



32D04SE0218 2.5094 HEARST

010

REPORT ON
GEOLOGICAL SURVEY
HEARST TOWNSHIP, ONTARIO

RECEIVED

OCT 7 1982

MINING LANDS SECTION

I. INTRODUCTION

A geological survey was carried out during June and July of 1982 over lines cut in the fall of 1980. Results are shown on the enclosed plan.

II. LOCATION, ACCESS AND OWNERSHIP

The claims covered by the survey are located in the south-central part of Hearst Township, District of Temiskaming Ontario. The claims are numbered L476794, L476795, L476796, and L476797. They are recorded in the name of Superior Northwest Inc., P.O. Box 1110, Sault Ste. Marie, Ontario.

III. PREVIOUS EXPLORATION

There has been a considerable amount of surface prospecting in the past. A number of deep pits were noted during the survey but no information is available on when they were dug or what, if anything, was found.

IV. TOPOGRAPHY

The major part of the property is covered by Pleistocene drift, gravel and swamp. Rocky hills up to 20 feet above the surrounding area with fair to good rock exposure occur in a few areas. A large part of the claims are covered with drift, swamp or beaver ponds with scattered very small outcrops in some of the higher areas. The property is covered with a dense second growth

Topography (continued)

of poplar, birch, alder and wild cherry with black spruce in the more swampy parts. With this is a thick growth of underbrush which makes the location of small outcrops difficult. A number of beaver ponds or now dry beaver meadows cover many of the stream courses.

The area has recently been logged over with destruction of picket lines in some places. In general the logging has been helpful in making outcrop more easily seen where moss has been scraped off or tree trunks overturned.

V. SURVEY PROCEDURE

A grid line was laid out across the property with a baseline running about S 60° E across the property. Crosslines were cut perpendicular to the baseline at 400-foot intervals. The picket lines were marked with fluorescent red paint for easier observation. Trial lines were run east and west from the picket lines by pace and compass in search of poorly exposed outcrop. All outcrops were noted in a field book as to rock type and distance from picket lines. This information was then plotted on a 1" = 400' scale plan.

VI. GEOLOGY

The general geology of Hearst Township has been described by J.E. Thomson⁽¹⁾.

The claims are underlain by a volcanic-sedimentary sequence of rocks cut by small intrusions of felsic to mafic composition.

(1) O.D.M. Report Vol. 56 part 8, 1947

Geology (Continued)

The approximate trend of the rocks is north, north-west and forms the north limb of a synclinal basin.

The volcanic rocks are basic, fine to medium grained and green to dark green in colour. In places they have been altered to chlorite schist with carbonatization.

The sediments consist largely of fine grained greywackes which grade to coarser material up to conglomerates. Due to extensive drift cover, even in areas of outcrop, it is difficult to trace any individual bed. Interbedded with the greywacke is a black graphitic argillite or tuff particularly along the baseline on claim L476796. Float would indicate the band is probably more extensive than the limited outcrop seen in a few pits and trenches. Conglomerate occurs as one band about 300-400 feet wide and as many smaller bands scattered through the greywackes. It consists of a heterogenous mixture of boulders to pebbles with mafic volcanic clasts predominating. At one location just north of 7 NW on the baseline, sulphide clasts up to 1" were noted. The matrix is a coarse greywacke, or dark green chloritic material.

Intrusives consist of small bodies of diorite or quartz porphyry.

VII. CONCLUSIONS

The geological survey shows a volcanic sedimentary sequence of rocks with interbedded graphitic material. A strong VLF-EM conductor which appears to follow the sediment-volcanic

Conclusions (Continued)

contact is everywhere, obscured by overburden. It may be caused by a graphitic material similar to that from 4 NW to 8 NW along the baseline. However, sulphide clasts in the same area indicate that sulphides are also present and may warrant further work.

Respectfully submitted



R.A. MacGregor, P. Eng.

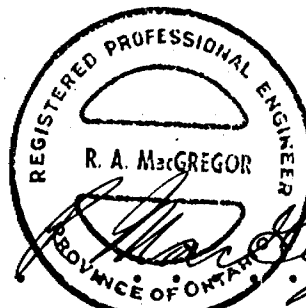
October 1, 1982

CERTIFICATE

I, Robert A. MacGregor, certify:

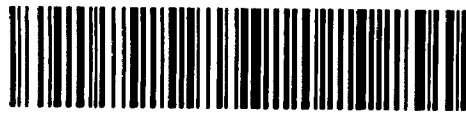
1. I am a Mining Engineer residing at 134 Palace Drive, Sault Ste. Marie, Ontario. I have worked as a mining engineer and geologist for the past 17 years.
2. I am a member of the Association of Professional Engineers of the Province of Ontario and a member of the Canadian Institute of Mining and Metallurgy.
3. I attended Queen's University for two years in the Mining-Geology course.
4. I personally carried out or supervised the field work on the subject claims.

