RADIOMETRIC SURVEY REPORT
SNOOK LAKE GRANITE PROPERTY
SNOOK LAKE AREA
DISTRICT OF KENORA, ONTARIO

September 18, 1988

By: George R. Zebruck, B. Sc.

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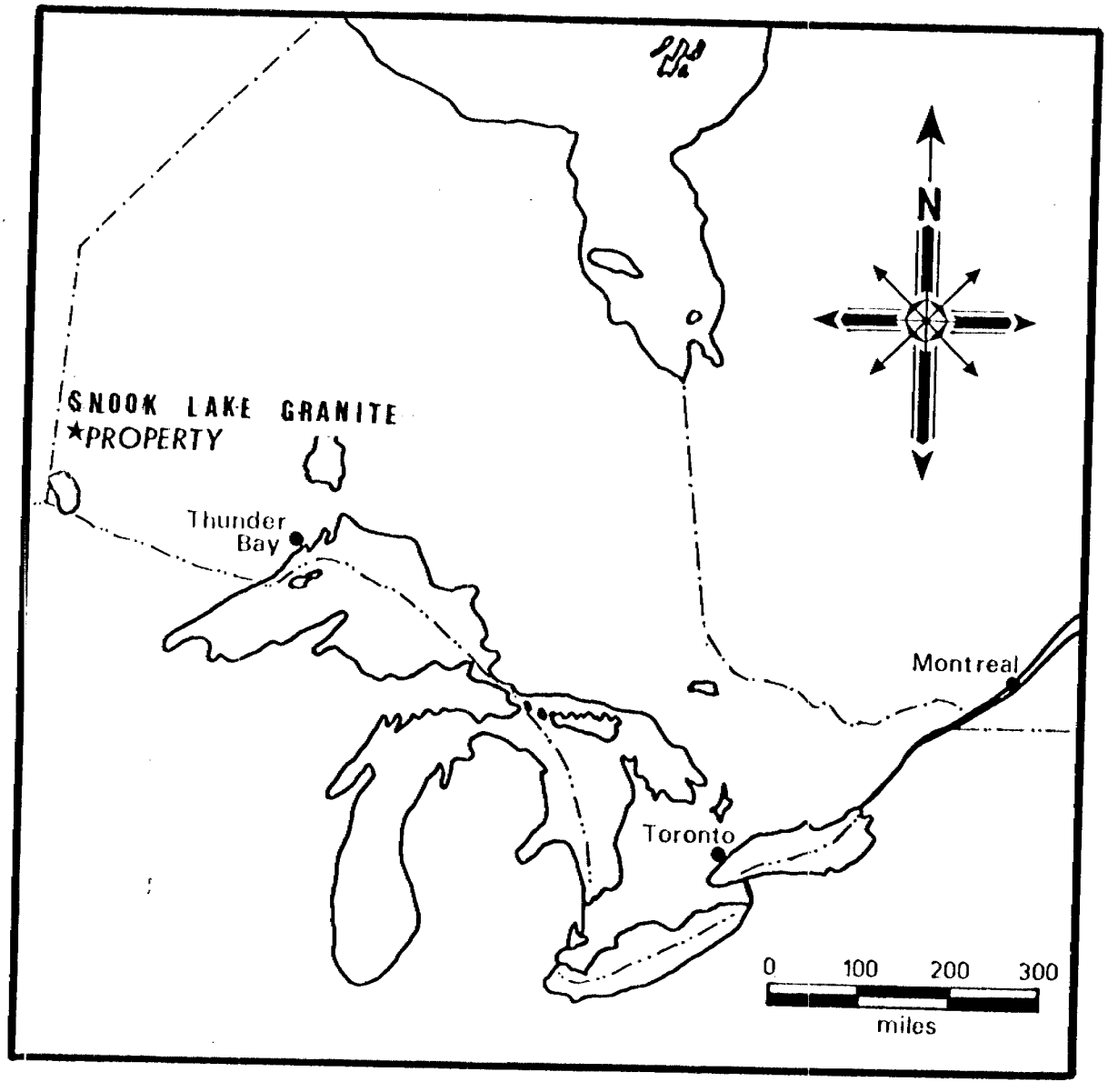
SUMMARY

A radiometric survey was conducted during the summer of 1988 across two mining claims which make up the Snook Lake Granite Property. Readings were taken at 25 metre intervals along East-West pace and compass lines spaced 100 metres apart. A Scintrex BGS-1 Scintillation Counter was used to obtain readings of total gamma-ray energy.

