

**CHRISTOPHER RILEY,**  
CONSULTING GEOLOGIST  
102 - 402 WEST PENDER STREET  
VANCOUVER 3, B.C.

517

GEOCHEMICAL REPORT ON  
A SOIL SAMPLING SURVEY OF PORTIONS  
OF THE KR GROUP OF MINERAL CLAIMS  
OF PLATEAU METALS LIMITED

By Kol Lovang  
Christopher Riley, P. Eng.,  
Supervisor

Vancouver, B. C.

Work Performed:  
August 1st to  
September 15, 1963

GEOCHEMICAL REPORT ON  
A SOIL SAMPLING SURVEY OF PORTIONS  
OF THE KR GROUP OF MINERAL CLAIMS  
OF PLATEAU METALS LIMITED

By Kol Lovang

Christopher Riley, P. Eng.,  
Supervisor

---

---

LOCATION AND ACCESS:

V The KR group of mineral claims lies in the Similkameen Mining Division twenty miles due north of Princeton, and about one-half mile due east of the microwave station in that area. Access is had by the microwave road from Highway No. 5 for a distance of six miles and then  $1\frac{1}{2}$  miles by a new road constructed to the showings by Plateau Metals Limited. The elevation of the area is about 4,700 feet.

GEOLOGY:

The claims are underlain by tuffs and breccias of the Nicola group of rocks. Very little is known of the local structure except that aerial photos show that the formations are massive and strike about  $20^{\circ}$  west of north and show a strong fold, probably the end of an anticline, just north of the microwave station.

MINERAL SHOWINGS:

V In late October, 1962, Plateau Metals prospectors

made a new discovery in a series of small outcrops lightly mineralized with chalcopyrite and stained with malachite and extending over an area of about one acre. There is a north-south lineament just to the east with a small scarp on which are found copper stains. The outcrops are scattered and small and the area is largely overburdened. In order to outline the areas best suited for more intensive exploration, the most effective and economical method was judged to be a soil sampling survey.

#### GEOCHEMICAL WORK:

Field work was placed in charge of Mr. Kol Lovang, a practical operator of considerable ability and experience. He was given an assistant and proceeded to erect a camp and build a road from the end of the microwave road, after which the line cutting was undertaken. A north-south base line of 4,500 feet was cut, surveyed and stations set up at 500 foot intervals. From this line east-west cross lines were cut and surveyed, having stations at 100 foot intervals, as shown on the accompanying plan.

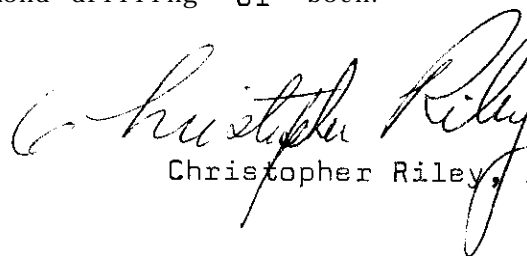
Proper soil samples were taken at each station and tested, using the rubenic method. This reconnaissance work outlined an anomaly and so new cross lines were run at 250 foot intervals for 500 feet to east and west and samples taken at 50 foot intervals on the new and old lines. Four hundred and forty samples were taken and run in the whole survey.

The rejects from the anomaly samples, 144 in all, were brought to Vancouver and tested quantitatively in parts of copper per million. These are shown on the plan, with those samples containing a good percentage of humus being marked with a "B".

The work indicated the presence of two anomalies, one 1,200 feet long and having an average width of 60 feet and a second with a length of 700 feet and a width of 40 feet.

CONCLUSIONS:

The soil sampling survey has outlined two areas which should be subjected to further exploration by bulldozer stripping or diamond drilling or both.

 -  
Christopher Riley, P. Eng.

Vancouver, B. C.,  
October 3rd, 1963.

**GEOPHYSICAL REPORT**

On A

**MAGNETOMETER SURVEY**

Of Portions Of The

**KR GROUP OF MINERAL CLAIMS**

**PLATEAU METALS LTD.**

**(49° 120° NW)**

**(20 Miles Airline North of Princeton, B.C.)**

BY

Chas. A. R. **Lammle**

Keith Whiting, **P.Eng.**, Supervisor  
American Smelting and Refining Company  
Vancouver, B. C.

