

# 6007

GEOCHEMICAL - GEOPHYSICAL  
REPORT

Granges Exploration A.B.  
1060 1055 W. Hastings St.  
Vancouver, B.C.

## 93F/6E

## B, D

OMINECA MINING DIVISION

"B" and "D" CLAIM GROUP

Capoose Lake Area

Latitude 53° 19'

Longitude 125° 10'

N.T.S. 93-F-6

Date of Work: July 22 - August 23, 1976

Dated at Vancouver  
September 30, 1976



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
No. <u>6007</u>

C O N T E N T S

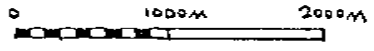
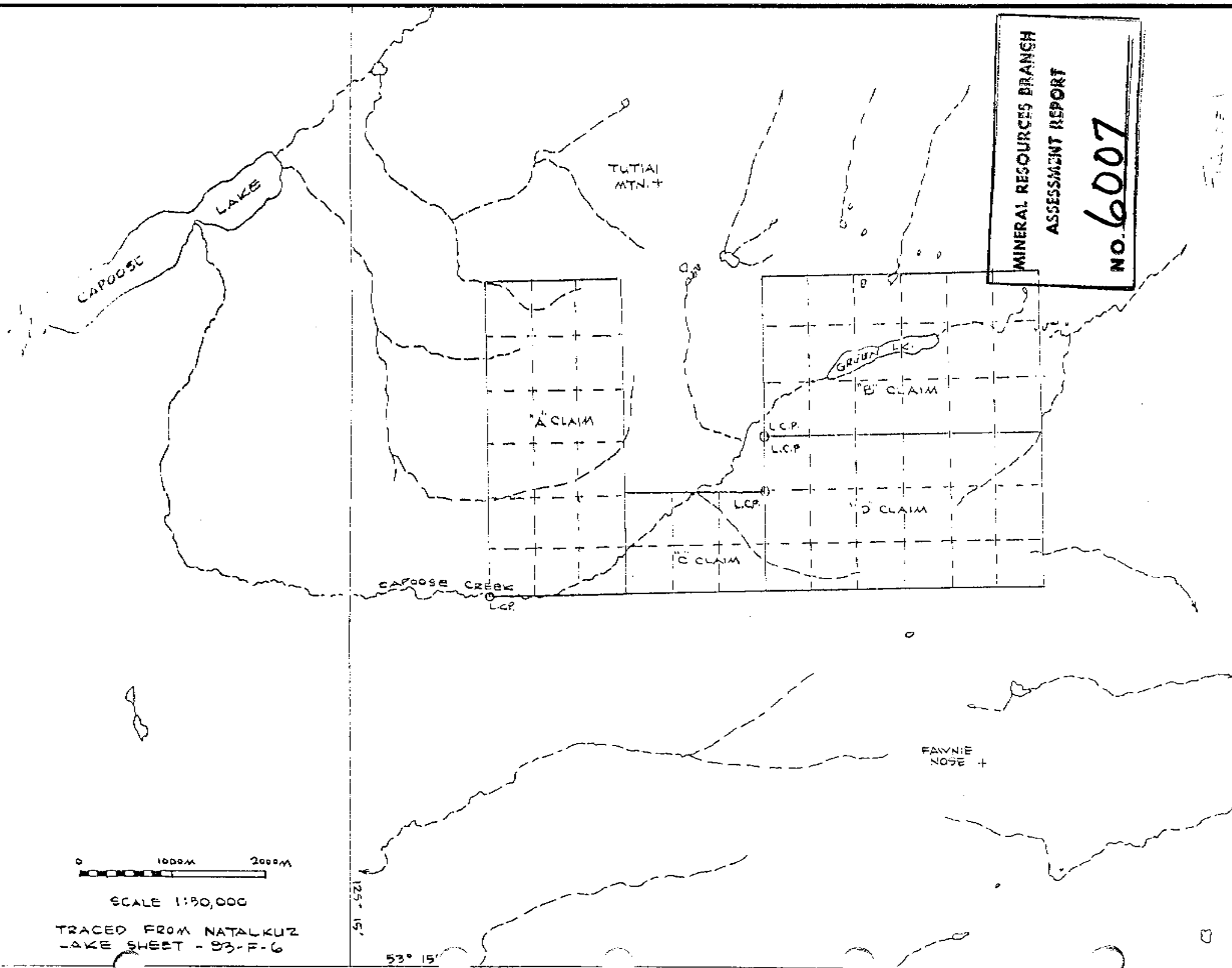
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ILLUSTRATIONS

- Figure 1 - Claim and Location Map;
- #1 Figure 2 - Vertical Magnetic Intensity Map;
- #2 Figure 3 - Geochemical Map - Copper;
- #3 Figure 4 - Geochemical Map - Molybdenum;
- #4 Figure 5 - Geochemical Map - Silver and Gold;

} IN  
POCKET

MINERAL RESOURCES BRANCH  
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No. 6007



SCALE 1:50,000

TRACED FROM NATALKUZ  
LAKE SHEET - 93-F-6

125° 15'

53° 15'

## INTRODUCTION

During the period of July 22 to August 23, 1976, Granges Exploration Aktiebolag's exploration crew, which consisted of five personnel and headed by H.H. Shear (P. Eng.), conducted a grid establishing, geochemical soil sampling and magnetometer survey on the B and D claim groups on the Capoose Lake area.

