

CONFIDENTIAL

REPORT ON
GEOPHYSICAL INVESTIGATION ON THE "PIT" AND "ROB" CLAIMS
GRASS LAKES AREA - HOOLE RIVER DISTRICT
YUKON TERRITORY

BY
A. ALLAN

VANCOUVER, B.C.
December 29, 1955.

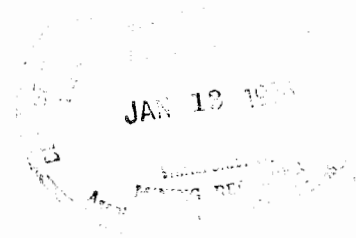


TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Summary & Conclusions.	1
LOCATION & Access.	2
Topography	2
Geology	2
Method of Survey	2
Diagram of Yo-Yo Method Traverse	2
General	3
Recommendations.	3
Acknowledgment	3
Personnel	4
Cost Summary	4

APPENDIX: Plans- Magnetometer Survey.
 (a) "Fit" Claims
 (b) "Rob" Claims

REPORT ON
GEOPHYSICAL INVESTIGATION ON THE "PIT" AND "ROB" CLAIMS
GRASS LAKES AREA - HOOLE RIVER DISTRICT
YUKON TERRITORY

INTRODUCTION:

A magnetometer survey was carried out over the claims during 1955. The purpose of the survey was to determine whether mineralized outcrops and float found on the claims originated from sub-surface orebodies of sufficient size to warrant further exploration.

SUMMARY & CONCLUSIONS:

The actual survey was completed in three weeks' time. Extra labour was employed to complete the survey in as short a time as possible.

Higher than average readings were obtained at all stations. The proximity of the granite intrusive may account for the increased magnetic intensity in the area. The readings were very uniform, with but slight variations between the stations.

Considerable pyrrhotite-chalcopyrite float was found on the ROB mineral claims during the course of the survey. The very slight variation in magnetic intensity between the stations is suggestive of a near surface intrusive. A slight anomaly was outlined on the ROB #4 mineral claim.

Four anomalies were outlined on the PIT claims -- PIT Nos. 1, 4, 6 and 8. The elongated nature of the anomalies suggests either lenticular or vein type deposits. This is particularly true of the anomaly on the PIT #6 mineral claim, near the granite-schist contact. This may be an extension of the mineralization found near the boundary of the PIT #4 mineral claim. Extra readings were taken directly over and in the immediate vicinity of the mineralization. No appreciable increase in magnetic intensity was noted. A sample of the massive arsenopyrite assayed trace Au. and 2 ozs. Ag.

The anomalous areas, coupled with the presence of mineralized float, are of sufficient interest to warrant further exploration. A limited trenching program should be instituted in 1956 to check the anomalies. Lack of outcrops and geological information renders an interpretation of the anomalies extremely difficult.

Sufficient work has been carried out on the claims to maintain their standing until 1957.

LOCATION & ACCESS:

The claims are situated due east from the north end of Grass Lake, about seven miles from the head of the Hoole River. Airline distance from Whitehorse, Y.T. to Grass Lake is approximately 150 miles. Access to the claims is entirely by charter air service from Whitehorse or Watson Lake. Flying time from Whitehorse is approximately one hour, forty minutes.

TOPOGRAPHY:

The topography is moderately rugged, with maximum elevation in the vicinity of the claims about 5500-6000 feet. The area has been glaciated and the valleys are broad and swampy. The claims are at an elevation of approximately 5000 feet and are entirely above timberline. There are small clumps of scrub timber here and there along the valley bottom.

