

1974 Geophysical Report

5010

TITLE Spout Lake Copper Property  
AUTHORS 92P/14W C.J. Hodgson (P. Eng.) and G.M. DePaoli  
DATE May, 1974  
COMMODITY Cu  
LOCATION-Area Lac La Hache  
-Mining Divisions Clinton and Cariboo  
-Coordinates Latitude 52°00'N Longitude 121°25'  
-NTS 92 P 14 and 93 A 3

AMAX VANCOUVER OFFICE

Department of  
Mines and Technical Surveys  
Geophysical Survey  
NO. 5010

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## INTRODUCTION

### General Statement

During the period February 13 - 19, 1974 approximately eight line miles of ground magnetometer surveying were completed over a frozen portion of Spout Lake. The work was carried out by G.M. DePaoli and C.J. Hodgson. The purpose of the survey was to complete the ground magnetic coverage between the main grid and the northwest grid of the Spout Lake Property.

### Location and Access

The Spout Lake property consists of 135 WC claims owned by AMAX Potash Limited and located 14 miles north of Lac La Hache village in the southern interior of British Columbia (Figures 1 and 2). The property straddles the boundary of the Clinton and Cariboo Mining Divisions at 52°00'N latitude, 121°25'W longitude. Access is by secondary and four-wheel drive bush roads from Lac La Hache.

## MAGNETOMETER SURVEY

### Instrument

The instrument employed was the model MF-2 magnetometer manufactured by Sharpe Instruments, a division of Scintrex Ltd., Downsview, Ontario. It operates on the fluxgate principle measuring the vertical component of the earth's magnetic field.

The MF-2 circuitry is temperature compensated to less than 1 gamma per °C from -40°C to +40°C. Its measurement range is from +100,000 gammas to -100,000 gammas and, on the most sensitive scale,

the sensitivity is 20 gammas per scale division or a readability of 10 gammas. It is a hand held instrument requiring only coarse leveling.

#### Procedure

A line-of-sight picket baseline flanked by two tie lines spaced 1000 feet on either side was established on the lake. Perpendicular cross-lines were then surveyed at 100 foot station intervals utilizing the three established picket lines for control and a "Topofil Chaix" machine for distance. In addition, the baseline of the main grid was extended 200 feet north into the Lake and lines 1+00N and 2+00N were surveyed between the baseline and 6+00E.

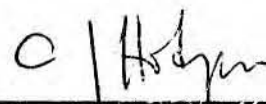
Using the magnetometer's latitude adjust control switch the instrument was set to the same datum as the northwest and main grid ground magnetometer surveys. The baseline was then surveyed in a southerly direction from station 40+00S with particular care taken at grid cross-line intersections. Upon reaching the south shore of Spout Lake (Station 70+50S) the baseline was re-surveyed in a northerly direction back to the starting position in order to observe and correct for the magnetic diurnal variation. The perpendicular grid lines were then surveyed and diurnal corrections were obtained by tying into the baseline.

The grid preparation and surveying were carried out on snow shoes and access to the area was via snowmobile from Ten-ee-ah Camp.

## RESULTS AND DISCUSSION

An isomagnetic map was prepared on a scale of 1"=200' employing a 500 gamma contour interval. An interpretation of the data reveals the presence of two types of anomalies. Along the southwestern portion of the map area several broad anomalies having a maximum amplitude of 3200 gammas are observed. These are interpreted to reflect lithological units within 50 feet of surface, but are not indicative of massive magnetite concentrations. Northeast of this line of anomalies the magnetic pattern becomes very uniform and gently grades into a negative 1000 gamma low. This break in the magnetic pattern is interpreted to reflect a relatively sharp drop off in the Lake bottom.

The second anomaly type is characterized by very narrow high amplitude anomalies accompanied by strong lows. Only two small anomalies of this type occur. They lie near the main grid base line on the south shore of the Lake and are interpreted to reflect magnetite skarn mineralization.



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C.J. Hodgson (P. Eng.)