The surveys were conducted on behalf of Granges Exploration Akteibolag and were undertaken to locate zones of interest for further detailed investigation.

## PROPERTY

The survey area, as illustrated in figure one, is located within mineral claim "B", tag 01382 and claim "D", tag 01385 of thirty-six contiguous units.

## LOCATION AND ACCESS

The property is located 110 kilometers south south-east of Burns Lake, B.C. Accessibility is by helicopter from Burns Lake to Green Lake, which lies within the boundaries of claim "B".

## PHYSIOGRAPHY AND VEGETATION

The "B" and "D" claim group is situated in the region of the Cordilleran folded mountain belt approximately one half miles south of Green Lake along the Fawnie Range. The survey area varies in elevation from 1430 to 1890 meters above sea level and is typified by mountainous terrain with steep walled valleys and precipitous peaks. At the higher elevations, snow patches remain on the north facing slopes year round.

The vegetation consists largely of lodge pole pine and black spruce. The lodge pole pine occurs homogeneously

throughout the area and the black spruce is confined to stream channels and the bog peripheries. A transition zone occurs at approximately the 1525 meter above sea level where the vegetation is stunted lodge pole pine and balsam. The vegetation above this tree line is predominatly lichen and moss.

#### GENERAL GEOLOGY

The area is part of the large Nechako River area as mapped by H.W. Tipper. The ground geology of the property area is underlain by the Capoose batholith consisting of granite, granodiorite, quartz diorite and diorite of upper Jurassic and or Cretaceous age. The batholith is surrounded by a complex series of sedimentary and volcanic rocks ranging in ages from Tertiary to upper Triassic.

#### SURVEY SPECIFICATIONS

##### SURVEY GRID

The 7+00 S baseline that originated on the north boundary of the "C" claim continued through approximately the middle of the "D" claim. This baseline continued to line 50+00E till the terrain became too rough and was projected 500 meters north and continued as the 2+00S baseline to the east end of the claims. Another baseline 7+00N was established on the north side of Green Lake in order to have control on the sampling of that portion of the "B" claim north of Green Lake. The baselines were established in an east-west direction from which south-north cross lines were turned at right angles at 100 meter intervals. Some 102.3 kilometers of baseline and survey grid were established over the "B" and "D" claims.

##### GEOCHEMICAL SURVEY

Soil samples of the upper "B" horizon were obtained with augers at 100 meter intervals along the traverse lines. The samples were then place in kraft soil envelopes and delivered

to ACME Analytical Laboratories Limited, 6455 Laurel Street, Burnaby, B.C. The samples are dried and seived to -80 mesh, digested by hot perchloric nitric acid and analysed by atomic absorption. This was carried out under the supervision of professional geochemists. Some 905 soil samples were obtained and analysed for parts per million copper and molybdenum and parts per ten million for silver.

#### MAGNETOMETER SURVEY

The magnetometer survey was conducted using a Scintrex MF-2 fluxgate magnetometer. This instrument measures the vertical components of the earths magnetic field to an accuracy of  $\pm 10$  gammas. Corrections for diurnal variations were made by establishing a base station at which a second MF-2 Scintrex magnetometer was used to record the diurnal changes at fifteen minute intervals during the day. The corrections for diurnal changes were made by tying into the established base station at various time intervals during the days operation. Readings were taken at 100 meter intervals along the lines.

#### DISCUSSION OF RESULTS

The copper geochemical results reached a high of 320 P.P.M. on the "B" claim as noted on figure three. The mean background of the "B" and "D" group is some 25 - 30 P.P.M. Some erratic anomalous conditions exist with no definite patterns. The different direction may partially be due to the change in direction of the drainage, as much of the area is steep cut by numerous valleys and crests. Smaller geochemical copper anomalies may be attributed to low boggy areas where these copper ions can concentrate to give an anomaly and are highly erratic in their patterns.

The molybdenum map (figure 4) shows a high of 36 P.P.M. which is located on the "D" claim. The anomalous conditions do not show any clear patterns along Capoose Creek

and Green Lake. A geochemical anomaly containing low values and is coincident with a silver, gold and copper anomaly and is located on the southeast boundary of the "D" claim.

Figure 5 shows an extensive silver geochemical anomaly and a smaller coincident gold anomaly located in the northeast corner of the "D" claim.

Correlation of the geochemical maps shows an interesting feature;

- Large extensive silver anomaly in the northeast corner of the "D" claim, which is essentially coincident with copper and molybdenum.

