



42A01NE0283 2.5939 GRENFELL

010

ORCANA RESOURCES LTD.
GRENFELL TWSP; ONTARIO
GEOLOGICAL SURVEY

RECEIVED

OCT 25 1983

MINING LANDS SECTION

Qual. 2.2715

F.T. Archibald, B.Sc. Geologist

October 2, 1983.

Table of



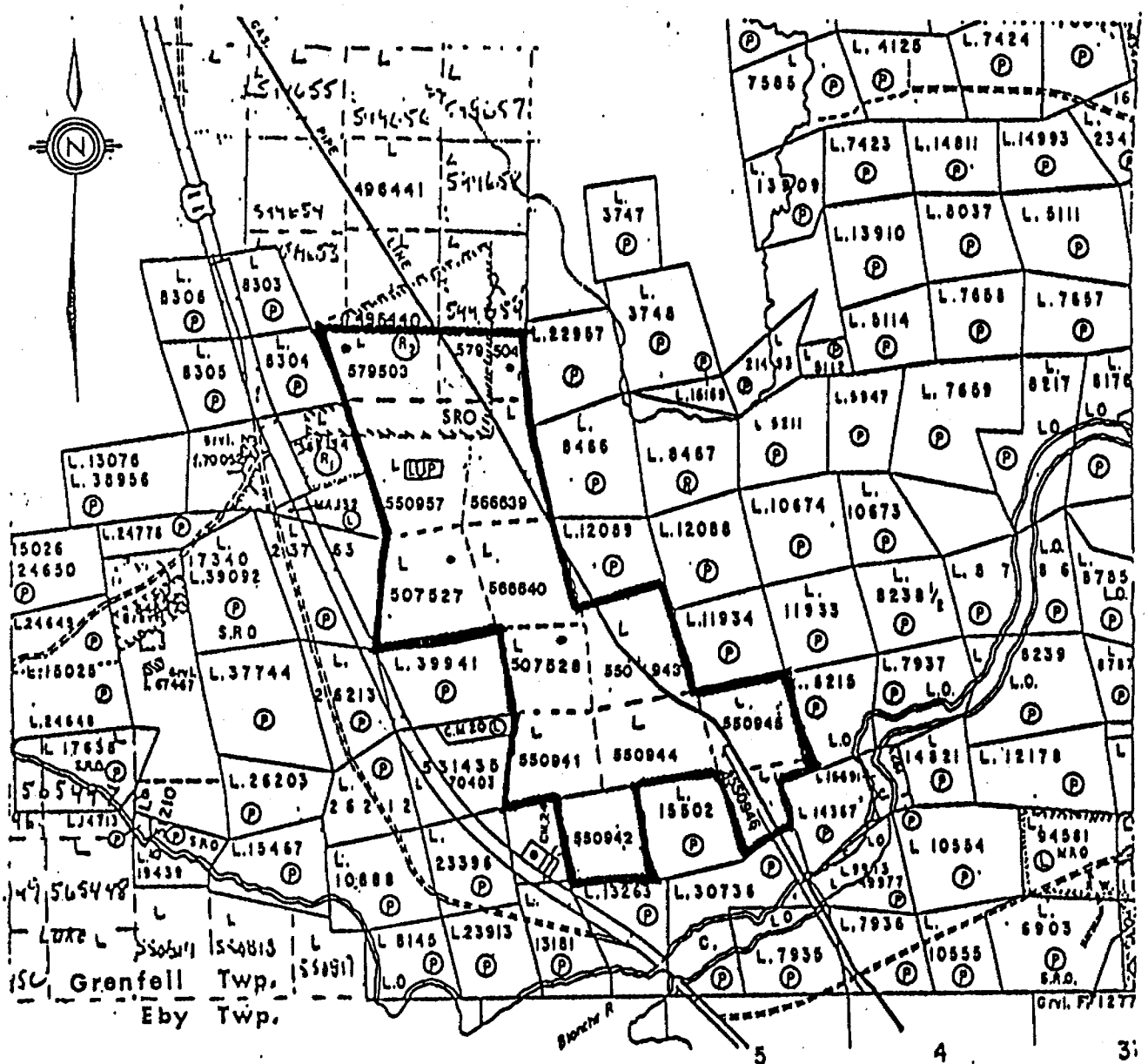
42A01NE0283 2.5939 GRENFELL

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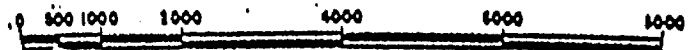


ORCANA RESOURCES LIMITED

PROPERTY PLAN

GRENFELL TOWNSHIP, ONT.

