
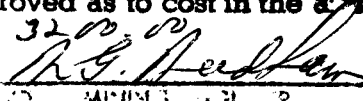



REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY
MAN 1-16 MINERAL CLAIMS
WHITEHORSE COPPER BELT
YUKON TERRITORIES

* * * * *

Ambassador Mines Ltd.,
1019 West 46th Avenue,
Vancouver, British Columbia.

This report has been examined by
the Geological Evaluation Unit.
Approved as to technical worth by:

RESIDENT GEOLOGIST
Approved as to cost in the amount
of: \$ 320,000

COMMISSIONER OF YUKON
Approved as representation work
under Section 53(4) Yukon Quartz
Mining Act.

COMMISSIONER OF YUKON



Key Map Showing Location of MAN 1-16 Mineral Claims

TABLE OF CONTENTS

INTRODUCTION 1

 Location and Access 1

 Summary of Claims 2

GEOPHYSICAL INVESTIGATIONS 3

 Magnetometer Survey 3

 Electromagnetic Survey. 4

 Radioactivity Survey. 5

PROCEDURE. 5

ANALYSIS OF RESULTS & CONCLUSIONS. 6

 Magnetometer Survey 6

 Electromagnetic Survey. 7

 Radioactivity Survey. 9

REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY
MAN 1-16 MINERAL CLAIMS
WHITEHORSE COPPER BELT
YUKON TERRITORIES

INTRODUCTION

LOCATION AND ACCESS:

The Ambassador Mines Ltd. property, consisting of 16 mineral claims held by location is situated four miles northwest of Whitehorse and one mile west of Porter Creek in the Whitehorse Mining District. The Alaska Highway passes through Porter Creek approximately one mile east of the claim boundary. The property covers the easterly slope of Haeckel Hill from 2200 to 3000 feet in elevation.

Whitehorse, the nearest supply centre, is situated along the Alaska Highway, and is serviced by daily scheduled flights from Vancouver via C.P.A; also by the White Pass and Yukon Railway.

Geographically, the location may be described as:

Latitude: 60° 46' N

Longitude: 135° 10' W

SUMMARY OF CLAIMS:

<u>NAME</u>	<u>GRANT NO.</u>	<u>RECORD DATE EXPIRY</u>
MAN 1	Y 24784	May 27, 1969
Man 2	Y 24785	May 27, 1969
MAN 3	Y 24786	May 27, 1969
MAN 4	Y 24787	May 27, 1969
MAN 5	Y 24788	May 27, 1969
MAN 6	Y 24789	May 27, 1969
MAN 7	Y 24790	May 27, 1969
MAN 8	Y 24791	May 27, 1969
MAN 9	Y 24792	May 27, 1969
MAN 10	Y 24793	May 27, 1969
MAN 11	Y 24794	May 27, 1969
MAN 12	Y 24795	May 27, 1969
MAN 13	Y 24796	May 27, 1969
MAN 14	Y 24797	May 27, 1969
MAN 15	Y 24798	May 27, 1969
MAN 16	Y 24799	May 27, 1969

Situated in the Whitehorse Copper Belt
Whitehorse Mining District
Map No. 105-D-14

GEOPHYSICAL INVESTIGATIONS

MAGNETOMETER SURVEY:

The purpose of the magnetometer survey was to determine the existence of any magnetic or non magnetic anomalies on the property, and if so, what was their size, magnetic intensity and probable cause. An anomaly would result from the presence or absence of any magnetic accessory minerals in the underlying rock formations in detectable quantity; the magnetic survey would differentiate between the volcanics and intrusives and detect magnetic sulphides that could possibly be associated with valuable minerals.

Using these factors as a guide, the geophysical survey was conducted over the area adequately covering the 16 mineral claims held by your company.

Factors which produce variations in the magnetic field are:

1. A concentration of magnetic minerals possibly associated with valuable minerals.
2. A variation in amount of accessory magnetite in granitic, volcanic or sedimentary bedrock.
3. A variation in amount of magnetite distributed through or connected with the overburden.

4. A variation in depth of non magnetic overburden on caprock over bedrock having a constant vertical magnetic intensity.
5. Variation in amount of magnetic minerals in adjacent bands of volcanic and/or sedimentary rocks. These variations are not expected to be great, and produce elongated highs and lows parallel to the strike of the formation.
6. Any combination between variations in magnetic minerals in the rock and variations in the thickness of the overlying magnetic or non magnetic overburden or caprock.

