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Harrison Lake Area
British Columbia

Gravity Interpretation
for
Swim Lake Mines Ltd.,
by

R.B. Galeski P. Geoph.
Airborne Geophysical Surveys Ltd.
Dec. 1975

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5779 MAP Y

HARRISON LAKE AREA
BRITISH COLUMBIA

GRAVITY INTERPRETATION
FOR
SWIM LAKE MINES, LTD.

BY

R.B. GALESKI, P. GEOPH.

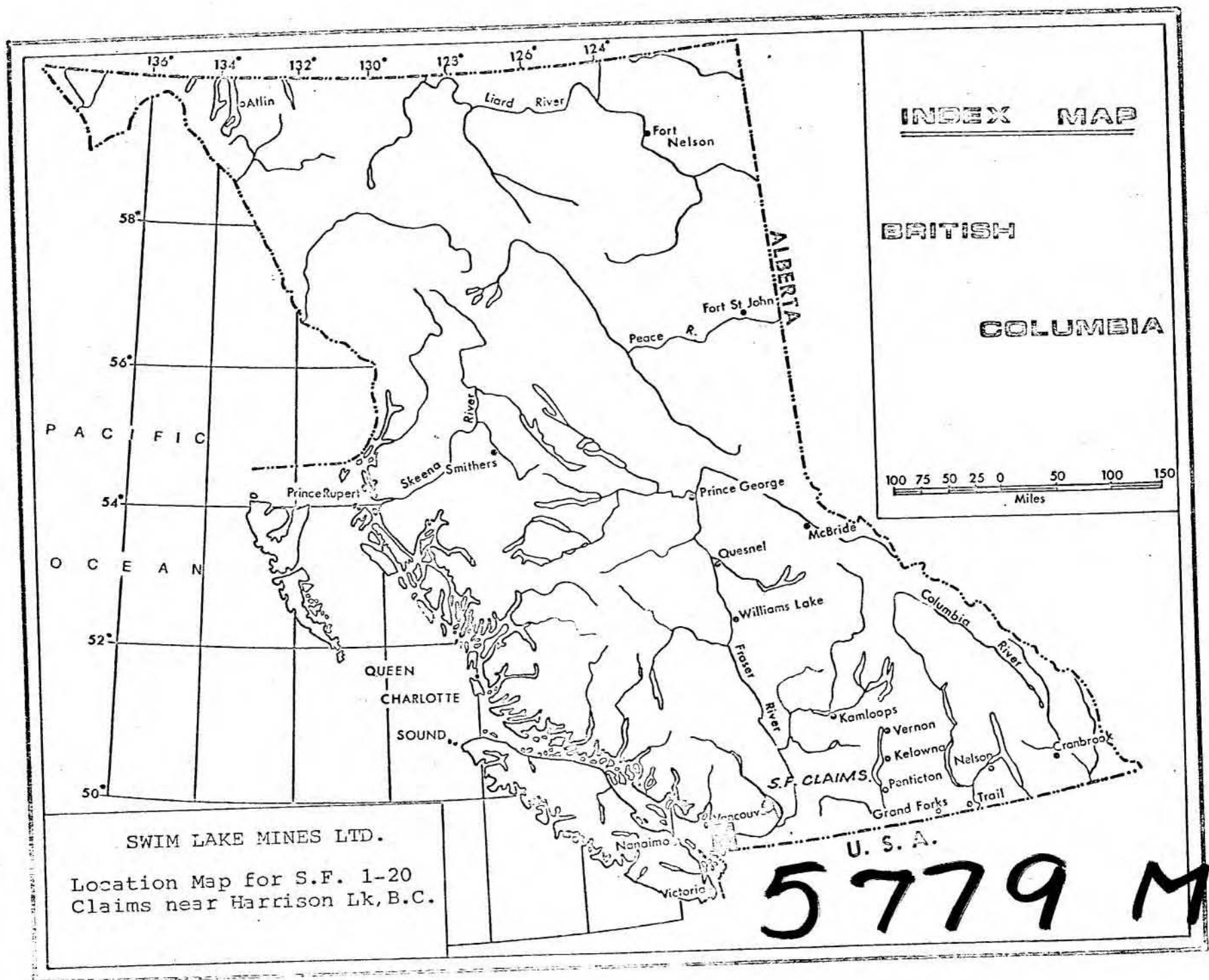
AIRBORNE GEOPHYSICAL SURVEYS, LTD.