SCALE



FEET

J. S. Anshel

ORCANA RESOURCES LTD.
GRENFELL TWSP; ONT
Geological Survey

Property:

The property consists of thirteen contiguous mining claims situated in the southeast section of Grenfell Township, in the Larder Lake mining district.

The claims are numbered as follows:

L 507527	L 550946
L 507528	L 550957
L 550941	L 566639
L 550942	L 566640
L 550943	L 579503
L 550944	L 579504
L 550945	

Location and Access:

Trans Canada Highway 11 traverses within one quarter of a mile to the west boundary of the claim group. The Trans Canada Pipeline cuts through the middle portion of the claims. Several pipeline access roads traverse the north section of the property.

The property is approximately one third of a mile north of the townsite of Kenogami Lake. It is approximately 15 miles west of Kirkland Lake and 80 miles southeast of Timmins.

Regional Geology:

The area is mainly underlain by basic to intermediate pillowed and fragmental metavolcanics; mainly comprised of basalts and andesites. The volcanics trend southeast and dip steeply to the northeast. The pillow tops are to the northeast.

The volcanics are overlain by conglomerate, trachyte, greywacke, and agglomerate. These groups trend east to northeast and dip shallow.

These groups have been intruded by gabbros in the east and granite in the west. The gabbros are interlayered with diorites.

The younger sediments lie in a northerly trending syncline to the west of Grenfell Township and in an east to west trending syncline to the south of Grenfell Township.

The Larder Lake Fault cuts through the sediments located in the southeast corner of Grenfell Township.

The volcanics are sheared in a southeast to northwest trend, and dip steeply to the northeast; paralleling the regional trend of the volcanics.

Local Topography:

The property is covered by flat sand and fine gravel till in the northern section to gently undulating hills in the southern portion.

The eastern section has many areas of swamp covered ground between hills of outcroppings.

The property is mainly covered by mature stands of spruce, poplar, and birch vegetation which average between 4' and 8 inches in diameter. A few jack pine ridges are scattered throughout the property.

Local Geology:

The majority of the claim group is underlain by interbanded fine to coarse grained basic metavolcanics. The volcanics mainly consist of basalt flows with a few outcroppings of altered andesite; both belonging to the Keewatin series.

The pillows are in evidence and tops are to the north-east. Several horizons of porphyritic and altered-bleached volcanics are found interbanded with the basic-massive volcanics; usually in areas of shearing or carbonate-quartz veining.

Some of the coarse grained flows resemble altered diorite intrusives, and contacts between the units are gradational and not easily visible.

Areas of pyrite mineralization with minor amounts of chalcopyrite and pyrrhotite are found in areas with quartz and carbonate shearing. In these areas, chlorite and

TABLE OF FORMATIONS

CENOZOIC

Pleistocene and Recent

PRECAMBRIAN:

PROTEROZOIC

Cobalt Group

Gowganda Formation:

Conglomerate, argillite, sandstone, greywacke

ARCHEAN

Basic Intrusive Rocks- diabase

Acid Intrusive Rocks- granite, porphyry

Sedimentary Rocks- conglomerate, greywacke

Basic Volcanic Rocks- basalt, fragmentals, porph.lavas

after Grant, 1964, ODM Report 30

epidote alteration is intense and appears as a halo around the carbonate zones. Carbonate stringers are narrow and can be found up to a few inches in thickness.

Quartz and carbonate stringers trend in a northwest direction and dip steeply to the northeast.

One area of highly carbonated volcanics is found in the west-central section of the property. Brecciation with fragments of volcanic wallrock is evident in the northwest trending quartz veins of this zone. Felsic and chert textured horizons are found interbanded with the volcanics.

A mineralized and highly chloritized zone is found in the south-central portion of the property. A felsic and chert textured halo is found around this zone. A 4.0 foot wide silicified fracture striking N30°W and dipping vertical to steeply north, is associated with this zone.

The Cobalt conglomerates are found to the extreme south portion of the claims where they overlie the volcanics. They are accentuated by steeply rising outcropping in this area. The conglomerate beds dip shallow to the south.

The conglomerates contain rounded to oblong pebbles and boulders which average between 5 and 10 centimeters in diameter; and are poorly sorted. The pebbles consist of syenite, granite, jasper, rhyolite, andesite, diorite, and chert consistency.

The northern contact with the volcanics is overlain by a narrow overburden covered area.

The northern section of the claims are covered by sand and fine gravel overburden; and outcroppings are scarce.