The ground magnetometer data as plotted shows a sharp change from a low of -870 gammas to a high of 4145 gammas. The magnetic lows are generally associated with creeks or streams. A faulted bedrock structure may also be directly associated with the low magnetic readings as noted along Capoose Creek and its tributaries. Low magnetic readings are also noted along the north shore of Green Lake as noted in Figure 2. These fault structures may have been covered extensively by glacial moraine. The high magnetic anomalies tend to outline the more basic volcanics which were exposed in several locations on both the "B" and "D" claims.

#### CONCLUSION

During the latter part of July and first part of August, a program of magnetometer and geochemical soil sampling survey was conducted over the "B" and "D" claim group, Green Lake area, B.C.

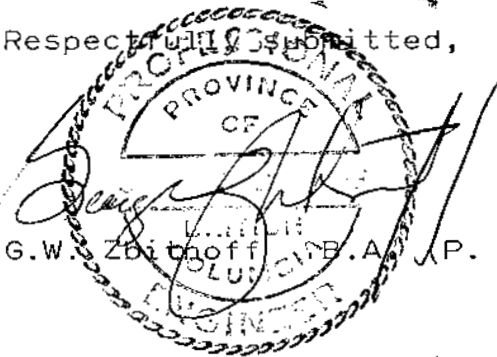
The survey located a definite anomalous geochemical zone whose trend corresponds closely with a low intensity magnetic anomaly. This may partially be due to acid volcanics injected by many quartz stringers which in turn introduce the mineralization.

RECOMMENDATION

The geochemical anomalies and interesting magnetic responses require further investigation to determine the source of the silver, gold, copper and molybdenum geochemical anomaly.

It is recommended that the anomalous area be sampled at closer intervals, with particular attention being paid to the geology in the vicinity of the geochemical anomaly.

Respectfully submitted,



A circular professional seal for a Provincial Engineer. The outer ring contains the text "PROVINCIAL ENGINEER" at the top and "SOUTH AFRICA" at the bottom. The inner circle contains "PROVINCE OF" at the top and "CAPE PROVINCE" at the bottom. The center of the seal features a signature and the name "G.W. Zibhoff".

G.W. Zibhoff (P. Eng.)



A P P E N D I X

Instrument Specifications

MAGNETOMETER

A. Instrument

- (a) Type - Fluxgate
- (b) Make - Scintrex MF-2

B. Specifications

- (a) Measurement - Vertical Magnetic Field
- (b) Range -  $\pm 100$  K gammas in 5 ranges
- (c) Sensitivity - Maximum 20 gammas per scale division
- (d) Accuracy -  $\pm 10$  gammas

C. Survey Procedures

- (a) Method - One and one half hour loops
- (b) Corrections - (i) Base  
(ii) Diurnal
- (c) Station relationship - each station read for intensity of vertical magnetic field.

STATEMENT OF QUALIFICATIONS

Name: Zbitnoff, George Wm.

Profession: Geologist

Professional

Associations: Member of the Association of Professional Engineers of the Province of Manitoba since 1969.

Member of the Association of Professional Engineers of the Province of British Columbia since 1973.

Experience: Pre graduation experience in geology with the Department of Mineral Resources.

Two and one half years, field geologist with Hudson Bay Exploration and Development, Central Canada.

Six years, field and Resident Geologist with Noranda Exploration Ltd., Central Canada.

Five and one half years geologist and Assistant Manager with Granges Exploration Aktiebolag, Canadian Division.