DECEMBER, 1975

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LOCATION AND ACCESS TO SF GROUP

The property is located 21 km north of Harrison Mills on B.C. Highway # 7. A partially paved highway runs north from Harrison Mills over Chehalis River and then parallels the B.C. Hydro Power line on the western side of Harrison Lake. The SF property is traversed by the Weldwood South haul-road which intersects the power-line road at Lineham Logging camp on Harrison Lake shore.

CLAIMS

The property consists of 20 contiguous mineral claims which are owned by Swim Lake Mines Ltd.

<u>CLAIM</u>	<u>RECORD NUMBER</u>	<u>EXPIRY DATE</u>
SF 1-14	28219-28232	Dec. 4/76
SF 15-16	28982-28983	Dec. 3/76
SF 17-20	29200-29203	May 22/77

(applied for)

The gravity survey was carried out on SF 7-20 mineral claims.

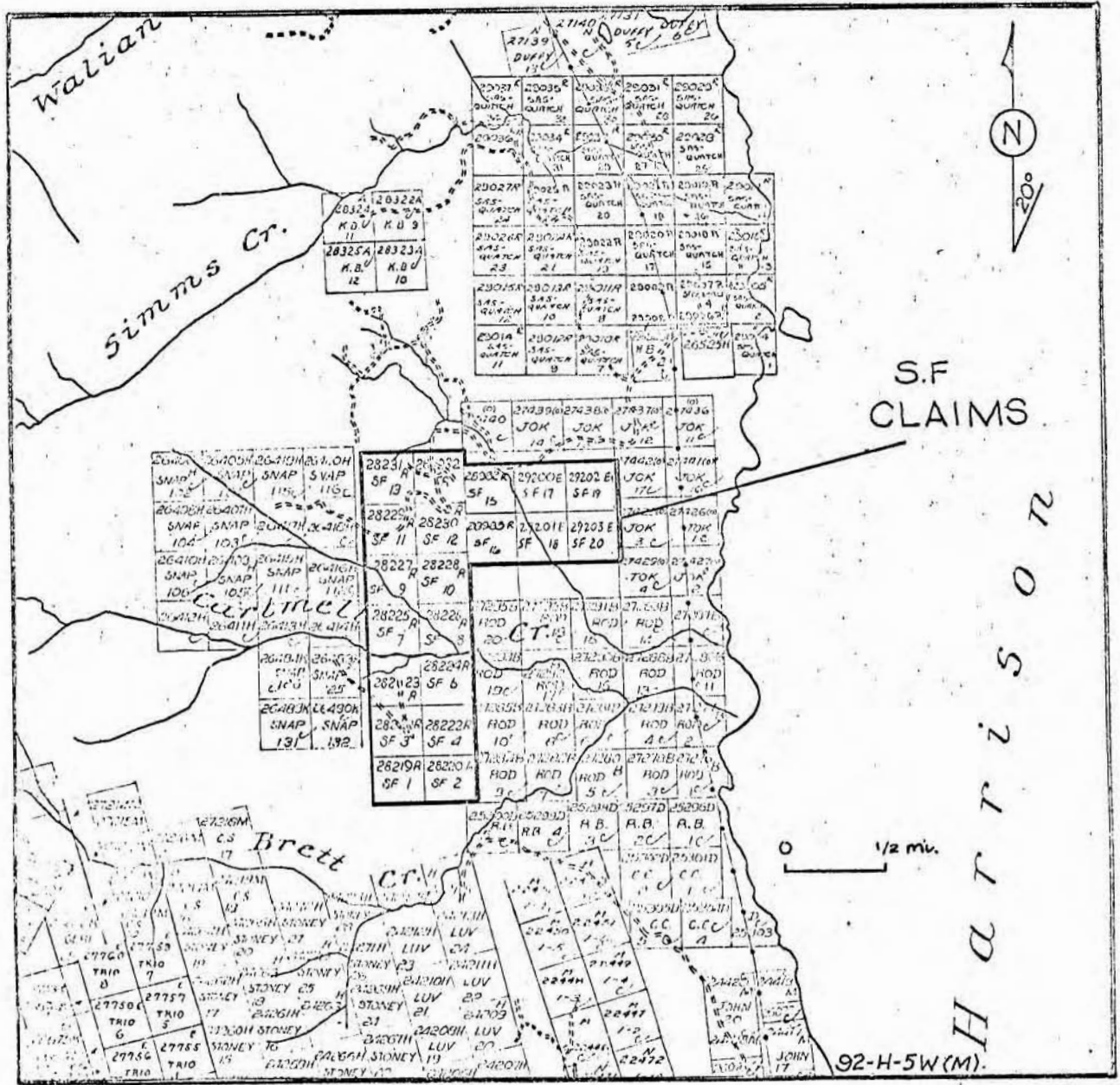


FIGURE 2. Sketch of S.F. 1-20 claims, 18 miles north of Harrison Mills, B.C. (New Westminster Mining District).