The eastern sections of the property are covered by low-swampy overburdened areas spotted with a few high ridges.

The southwest sections of the property are covered by abundant northwest trending ridges and knolls of outcrop.

A former gold producer lies approximately 1 and 2 kilometers to the southeast and in line of strike with the two gold showings on the property respectively. There is a possibility that they are part of the same discontinuous system of quartz and carbonate veining, although it is believed that the gold genesis is associated with a north-

southtrending shear which comes off the Larder Lake Fault which lies approximately 1 kilometer to the south of the property.

Two types of zones are found east of the property and on the former Four Nations Consolidated Mine property. The first is a narrow brecciated quartz vein system which strikes N55-60°W. Values range from trace to 0.11 ounces of gold per ton. The other is a low grade zone which is associated with a 30 to 40 foot wide carbonate zone of shearing which strikes N70°W and dips steeply to the south.

Conclusions:

Two areas on the property, to the west-central and south-central localities, show areas of gold bearing quartz veins with associated carbonate and chlorite alteration. Although only low values in narrow zones have been found, these areas have had only limited surface work done to them. There appears to be no diamond drilling of these zones to confirm whether they become wider or richer with depth.

Surveys should be run to see if they are associated with any north-south trending shear feeders which are associated with the Larder Lake Fault.

It is suggested that the two zones have magnetometer and electromagnetic surveys run over them; and consequently be diamond drilled when the priority targets are located,

Toronto, Ontario.
October 2, 1983.

F.T. Archibald
F.T. Archibald, B.Sc. Geologist.

Anal. 2.2715



Type of Survey(s): **GEOLOGICAL #277**

Claim Holder: **Norcan Resources Limited**

Address: **P.O. Box 6742, Station A, Toronto, Ontario M5W 1X5**

Survey Company: **F.T. Archibald Consulting Ltd.** Date of Survey (from & to): **09 09 83 19 09 83** Total Miles of line Cut: **10.75**

Name and Address of Author (of Geo-Technical report): **F.T. Archibald, 702-100 Adelaide St. W. Toronto, Ontario M5H 1S3**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	40
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Geophysical	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		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	579503	40			
	579504	40			
	550941	40			
	550942	40			
	550943	40			
	550944	40			
	550945	40			
	550957	40			
	507527	40			
	566639	40			
	566640	40			
	507528	40			
	550946	40			

RECEIVED
 1983

LARBER LAKE
 MINING DIV.
 RECEIVED
 SEP 21 1983
 AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ + 15 = Total Days Credits

Total number of mining claims covered by this report of work. **13**

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: **520** Date Recorded: **SEP 21 1983** Mining Recorder: *[Signature]*

Date Approved or Recorded: **Dec 29 1983** Branch Director: *[Signature]*

Date: **Sept. 19, 1983** Recorded Holder or Agent (Signature): *F.T. Archibald*

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: **F.T. Archibald 702-100 Adelaide St. W Toronto, Ontario. M5H 1S3**

Date Certified: **Sept. 19, 1983** Certified by (Signature): *F.T. Archibald*



Mining Lands Comments

To: Geophysics

Comments			
<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature

To: Geology - Expenditures *Mr. C. Krusta*

Comments			
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Dec 16 / 85</i>	Signature <i>CKrusta</i>

To: Geochemistry

Comments			
<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature

L. v. D.

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1983 10 31

2.5939

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geological survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims L 507527 et al in the Township of Grenfell.