The result of this survey indicates that the red porphyritic granite has a significantly higher gamma-ray radiation count than the host gneisses. The Scintillation Counter then becomes a useful tool in mapping the contact of the main granite body in areas of shallow overburden and moss or lichen covered outcrop.

Figure 1: Location Map



INTRODUCTION

The Snook Lake Granite Property consists of 2 contiguous unpatented claims north of Snook Lake, Kenora Mining Division Ontario (see Fig 2). The deposit was discovered and staked by the author in the summer of 1987.

The main granite body is an attractive reddish brown porphyritic granite covering an area 500 ft. by 600 ft. It is found on a prominent hill rising 110 ft. above a swamp. Using an average quarry depth of 70 ft. and a 50% waste factor the deposit could contain in excess of 10 million cubic feet of saleable stone.

A radiometric survey was conducted over the property in order to determine;

a) Whether there was a significant difference in gamma-ray count between the red porphyritic granite and the host gneisses to be useful in mapping the boundaries of the granite deposit, and

b) Whether there were areas within the granite containing excessive amounts of uranium or thorium which would detract from the marketability of this stone.

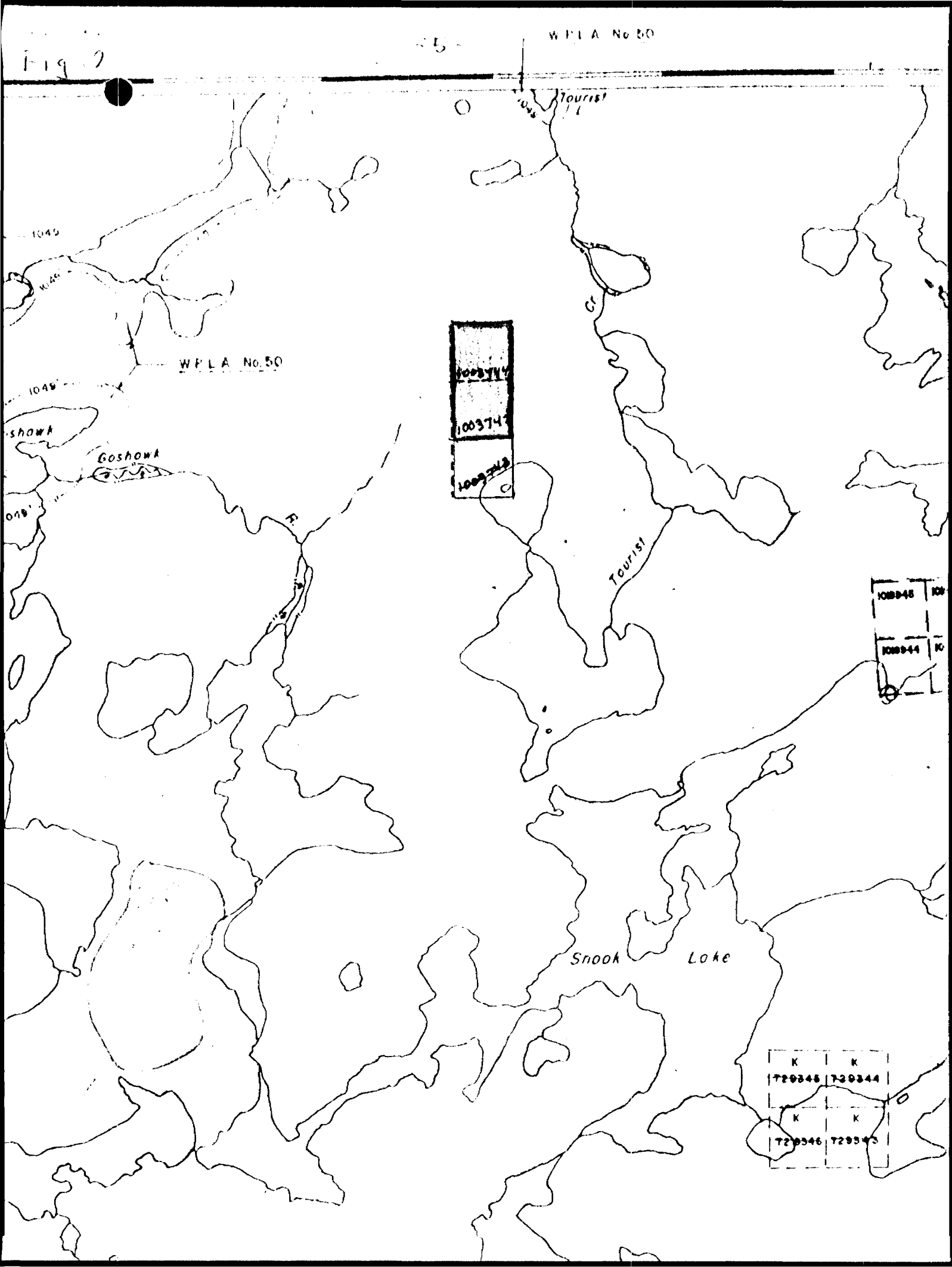
LOCATION, ACCESS, TOPOGRAPHY

The Snook Lake Granite Property is located north of Tourist Lake in the Snook Lake Area, Kenora Mining Division.

Access to the property is via Highway 128 north of Kenora, the English River Road, the Sand Lake Road, and the Snook Lake Road a total of 88 Kilometres. The total distance is suitable for travel by large logging trucks and or heavily loaded flat deck trucks transporting stone.

