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DOMINION GULF COMPANY

DETAILED GEOLOGY - SWANSON OPTION
Claims P-37625-26

Jamieson Twp. - Porcupine Mining Div.

A. K. Temple

August 9, 1955.

ABSTRACT

The Swanson Option, claims P-37625-26, is situated in the north of Dominion Gulf Company's Jamieson I, in the west half of Lot 11, N $\frac{1}{2}$, Concession III, Jamieson Township. The claims are easily accessible by trail from Kam-Kotia Mine - Timmins road.

No outcrops occur on the claims. Topographically, the claims are situated at the south margin of sand plain country; higher sandy ground is occupied largely by spruce, with poplar and birch, and lower clay ground by spruce, alder and cedar.

Magnetometer and electromagnetic surveys have been carried out over the property. The former reveals two weak NW magnetic trends.

A geochemical sampling program has been carried out over the greater part of the property.

RECOMMENDATIONS

Evaluation of the Swanson Option rests solely on geophysical data. The northwesterly swing of a diabase dyke in claims P-37676-77 of Jamieson I immediately west of the Swanson Option has been interpreted as being caused by a fault trending in a general NW direction, but may be also due to a series of WNW trending faults.

INTRODUCTION

The Swanson Option, claims P-37625-26, is situated in the west part of Lot 11 in the N $\frac{1}{2}$ of Concession III, Jamieson Township. The two claims form an embayment in the north of Dominion Gulf Company's Jamieson I group.

The claims are accessible by trail along the Concession III/IV line from Robb-Jamieson Township Line, and also by trail from the old power line to the north.

As far as the writer is aware, no previous work has been done on these claims.

The present investigation, carried out at the end of May and beginning of June 1955, was to search for and map all outcrops, and record topography. Control was

given by picket lines spaced at 200' intervals. Personnel involved were R. Hodgins, F. Faulkner, R. Buck, R.W. Hutchinson and A.K. Temple.

TOPOGRAPHY

The two claims are situated on the margin of the sand plain country to the north. The north and east of the claims are relatively high ground, characterized by a growth of spruce with some poplar and birch; this country is underlain by sand and boulders, and in general has a shallow cover of humus (up to 2'). The south and west part of the claims is low swampy ground, largely occupied by spruce, alder and cedar; this country is underlain by clay with some sand generally overlain by more than 3' humus.

GEOLOGY

A thorough search of the claims failed to reveal outcrop.

GEOPHYSICS

A ground magnetometer survey was carried out over the property. The magnetics are rather featureless, and only show two weak NW magnetic trends, probably due to andesitic horizons.

AKT:bj

A. K. Temple.

ATTACHMENTS

DGC detailed Geology, Swanson Option - Base Map 42A/12S - Scale 1" = 200'.



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DOMINION GULF COMPANY
INTERPRETATION OF GROUND MAGNETOMETER DATA
SWANSON OPTION - CLAIMS P-37625 - 26
BASE MAP 42A/12S
PORCUPINE MINING DIVISION ONTARIO
N. R. Paterson September 28, 1955

INTRODUCTION

The Swanson Option, Claims P-37625-26, is situated in the north of Dominion Gulf Company's Jamieson I property, in the west half of Lot 11, north half of Concession III, Jamieson Township. The claims are accessible by trail from the Kam-Kotia Mine-Timmins road.

No outcrops occur in the property. A study of the geology in the surrounding area suggests that the property is underlain by Keewatin volcanics. The predominant rock types are rhyolite and andesite.

A ground magnetometer survey was carried out on the property in May and June 1955. The work was commenced by R. McDonald assisted by D. Peters, and completed by R. Hodgins assisted by R. W. Hutchison. Askania-Schmidt type vertical magnetometers were used, with sensitivities of about 20 gammas per scale-division. Readings were taken at 50-foot intervals on lines roughly 200 feet apart.