Work Performed on August 18 and August 21, 1963

September 26, 1963.

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
Introduction	1
Location and Access	1
Instrument	1
Method of Survey	1
Corrections <b>for</b> Diurnal Variations	2
Factors Influencing the Vertical Component of the Earth's Magnetic Field	2
Results of the Magnetometer Survey	2
Interpretation	2-3

**Expenses**

Appendix - **KR Group, Plateau Metals Ltd. 2**  
**Geology & Magnetics**  
scale **1"=100'**

<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT</p> <p>NO. <u>517</u> MAP .....</p>
--

**GEOPHYSICAL REPORT ON A MAGNETOMETER SURVEY  
OF PORTIONS OF THE KR GROUP OF MINERAL CLAIMS**

**INTRODUCTION -**

The author spent two days, the 16th end 21st of August, 1963, carrying out a magnetometer survey on **portions** of the mineral claims RR 3, 4, 5, and 6, owned by Plateau **Metals** Ltd., of Vancouver, B.C. **This** report will describe the instrument used, outline the procedure followed and describe results obtained. A brief subjective interpretation will be given.

**LOCATION & ACCESS -**

The RR Group is situated in **Similkameen** Mining Division in the northwest quadrant of the one degree quadrilateral designated by **49° 120°**. The property lies around an elevation of 4700' on the northeast slope of an unnamed mountain some 20 miles airline north of Princeton, B.C. **Access** is 22 miles north from Princeton on B.C. Highway 5, thence 6 miles easterly via the microwave station road to a junction marked by the Plateau **Metals'** sign. From this junction a truck road leads  $\frac{1}{4}$  mile to the camp and a further  $1\frac{1}{2}$  mile to the center of the area covered by the appended map.

**INSTRUMENT -**

The instrument used in the survey was the Askanfa - Werke AG Rr.580653 magnetometer having a scale constant of 218.1 gamma per scale division. This instrument is a torsion magnetic balance designed to measure variations in the vertical component of the earth's magnetic field.

**METHOD OF SURVEY -**

Survey control was provided by the Plateau **Metals'** picket lines shown on the appended map. Magnetometer readings were taken at 100' Intervals at the 129 stations indicated. The procedure at each station involved setting up on tripod, aligning the instrument closely with the direction of magnetic north, levelling by means of the **levelling** screws, and taking a single reading. The time of day was recorded with the magnetometer readings taken at the end and middle stations of each line. Diurnal control was facilitated by taking a base station reading (the base station being the **claim posts**), along with the **time** of day, before and after each line was surveyed.

V

CORRECTIONS FOR DIURNAL VARIATIONS -

**Diurnal** variations as measured **at** the base station were plotted against the time of day for **each** day of the survey. **From** the two curves produced each reading, as **necessary**, was corrected to make it relative to an arbitrarily chosen base station reading of 114.70 scale divisions on the instrument, **Maximum** variation **from** this value on August 18th was 0.06 division; on August **21st**, 0.10 division.

FACTORS INFLUENCING THE VERTICAL MAGNETIC COMPONENT OF THE EARTH'S MAGNETIC FIELD -

The following lists some possible causes of variations **in** the earth's magnetic **field:-**

1. Variations in the amount of accessory magnetic minerals in bedrock.
2. Variations in content of magnetic minerals in overburden.
3. Concentrations of magnetic minerals.
4. Depth to the center of influence of an anomalous magnetic medium.
5. Alteration and/or destruction of magnetic minerals.
6. Combinations of the above.

RESULTS OF THE MAGNETOMETER SURVEY -

Magnetic relief on the survey **area** is low and gentle; the maximum relief being **in** the order of 1900 gammas, and the average being much less. A northerly, elongate, magnetic "high", gently curving to the east, is indicated on **KR** 4 and 5 mineral claims. This high is best developed in the northeast corner of **KR** 5. The high becomes indefinite in the southeast **corner** of **KR** 3. Adjoining the **high** to the west is a broader paralleling zone of generally lower magnetic susceptibility. To the east is an area of little magnetic relief.

