lack of extensive outcrops and the absence of any magnetic anomalies to indicate areas for further investigation, a series of soil samples were collected every 100 feet along the traverse lines, where no bedrock was exposed.

The eastern sections of the claims were not sampled as these sections are in a swamp, and much of the water drains from the tailings pond of the Craigmont mine. This water would impose erratic concentrations of copper in the soil.

The soil on the ridge has been developed from glacial overburden, and the samples were taken at various depths but all from within the A-1 zone of the soil profile. These soil samples were investigated using a rubeanic acid field testing kit supplied by Coast Eldridge, following the method as outlined by Warren and Delavault. (Western Miner and Oil Review, January 1959).

The results of the soil testing to date did not indicate any geochemicals anomalies.

CONCLUSIONS

The claims cover a section of the Kingsvale Group of volcanic rocks that overlie the mineralized Nicola Group. No anomalous areas have been located by a magnetometer survey and soil sampling techniques. However, the claims are situated between Craigmont to the north and a reported new discovery to the south. Although nothing has been found on the claims to date, it is possible that further work on adjoining claims may indicate copper mineralization below the Kingsvale volcanics.

H. HILL & L. STARCK & ASSOCIATES LTD.

A. D. Stanley

Henry L. Hill

ADS:HLH/mjr

MID N° 3.

MIKE N° 2

MIKE N° 4

LAKE N° 1

CRAIGMONT TAILINGS POND

MID N° 4

MIKE N° 3

MIKE N° 5

LAKE N° 2

KIM N° 4

MMM N° 2

KIM N° 3

KIM N° 2

KIM N° 1

A.R. N° 5

A.R. N° 3

A.R. N° 1

WATER AND POWER LINES

CRAIGMONT

MAGNETOMETER CONTOUR INTERVAL 500 GAMMAS

OUTCROPS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 416 MAP 1

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HILL, CLARKE & MACDONALD
CONSULTING ENGINEERS
VANCOUVER, B.C. CANADA

COPPER 500 MINING COMPANY LTD.
MAGNETOMETER SURVEY OF
KIM 1-4 AND MIKE 2-5

| | | | |
|---|---|---|---|
| DATE : | MAY 28, 1962 | SCALE : | 1" = 300' |
| SURVEYED BY : | T.L. | CHECKED BY | |
| DRAWN BY : | T.L. | FILE NO. | |
| TRACED BY : | | DRG NO. | |

MID N° 3

MIKE N° 2

MIKE N° 4

LAKE N° 1

CRAIGMONT TAILINGS POND

MID N° 4

MIKE N° 3

MIKE N° 5

In this area the soil is probably contaminated by drainage water from the Craigmont tailings pond.

LAKE N° 2

WATER LINES

KIM N° 4

MMM N° 2

KIM N° 3

KIM N° 2

KIM N° 1

B.C. POWER

CRAIGMONT

A.R. N° 5

A.R. N° 3

A.R. N° 1

N

416 (M2)

1" = 300'

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 416 MAP 2

Outcrop area.
Andesite
Agglomerate
Bedding
Contacts inferred
Schistosity

SOIL SAMPLES
0-0.1 micrograms
0.1-1.0 "
1.0-2.0 "

HILL, CLARK & CO. LTD.
CONSULTING ENGINEERS
VANCOUVER, B.C.

Copper Soo Mining Company
Geology & geochemical survey of
KIM & MIKE mineral claims
MAY 28, 1962 SCALE: 1" = 300'
DRAWN BY: T.L. CHECKED BY:
TRACED BY: T.L. (416)