The Topography of the area varies from flat deep organic soiled Black Spruce swamps and deep gravel soiled Jack Pine flats (now cutover) to bare rock ledges supporting scattered stunted Pine. A high ridge transects the property in a north south direction attaining a hight in places in excess of 100 feet.

Fig 9



GEOLOGY

The Snook Lake Granite Property occurs within the English River Gneiss Belt, part of the Superior Province in the Canadian Shield.

The geology of the property area consists mainly of gneiss (possibly paragneiss) and migmatites, red porphyritic granite and minor granite pegmatites.

The red pporphyritic granite contains potassium feldspar phenocrysts that vary in size from 1 to 2 centimetres and make up 50 to 80 % of the stone. The fine grained matrix also contains a large amount of potassium feldspar, biotite mica, fine flecks of illmenite, and other as yet undetermined minerals.

There are three main directions of jointing in the main granite body 300°, 45°, and 84°. The dip of the joints is near vertical at 87°, 85°, and 82°. Joint spacing varies from about 4 to 20 metres. Sheeting appears to be near horizontal and sheet spacing is 2 to 3 metres.

Soil cover over the main granite zone is for the most part nil. Small depressions with shallow soil cover (generally less than 30 centimetres)are scattered over the area.

SURVEY PROCEEDURE

The radiometric survey was conducted over the property using a Scintrex BGS-1 Scintillation Counter. Readings were taken at 25 metre intervals along east-west pace and compass lines.

Total gamma-ray radiation readings, geological rock types, and estimated depth of soil was noted at each station and are retained as field notes.

Two property maps were produced at a scale of 1 - 2500;

a) Radiometric Survey Map

b) Outcrop Geology Map

and are appended to the report.