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INTRODUCTION

Field work was conducted in the Harrison Lake area for Swim Lake Mines, Ltd., by Airborne Geophysical Surveys, Ltd., in October and November, 1975. Programme consisted of a grid of northeast-southwest trending lines, spaced mostly at 800' intervals and appropriate southeast-northwest tie lines. A total of six miles of northeast-southwest line and two and a half miles of southeast-northwest line was completed. Station interval was 100' throughout.

Elevations of station locations were obtained with an automatic level, and vertical closures around loops were less than ± 1.0 ft. Gravity readings were obtained with a LaCoste and Romberg "G" model gravimeter. Base station readings were taken at approximate two-hour intervals; and drift was less than 0.1 milligal/hour.

Data were reduced with an elevation correction factor of 0.060 (surface density of about 2.7). Maps and profiles of elevation and Bouguer were constructed. The maps form an integral part of this report. In addition, regionals were applied to prints of the profiles, tied and contoured. Residuals were extracted from the profiles and contoured. The regional and residual maps also form an integral part of this report, the residual map being the key interpretive map of the suite.

ELEVATION MAP

Topographic relief is severe with a drop from 2,231' a.s.l. in the west to 678' a.s.l. in the east - an average grade of 1,000'/mile. Local grades within the area are considerably steeper than this however; and it was impossible to get meaningful gravity data on line 40E because of extreme topographic change. Because of the difficulties involved in working on such slopes, line-cutting, surveying and metering proceeded very slowly, and the project took much longer to complete than had been anticipated.

Because of the small areal extent of the programme and a lack of survey data between 32E and 40E, it was not possible to make terrain corrections. Therefore, terrain effects of unknown magnitude remain in the results.

BOUGUER MAP

Bouguer values are higher in the western part of the area than in the eastern part. However there are numerous local positive and negative closures and noses. The significance of these will be considered in the Residual section, where they are discussed as extracted features.

The 2.7 density assumed for surface rocks is probably a good average one for the area as a whole. That is, throughout most of the area, Bouguer neither follows nor counters elevation. However, in the area around 25N, 24E-32E, it does tend to follow the elevation, indicating that surface rocks in this area are greater in density than the assumed 2.7. Conversely, along the northern ends of lines 8E and 16E, Bouguer runs counter to elevation, indicating relatively light rocks or thick overburden in this region.

REGIONAL MAP

The regional map, drawn at a 0.5 mgal interval, indicates the effects of deeper rocks within the area. The map is dominated by a positive nosing plunging from the northwest part of the area towards the southeast. This suggests the presence of a band of heavier rocks in this area striking NW-SE. The steep gradient on the northeast side of the nose suggests that the northeast side of the band may be a fault contact striking through 49N on line 24E and 43N on line 31E.

RESIDUAL MAP

The residual map represents difference values between Bouguer and regional, the regional having been drawn in a manner to avoid creation of negatives in the residual map. Therefore, all anomalies shown on the residual map are positives. Contour interval is 0.1 mgal. Anomalies near the edge of data acquisition are of questionable value because of a lack of solid regional control in these areas. Letter designation on the map reflects relative anomaly grade. The various anomalies are described below:

A - 1.1 mgal. amplitude.

Calculated depth to top = 60'-150'

Calculated thickness = 95'-360'

Probably vertically oriented. May extend to the north end of line 32E.

B - 0.8 mgal. amplitude.

Extraction is poorly controlled on line 16E, and the anomaly may, as drawn, be a composite of two lesser features with apices at 12N and 17N. The southerly of these may extend to the apex at 13N on line 8E. Parameters calculated below originate at line 8E.

Calculated depth to top = 85'

Calculated thickness = 50'

North dip.

C - 0.7 mgal. amplitude.

This anomaly is strongly expressed on the N-S baseline; however, the obliqueness to strike of this line and the short

lengths of the other lines that cross and approach this anomaly preclude the calculation of depth and thickness parameters.

