

49° 126' S.E.

Geophysical Survey  
Indian Chief and Prince Mineral Claims  
Lat. 49 27' N., Long. 126 19' W.,  
Stewardson Inlet  
Alberni Mining Division

by  
Lynn Woodside,  
directed by  
R.E. Chaplin  
for

42 E/8W

Paco Resources Ltd.,  
May, 1962

*Regarding Groups Middle and Sydney*

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INDIAN CHIEF & P RINCE

MINERAL CLAIMS

MA GNETOMETER SURVEY

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Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 463 MAP

## INDIAN CHIEF AND PRINCE MINERAL CLAIMS

### MAGNETOMETER SURVEY

#### I. INTRODUCTION

The following is a report on the Magnetometer Survey on the Indian Chief and Prince Mineral Claims at Sidney Inlet on the West Coast of Vancouver Island. The survey was conducted between April 20th and May 8th, 1962. The magnetometer work was done by the writer, Lynn Woodside, and the line cutting and sampling was done by Charlie Mickey, Francis Curley, Andrew Frank, all of Tofino, and Ed Lucas of Hot Springs Cove. The writer would like to strongly recommend the above four men and Ben Andrews, also of Hot Springs Cove, for any future work which may be conducted in this area.

#### II. MAGNETOMETER GRID

Due to the topography it was decided to use two separate base lines rather than two single long ones. The location of the grid is shown on the accompanying location and geology map.

II. On the Indian Chief, the base line originates from a point 500' down the old aerial tramway from the top terminal and runs N. 30° W. (magnetic) for 2000'. The base line is below the granite contact and roughly parallels the strike at the mineralized zone. There are six cross-lines at 400' intervals extending 2500' S 60° W and one intermediate X-line at 1400' N on the base line and extending S 60° W for 1500'.

On the Prince, a base line was set off down the hill to the N.W. of the Prince tunnels. It extends for 1800' on a bearing of N 60° W. At this point it runs into a cliff and is offset for 500' to the N.E. It then runs N 75° W for a distance of 500' until it again hits a cliff. The X-lines are at 400' intervals and run N 30° E. However, for the last 500' on the base line there is a short X-line every 100' extending as far on each side as the topography permits. Due to snow and the extreme slopes in this area, the X-lines are of varying lengths and part of the mineralized zone was not accessible for magnetometer work.

III. INSTRUMENTS

Two Finnish magnetometers were used; No. 609 belonging to Mr. B. Hansen of Tofino and No. 620 belonging to Paco.

IV. PROCEDURE

Firstly, several stations were established on the main trail immediately above the beach camp. Readings were taken at these points twice daily - once in the morning and once in the afternoon.

The north base line on the Indian Chief was then run with two magnetometers to check the validity of the instruments. The readings of this day, April 28th, 1962, were taken as the basis for all future magnetometer work. That is, all future readings including those on the Prince, were corrected to the value of the reading established on April 28th. All readings after the Indian Chief Base Line were taken with instrument No. 609.

Readings were taken at stations 100' apart, chained out and indicated by a picket on the actual grid. However, when a significant difference in readings occurred between two stations, the interval

was shortened to 50' and in several instances readings were taken off the line in a circle around the areas of extreme high or low intensities in an attempt to establish, fairly closely, the size of the anomaly.

Besides the tie-in stations on the trail, the cross-line stations on the base line, such as 0n, 4N, 8n, and so on, for the X-lines being done each day, were read twice daily. These base line stations were used to calculate the value of the cross-line readings while the trail tie-in stations served as a check. By this method it was possible to determine the exact daily diurnal change on each line and therefore accurately correct the readings to the Datum Day value.

Often there was very little, if any, daily diurnal variation and at most only two corrections were necessary in calculating the results. The first correction was adding or subtracting the difference in the value of the readings at the tie-in stations from the Datum Day, April 28th. That is, correcting the readings of the particular day to the value established on the Datum Day. The afternoon readings of the tie-in stations were used for this correction

as the greatest daily diurnal changes appeared to occur early in the day. The second correction was making the necessary additions or subtractions for the daily diurnal variations. This involved changing the morning readings to equal the afternoon readings by adding the difference if the morning reading was lower or subtracting if it was higher than the afternoon reading. The time was recorded along with the readings and the differences were added or subtracted proportionately to the time, because as the day progressed the diurnal changes became proportionately smaller.

V. REMARKS

The type of instrument used proved satisfactory in determining areas of high or low magnetic intensity compared to a relatively stable background, but they were not intended for precise work. Due to the calibrations on the scale and the distance between the ends of the pointers there is a possible error or inaccuracy in taking the readings of 100-300 Y. Also, the variability or inconsistency of the rocks, particularly the skarn and gabbroic types, leads to difficulties in contouring. Therefore it was found best to just profile the areas of high or low intensities rather than contour the readings at 500 Y or some such interval.