DISCUSSION

There was a definite significant difference in radiometric readings over areas of red porphyritic granite and areas of host gneisses. In general readings over the red porphyritic granite having no soil cover were in the range of 220 to 250 counts per second while readings over the host gneisses having no soil cover were in the range of 150 to 180 counts per second. This was probably due to the much higher potassium feldspar content in the red porphyritic granite. In fact most of the radiation is beleived to be from potassium sources rather than uranium or thorium, because of the everness of the readings (a reflection of the homogenious nature of the granite body). Radiation from uranium or thorium sources would in all probability have given higher and more erratic results.

CONCLUSIONS AND RECOMMENDATIONS

The scintilometer has proven useful in mapping this granite deposit and may prove useful in exploring for other granite deposits where distinguishable differences in radioactivity exist between rock types.

It does not appear that the uranium or thorium content of the granite is significant. A geochemical test to confirm this is recommended.

The granite from the main zone is attractive, massive, appears to be fairly uniform, and suitable for the quarrying of large blocks, It is recommended that further work be done on this deposit.

Work should consist of;

a) stripping of the quarry
b) removal of a number of large blocks for a market study and for test purposes.
c) testing the physical properties and minerology of the granite
d) drilling a number of diamond drill holes to confirm the quarryable depth of the deposit, uniformity of material, sheet spacing, etc.

Submitted Most Respectfully...

George R. Zebruck B. Sc. R.P.F.
Prospector

Ministry of Northern Development and Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT W8801.187

52L02NE0001 2.11647 SNOOK LAKE

900

Mining Act

Do not use shaded areas below (187) 8.8

Type of Survey(s): RADIOMETRIC

Township or Area: SNOOK LAKE G.2644

Claim Holder(s): GEORGE ZEBRUCK 2.11647

Prospector's Licence No.: H10002

Address: RR#1 AIRPORT RD. KENORA ONT. P9N3W7

Survey Company: CLAIM HOLDER

Date of Survey (from & to): 05 07 88 (Day | Mo. | Yr.) 20 07 88

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): CLAIM HOLDER

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	20
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	1003744	
	1003742	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
JUL 28 1988
MINING LANDS SECTION
ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES OFFICE
DEC 20 1988
RECEIVED

KENORA MINING DIV.
JUL 25 1988
AM 6:35 7 8 9 10 11 12 1 2 3 4 5 6 PM

1003742

Total number of mining claims covered by this report of work: 2

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
40	July 25/88	Scott Rivett
	Date Approved as Recorded: 6 Dec 88	Branch Director:

(2) DK

Date: July 25/88

Recorded Holder or Agent (Signature):

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying:
GEORGE R. ZEBRUCK
RR#1 AIRPORT RD. KENORA ONT

Date Certified: July 25/88

Certified by (Signature):

Ontario — Northern Development and Mines

T.S

Report of Work (Geophysical, Geological, Geochemical and Expenditures) — Mining Act

W8801·241

Note: – If number of mining claims traversed exceeds space on this form, attach a list.
– Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." column.
– Do not use shaded areas below.

Type of Survey(s): GEOLOGICAL 2.1164 (19)

Township or Area: SNOOK LAKE G 264

Claim Holder(s): GEORGE ZEBRUCK

Prospector's Licence No.: P 10002

Address: RR#1 AIRPORT RD. KENORA ONT. P9N 3W7

Survey Company: CLAIM HOLDER

Date of Survey (from & to): 08 07 88 (Day Mo. Yr.) — 30 07 88 (Day Mo. Yr.)

Total Miles of line Cut: 1.0 KM

Name and Address of Author (of Geo-Technical report): CLAIM HOLDER

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	· Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: Sept 23/88 — Recorded Holder or Agent (Signature)

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
K	1003744	
	1003742	

Prefix	Mining Claim Number	Expend. Days Cr.