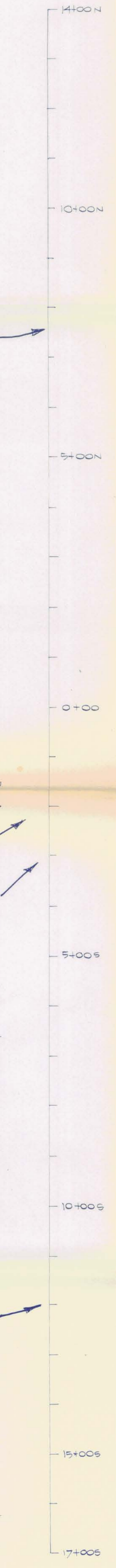
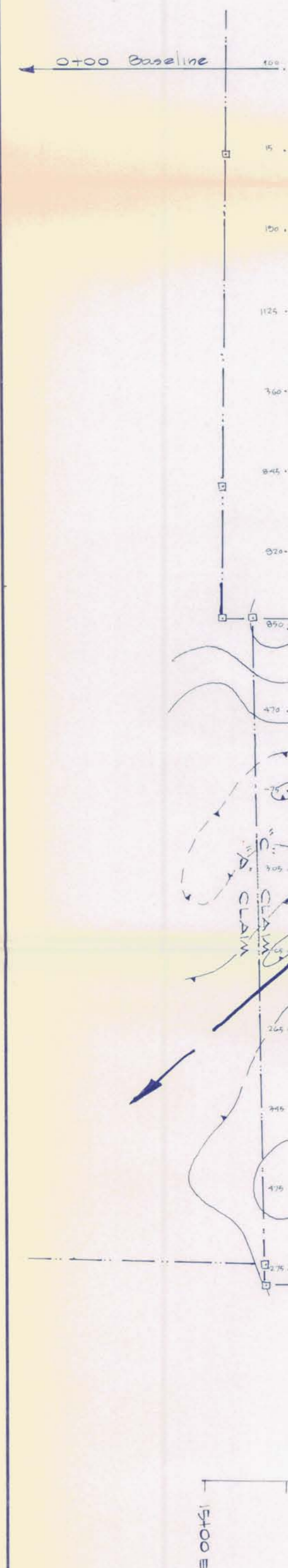
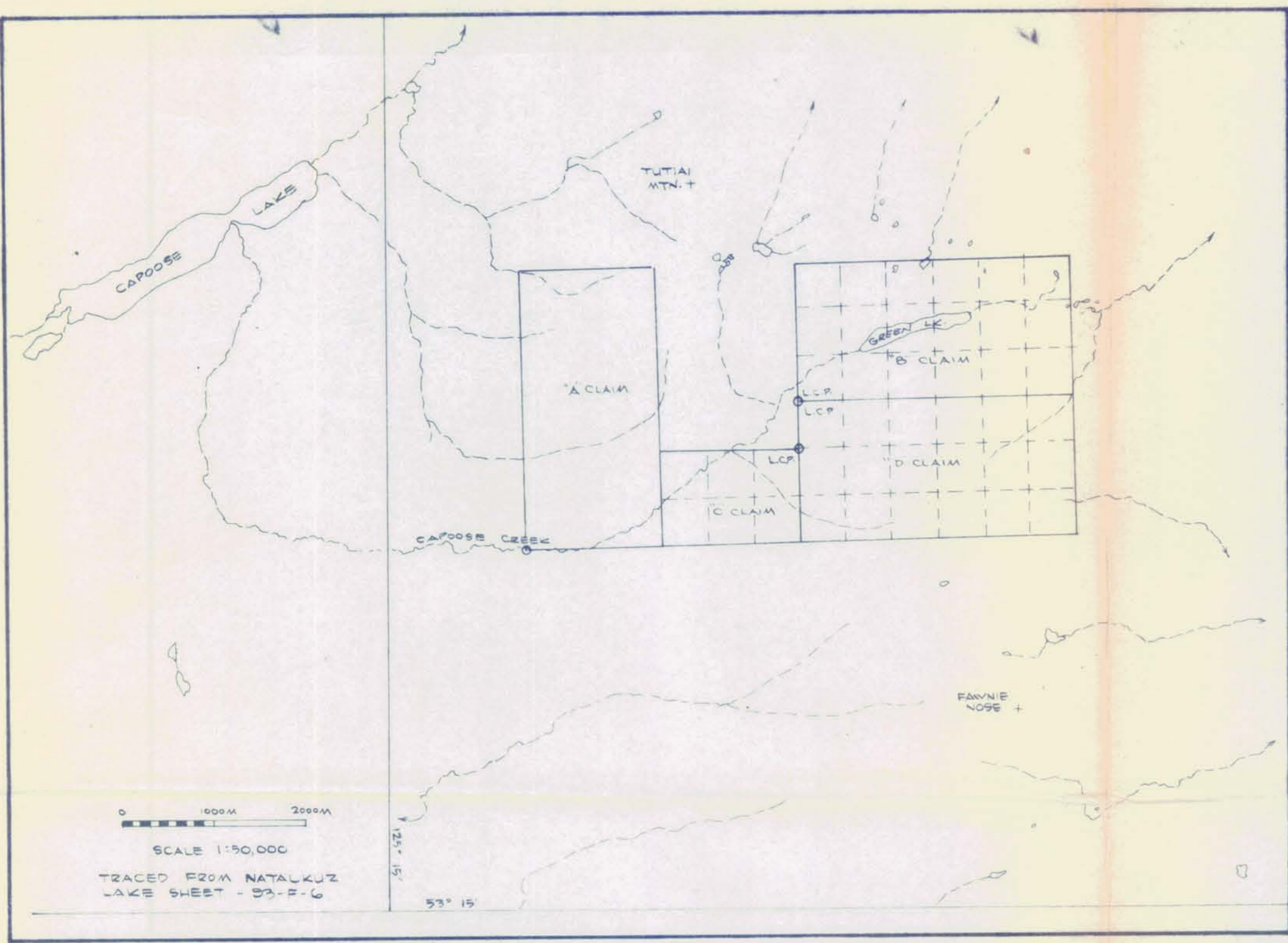
Active experience in all geologic provinces of Canada and parts of the United States and Mexico.

A handwritten signature in black ink, appearing to read "G. W. Zbitnoff". The signature is stylized with large loops and a long vertical stroke at the end.