*R.D. Chaplin*

1030 ESQUIMALT AVE.,  
WEST VANCOUVER, B.C.,  
Nov. 6<sup>th</sup>, 1962.

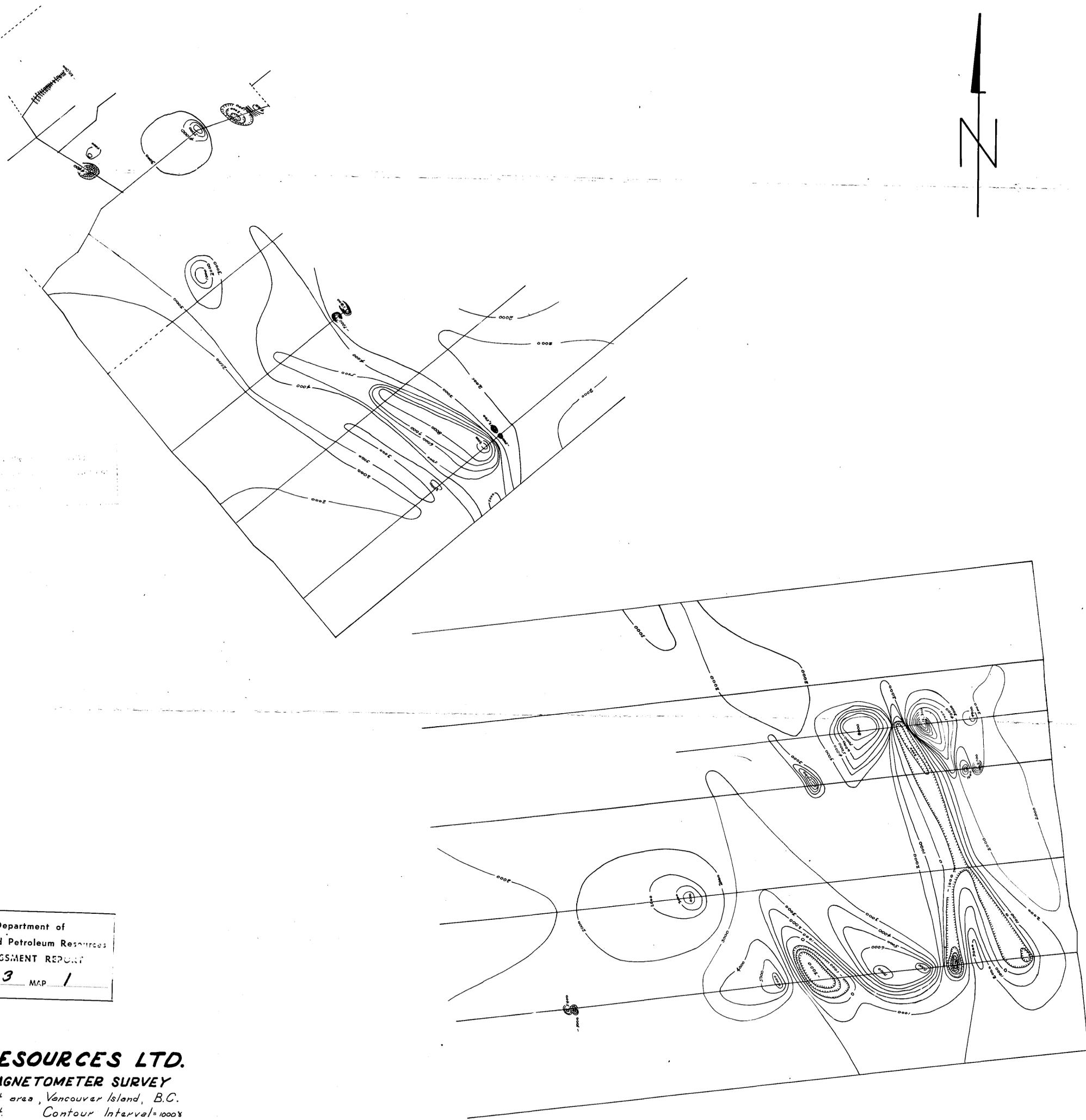
To whom it may concern:

The following is a brief outline of my qualifications in connection with the work which I did for PACO RESOURCES during March, April and May of 1962.

I have completed two years at the University of British Columbia towards a geology major. Immediately prior to the above job, I had returned from Africa where I had spent six months running S.P. and Magnetometer surveys for the RHODESIAN SELECTION TRUST CO. in Northern Rhodesia. While at University, I spent the summers doing geophysical prospecting for the GRANBY MINING CO. and for the KOPAN MINING CO.

