



41010NW0021 2.5461 TOOMS

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APR - 7 1983

MINING LANDS SECTION

Report on Basal Till Sampling,
Sylvanite Creek, Tooms and Greenlaw Townships

by

W. O. Karvinen, Ph.D.

March 1983

Qual. 03762

W.O. KARVINEN & Associates Ltd.

Introduction

During the period Oct. 1 to Oct. 20, 1982, W.O. KARVINEN & Associates Ltd. carried out a reconnaissance basal till geochemical survey for Quinterra Resources Inc. in Tooms and Greenlaw townships, near Kormak, Ont. Sampling was done with the aid of a bulldozer and backhoe and heavy mineral separation on large till samples was done in the field. Purpose of the survey was to test for gold enrichments in tills down-ice from a zone of favourable, but virtually unexposed, rock-types which cut east-west for four miles across the property.

Property Description

The property comprises 74 contiguous claims in east-central Tooms Township and west-central Greenlaw Township. The claims are registered in the name of Quinterra Resources Inc. Claim numbers are as follows: P630745 to P630756 inclusive; P648051 to P648054 inclusive; P631303 to P631330 inclusive; and P631333 to P631362.

Location and Access

The property is located approximately 25 miles east-southeast of Chapleau and about 90 miles southwest of Timmins (see map). Access used to be readily available via a logging road north from Kormak on the CPR line, but is now available only by a very poor, 20 mile long road from Nemogos to the west. The access through Kormak was cut at the railroad by CP rail after a long-term crossing agreement with Chapleau Lumber was terminated. The Ministry of Natural Resources refused to take on the crossing and thus access to the west end of the Swayze Greenstone Belt is now very limited.

Methodology

An earlier reconnaissance survey of the property indicated the presence of basal till on or near surface south of Sylvanite Creek and down-ice from the suspected position of the favourable stratigraphy. As a result, a till geochemical survey using a bulldozer and backhoe was planned.

A D-6 bulldozer was used to brush-out and clear six miles of road to provide access for the backhoe.

A backhoe mounted on a Muskeg Bombardier tractor was contracted from All Terrain Track Sales and Service Ltd. in Timmins, to dig pits for sampling. A total of 53 pits, spaced approximately 300 feet apart were dug in 5 days. A 10-lb composite sample of till and a 30 l sample, both screened to -0.5 cm, were collected from pits containing till. Characteristics and thicknesses of the till were recorded at each site.

The larger samples were brought to camp for heavy mineral separation, while the smaller samples were submitted for analysis (-0.063 mm fraction assayed). Heavy mineral separation was done with the aid of "Gold Screw" which also provide a representative sample of washed mini-stones. A total of 39 samples were put through the heavy mineral separator in four days.

Glacial Sediments

Basal lodgement till is preserved on the property in thicknesses varying from a few centimetres to two metres. The till is covered by varying thicknesses of glaciofluvial sands and silts. At the west end of the sampling line, the glaciofluvial sediments are thick (>12 feet) and basal till was not reached with the backhoe. Instead, a second till, overlying sands and silts and containing abundant carbonate boulders was sampled

in pits WR-2, 3 and 4. This till is exposed on surface and varies in thickness from 20 to 60 cm. Of the 59 pits, good till was found in 39 (66%).

The basal lodgement till is very compact, usually buff to gray-brown in color and packed with locally-derived clasts. Carbonate-rich clasts and other rock types characteristic of favourable stratigraphy are not common.

Analytical Results

The analysis of the fine fraction (-200 mesh) indicates a strong first order anomaly (>100 ppb) at station ER-23. Second order anomalies (>30 ppb) are more common along the east road, while a distinct cluster of anomalous values occur at pits WR-8, 9 and 11 on the west road.

Results of the analysis of the heavy mineral fraction of till do not reflect the anomalies picked up in the very fine fraction. The only exception is a point anomaly at pit WR-24. It appears that the gold is most concentrated in the very fine fraction (<0.063 mm) and was lost during the heavy mineral separation.

No values of tungsten in the heavy mineral fraction above 4 ppm were detected (see table).

Conclusions

1. An excellent basal lodgement till is preserved in most places on the property. A second till, which is not an ablation till, is exposed on surface at the west end of the property. It carries numerous carbonate boulders related to the favourable horizons to the north.
2. The presence of abundant, very locally-derived clasts in the basal till indicate the favourable stratigraphy to be at least $\frac{1}{2}$ km up-ice (north) of the sampling line.
3. The presence of anomalous gold in the very fine fraction of the till

indicates a distal (>500 m) rather than a proximal source. The anomalies do, however, reflect a gold-bearing bedrock environment within 1000 m or so up-ice. The strong gold anomaly in pit 23, which is presumably closer to the favourable stratigraphy than the rest, reflects the increase in gold content of the till in a northerly direction.