INTERPRETATION -

The general relief, the gently curving character, the extent, and



the concordance of widths of the magnetic high and the paralleling zone of **lows** suggest the principal cause of the magnetic relief to be differences in magnetic susceptibility of bedrock types. The magnetically flat area to the east suggests a rock type of uniform magnetic characteristics.

As has been previously noted, the magnetic high is indefinite in the southeast corner of KR 3 mineral claim. This is an area of outcrop. The indefinite character of the magnetic high over an area of **shallow** overburden leads to the possibility of accumulated detrital magnetite being the cause of the magnetic high.

There is probably **some** concentration of magnetic **minerals** underlying the best developed high on the northeast corner of RR 5 mineral claim.

Respectfully submitted,

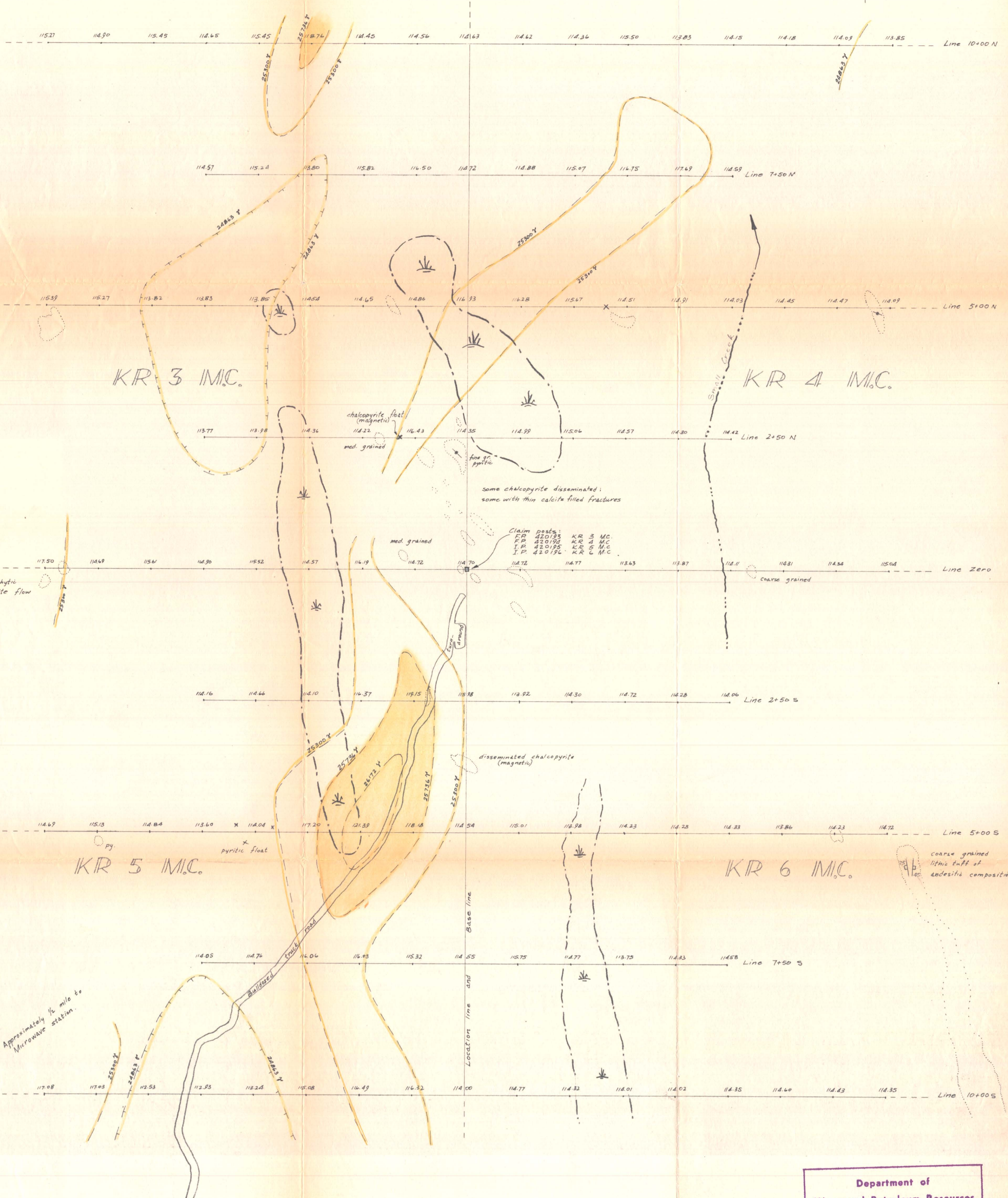
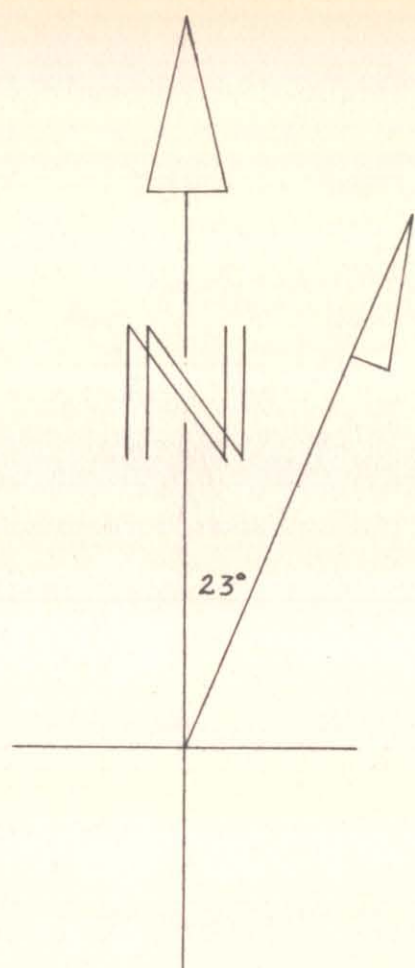
*Chas. A. R. Lammle*