GEOLOGY:

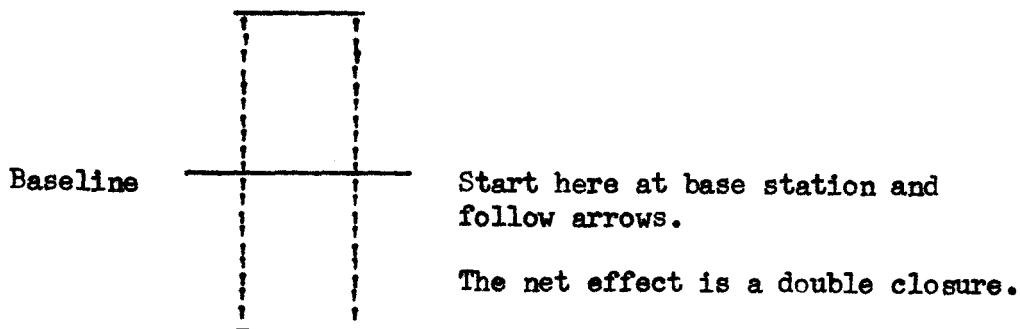
The main rock types in the area are mica schist, gneiss, serpentine and granite. A large granite plug lies immediately west of the claims. The claims themselves are almost entirely covered with overburden and contacts have been assumed on float evidence.

Mineralization consists of pyrrhotite, chalcopyrite, minor galena and sphalerite replacing mica schist near the granite contact. This type of mineralization has not been found in place, although the float covers a considerable area. Mineralization found in place near the boundary of the PIT #4 mineral claim consisted of massive arsenopyrite. A sample from this outcrop assayed trace Au. and 2 ozs. Ag.

METHOD OF SURVEY:

A baseline was established across the claims with picket lines every 400 feet at right angles to the baseline. Magnetometer stations were occupied at 200-ft. intervals along the picket lines. On the ROB claims the picket lines were run at 500-ft. intervals. An "Askania" magnetometer was used throughout the survey. The Yo-Yo method of traversing was used to eliminate the drift as much as possible. All readings were averaged and plotted relative to a mean base of 1425 gammas.

DIAGRAM OF YO-YO METHOD TRAVERSE:



GENERAL:

Work on the claims commenced on August 14th and was completed on September 7th, 1955. A further five days were spent on calculations and preparation of the map. A crew of six men under the direct supervision of A. Allan carried out the survey. Mr. George Peebles acted as party chief of the field crew.

RECOMMENDATIONS:

- (1) That a limited trenching program be carried out to check the anomalies.
- (2) That a crew of not more than three men be used to carry out this work.
- (3) Estimated cost of trenching program \$2500.00.

It is essential to use a small crew in order to keep the high transportation costs within reasonable limits. Sufficient trenching could be carried out in a month's time to check all the anomalies indicated.

ACKNOWLEDGMENT:

The field crew is to be commended for the excellent and expeditious manner in which the field work was carried out.

Respectfully submitted,

EXPLORATION SERVICES LIMITED,



A. Allan (Geologist).

AA/hc.
December 29th, 1955.

APPROVED


Commissioner

PERSONNEL:

Chief of Field Party	G. Peebles	\$ 375.00/mo.
Labour	H. Skiesna	\$ 10.00/day
Labour	J. Laurier	\$ 10.00/day
Labour	A. Roberts	\$ 10.00/day
Labour	P. Ritco	\$ 10.00/day
Magnetometer Operator	C. Guss.	\$ 400.00/mo.
Supervision	A. Allan	\$ 20.00/day

COST SUMMARY:

Line-cutting - 82,000 feet	\$ 900.00
Surveying Stations and Magnetometer Readings	\$ 900.00
Transportation - Air	\$ 800.00
Camp and Food Supplies	\$ 650.00
Magnetometer Rental.	\$ 90.00
Supervision and Final Report	<u>\$ 200.00</u>
	\$ 3,540.00
	<u><u> </u></u>