B AND D CLAIM GROUP  
COST BREAKDOWN

<u>Personnel</u>	<u>Date of Work</u>	<u>Total</u>
Herb H. Shear	July 22 to August 23	\$ 2,439.36
Gordon Webb	July 22 to August 23	1,876.71
Al Hunter	July 22 to August 23	1,109.46
D.F. Pasco	July 22 to August 23	1,815.00
Grant Collins	July 22 to August 23	990.00
Meals and Accomodations.....		\$ 1,108.29
Camp Materials.....		29.71
Transportation.....		3,325.99
Communications.....		44.40
Geochemical Assay Costs.....		2,471.15
Map and Report Interpretation and Preparation.....		\$ 862.53
		<u>\$ 16,072.60</u>

A large, stylized handwritten signature in black ink, appearing to be 'Gordon Webb', is written over the bottom portion of the table.



LOCATED CLAIM 50%  
 CLAIM BOUNDARY LINE  
 SHOWING VERTICAL MAGNETIC FIELD  
 CONTOURED AT INTERVALS OF 200 GAMMAS

DRAWN BY: M.P.  
 DATE: SEPT 1976  
 INST. SCATESY 41-F-2

**GRANGES EXPLORATION AB**  
 CANADIAN DIVISION  
 VANCOUVER OFFICE

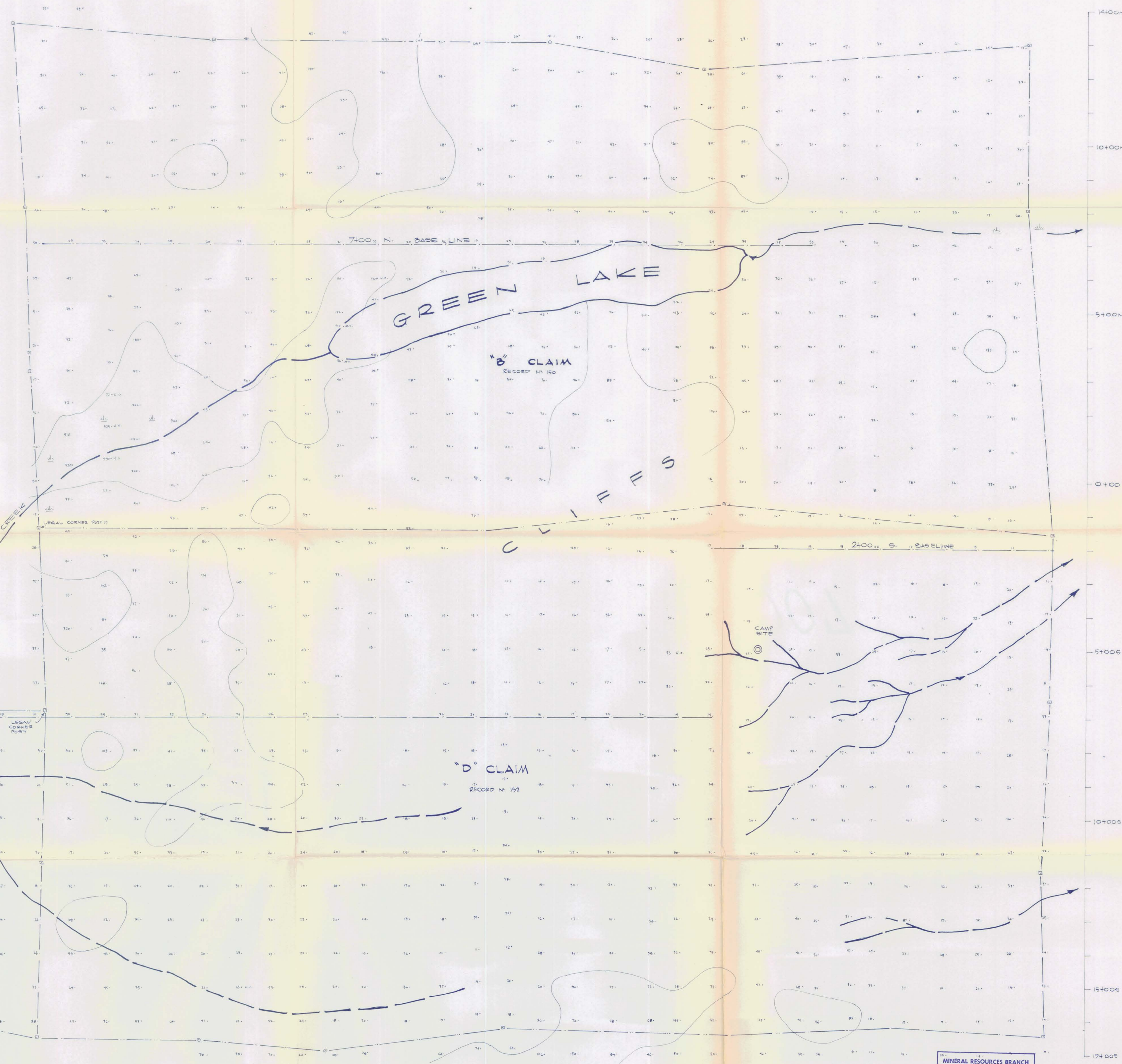
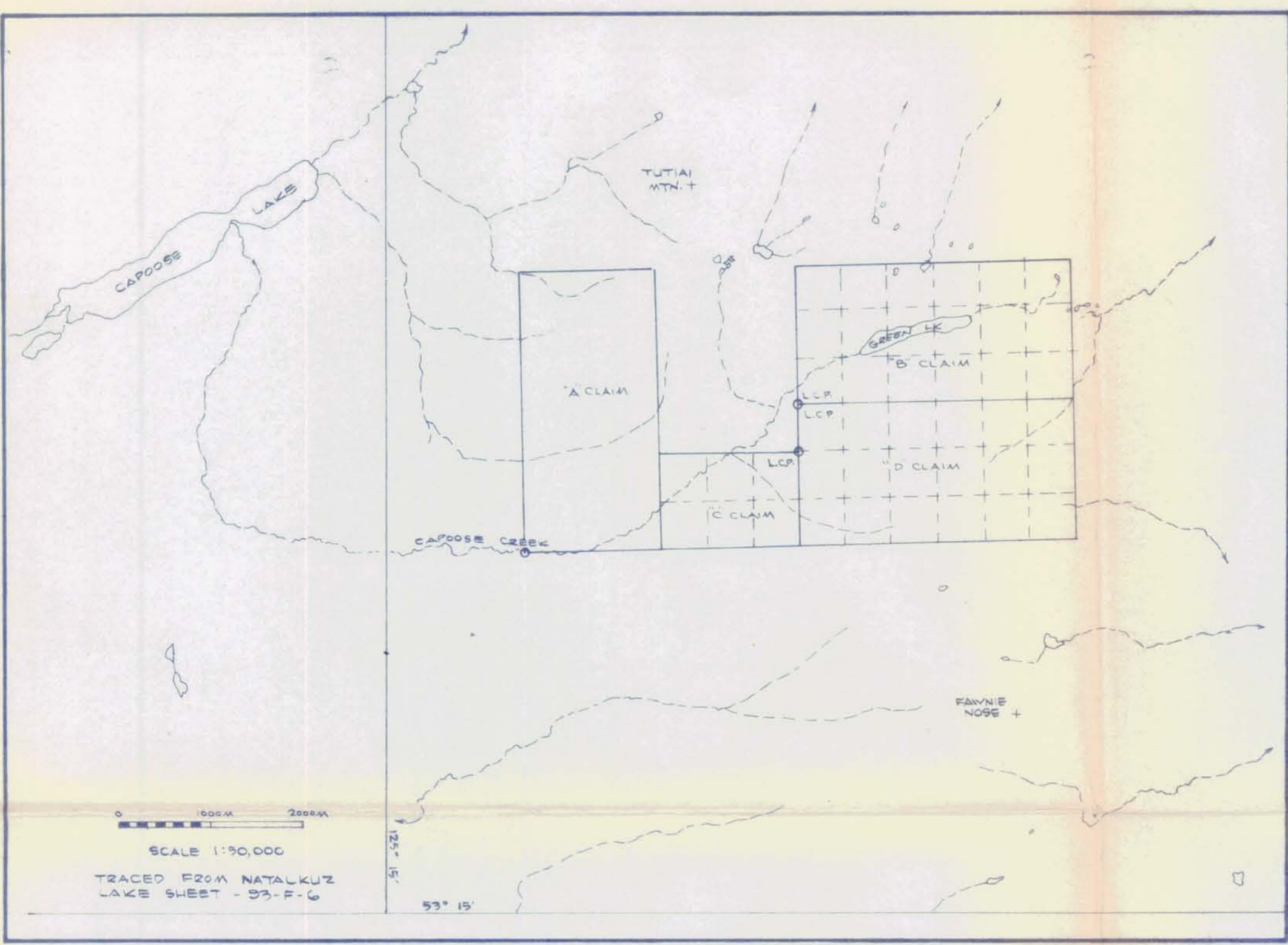
MAGNETOMETER SURVEY ON  
 CLAIMS "B", "C" & "D"  
**CAPOOSE JOINT VENTURE**  
 CAPOOSE LAKE AREA, B.C.