**Chas. A. R. Lammle.**

A  
**CARL/mc**



approximate location of mineralized outcrop



Claim posts:  
FP 420/95 KR 3 M.C.  
FP 420/95 KR 4 M.C.  
FP 420/95 KR 5 M.C.  
FP 420/95 KR 6 M.C.

trachytic andesite flow

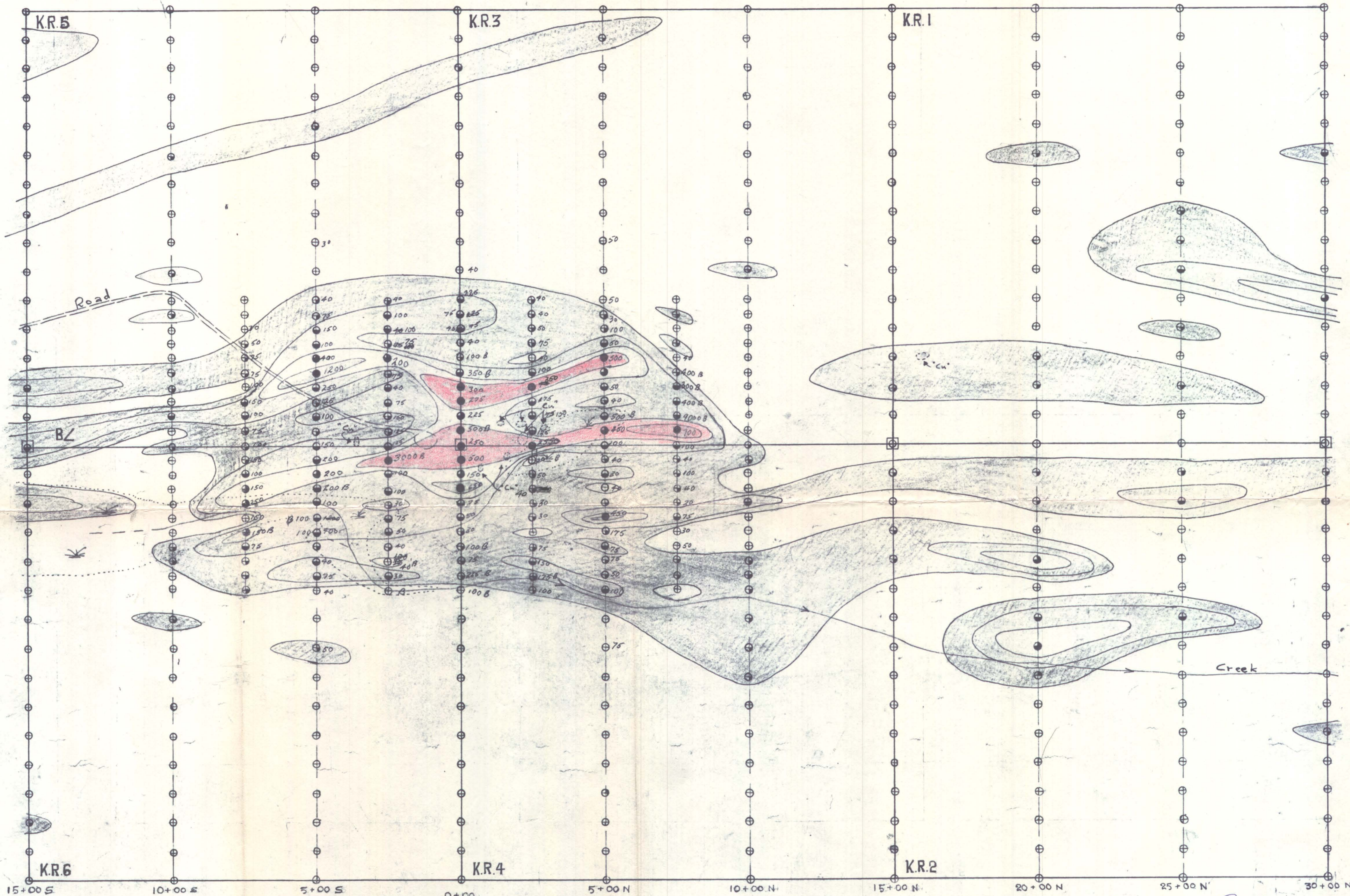
Approximately 1/4 mile to McPowne station.

- Note:
- Map Control - Plateau Metals Grid
  - Magnetics - Askania-Werke Torsion Magnetometer. Total Vertical Field Magnetics, Scale Constant 218.1  $\gamma/o$ . Figures are corrected scale readings.
  - Geology -
    - Dull green andesitic tuffs
    - Trachytic hornblende andesite
    - Chalcopyrite mineralization
    - float
    - jointing, steep & inclined

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 517 MAP 2

Report 517

AMERICAN SMELTING AND REFINING CO VANCOUVER B.C.			
<b>KR GROUP PLATEAU METALS</b>			
MISSEZULA MF AREA SIMILKAMEEN MD, BC	<b>GEOLOGY &amp; MAGNETICS</b>		
SCALE 1"=100'	DRAWN Ld.	DATE Aug '63	APPROVED FILE NO. MAP NO.

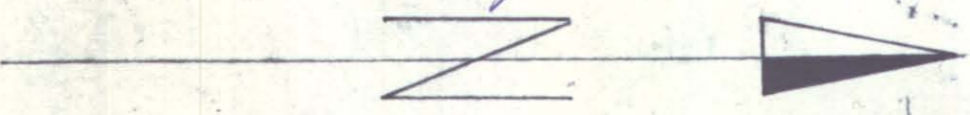


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 517 MAP 1

SOIL-TEST RESULTS  
on  
KR.1 to 6 MC.  
Similkameen, MD.

October 25 1963 Report 517

- Legend:
- ⊕ nil
  - ⊙ little
  - some
  - much
  - very much
  - B indicates humus in sample

*Christopher Riley*  
  
 517  
 Scale: 1" = 200'