May, 1974

G.M. DePaoli

APPENDIX I - STATEMENT OF COSTS

<u>Claim Name</u>	<u>Record Number</u>	<u>Group A</u>
WC 13	63318	
WC 14	63319	
WC 27	63320	
WC 28	63321	
WC 100	63696	
WC 113	63709	
WC 114	63710	

Period of Work - February 13 to 19, 1974

Summary of Work - Magnetometer Survey 8 line miles  
Picket Grid 8 line miles

Personnel Employed

C.J. Hodgson, P.Eng., 3091 Plymouth Drive, North Vancouver, B.C.  
Staff Geologist; 7 days @ \$80.18/day \$561.26

G.M. DePaoli, 5305 East Georgia Street, Burnaby, B.C.  
Geophysicist; 7 days @ \$66.04/day 462.28

Geophysical Survey

Magnetometer Rental 7 days @ \$15.00/day 105.00

Camp Accommodation 10 man days @ \$13.00/day 130.00

Snowmobile Rental 5 days @ \$18.00/day 90.00

Vehicle 5 days @ \$20.00/day 100.00

Report Preparation and Drafting 200.00

TOTAL \$1,648.54


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The work is to be applied on WC 199 Fr. for one year  
WC 35 and WC 37 for two years  
WC 39 for three years

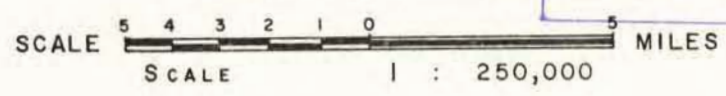
Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 21  
day of June 1974, A.D.