The results of the magnetometer survey, together with an interpretation of the data, are presented on the attached map at a scale of 1 inch to 200 feet and a contour interval of 20 gammas.

SUMMARY

There is only a very slight variation in magnetic intensity over the property. Three zones of different magnetic base levels are distinguished, and these are thought to correspond to areas underlain by volcanics of three different susceptibilities. Zone 1 probably corresponds to rhyolite, Zone 2 to andesite and Zone 3 to a basic phase of andesite or to basalt. Two anomalies in the extreme south of the property are thought to be caused by the same sort of material as Zone 3.

The two anomalies and the three zones all strike roughly northwest, and this is therefore the strike of the underlying volcanics.

A fault, striking a few degrees east of north, is interpreted near the centre of the property. South movement of the east side may be the cause of the apparent displacement of the contact between Zones 1 and 2.

There is no direct evidence of any alteration or mineralization in the property.

RECOMMENDATIONS

The ground magnetometer survey has not uncovered anything of economic interest. Any further work on the property should come as a result of favourable indications in adjacent areas.

INTERPRETATION

The magnetic contour map is of very low relief, the variation in intensity reaching a maximum of 358 gammas.

A slight regional variation may be distinguished in the northeast direction. Intensity values increase from the mid 300 gammas in the west of Claim P-37626 to the high 500 gammas in the northeast of Claim P-37625. The gradation appears to take place in two steps, and these are interpreted as geological contacts. Three zones are thus distinguished with average intensities increasing to the northeast. Three different rock types apparently underlie the magnetic zones. These are interpreted as rhyolite (Zone 1), andesite (Zone 2) and a basic phase of andesite, or basalt (Zone 3). The rocks appear to strike roughly northwest and dip vertically. Depth to bedrock is low in the northeast, increasing to the southwest. The probable range in depth is 30 to 60 feet.

Two anomalies, A1 and A2, appear in the extreme south of Claim P-37626, and strike in a southeasterly direction out of the property. These are thought to be caused by narrow basic bands in the underlying volcanics.

A fault is interpreted on the east side of anomaly A1, and appears to strike a little east of north through the centre of the property. A slight displacement in the contact between Zones 1 and 2 may have been caused by a southward movement of the east side of this fault.

There is no direct evidence of either alteration or mineralization in the property. The higher magnetic intensities of anomalies A1 and A2 and Zone 3 may be due to magnetite enrichment through alteration or to magnetic sulphides. Supporting evidence from adjoining areas would be necessary before either of these interpretations was favoured. The fault zone appears to be low in magnetite, and this may indicate alteration.