OTHER ANOMALIES - One or more of the other positives shown on the map may be of interest. These are downgraded, however, because of the low amplitude or poor development. The largest of these, on line 25N between 24E and 31E, is suspect because the flanks closely follow topographic changes.

RECOMMENDATIONS

1. Drill anomaly "A" at 44½N, line 48E. Should this fail to find mineralization before reaching a depth of 200', re-drill the hole at an angle to the south.
2. Drill anomaly "B" at 13N, line 8E, to a depth of 150'.
3. Drill anomaly "C" at 9N line 0 to a depth of 300'.

Respectfully submitted,

Robert B. Galeski, P. Geoph.

ITEMIZED LIST OF COSTS

Fees for Gravity Crew: Oct. 28 - Nov. 28, 1975	4950
Air fare, lodging etc.	<u>2150</u>
	<u>7100</u>

See attached invoice from
Airborne Geophysical Surveys



Airborne Geophysical Surveys Ltd.
Calgary Alberta

#600, 330 - 9TH AVE. S.W.
CALGARY, ALBERTA T2P 1K7
PHONE 403 - 264-3434

December 17, 1975

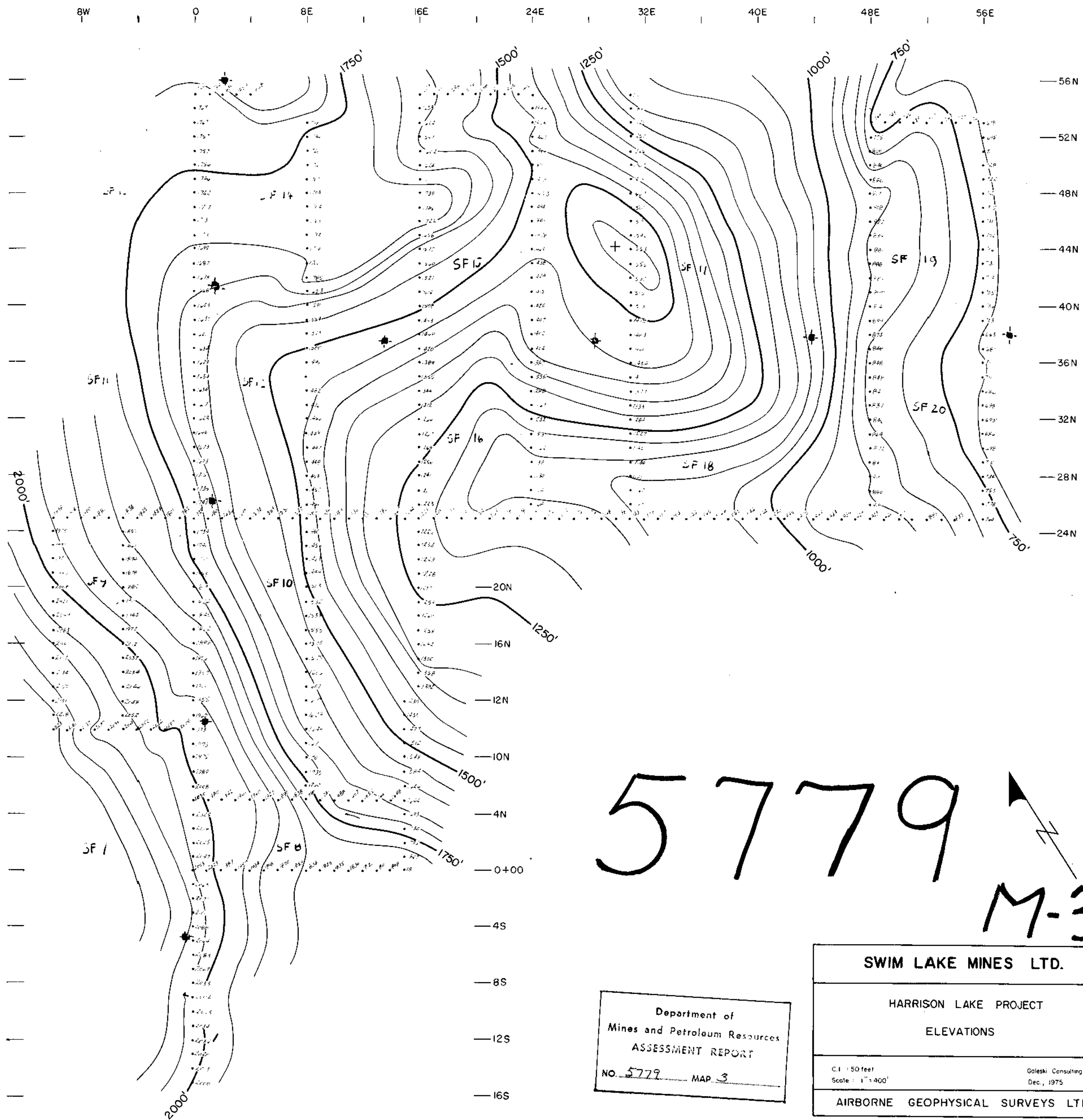
Swim Lake Mines
c/o Mr. S. Cornwell
#600, 789 West Pender Street
Vancouver, B.C.
V6C 1H7