It will be seen from the above factors that the geophysical survey employing a magnetometer produces information that would assist in providing a structural picture as well as indicating favourable areas of greater geologic significance for further exploration.

ELECTROMAGNETIC SURVEY:

This survey, conducted simultaneously with the magnetometer survey, measures the change in mutual impedance between a pair of coils as the impedance is affected by nearby conductors of electricity. The equipment employed transmits a field through a 65 foot coil at 1,000 cycles

per second. The coil is housed in a bird drawn by the aircraft, and records any fields produced by the transmitted field.

RADIOACTIVITY SURVEY:

The radioactivity was measured continuously employing a DR-229 Nucleometer constructed specifically for airborne work. It is a 24 tube, highly sensitive instrument.

PROCEDURE

The Ambassador Mines Ltd. property, consisting of 16 mineral claims, was covered by 112,500 line feet of survey. Due to the nature of the topography, flight lines were flown at 332° (True) in order to best conform to the general contour and maintain a constant height above ground.

The north-south lines were flown at a spacing of 500 feet, at an elevation of 500 feet above ground, at a constant speed of 113.7 miles per hour. Readings were continuous and the instrumentation was photographed at intervals to record readings at 500 foot stations. Flight lines, 14 in number, were flown 7,500 feet in length plus turning and reorienting distances. The flight pattern and grid lines were plotted in advance on large scale maps,

utilizing prominent landmarks as visual reference points.

The resulting readings were "key-punched" and processed by computers, including the plotting sequence. The enclosed map is the result of the computer plotting.

ANALYSIS OF RESULTS AND CONCLUSIONS

MAGNETOMETER SURVEY:

The results of the magnetometer survey have indicated definite structural trends in a north-westerly direction with anomalous zones of significance. The plus 1500 gamma contour lines have been outlined.

The high magnetic intensity anomalies are due probably to underlying magnetite associated with copper minerals. Particularly along Flight Line 7 North 40 where surface exposures reveal malachite stain, bornite and magnetite. The overburden is relatively shallow at this vicinity. Both to the southeast and northwest are two anomalies of low intensity producing a difference of some 1700 gamma. This feature is indicative of polarity that is common with massive sulphide bodies of magnetite, and is a favourable indication. A similar phenomenon from a high at Line 3 North 20 through a low at Line 4 North 25 to high at Line 5 North 30.

The intensity of the high anomalous zones are sufficiently great to be caused by magnetite; the association of magnetite with copper minerals in this region is very common.

Other anomalies of interest due to size and intensity are centered at:

- Line 1 North 25 to 35
- Line 5 North 50 (2000 ft. in length)
- Line 5 North 5
- Line 7 North 25 to 45
- Line 9 North 5
- Line 11 North 50

The anomalies on the MAN 10 and MAN 6 produce two of the most favourable locations for further exploratory work in this area.

