

# 3701

## GEOCHEMICAL AND SURVEY REPORT

ON THE WALT AND BULL  
GROUPS

OSOYOOS, B. C.

49° 00 NORTH

119° 35' WEST

82 E / 4 E  
for

MULTIPLE MINING & DEVELOPMENT  
LTD.

5017 ROSS STREET  
RED DEER ALBERTA

May 29, 1972 by G. G. KRAUSE BSc P. Geo.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

No. 3701 MAP

1075

Map #1 Soil Geochemical Survey for Cu



#### INTRODUCTION:

A geochemical soil survey for copper was completed on the Walt and Bull Groups of mineral claims in two periods June 16 to 28, 1971, and April 10 to 23, 1972. A claim survey was undertaken in April, 1972, in part, with the base line survey providing the necessary ground control for the grid system. Mr. K. G. Rathbone B.C.L.S., A.L.S., D.L.S., of 878 - East 17<sup>th</sup> street, North Vancouver, B.C. provided this service. The claims are 6 miles west of Osoyoos at an elevation of 3000 feet, good roads traverse the property which is reasonably open country.

#### GENERAL GEOLOGY:

The area of the claim groups is underlain by Greenstones of Paleozoic (f) age, penetrated by intrusions of Jurassic Age; the intrusions are of variable rock types, Geyenite to Granodiorite. Strong lineations are evident in the aerial photos suggesting a fault system which may control the distribution of the mineralized zones. Visible copper mineralization has been observed with Malachite staining.

#### SOIL COLLECTION AND CLASSIFICATION:

Soil sampling was completed on the East - West cross lines both east and west of the base line (see Map #1). Sampling intervals on these lines were 100 and 200 foot spacings as measured by chain. Each sample location was marked according to its footage along the line and flagged with tape. Approximately 75,000 feet of samples were analyzed.

The soil sampling was done at the time of chaining, at each location a hole was dug with a grub hoe to a depth of 6 to 12 inches to the <sup>1</sup> B<sup>1</sup> layer and a 3 - 4 ounces of soil taken and placed in a kraft sample bag. The soil development is mature with a good A1 6" to 12" thick, a minor B I 2 to 3", and a B 2-12 feet in places.

The sampling was done by Commercial Explorations Ltd., Mr. Heyes and Mr. Needham.

#### ANALYTICAL TREATMENT:

The samples were analysed by Crest Laboratories (B.C.) Ltd. under the direction of Fred Burgess. The work was done as the samples were received in April, dried in their respective sample bags at a temperature of 150 degrees F., and then sieved to a -80 mesh through a stainless steel mesh. A  $\frac{1}{2}$  gram portion of these samples were placed in 25 by 200 millimeter culture tube and digested in a mixture of perchloric and nitric acid at 425 deg. F. for a period of 3 hours. The resulting digested sample was then made up to 25 millilitres volume in 10% perchloric acid. The respective sample solutions were aspirated into a Techtron Atomic Absorption Spectrophotometer model 5 and absorption readings were recorded. Calibration of the atomic absorption spectrophotometer is effected by preparation and analyses of respective metal standards each day.

#### RESULTS:

In areas of soil development over Paleozoic Greenstones previous studies in graphing the copper values and the cumulative - frequency concentrations has statistically given the following parameters. The following figures are statistically derived and are considered the upper limits.

- Background = 40 ppm copper
- Threshold - 65 ppm copper
- Distinctly Anomalous - 75 ppm copper
- High Order Anomalous - 150 ppm copper

The PH of the soils is in the range of 6.64 to 6.96 and under these conditions the copper is immobile.

These results were co-ordinated with the results of the previous work. The anomalous areas are outlined and detailing of these local areas will now be under taken on 100' spacing. Additional other remote sensing devices shall be employed to determine co-ordination.

#### CONCLUSIONS AND RECOMMENDATIONS

The areas of anomalous copper behaviour have been outlined in this survey and it is recommended that expansion of the grid system be completed and employment of an electro-magnetic very low frequency tool be used to determine any conductors present and to help define the rock types underlying covered areas.

Respectively submitted:

  
G.G. Krause, B.Sc. P.Geol.

CERTIFICATE

I, Gerald G. Krause of 312 Masters Road, Victoria, B.C. do hereby  
certify that:

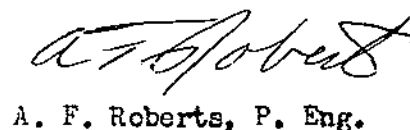
- (1) I am a graduate of the University of Alberta; B. Sc. Geology, 1952.
- (2) I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- (3) I have practiced my profession since 1952.
- (4) The accompanying report is based on an examination of the property and a personal knowledge of similar properties in the Highland Valley - Ashcroft area.
- (5) I have not <sup>received</sup> nor do I expect to receive any interest either directly or indirectly in this property or any of its securities.

DATED at Vancouver, B.C.

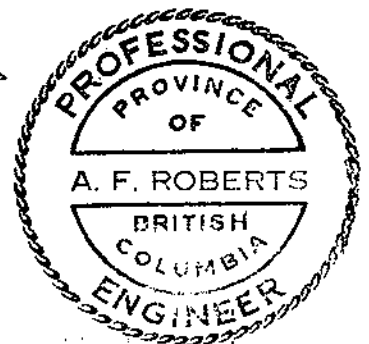
this 29th day of May 1972.