4. There is no enrichment of tungsten in the till.

W O Karvinen

March 26, 1983

Dr. William O. Karvinen

C E R T I F I C A T E

I, William Oliver Karvinen, of R. R. #2, Wahnapitae, Ontario, a geological consultant and President of W.O. KARVINEN & Associates Ltd., do hereby certify that:

The information contained in this report is accurate and correct;

That I have a 2½% net profits carried interest in the property described herein;

I hold a Doctorate of Philosophy and an Honours B.Sc. in geology from Queen's University (1974 and 1968) and a Master of Science in geology from the University of British Columbia (1970);

I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.

Wahnapitae, Ontario

March 26, 1983



Dr. William O. Karvinen



BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187 HAILEYBURY, ONTARIO TEL: (705) 672-3107
POJ 1K0

W. O. Karvinen & Associates Ltd.,
R. R. # 2,
Wahnapitae, Ontario.
POM 3C0

INVOICE No 12721

ORDER NO.

DATE November 9, 1982.

CERTIFICATE NO.	DATE	DESCRIPTION	AMOUNT
B358-82	Nov. 9/82	6 Au, 6 sample preparations <i>Tooms till paid by cheque Nov. 30/82</i>	\$ 60.00



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POJ 1KO

W. O. Karvinen & Associates Ltd.,
R. R. # 2,
Wahnapitae, Ontario.
POM 3CO

INVOICE N^o 12703

ORDER NO.

DATE November 8, 1982.

CERTIFICATE NO.	DATE	DESCRIPTION	AMOUNT
B354-82	Nov.8/82	39 Au, 39 sample preparations <i>tell</i>	\$ 390.00



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W. O. Karvinen & Associates Ltd.,
R. R. #2,
Wahnapitae, Ontario.
P0M 3C0

INVOICE No 12599

ORDER NO.

DATE October 26, 1982.

CERTIFICATE NO.	DATE	DESCRIPTION	AMOUNT
B328-82	Oct. 26/82	27 Au, 27 As, 27 sample preparations	\$ 378.00

Tooms

Paid by cheque
Nov. 30/82

hill

W.O. KARVINEN TRUST ACCOUNT
R.R. No. 2
Wahnapiatae, Ont. P0M 3C0

Nov. 30 19 82

PAY TO THE ORDER OF Bell-White Labs
three hundred and ninety \$ 390.00
SUM OF DOLLARS 100

CANADIAN IMPERIAL BANK OF COMMERCE
NEW SUDBURY SHOPPING CENTRE
SUDBURY, ONT.

W O Karvinen

⑆03892⑆010⑆ 98⑆00913⑆ ⑆0000039000⑆

W.O. KARVINEN TRUST ACCOUNT
R.R. No. 2
Wahnapiatae, Ont. P0M 3C0

Nov. 30 19 82

PAY TO THE ORDER OF Bell-White Labs
sixty \$ 60.00
SUM OF DOLLARS 100

CANADIAN IMPERIAL BANK OF COMMERCE
NEW SUDBURY SHOPPING CENTRE
SUDBURY, ONT.

W O Karvinen

⑆03892⑆010⑆ 98⑆00913⑆ ⑆0000006000⑆

W.O. KARVINEN TRUST ACCOUNT
R.R. No. 2
Wahnapiatae, Ont. P0M 3C0

Nov. 30 19 82

PAY TO THE ORDER OF Bell-White Labs
three hundred and seventy eight \$ 378.00
SUM OF DOLLARS 100

CANADIAN IMPERIAL BANK OF COMMERCE
NEW SUDBURY SHOPPING CENTRE
SUDBURY, ONT.

W O Karvinen

⑆03892⑆010⑆ 98⑆00913⑆ ⑆0000037800⑆



BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187 HAILEYBURY, ONTARIO TEL: (705) 672-3107
POJ 1K0

W. O. Karvinen & Associates Limited
R. R. #2
WAHNAPIAEE, Ontario
POM 3C0

INVOICE No 13169

ORDER NO.

DATE February 11, 1983

CERTIFICATE NO.	DATE	DESCRIPTION	AMOUNT
B41-83	Feb. 11/83	39 Au, 39 sample preparations <i>Torres</i>	\$ 390.00
B42-83	Feb. 11/83	22 As <i>Roball</i>	88.00
			<u>\$ 478.00</u>

\$ 390.00



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P.O. BOX 187 HAILEYBURY, ONTARIO TEL: (705) 672-3107
POJ 1KO

W. O. Karvinen & Associates Ltd.,
R. R. # 2,
Wahnapitae, Ontario.
POM 3CO

INVOICE No 12703

ORDER NO.

DATE November 8, 1982.