STATEMENT

Fees for gravity crew October 28 to November 28, 1975	\$4,950.00
Airfare, lodging, etc.	<u>2,150.00</u>
TOTAL	\$7,100.00

OK *SBC*

PAID
Cheque No. 64 Data Jan 1976

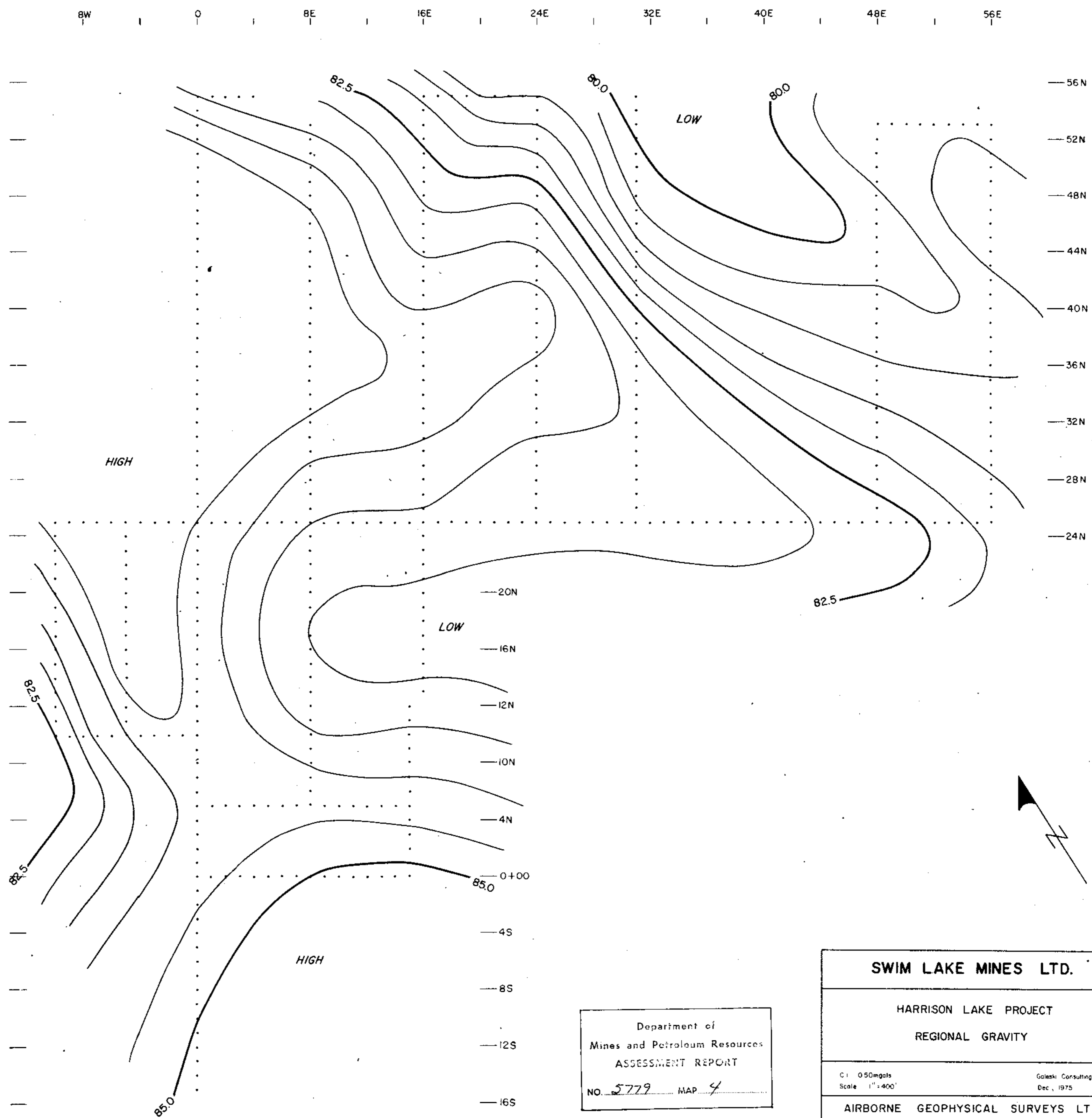