  
G. G. Krause, P. Geol.

I am familiar with this area through past work and concur with Mr. G. G. Krause report dated May 29th, 1972.

  
A. F. Roberts, P. Eng.

May 29th, 1972.



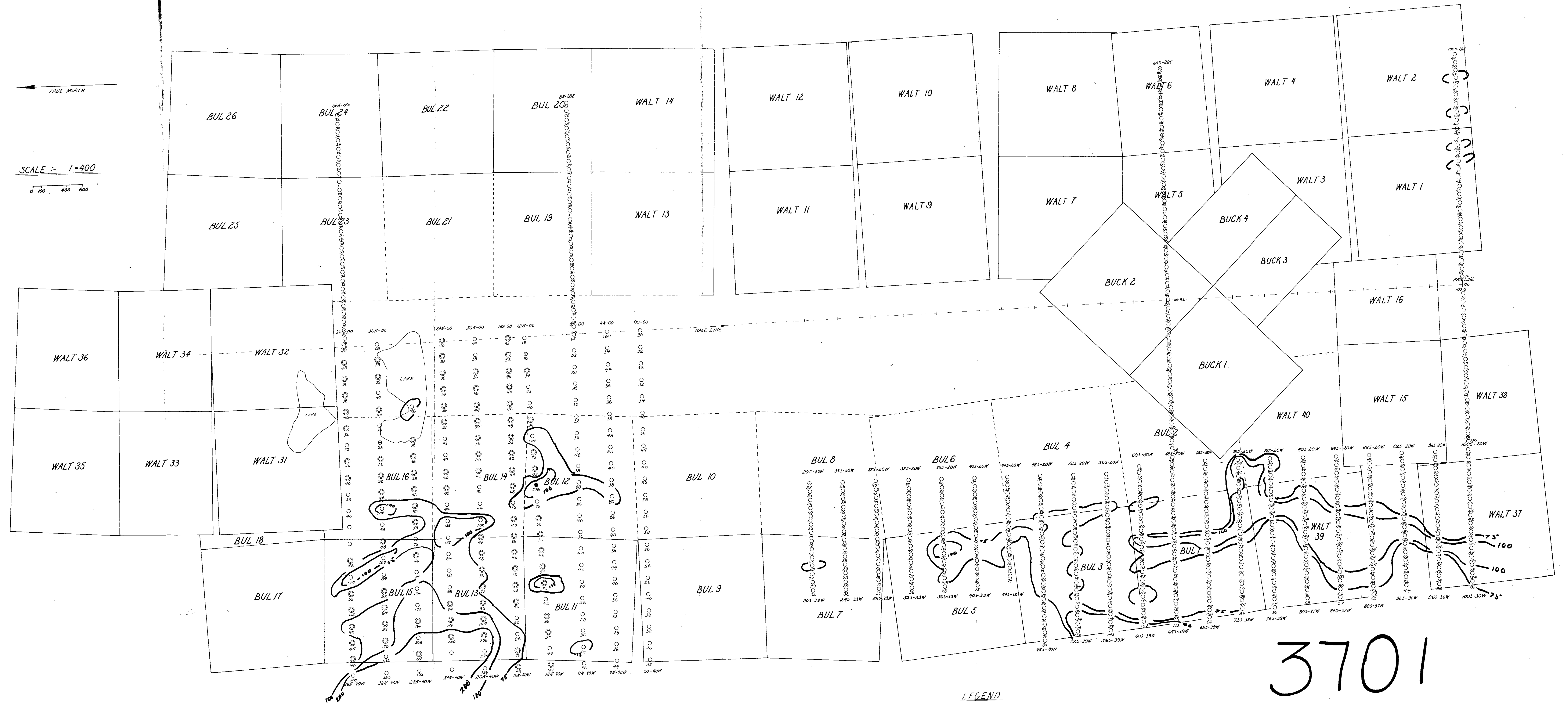
MULTIPLE MINING LTD.  
WALT AND BUL MINERAL CLAIMS  
OSOYOOS MINING DISTRICT  
OSOYOOS AREA, B.C.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
No 3701 MAP #1

SOIL GEOCHEMICAL SURVEY FOR COPPER

TRUE NORTH

SCALE :- 1=400  
0 100 200 300 400 500 600



SOIL GEOCHEMICAL SURVEY (NORTH GRID) BY COMEX LTD.  
APRIL 13-16, 1972.

LEGEND

- 21 ZONE SOIL SAMPLE WITH METAL CONTENT June 1971 Sample IN PPM. - PARTS PER MILLION
- 22 ZONE SOIL SAMPLE WITH METAL CONTENT IN PPM.
- 23 ZONE SOIL SAMPLE WITH METAL CONTENT IN PPM.
- 24 ZONE SOIL SAMPLE WITH METAL CONTENT IN PPM.

to accompany Report of May 29, 1972  
Geotechnical & Survey Report on  
Walt & Bul groups Osoyoos BC  
Multiple Mining Development Ltd  
S. House



3701  
M-1