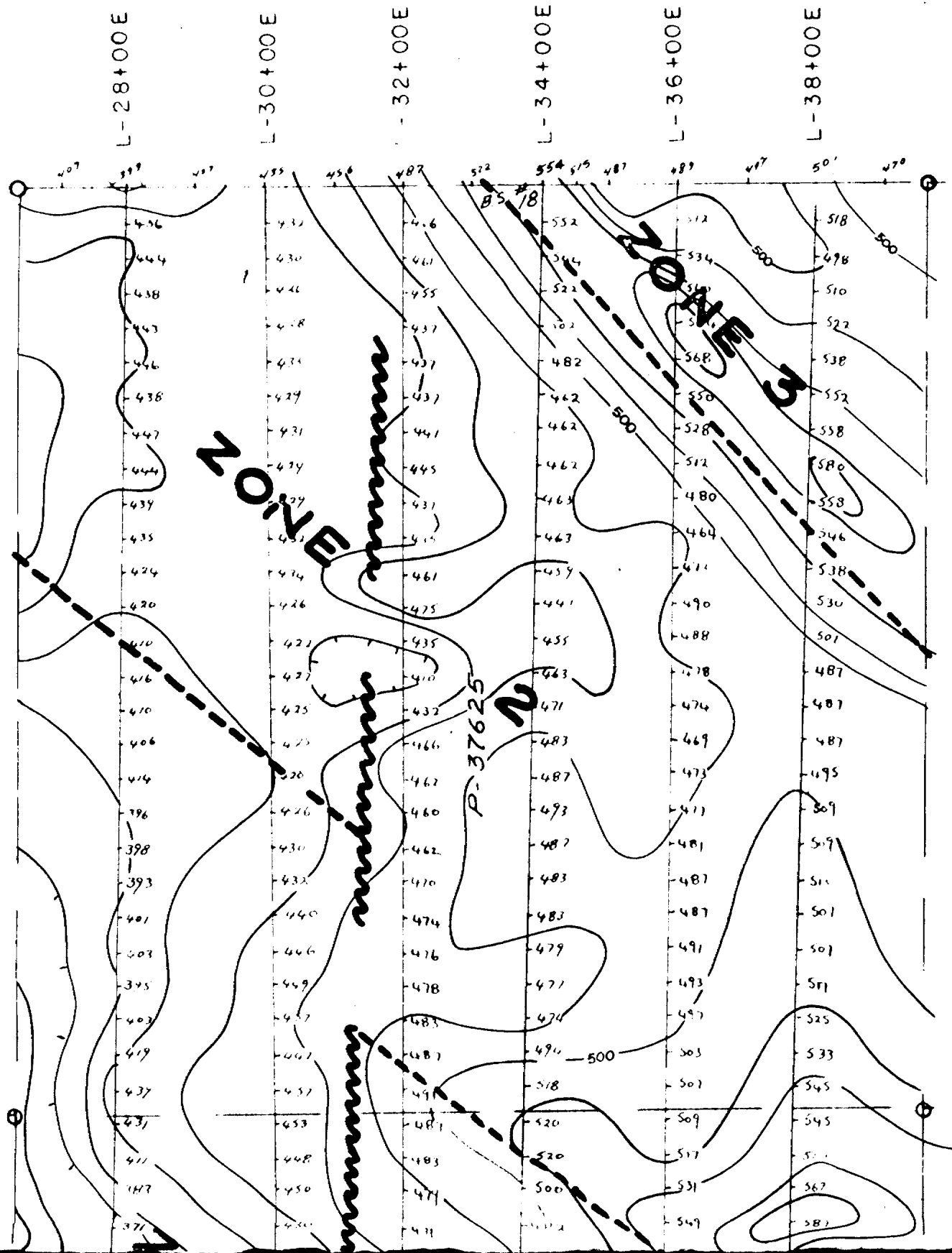
Any further work on the property should include an electrical survey to test for sulphides. Attention should be paid to anomalies A1 and A2, to Zone 3, to the contact between Zones 1 and 2, and to the fault zone.