KENORA MINING DIV. SEP 23 1988 11 12 1 2 3 4 5 6 PM

1003742

Total number of mining claims covered by this report of work: 2

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
40	Sept 23/88	
	Date Approved as Recorded: 6 Dec 88	Approved by

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: GEORGE ZEBRUCK RR#1 AIRPORT RD KENORA ONT. P9N 3W7

Date Certified: Sept 23/88 — Certified by (Signature)

RADIOMETRIC SURVEY REPORT
SNOOK LAKE GRANITE PROPERTY
SNOOK LAKE AREA
DISTRICT OF KENORA, ONTARIO

September 18, 1988

By: George R. Zebruck, B. Sc.

94°45'

94°30'

50°15'

50°07'30"

WPLA No 50

Tourist L

Goshawk L

English R

Snook Lake

Sand Lake

Separation L

Fiord Bay

Alexander L

Bays

Sum L

Bakado L

Numego Cr

LBP PIT No 24 FILE 18288

LBP PIT No 18

SPRAY 33

DRR 10-12 GRAVEL RESERVE

DRR 14-20 GRAVEL RESERVE

LK 40

LK 41

44' 43' 42' 41' 40 39' 38' 37' 36' 35' 34' 33' 32' 31'

14' 13' 12' 11' 10' 9' 8'

Effective as shown

STOP LAKE AREA G-2523

LEGEND

- HIGHWAY AND ROUTE No
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	⊖
" , MINING RIGHTS ONLY	⊖
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⊟
" , MINING RIGHTS ONLY	⊟
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	◔
CANCELLED	⊗
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT R.S.O. 1870 CHAP 380 SEC 63, SUBSEC 1

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No	Date	Disposition	File

FLOODING

RESERVE FLOODING RIGHTS AND LAND UNDER THE WATERS OF THE ENGLISH RIVER BETWEEN SEPARATION RAPIDS AND CARIBOU FALLS, INCLUDING GOSHAWK LAKE AND TOURIST LAKE, BELOW CONTOUR ELEVATION 1049.0' G.S.C. DATUM, 1919, TO H.E.P.C. OF ONTARIO FOR THE DEVELOPMENT OF WATER POWER AT CARIBOU FALLS
FOR DETAIL OF CONTOUR REFER TO PLAN No U2-27 DATED 15th MARCH 1958, (H.E.P.C. PLAN No 800-3359)
W.P.L.A. No 50 DATED 21st DECEMBER 1959 FILE: 34179

RESERVE FLOODING RIGHTS WITHOUT COMPENSATION ON SAND LAKE UP TO CONTOUR ELEVATION 1042.0', G.S.C. DATUM 1923 ADJUSTMENT, TO H.E.P.C. OF ONTARIO FOR THE DEVELOPMENT OF WATER POWER AT WHITEDOG FALLS ON THE WINNIPEG RIVER
FOR DETAIL OF CONTOUR, REFER TO PLAN No. L 28-44 DATED 31st MARCH 1958, (H.E.P.C. PLAN No FP 3-e-3256)
W.P.L.A. No 51 DATED 27th MARCH 1961
FILES: 12999, 4922, 69307

RESERVE FLOODING RIGHTS ON FIORD BAY OF SEPARATION LAKE TO A CONTOUR 5 ABOVE THE HIGH WATER MARK
RESERVATION REQUESTED 30th NOVEMBER 1959
FILE: 34179.

SCALE. 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KMS)