CERTIFICATE NO.	DATE	DESCRIPTION	AMOUNT
B354-82	Nov.8/82	39 Au, 39 sample preparations <i>PAID BY CHECK Nov. 30/82</i>	\$ 390.00

2.5461



41010NW0021 2.5461 TOOMS

900

1984 04 13

Your File: 93
Our File: 2.5461

Mr. Bruce W. Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4H 2S7

Dear Sir:

RE: Assaying submitted under Section 77(19) of the
Mining Act R.S.O. 1980, on Mining Claims P 631320
et al in the Township of Tooms

The enclosed statement of assessment work credits for
assaying expenditures has been approved as of the
above date.

Please inform the recorded holder of these mining claims
and so indicate on your records.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-6918

D. Kinvig:mc

cc: Quinterra Resources Inc
Suite 705
706 Seventh Avenue SW
Calgary, Alberta
T2P 0Z1

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Resident Geologist
Timmins, Ontario

Encl.

W.O. Karvinen & Associates Ltd.

Mineral Exploration • Consulting • Overburden Prospecting

Feb 27/84

Re file 2.5461

Claims F631320 et al, Tooms Tp.

1. Maps signed as requested
2. Cancelled cheques + invoices for analyses enclosed in duplicate.

Note: after checking, expenditures for analyses add up to \$828.00 rather than the \$760.00 previously mentioned in report. Amended report enclosed.

Sincerely,

W.O. Karvinen

RECEIVED

MAR 6 1984

MINING LANDS SECTION

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
MAR - 6 1984	
S. E. YUNET	
J. R. MORTON	
J. C. SMITH	
W. L. GOOD	
RETURN TO	R. 6643

Our File: 2.5461

1984 02 11

Quinterra Resources Inc.
Suite 705
706 Seventh Avenue S.W.
Calgary, Alberta
T2P 0Z1

Dear Sirs:

RE: Assaying submitted on Mining Claims P 631320 et al,
in the Township of Tooms.

Enclosed are the plans, in duplicate, for the above-mentioned survey. Please have the author of the report date and sign all maps and return them to this office as soon as possible.

Also, we have not received receipts or cancelled cheques required in order to assess work performed on mining claims listed above. Please provide receipts verifying payment of the expenditure of \$780.00 for sampling as soon as possible.

Yours very truly,

J. R. Morton
Acting Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

Phone: (416) 965-1380

M. E. Anderson:dg

cc: Mining Recorder
Timmins, Ontario.

1983 04 15

2.5461

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received data for Assaying submitted under Section 77(19) of the Mining Act R.S.O. 1980 for Mining Claims P 631320 et al in the Township of Tooms.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:sc

cc: Quinterra Resources Inc
#705, 706 - Seventh Avenue S.W.
Calgary, Alberta
T2P 0Z1

cc: Dr. W.O. Karvinen
RR #2
Wahnapitae, Ontario
POM 3C0

Recorded Holder	QUINTERRA RESOURCES INC
Township or Area	TOOMS TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	\$828.00 SPENT ON GEOCHEMICAL ANALYSES ON MINING CLAIMS: P 631303 to 06 inclusive 631310 to 13 inclusive 631320 631322 to 24 inclusive 631326 55.2 ASSESSMENT WORK DAYS ARE ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT R.S.O. 1980.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey
 Insufficient technical data filed



The Mining Act

Name and Postal Address of Recorded Holder Quinterra Resources Inc.	Prospector's Licence No. T-1312
705-706 7th Ave. S.W., CALGARY, Alberta T2P 0Z1	

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed 548	Mining Claim			Mining Claim			Mining Claim		
	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.
for Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input checked="" type="checkbox"/> Power Stripping <input type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Land Survey	P	631303	42.1	P	631311	42.1			
		631304	42.1		631312	42.1			
		631305	42.1		631313	42.1			
		631306	42.1		631314	42.1			
		631307	42.1		631315	42.1			
		631308	42.1						
		631309	42.1						
		631310	42.1						

Required Information eg: type of equipment, Names, Addresses, etc. (See Table below)

Work done equally on all claims listed	RECEIVED MAY - 7 1983 MINING LANDS SECTION
<u>Bulldozing:</u> D-6 Dozer operated by Rejean Ouellette owner: Simon Ouellette Chapleau, Ontario total spent: \$2025.00 Oct. 4, 1982 to Oct. 7, 1982	
<u>Backhoe:</u> Backhoe mounted on Muskeg Bombardier operated by Robin Beaudry owner: All-Terrain Track Sales & Service Ltd. Airport Rd., Timmins, Ontario total spent: \$3456.00 Oct. 11, 1982 to Oct. 18, 1982	
Date of Report <i>May 26/83</i>	Recorded Holder or Agent (Signature) <i>W. O. Karvinen</i>