SCALE: 1:10,000  
 PROJECT NO.: 70113  
 N.T.S. No.: 53 F-6

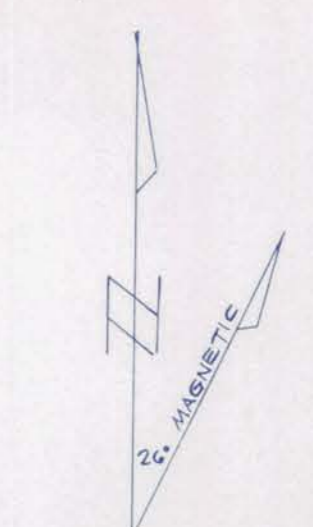
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 MAP NO. #1

FIG 2



0400 Baseline



CAMP SITE

CAPOOSE CREEK

LEGAL CORNER 05717

LEGAL CORNER 05924

B CLAIM  
RECORD NO. 150

C CLAIM  
RECORD NO. 151

GREEN LAKE

CLIFFS

CAMP SITE

2400 S. BASELINE

7400 N. BASELINE



<p>100M 50M 0 50M 100M 200M 300M</p> <p>LOCATED CLAIM FOOT</p> <p>CLAIM BOUNDARY LINE</p> <p>OUTLINE OF ANOMALOUS AREA</p>	<p>DRAWN BY: J.P.</p> <p>DATE: SEPT 1976</p> <p>CL. IN P.R.A. 151 SAMPLE LOCATION</p>
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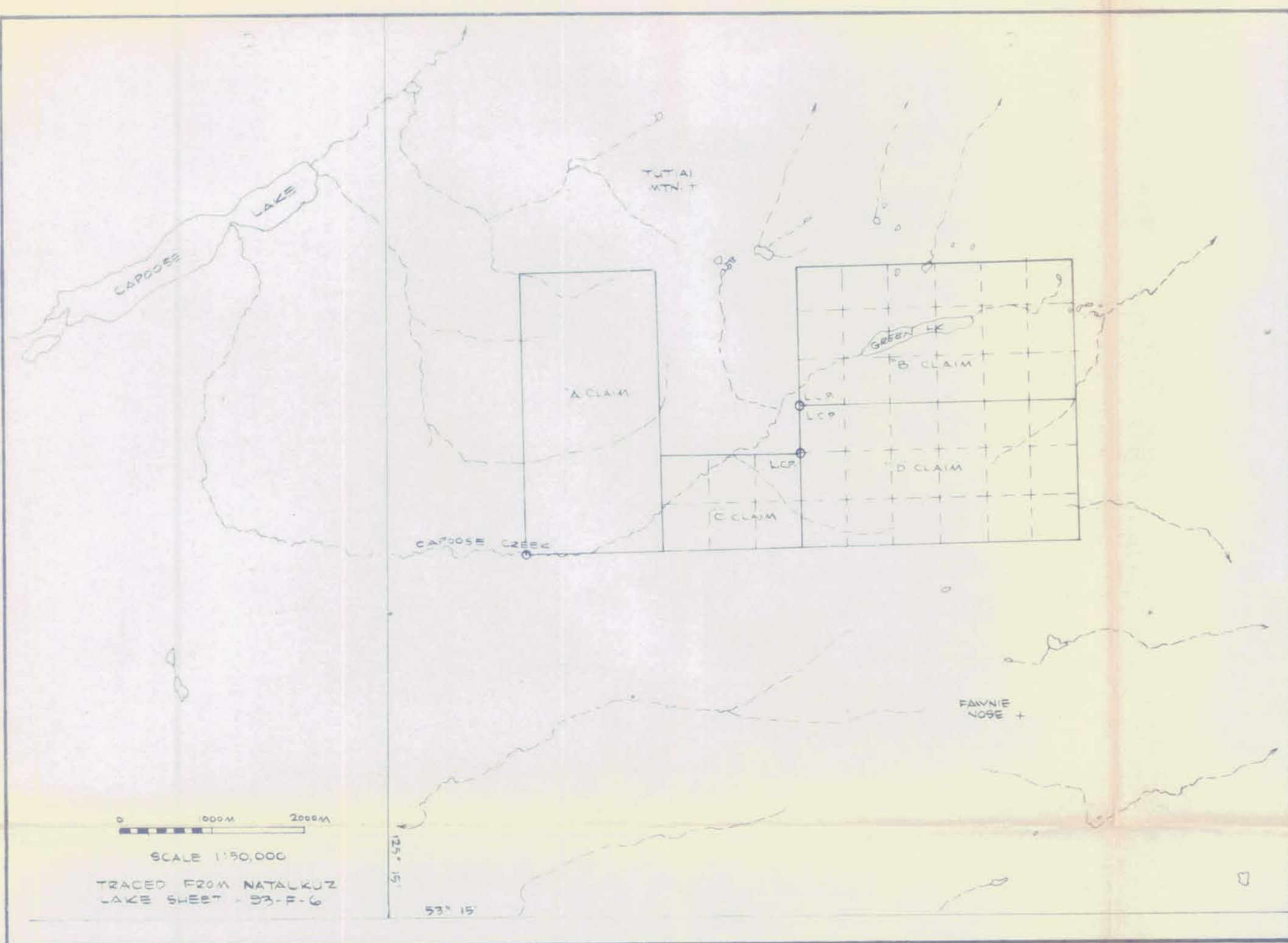
**GRANGES EXPLORATION AB**  
CANADIAN DIVISION  
VANCOUVER OFFICE