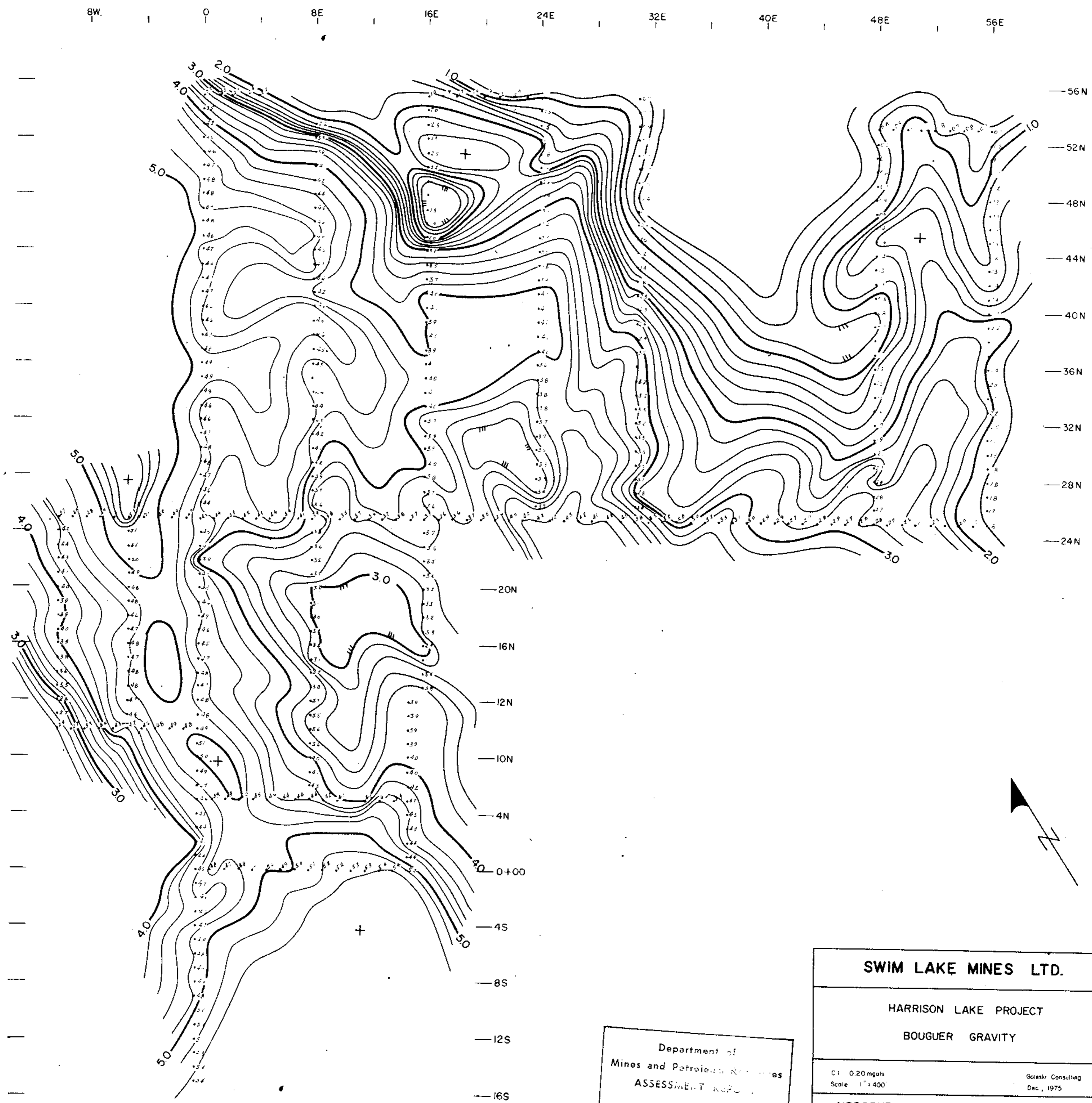
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SWIM LAKE MINES LTD.	
HARRISON LAKE PROJECT	
ELEVATIONS	
C.I. : 50 feet Scale : 1" = 400'	Galeski Consulting Dec., 1975
AIRBORNE GEOPHYSICAL SURVEYS LTD.	