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 Dr. W. O. Karvinen, R.R. #2, Wahnapiatae, Ontario POM 3C0	
Date Certified <i>May 26/83</i>	Certified by (Signature) <i>W. O. Karvinen</i>

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.			
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as
Diamond or other core	Signed core log showing footage diameter of		

SIMON OUELLETTE CONTRACTING

Chapleau, Ontario

Phone 864-1367 or 864-1662

Terms

Date		1982		
M. P. A. Harrington & Associates Ltd.				
SOLD BY	C.O.D.	CHARGE	ON ACCT.	ACCT. FWD.
1				
2	D.E.C. Bulldozer			
3				
4		\$2,075.00		
5				
6				
7	Paid			
8				
9				
10				
11				
12				
13				
3	14			
	15			

★

CHAPLEAU PRINTING & PUBLISHING, CHAPLEAU, ONT

ALL-TERRAIN TRACK
SALES & SERVICES LTD.
Airport Road
TIMMINS, ONTARIO P4N 7C3

1553

(705) 264-2011

INVOICE DATE <i>Oct. 20, 1982</i>	SALESPERSON
SHIP TO	

TO *U. O. KARVINEN & ASSOCIATES LTD.*
RR 2, WAHNAPIAEE, ONT.
POM 3C0

Net 30 days. 2% interest (24% annum) charged on accounts over 30 days.

YOUR ORDER NO.	DATE SHIPPED	SHIPPED VIA	F.O.B. POINT	TERMS
	<i>Oct. 20, 1982</i>			
QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL	
	<i>RATE 36.00 per hour</i>			
	<i>Rent of Maskeg backhoe with operator to dig pits samples for basal tills.</i>			
	<i>Oct. 11 - 14 hrs.</i>			
	<i>Oct. 12 - 9 1/2 hrs.</i>			
	<i>Oct. 13 - 12 hrs.</i>			
	<i>Oct. 14 - 12 hrs.</i>			
	<i>Oct. 15 - 13 1/2 hrs.</i>			
	<i>Oct. 16 - 12 hrs.</i>			
	<i>Oct. 17 - 9 hrs.</i>			
	<i>Oct. 18 - 14 hrs.</i>			
	<i>total amount.</i>			<i>3456.00</i>

*Terms
Paid Nov. 3/83
by cheque*

ORIGINAL

Thank you

Halcrow Twp. M.906

THE TOWNSHIP
OF
TOOMS

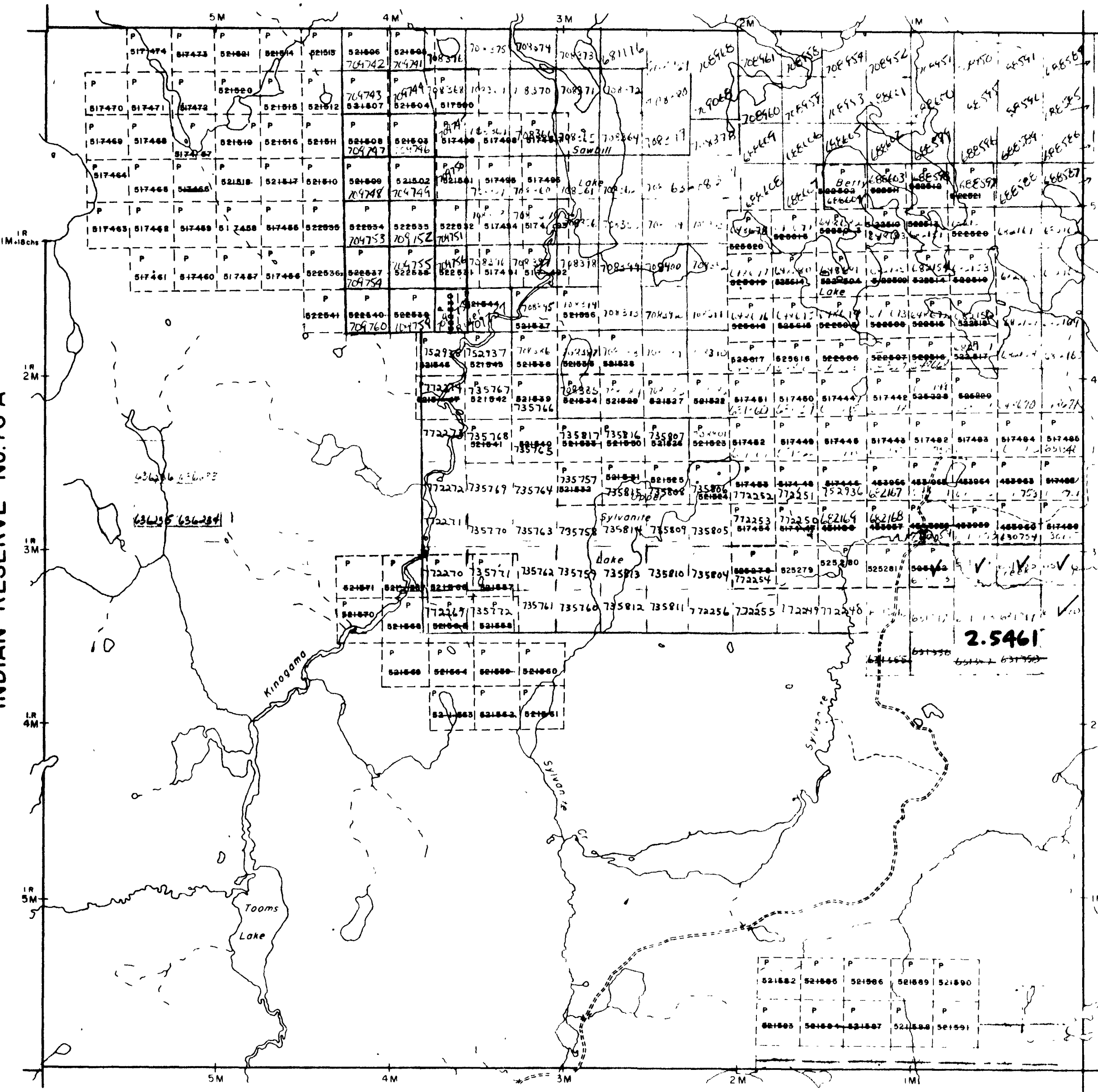
DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