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

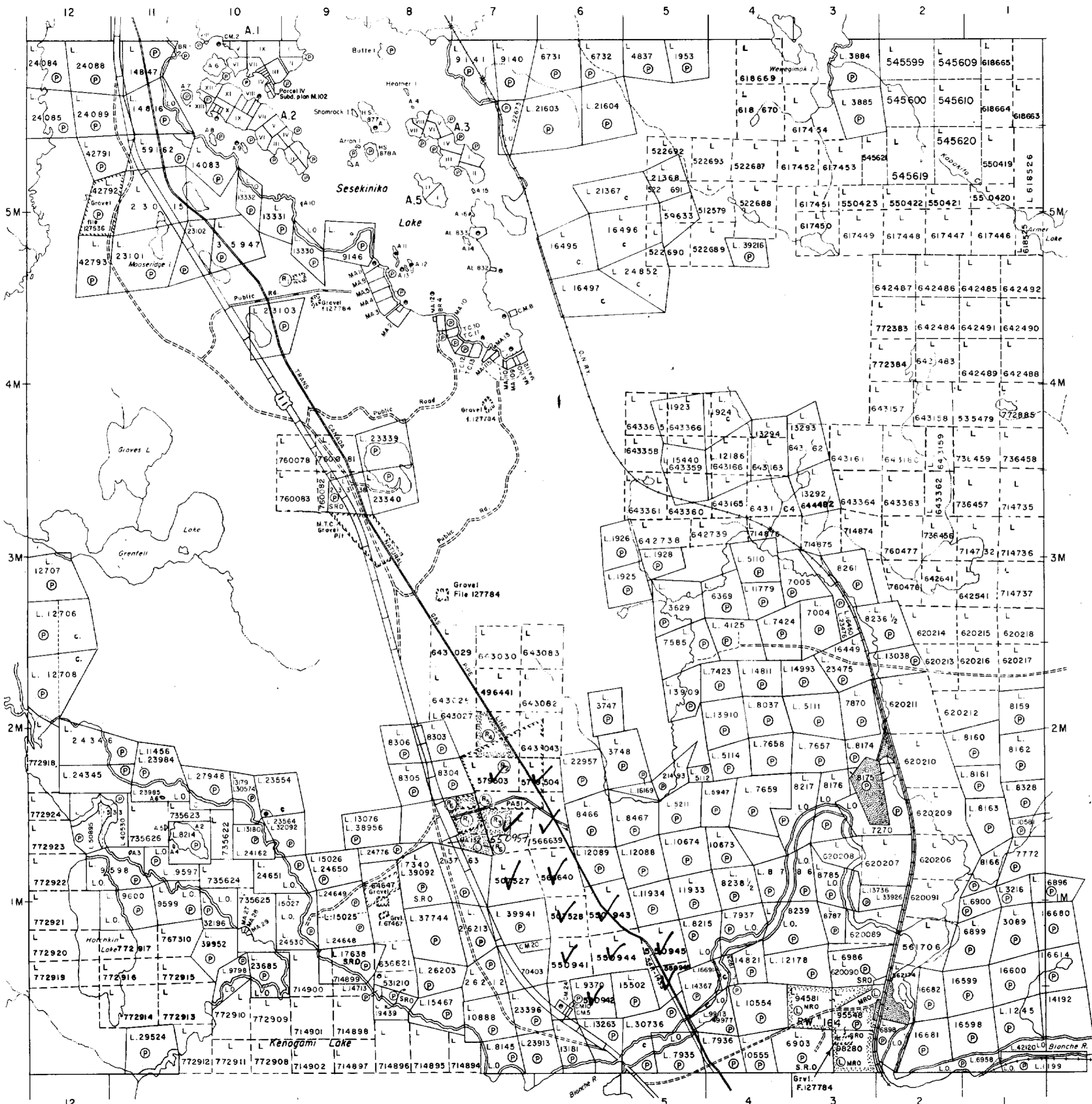
Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

A. Barr:mc

cc: Norcana Resources Limited
P.O. Box 6742
Station "A"
Toronto, Ontario
M5W 1X5

cc: F. T. Archibald
Suite 702
100 Adelaide Street West
Toronto, Ontario
M5H 1S3

MAISONVILLE TWP. M-361



BOMPAS TWP. M-330

TECK TWP. M-392

EBY TWP. M-345

THE TOWNSHIP OF

GRENFELL

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

- PATENTED LAND ● or P
- CROWN LAND SALE 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.
- PATENTED S.R.O. —

NOTES

400' Surface rights reservation along the shores of all lakes and rivers.

Lands shown thus patented to O.N.Ry. O.C. dated Jan 10, 1911.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970 (Sec 42, R.S.O. '60).

Order No.	File	Date	Disposition
(R1)	164 586		S.R.O.
(R2)	27993		S.R.O.
(W 48/81)	27993	11/6/81	S.R.O.
(W 101/81)		27/10/81	S.R. & M.R.
(W 102/81)		6/11/81	M.R.O.
(W 103/81)		6/11/81	S.R. & M.R.

All islands in Sesekinika Lake are withdrawn from staking by Order-in-Council dated Dec. 7, 1921.