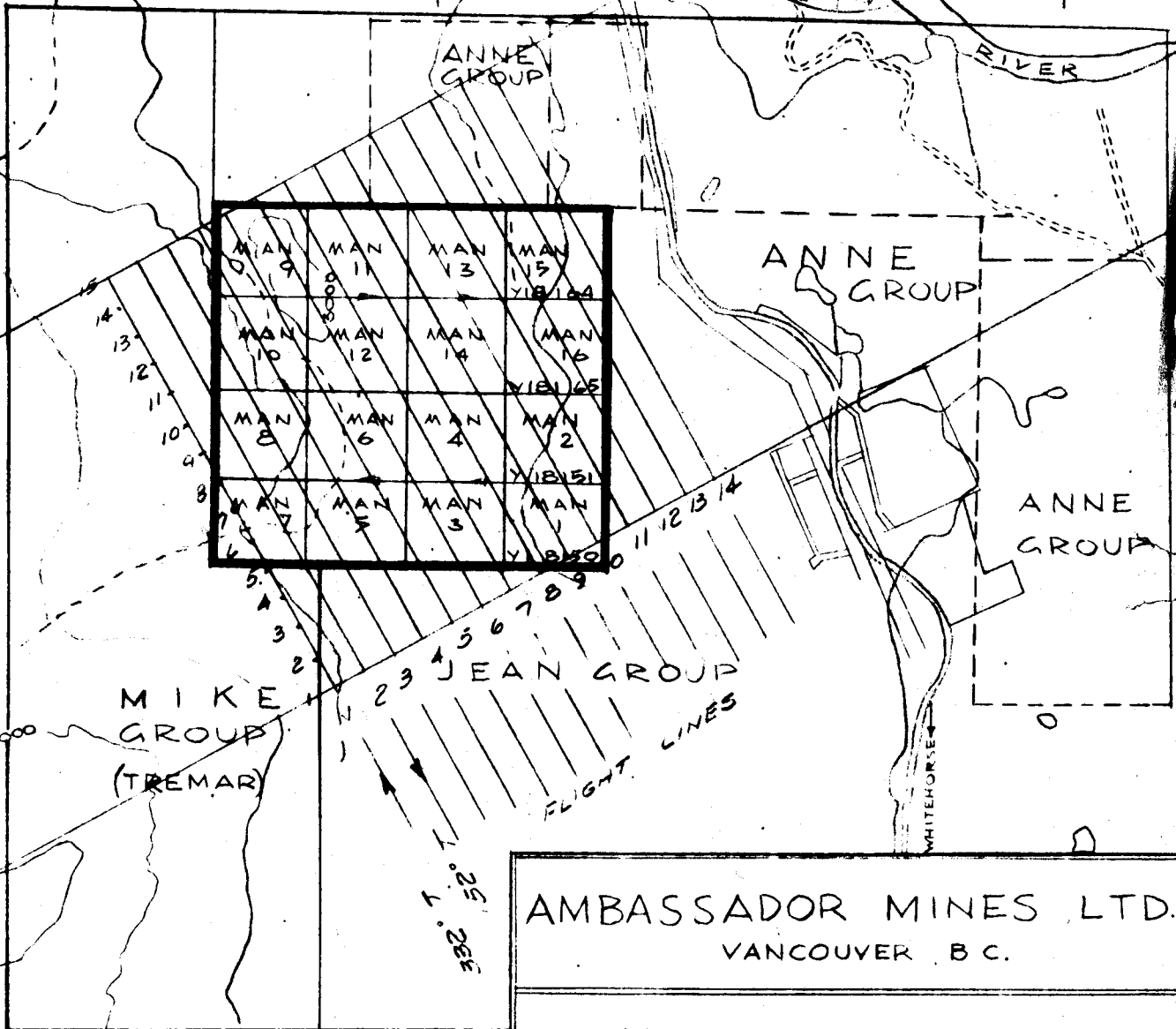
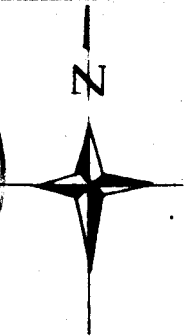
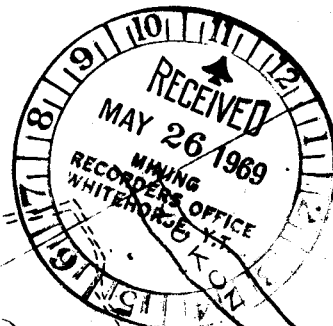
The decrease in the magnetic intensities towards the east appear to be due to increased depth of overburden at lower elevations.

ELECTROMAGNETIC SURVEY:

Recorded intensities of from 5 to 10 are considered the magnitude of disseminated sulphides. Outlines on the map were intensities of plus 6 to indicate these anomalous zones of higher than average conductivity as indicated by the significant readings. The anomalies are

RADIOACTIVITY SURVEY:

This was not plotted due to almost complete lack of radioactivity detected. One particular zone centering at FL 3 N10 revealed minor radioactivity, but the intensity and size are negligible.



AMBASSADOR MINES LTD.
VANCOUVER B.C.

MAP SHOWING LOCATION OF
MAN 1-16 MINERAL CLAIMS
WHITEHORSE COPPER BELT, YUKON

SCALE = 1" = 1/2 MILE DATE = JUL '68



FLIGHT LINES & GRID FOR
AIRBORNE GEOPHYSICAL
SURVEY

FROM MAP
105-D-14

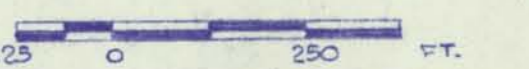


AMBASSADOR MINES LTD.
VANCOUVER, B.C.