Mountbatten Twp. - M.875
INDIAN RESERVE No.76 A

Greenlaw Twp. - M.895



LEGEND

PATENTED LAND	(P)
CROWN LAND SAIT	C S
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L O
MINING RIGHTS ONLY	M R O
SURFACE RIGHTS ONLY	S R O
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	C

NOTES

400' Surface Rights Reservation around
all lakes and rivers

DATE OF ISSUE
JAN 30 1984
Ministry of Natural Resources

PLAN NO. **M.1159**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEY AND MAPPING BRANCH

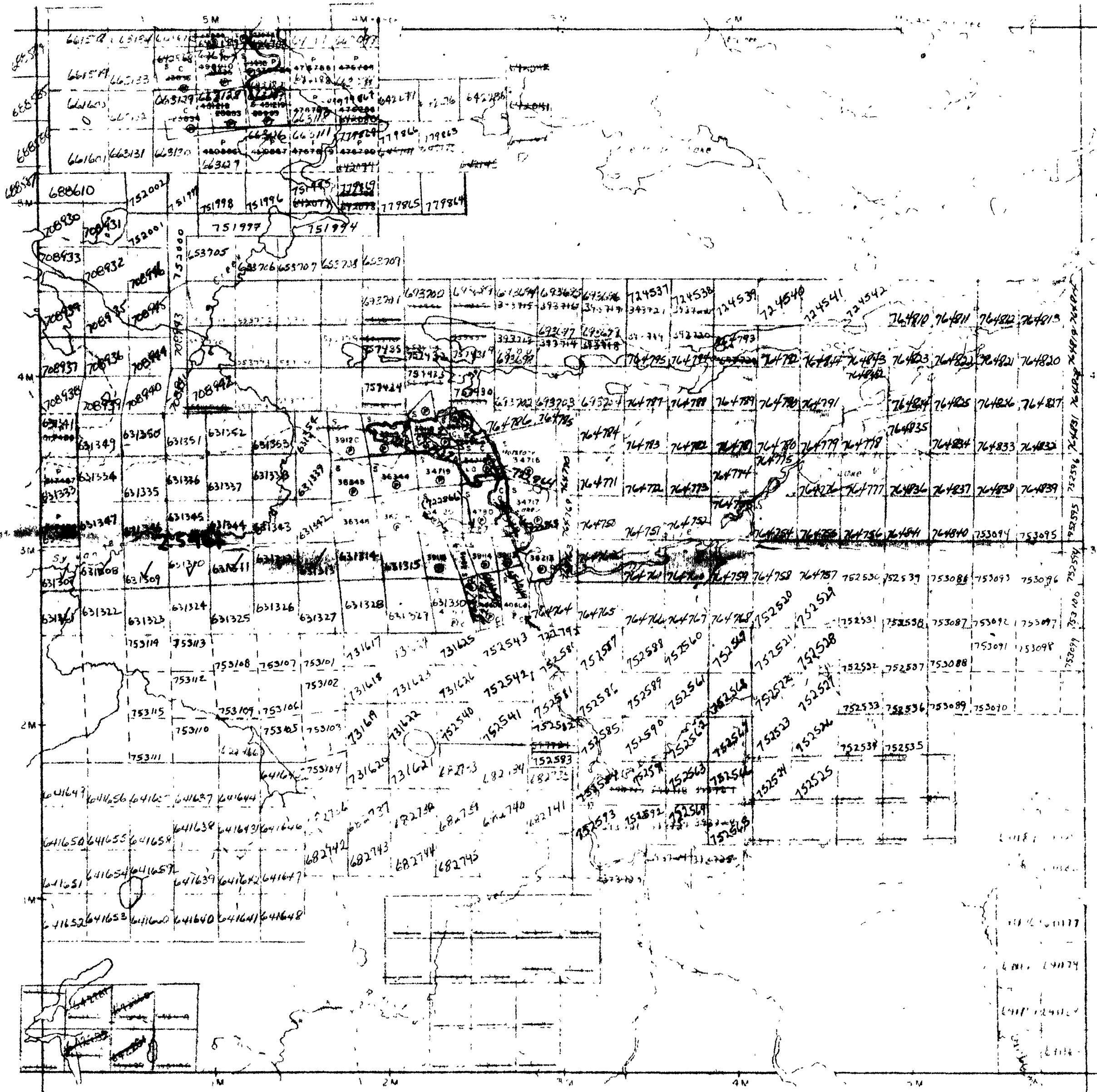


Eisenhower Twp. M.781

Denyes Twp - M758

Tooms Twp - M.1159

Cunningham Twp - M.744



THE TOWNSHIP OF

GREENLAW

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE C.S.
- LEASES Ⓛ
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS —
- IMPROVED ROADS —
- KING'S HIGHWAYS —
- RAILWAYS —
- POWER LINES —
- MARSH OR MUSKOG —
- MINES —
- CANCELLED —