Oct 1 / 92
Date



R.A. MacGregor

Lands Admin
 Type of Survey(s) Copied 2476794



1248

Claim Holder **GEOLOGICAL W8208-248**
SUPERIOR NORTHWEST INC. 900

Address **P.O. Box 1110, Sault Ste. Marie, Ontario** 2.5094

Survey Company **Colex Explorations Inc.** Date of Survey (from & to) **12 80 8 82** Total Miles of line Cut **4**

Name and Address of Author (of Geo-Technical report) **Robert A. MacGregor, 134 Palace Dr. Sault Ste. Marie, Ontario**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	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 Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
L	476794				
	476795				
	476796				
	476797				

REC...
 AUG - 9 1982
 MINING LANDS

LARDER LAKE
 MINING DIV.
RECEIVED
 AUG 5 1982
 AM
 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6

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.

Total number of mining claims covered by this report of work. **4**

For Office Use Only
 Total Days Cr. Recorded **160** Date Recorded **AUG 5 1982**
 Date Approved or Recorded **83:04:29**
 Mining Recorder *[Signature]*
 Branch Director *[Signature]*

Date **Aug. 2, 1982** Recorded Holder or Agent (Signature) *[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 **Robert A. MacGregor, P.O. Box 1110, Sault Ste. Marie, Ont. P6A 5N7**

Date Certified **Aug. 2, 1982** Certified by (Signature) *[Signature]*



Ontario

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological
Township or Area Hearst
Claim Holder(s) Superior Northwest Inc.
Survey Company Colex Explorations Inc.
Author of Report R.A. MacGregor
Address of Author 134 Palace Dr. S.S. Marie, Ont.
Covering Dates of Survey 10/80 - 10/1/82
Total Miles of Line Cut 3.5

MINING CLAIMS TRAVERSED
List numerically

1476794
1476795
1476796
1476797

Table with 2 columns: SPECIAL PROVISIONS CREDITS REQUESTED, DAYS per claim. Includes entries for Geophysical (Electromagnetic, Magnetometer, Radiometric, Other) and Geological (40), and Geochemical.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: Oct. 1/82 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. Qualifications 2.1102

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS 4

Handwritten note: These are small claims normally the credits should be allowed under max. day however considering length of time taken to assess request - but go on it. [Signature]

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____ (specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____



Jan 14/83

Mining Lands Comments

To: Geophysics

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geology - Expenditures

W/R. Kustre

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Feb 28/83</i>	Signature <i>C. Kustre</i>
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To: Geochemistry

Comments

L.D.

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1982 10 22

2.5094

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 476794 et al in the Township of Hearst.