Yours truly

Raymond Woodside



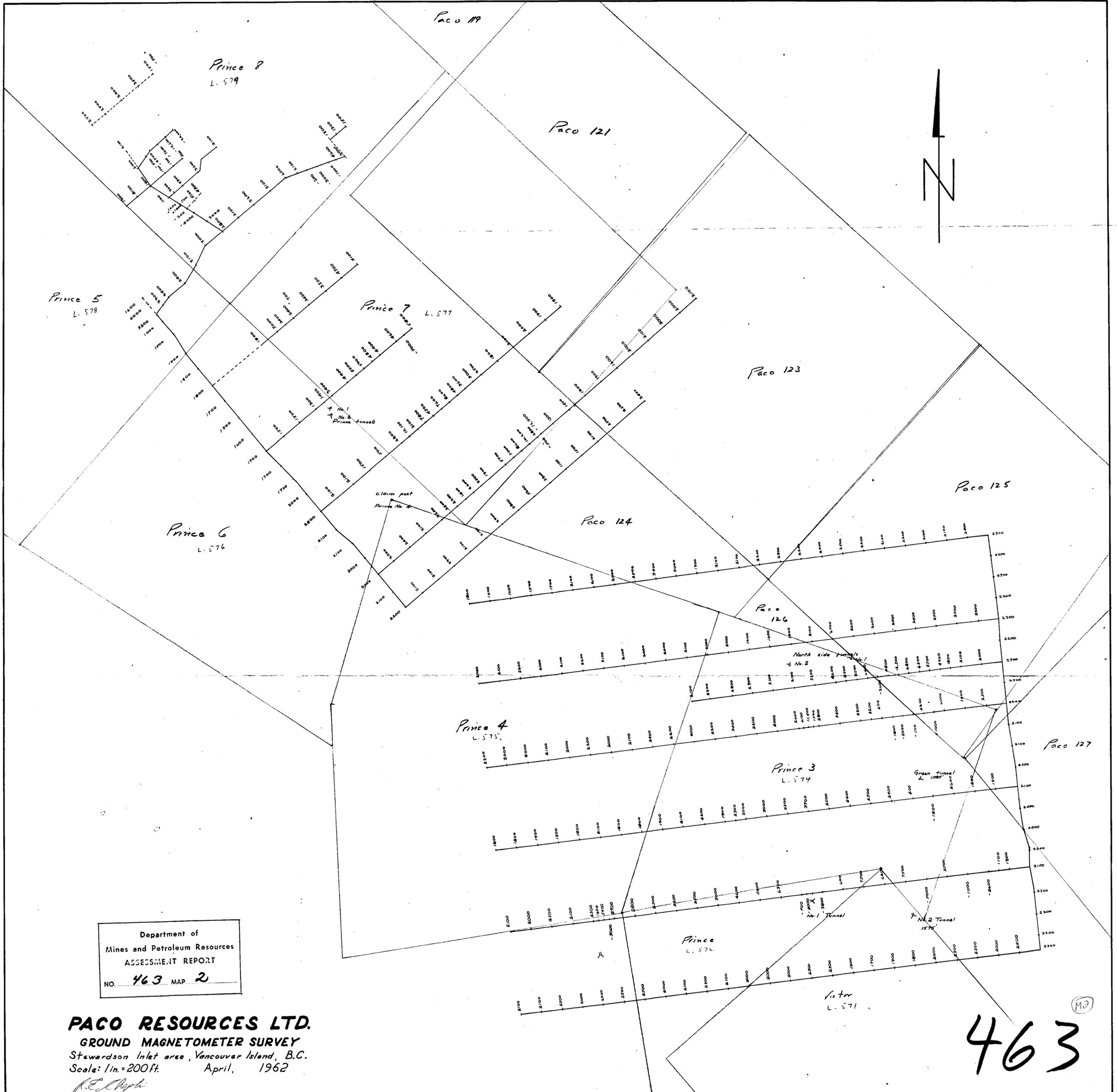
Department of  
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ASSESSMENT REPORT  
NO. 463 MAP 1

**PAGO RESOURCES LTD.**

**GROUND MAGNETOMETER SURVEY**  
Stewardson Inlet area, Vancouver Island, B.C.  
Scale: 1 in. = 200 ft. Contour Interval = 1000 x  
Date: April, 1962.

*R.E. Apple*

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**PACO RESOURCES LTD.**  
GROUND MAGNETOMETER SURVEY  
Stewardson Inlet area, Vancouver Island, B.C.  
Scale: 1 in. = 200 ft. April, 1962  
*R.E. Steph*

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