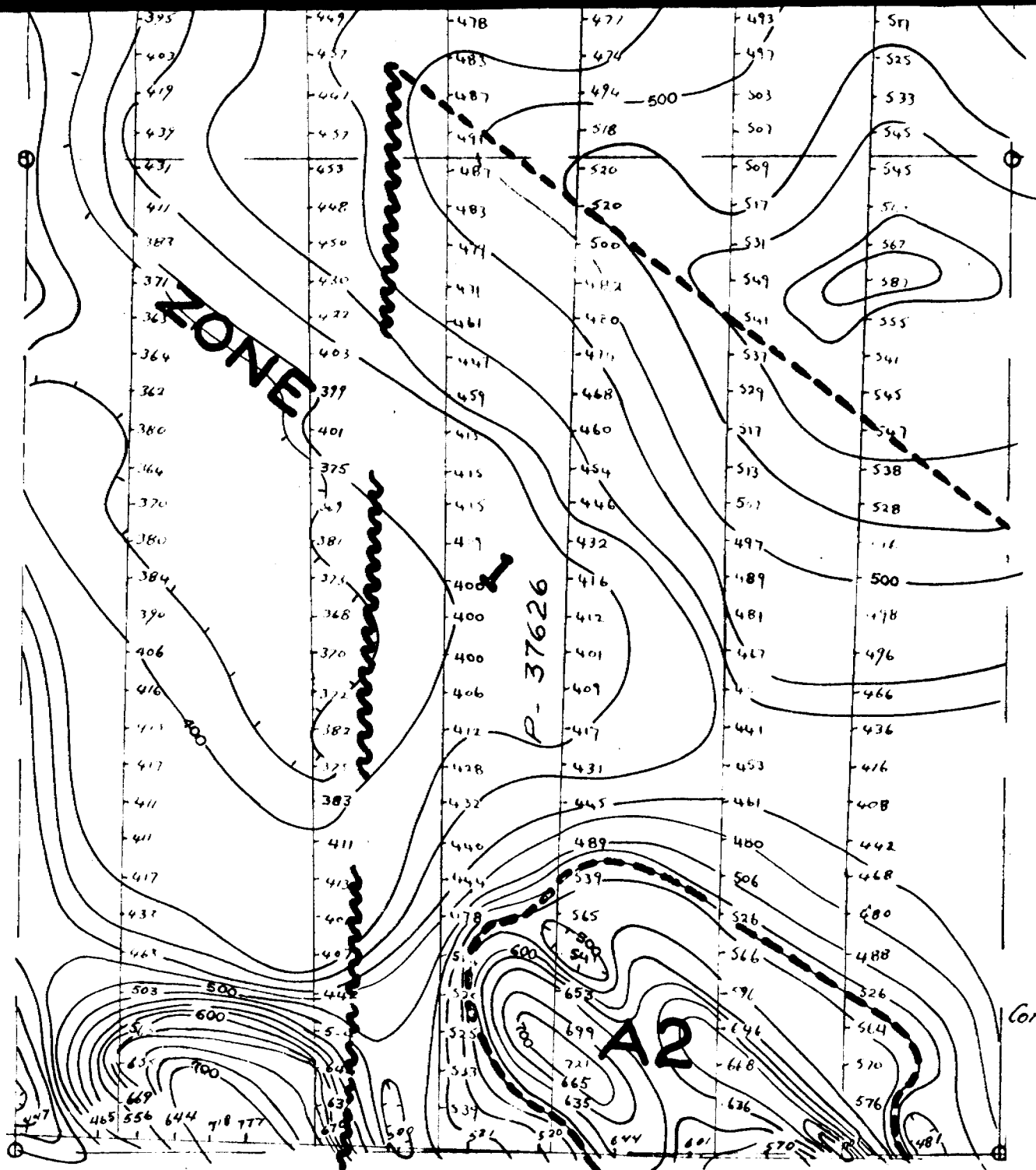
N. R. Paterson

NRP:bh

ATTACHMENTS

DGC Map - Ground Magnetometer Survey - Swanson Option - Jamieson Township - Province of Ontario - Scale 1" - 200' - Contour Interval 20 gammas - August 25, 1955.





LEGEND

- Contact
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Contour Interval = 20 gammas