NOTES

400 Surface Rights Reservation around all lakes and rivers.

PLAN NO. M.895

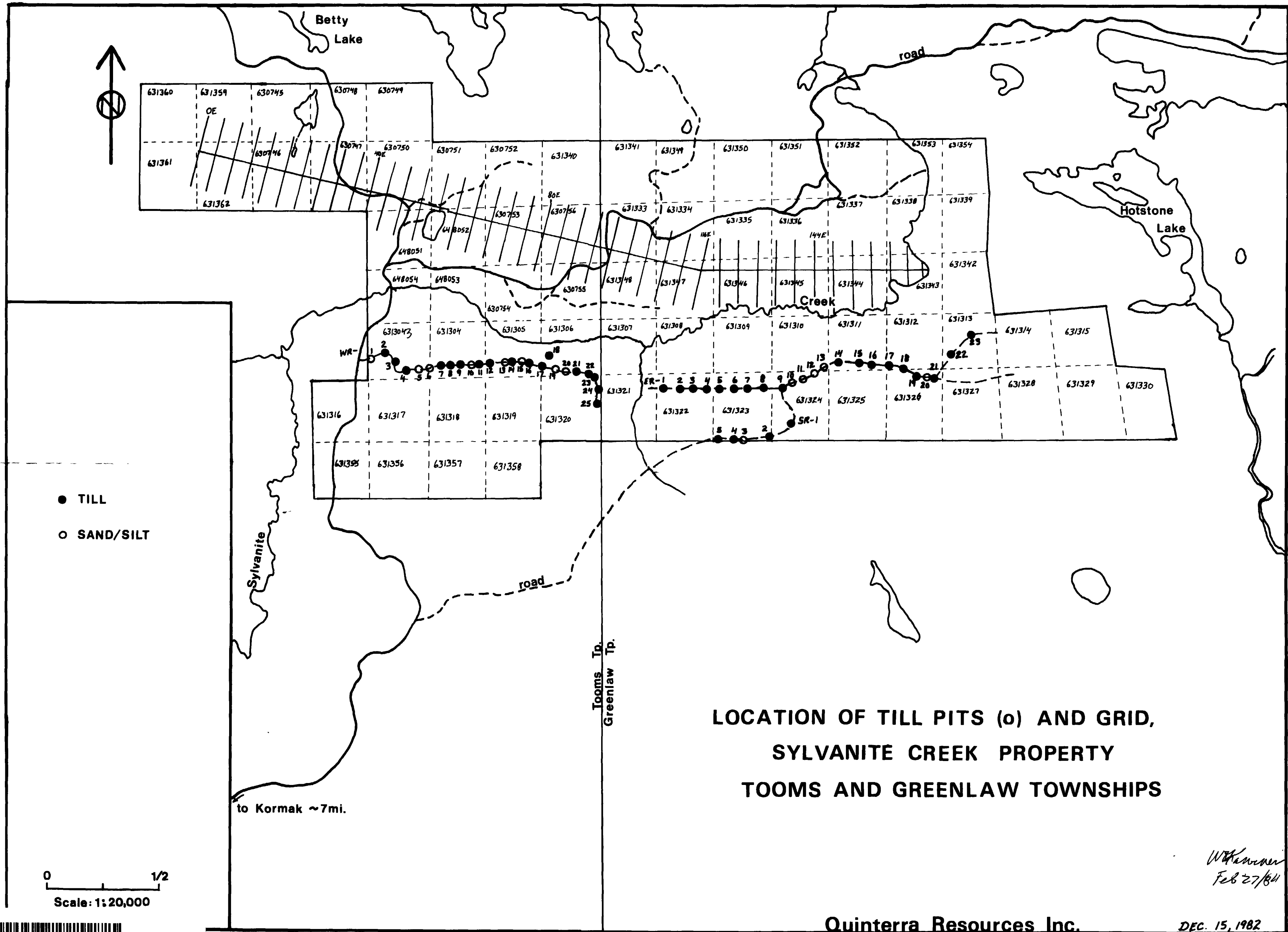
MINISTRY OF NATURAL RESOURCES

SURVEY ...