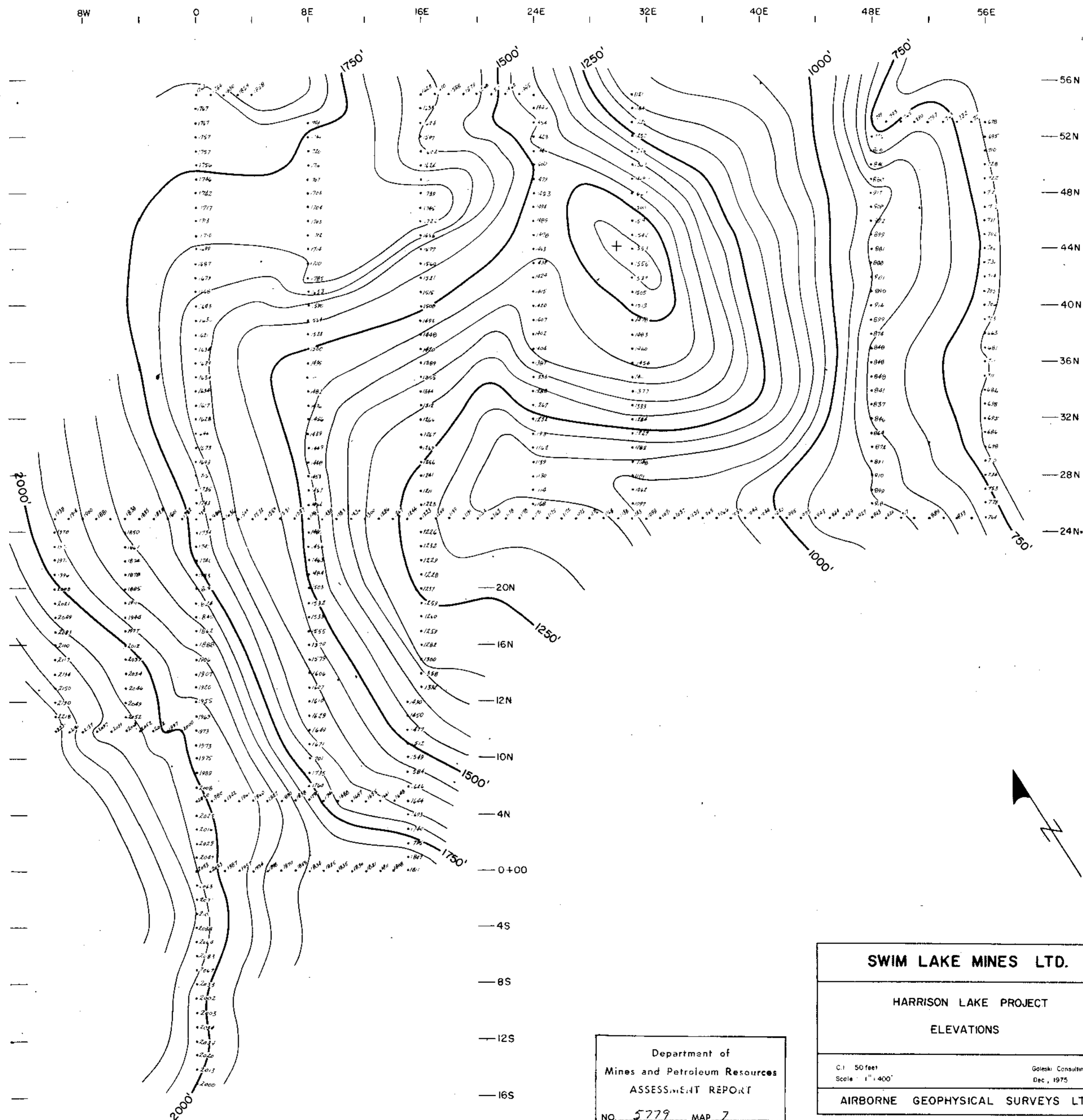
✦ SF 20 = CHAIN POINT AND MEASUREMENT





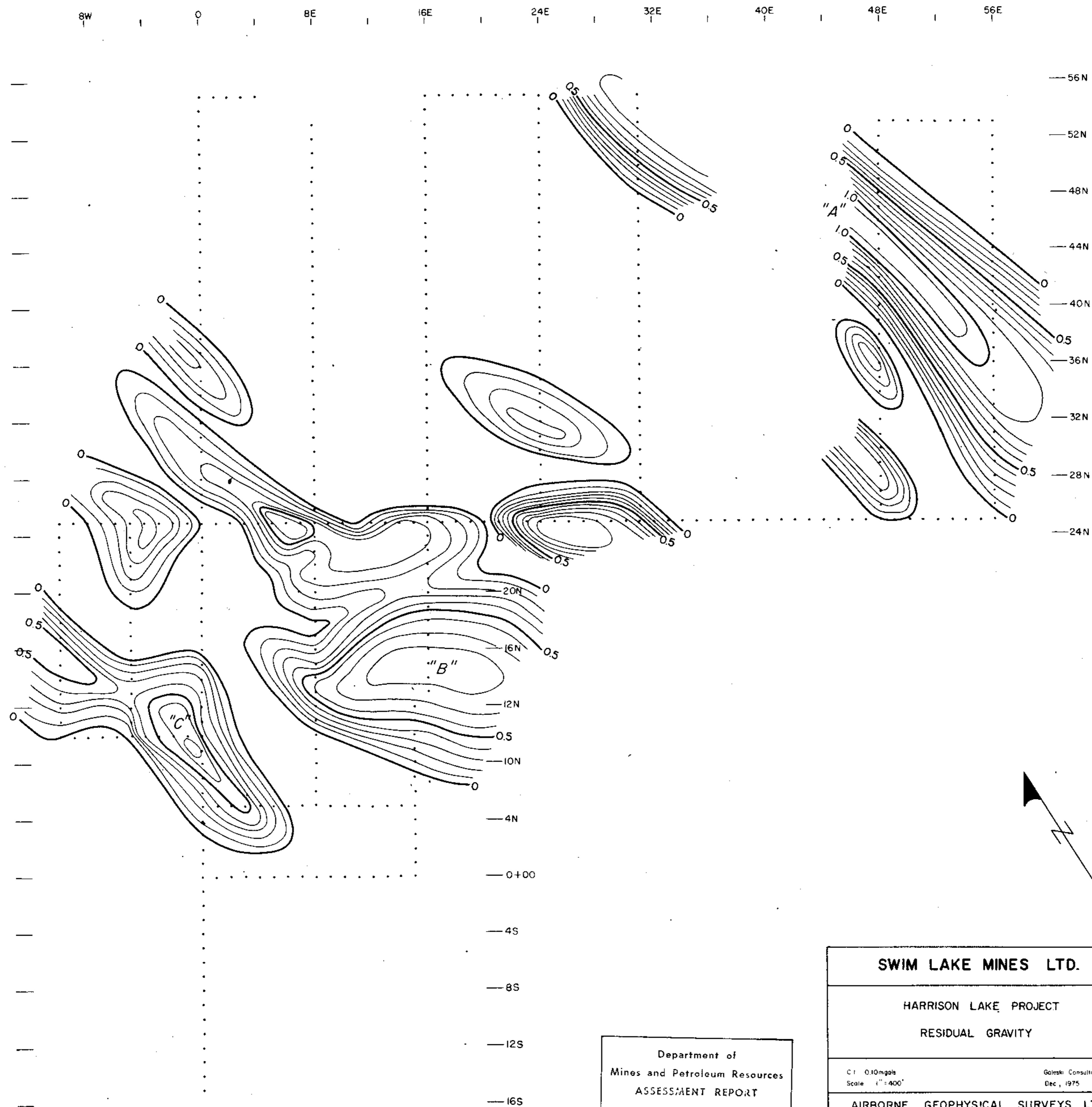
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SWIM LAKE MINES LTD.	
HARRISON LAKE PROJECT	
BOUGUER GRAVITY	
C1 0.20 mgals Scale 1" = 400'	Galeski Consulting Dec., 1975
AIRBORNE GEOPHYSICAL SURVEYS LTD.	



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SWIM LAKE MINES LTD.	
HARRISON LAKE PROJECT	
ELEVATIONS	
C: 50 feet Scale: 1" = 400'	Goleski Consulting Dec, 1975
AIRBORNE GEOPHYSICAL SURVEYS LTD.	



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SWIM LAKE MINES LTD.	
HARRISON LAKE PROJECT	
RESIDUAL GRAVITY	
C.I. 0.10mgals Scale 1" = 400'	Galeski Consulting Dec., 1975
AIRBORNE GEOPHYSICAL SURVEYS LTD.	