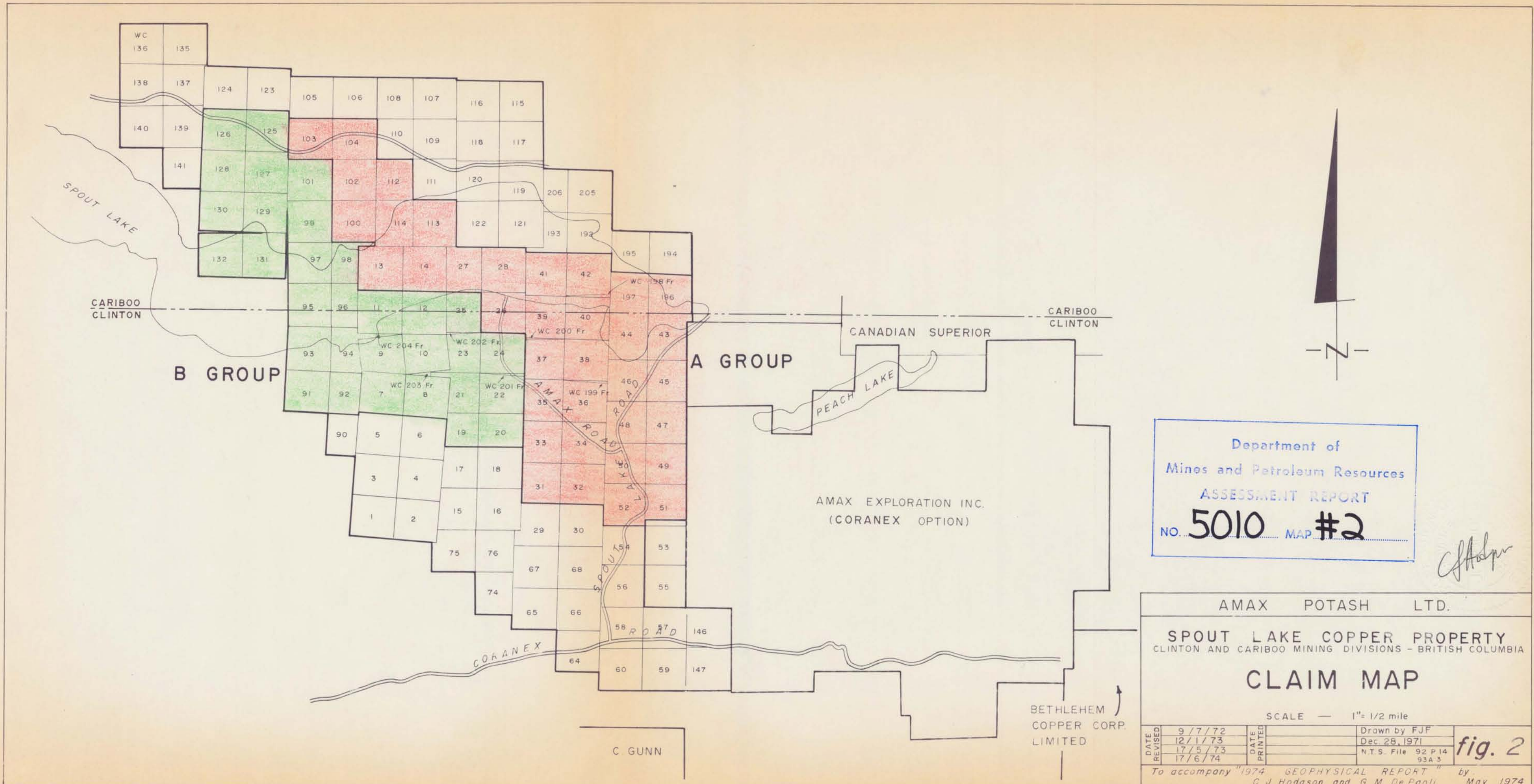
*C. Hodgson*



 SURVEY AREA

Department of  
 Mines and Petroleum Resources  
**SPOUT LAKE COPPER PROPERTY**  
 WC CLAIMS  
 CLINTON AND CARIBOO MINING DIVISIONS — BRITISH COLUMBIA  
 ASSESSMENT REPORT  
 LOCATION MAP NO. **5010** MAP # **1**





Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 5010 MAP #2

*C. J. Hodgson*

AMAX POTASH LTD.