GRASS LAKE

JEAN 1

JEAN 2

PIT 1

PIT 2

PIT 3

PIT 4

PIT 5

PIT 6

PIT 7








PIT 8

ROB 1

ROB 2

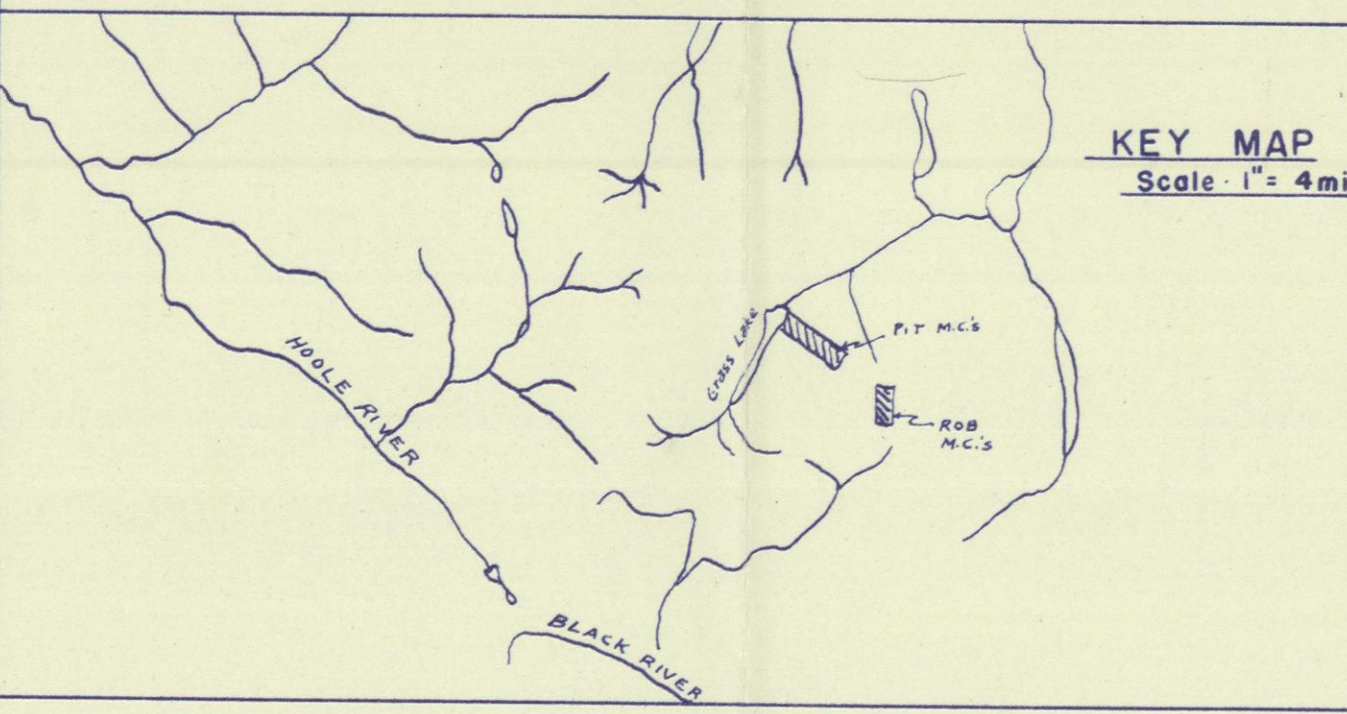


LEGEND

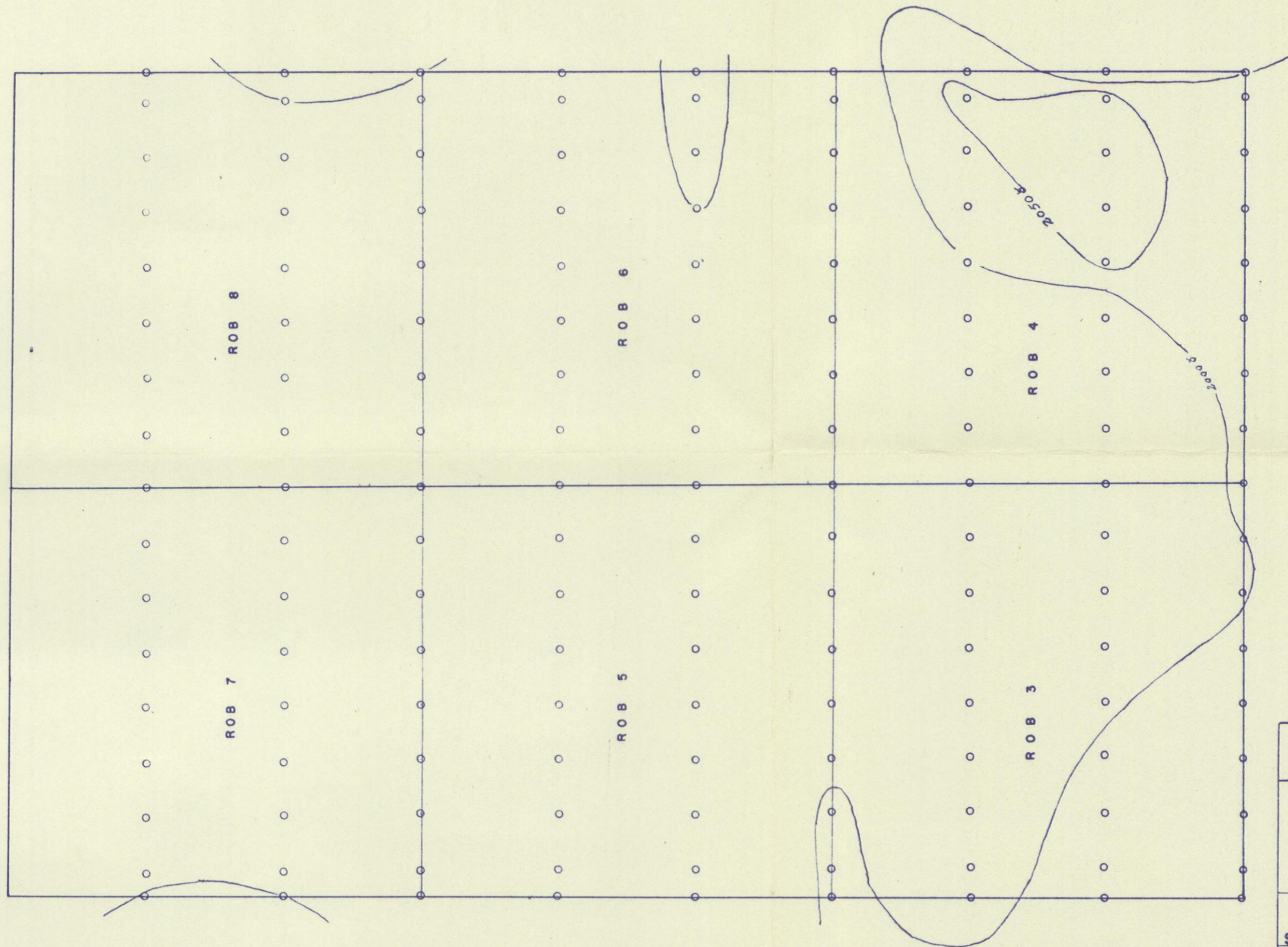
-  GRANITE
-  SCHIST
-  MINERALIZATION
-  SYMBOLS
-  MAGNETOMETER STATION
-  MAGNETIC CONTOURS
-  GEOLOGICAL BOUNDARY

CONTOUR INTERVAL - 50 GAMMAS



KEY MAP
Scale 1" = 4 mi



EXPLORATION SERVICES LIMITED
MAGNETOMETER SURVEY
PIT CLAIMS, GRASS LAKES AREA
MOULE RIVER DISTRICT
Y.T.
Scale 1" = 400' DEC. 1955
A. ALLAN



SYMBOLS

-  MAGNETIC CONTOURS
-  MAGNETOMETER STA.

CONTOUR INTERVAL 50 GAMMAS

EXPLORATION SERVICES LTD.

MAGNETOMETER SURVEY

ROB CLAIMS, HOOLE RIVER DISTRICT
Y.T.

Scale 1" = 400'

DEC. 1955

A. ALLAN