DOMINION GULF COMPANY  
 GROUND MAGNETOMETER SURVEY

SWANSON OPTION

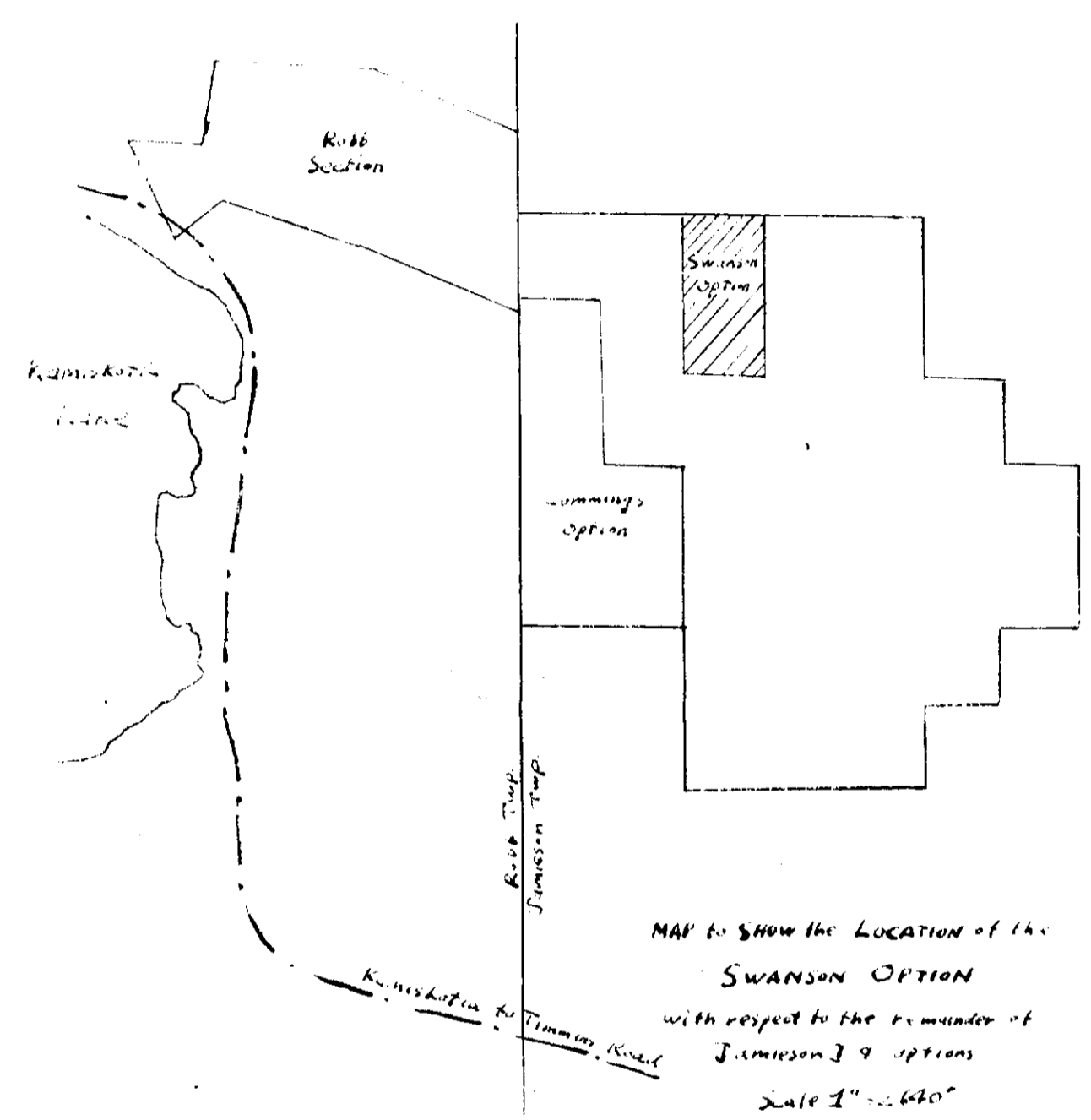
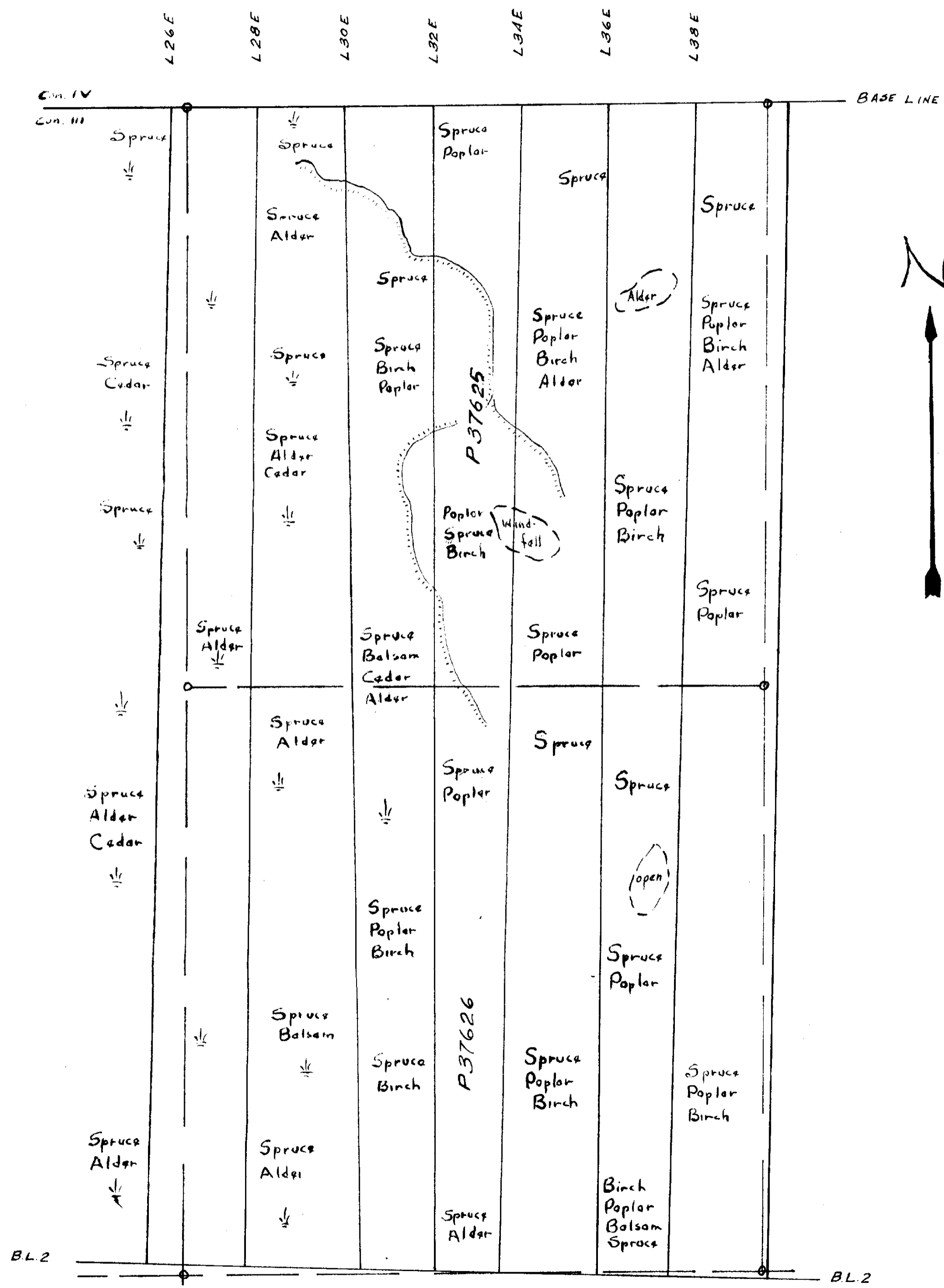
JAMIESON TWP.

PROV OF ONT.

SCALE: 1" = 200'

DATE: AUG. 25, 1955.

To accompany Interpretation Report by  
 N. R. Paterson, dated: Sept. 28, 1955



MAP TO SHOW THE LOCATION OF THE SWANSON OPTION with respect to the remainder of Jameson's 9 options. Scale 1" = 1600'

DOMINION GULF COMPANY  
 DETAIL GEOLOGY - SWANSON OPTION  
 PORCUPINE - KIRKLAND - ONTARIO  
 42A / 125  
 SCALE 1" = 200' AUGUST 5, 1955  
 DRAWN BY R.W. HUTCHINSON  
 TO ACCOMPANY REPORT BY A.K. TEMPLE