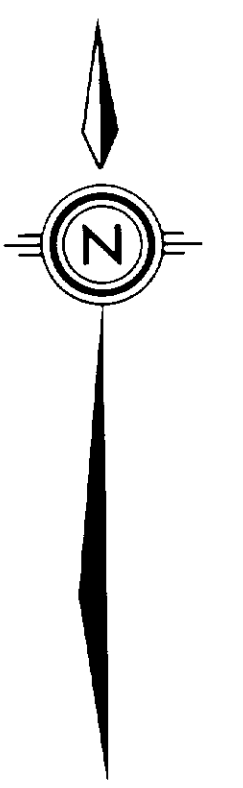
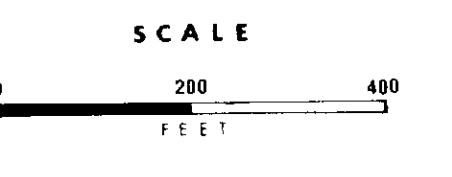
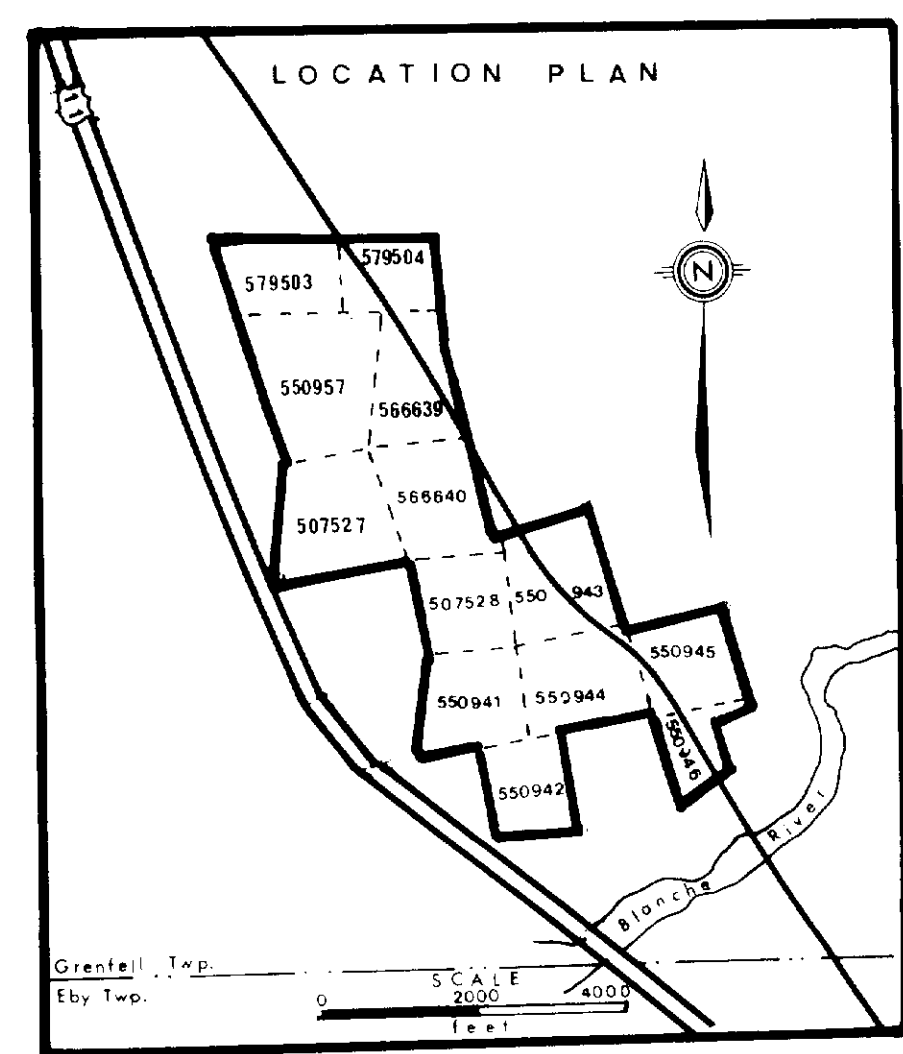
DATE OF ISSUE
 DEC 30 1983
 Ministry of Natural Resources
 (ONTARIO)

PLAN NO. M-351

ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEYS AND MAPPING BRANCH



GEOLOGY



LEGEND

- VOLCANICS
 - IA BASIC BASALT MASSIVE
 - IB BASIC COARSE-PYROCLASTIC
- VOLCANO-SEDS
 - IC RHYOLITIC - CHERY
 - IP PORPHYRITIC - ALTERED
- SEDIMENTS
 - S CONGLOMERATE
 - CL CHLORITIC
 - CA CARBONATE
 - QV QUARTZ VEIN
 - CS CLEAVAGE STRIKE
 - PT PILLOW TOP
 - SH SHEAR
 - SH SHAFT
 - FT FIT-TRENCH
 - OC OUTCROP
 - SW SWAMP
 - SE SWAMP EDGE

2.5737.mw

Blanchard