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. **6007**  
MAP NO. **#2**

**6007**

SCALE: 1:5000  
PROJECT NO: 70113  
NTS. NO: 53 F-6

FIG 3



DRAWN BY: M.P.  
 DATE: SEPT 1976  
 M.P.P.M. 5% — SHIP LOCATION

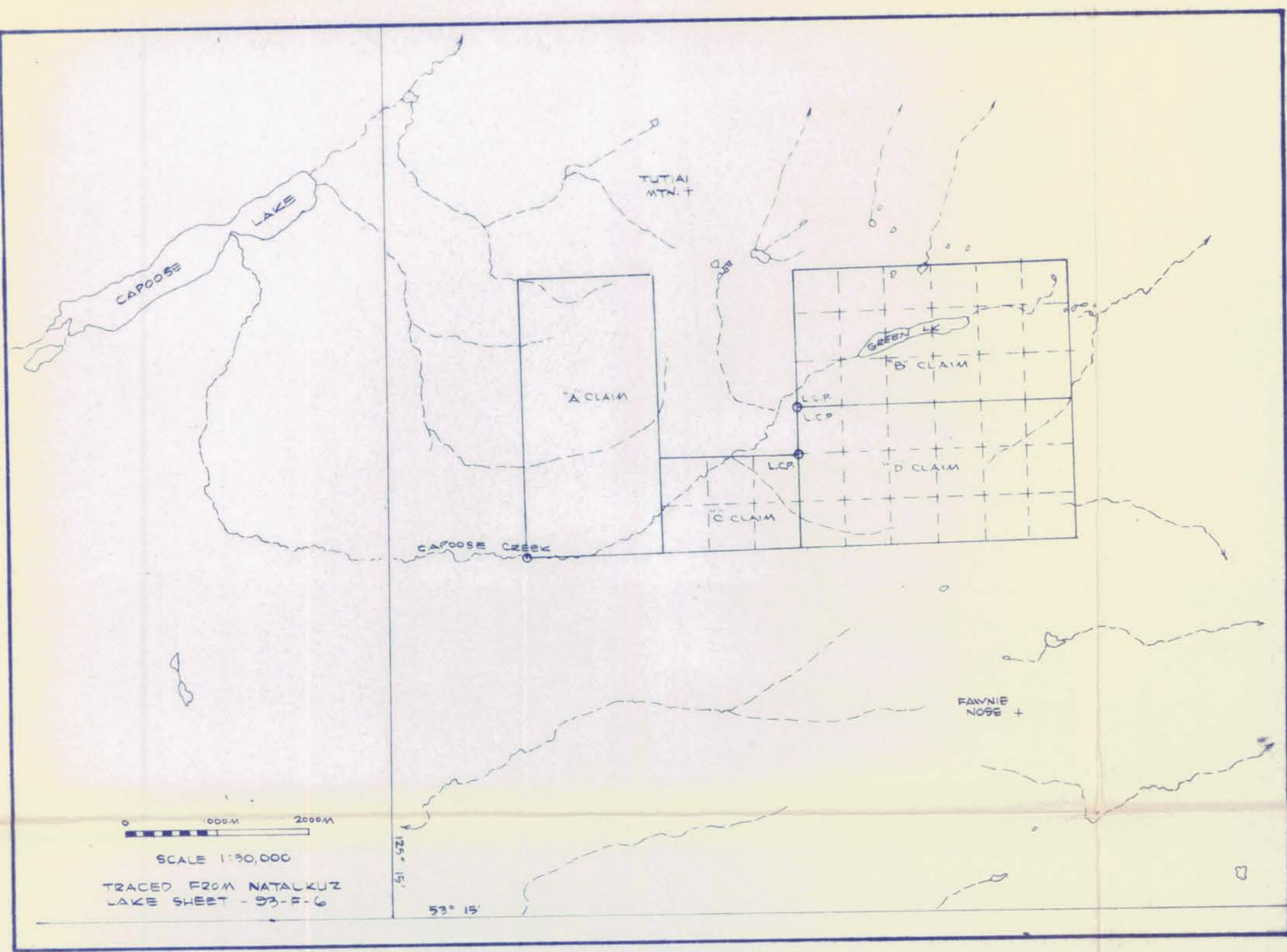
**GRANGES EXPLORATION AB**  
 CANADIAN DIVISION  
 VANCOUVER OFFICE

SOIL GEOCHEMICAL SURVEY FOR  
 ANDYBENUM ON  
 CLAIMS 'A', 'B', 'C', 'D' & 'E' (1972)  
**CAPOOSE JOINT VENTURE**  
 CAPOOSE LAKE AREA, B.C.

SCALE: 1:5000  
 PROJECT No: 70113  
 N.T.S. No: 93 F-6

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
 No. **6007**  
 MAP NO. **#3**

**6007**



NOTE: SILVER SHOWN IN PARTS PER 10 MILLION.  
GOLD SHOWN IN PARTS PER 100 MILLION.

100m 200m 300m	DRAWN BY: A.P. DATE: SEPT 1976 AS SHOWN ON PLAN 1:50,000 1:50,000 1:50,000
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**GRANGES EXPLORATION AB**  
CANADIAN DIVISION  
VANCOUVER OFFICE

SOIL GEOCHEMICAL SURVEY FOR  
GOLD & SILVER ON  
CLAIMS 'A', 'B', 'C', 'D' & 'E'  
CAPOOSE JOINT VENTURE  
CAPOOSE LAKE AREA, B.C.

SCALE: 1:50,000  
PROJECT No: 70113  
N.T.S. No: 53-F-6

**6007**

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. **6007**  
MAP NO. **#4**

FIG 5