AIRBORNE GEOPHYSICAL SURVEY
- MAGNETOMETER -
MAN GROUP MINERAL CLAIMS

WHITEHORSE, YUKON

SCALE: 1" = 250' JULY 1968



FLIGHT LINE

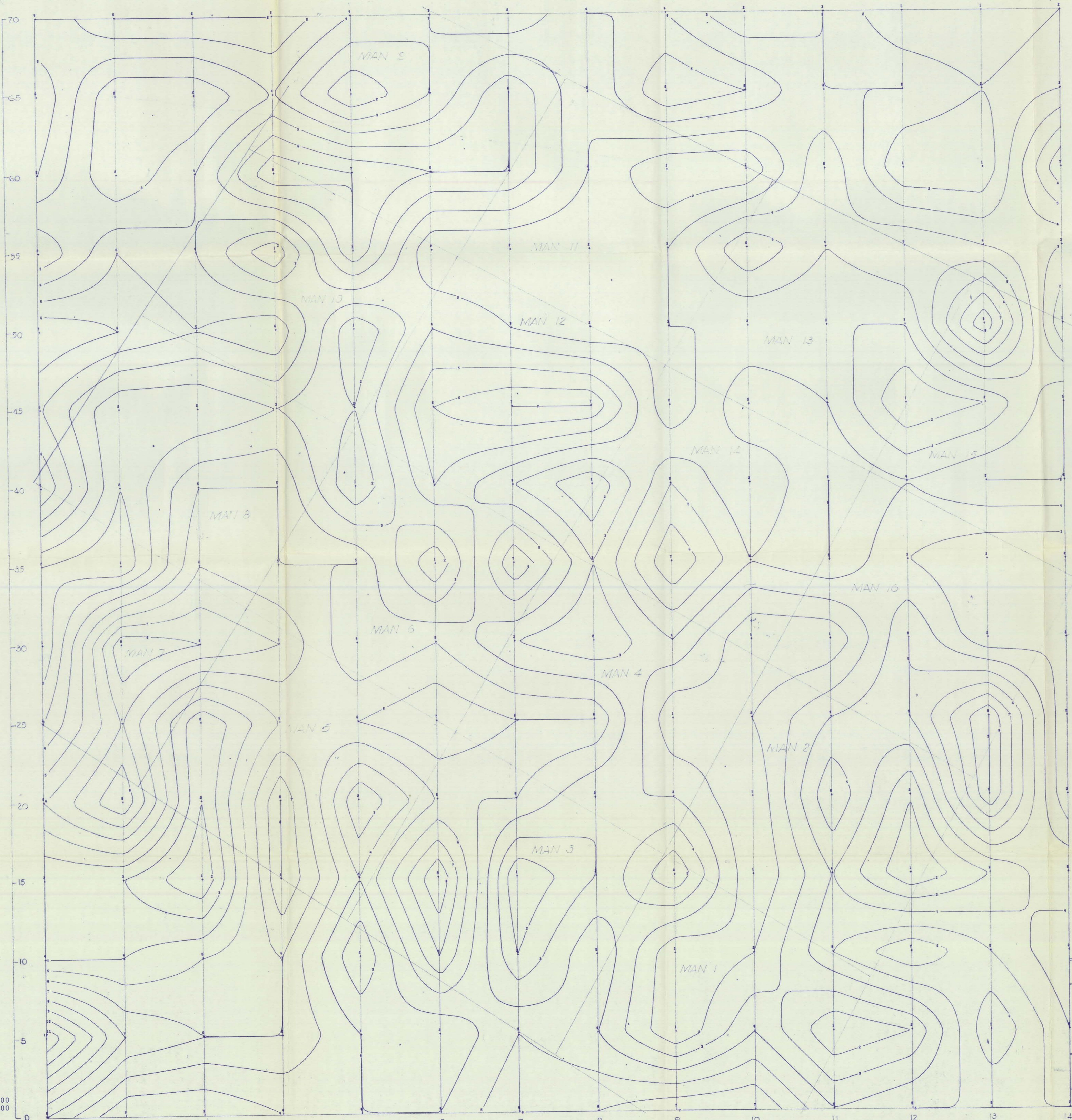
1.00
1.00

TETRAD COMPUTER APPLICATIONS. E. M. CONTOUR PLOT.

READINGS NORTH OF BASE LINE - 100'S FT.

X = 1.00
Y = 1.00

FLIGHT LINE



AMBASSADOR MINES LTD.	
VANCOUVER, B. C.	
AIRBORNE GEOPHYSICAL SURVEY	
- ELECTROMAGNETIC -	
MAN GROUP MINERAL CLAIMS	
WHITEHORSE, YUKON	
SCALE: 1" = 250'	JULY 1968