AREA

SNOOK LAKE

M.N.R. ADMINISTRATIVE DISTRICT

KENORA

MINING DIVISION

KENORA

LAND TITLES / REGISTRY DIVISION

KENORA

KENORA MINING DIV. RECEIVED SEP 22 1988 AM 7 8 9 10 11 12 1 2 3 4 5 6

Ministry of Natural Resources Ontario — Land Management Branch

Date FEBRUARY, 1988

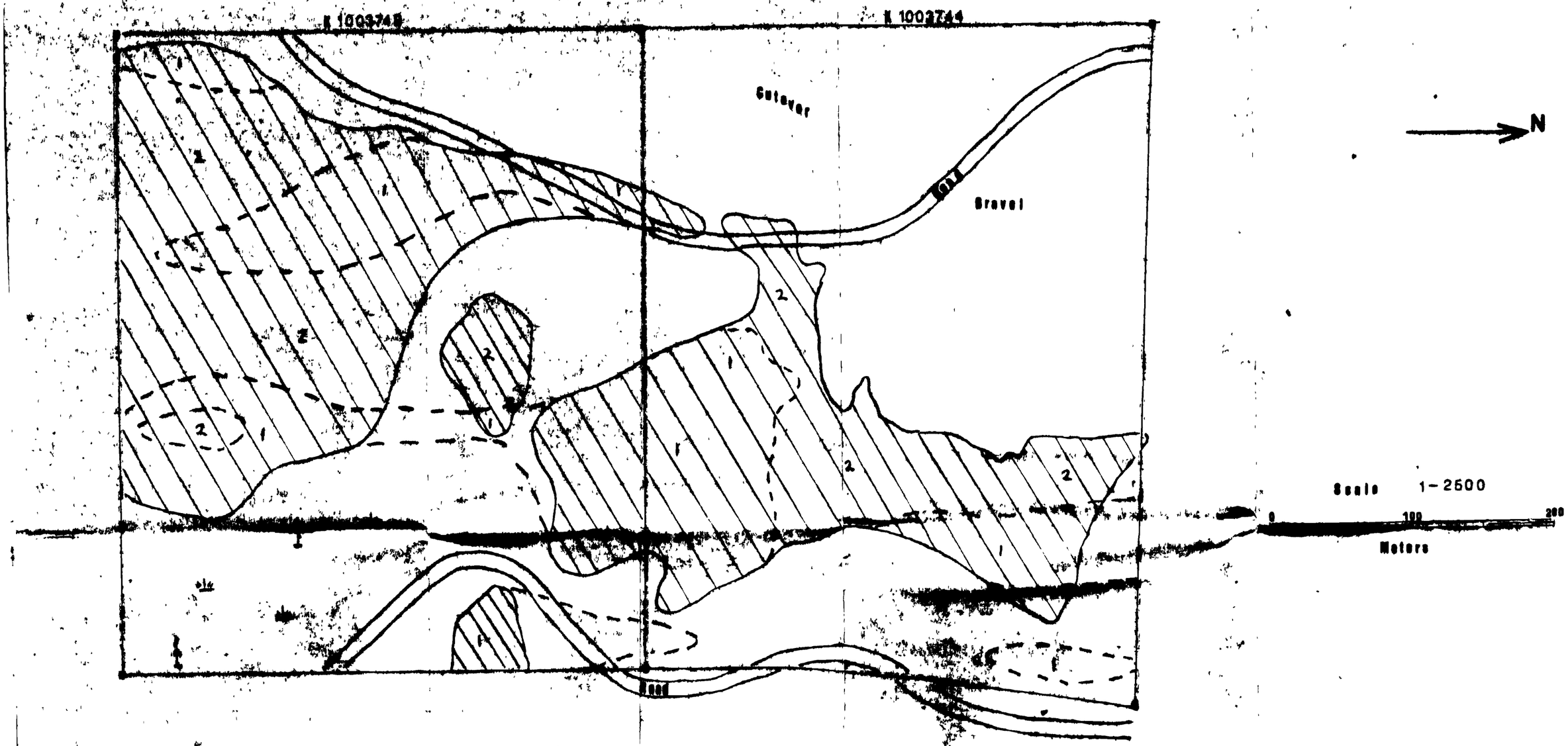
Number G-2644

M- 2642

502943

525.82NE8001 2.11647 SNOOK LAKE

200



LEGEND

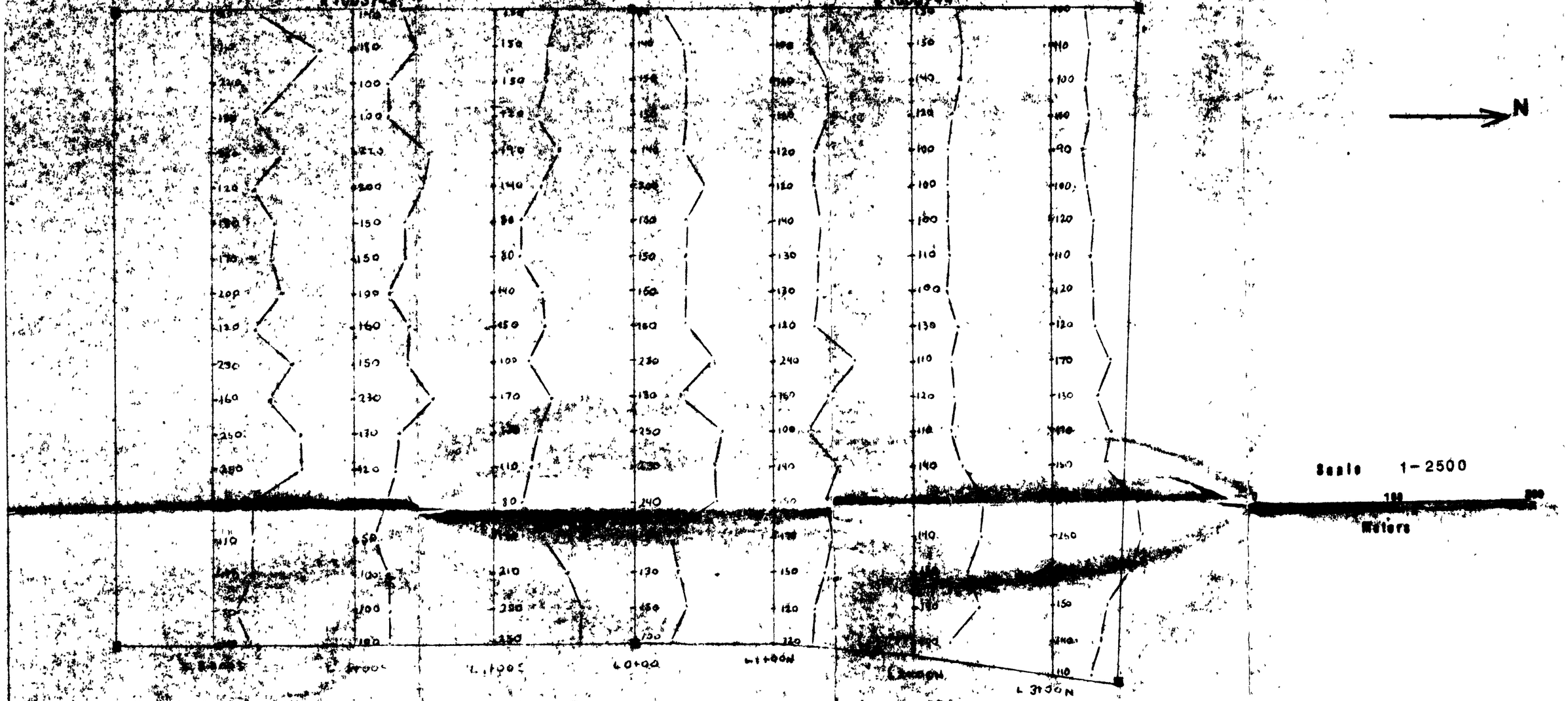
1 Red Porphyritic Granite

2 Gneiss

[redacted]

2.11647

Q.R. ZEBRUCK & ASSOCIATES	
Snook Lake Granite Deposit Snook Lake Area Kenora Mining Division	
OUTCROP GEOLOGY	
MAP A-2	DATE 09/20/88
BY R.Z.	SCALE 1-2500
NTS 52L-2NE	



2.11647

52L02NE0001 2.11647 SNOOK LAKE

220

G.H. ZEBRUCK & ASSOCIATES

Snook Lake Granite Deposit

Snook Lake Area Kaslo Mining Division

RADIOMETRIC SURVEY

MAP	DATE	BY	SCALE	NTS
A-1	09/20/88	B.Z.	1-2500	52L-2NE