SPOUT LAKE COPPER PROPERTY  
 CLINTON AND CARIBOO MINING DIVISIONS - BRITISH COLUMBIA

**CLAIM MAP**

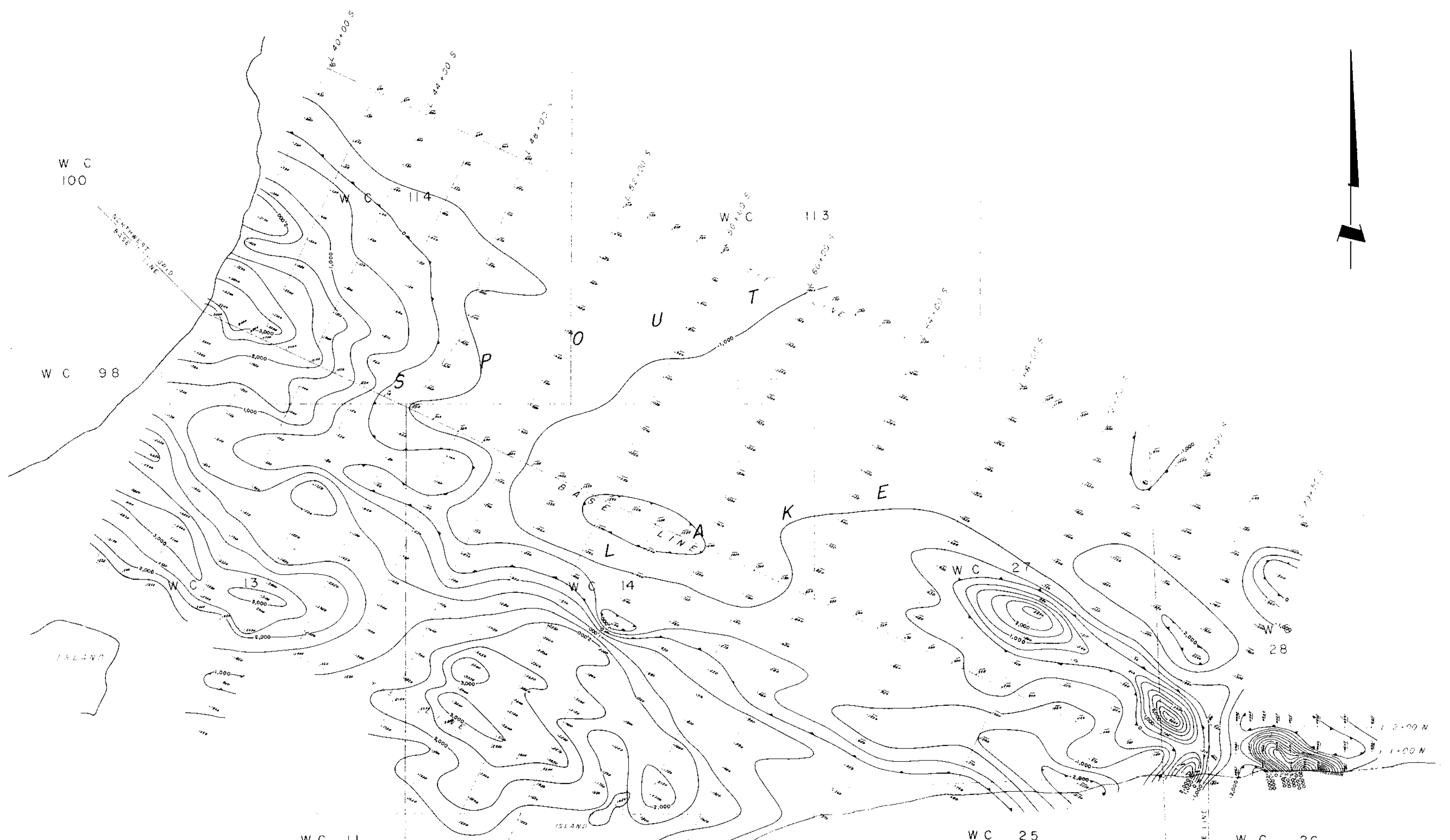
SCALE — 1" = 1/2 mile

DATE REVISED	9/7/72	DATE PRINTED	Dec 28, 1971
	12/1/73		N.T.S. File 92 P.14
	17/5/73		93A 3
	17/6/74		

To accompany "1974 GEOPHYSICAL REPORT" by C. J. Hodgson and G. M. De Paoli May 1974

**fig. 2**





L E G E N D

- Grid line.
- Claim post, claim location line.
- Claim boundary.
- Magnetometer survey readings. (positive, negative).
- Isomagnetic contour.
- Magnetic low.

INSTRUMENT MF 2 Fluxgate Magnetometer  
 READINGS Vertical Component in Gammas  
 CONTOUR INTERVAL 500 Gammas  
 OPERATOR G.M. DePaoli  
 Date Feb 1974

Division of  
 Mines and Technical Surveys  
 Geological Survey  
 NO. 5010 #3

AMAX POTASH LIMITED  
 SPOUT LAKE COPPER PROPERTY  
 LAKE GRID - WC CLAIMS  
 CARIBOO AND CLINTON MINING DIVISIONS - BRITISH COLUMBIA

**MAGNETOMETER SURVEY MAP**

SCALE 1 : 2,400 FEET

DATE	DATE	DATE	Drawn by H.C.P.
REVISED	PRINTED		Date 17/6/74
			N.T.S. File 92 P14, 93 A 3

To accompany "1974 GEOPHYSICAL REPORT" by:  
 C. J. Hodgson and G.M. DePaoli May 1974

**5010 M3**

APPENDIX II - STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

G.M. DePaoli

Combined Honours Geophysics and Geology B.Sc. U.B.C. 1969.

Junior Geophysical experience Granby Mining, Cominco Ltd.

1970 - 1974 Regional Geophysicist Vancouver, Amax Exploration, Inc.

Member of G.S.C., C.I.M.M., S.E.G., A.G.U., and B.C. Geophysical Society.

Experience in British Columbia, Yukon, Ontario, Quebec and Saskatchewan.