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

Yours very truly

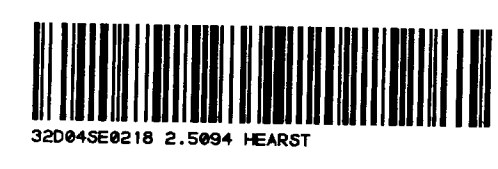
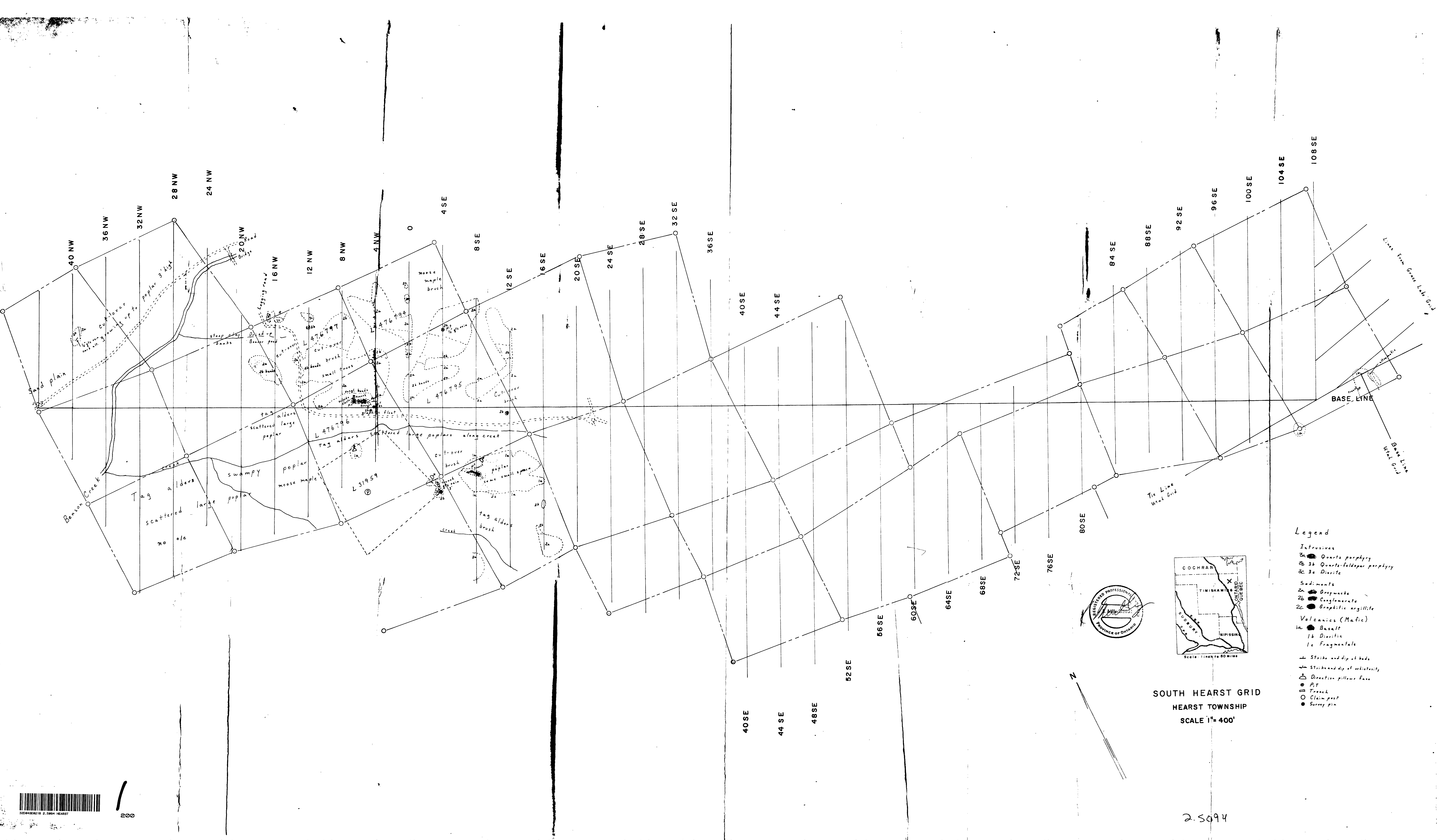
E.F. Anderson
Director
Land Management Branch

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

DW:sc

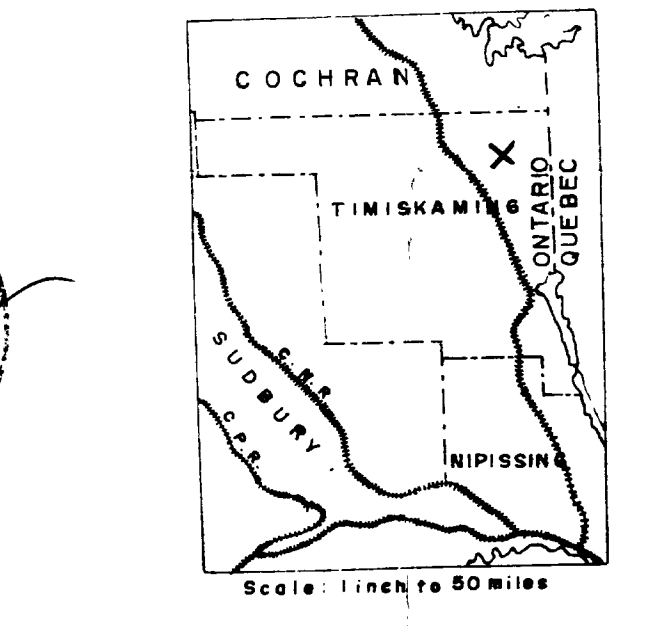
cc: Superior Northwest Inc
Sault Ste Marie, Ontario

cc: Mr. Robert A. MacGregor
Sault Ste. Marie, Ontario



200

- Legend**
- Intrusives**
 - 3a Quartz porphyry
 - 3b Quartz-feldspar porphyry
 - 3c Diorite
 - Sediments**
 - 2a Gneiss
 - 2b Conglomerate
 - 2c Graphitic argillite
 - Volcanics (Mafic)**
 - 1a Basalt
 - 1b Dioritic
 - 1c Fragmentals
 - Strike and dip of beds
 - Strike and dip of resistivity
 - △ Direction pillow face
 - Trench
 - Claim post
 - Survey pin



SOUTH HEARST GRID
HEARST TOWNSHIP
SCALE 1" = 400'

2.5094