Twp. 22 - M.1196



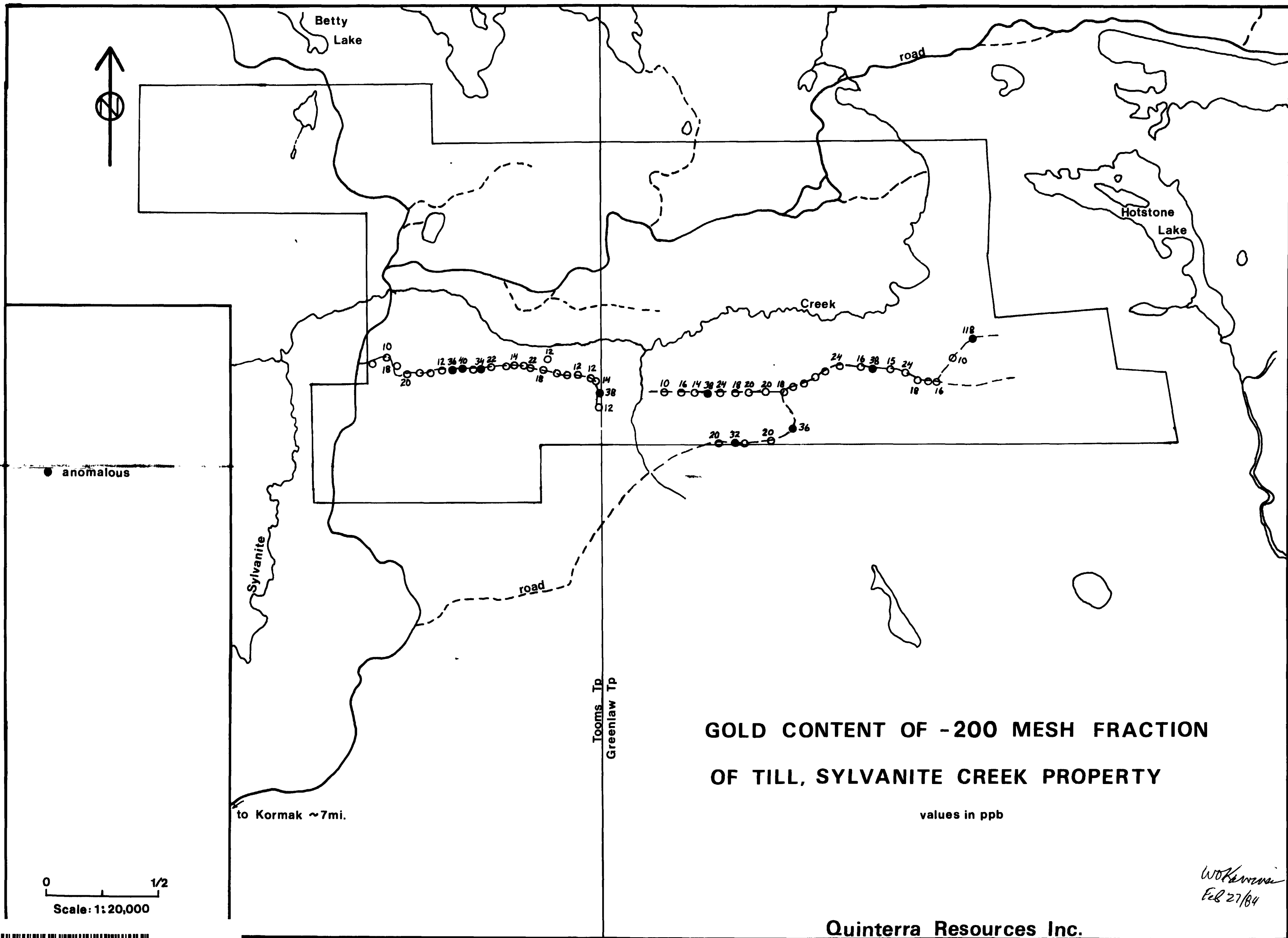
41018W0021 2 5461 TOOMS

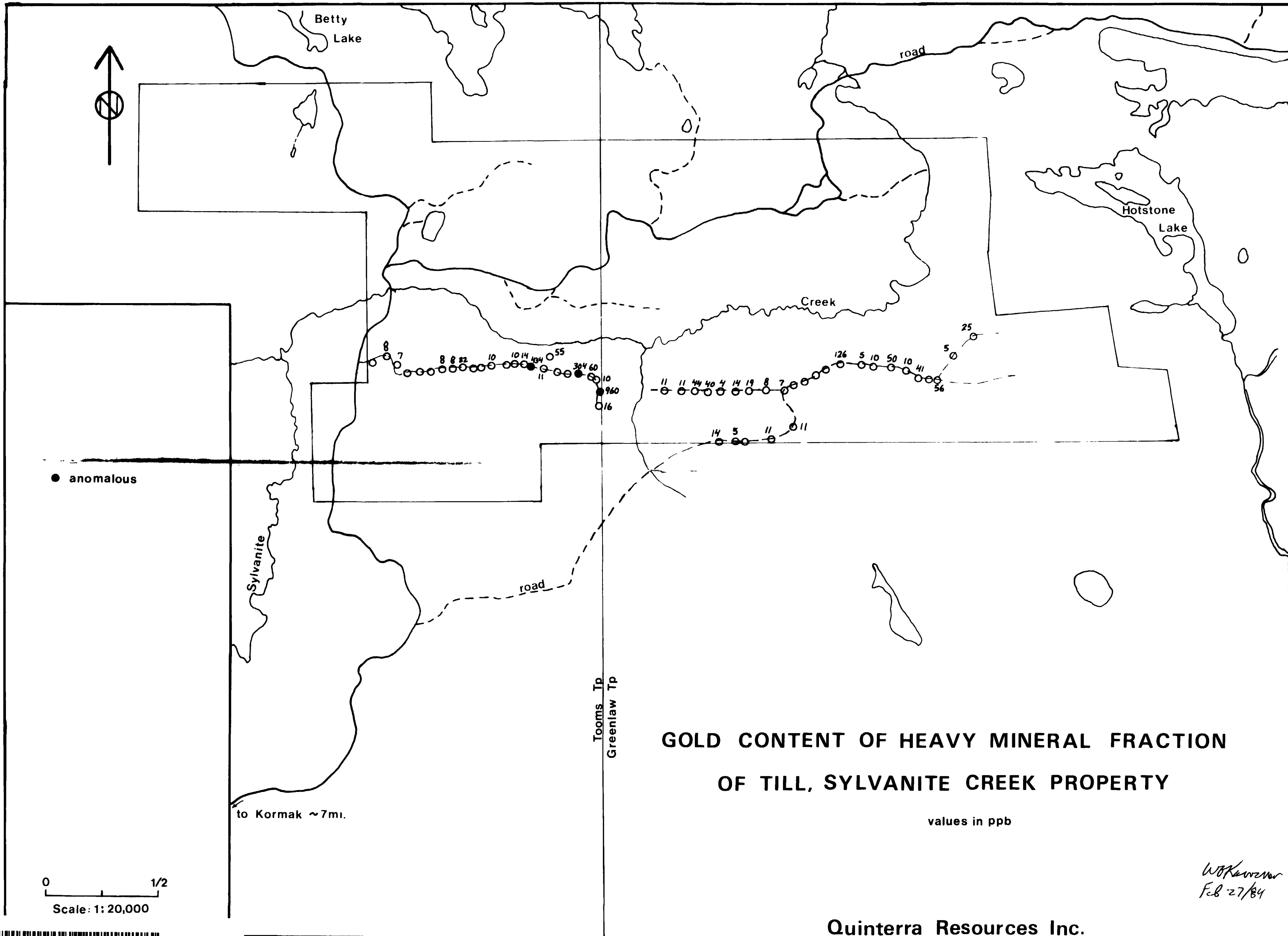


W. Hamner
Feb 27/84



41010N0021 2.5461 TOOMS





● anomalous

0 1/2
Scale: 1: 20,000

Tooms Tp
Greenlaw Tp

**GOLD CONTENT OF HEAVY MINERAL FRACTION
OF TILL, SYLVANITE CREEK PROPERTY**

values in ppb

Quinterra Resources Inc.

W.B. Korman
Feb 27/84



25461