COLEX EXPLORATIONS INC.

RECEIVED

DEC 81981

MINING LANDS SECTION



32D04SE0227 2.4377 HEARST

REPORT ON VLF-EM SURVEY
HEARST AND SKEAD TOWNSHIPS

ONTARIO

PAGE NO.

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Introduction

A VLF-EM survey was carried out in Hearst and Skead Townships by Colex Explorations Inc. The results are shown on the enclosed plan.

Location, Access and ownership

The claims covered by the survey are located in the southeast part of Hearst Township and the north-east part of Skead Township. There are 21 claims numbered L511693, L522792 to 522793, L523348 to 523352 inclusive 531378, L532819, L532835 to 532837 inclusive, L545046 to 5405051 inclusive, L545054 and L545954 recorded in the name of Superior Northwest Inc., Box 1110, Sault Ste. Marie, Ontario.

Access to the property is obtained by travelling south from Larder Lake, Ontario about 6 miles on Highway 624, and then following geophysical lines east. The area may also be reached by an overgrown trail south along the east side of Sharp Creek from the bridge on the road to the old Martin-Bird mine. This road leaves Highway 624 about 4 miles south of Larder Lake.

Previous Exploration

There has been considerable surface prospecting in the past as evidenced by a number of old pits and trenches. Old drill casing was seen during the survey and holes are marked as having been drilled on O.D.M. map 1947-1. No records of drill logs or what, if anything, was found in this previous work could be located.

Geology

The property is underlaind by a volcanic-sedimentary sequence of rocks, cut by felsic to mafic intrusives. A large part of the claims are covered by extensive drift. Later Huronian sediments cover the older rocks in the central part of the claims.

Survey Procedure

A grid was laid out with the baseline running at about N $15^{\,\rm O}$ W east of Grace Lake. Crosslines were cut perpendicular to the baseline at 400-foot intervals.

Survey Procedure (Continued)

A VLF-EM survey was carried out using a Pheonix VLF-2 instrument set to the signal from Cutler, Maine station (17.8 KHz). Readings were taken at 100-foot intervals using the procedure outlined in Appendix 1. In this method a base station is selected and readings taken along lines describing a loop, arriving back at the starting base station in less than two hours. A second loop is then started using either the same base station or another which is tied to the previous loop. The time is noted for each station and readings are corrected for diurnal variation by assuming the time between readings is the same and distributing any variation equally among the intervening readings. No correction was applied less than the accuracy of the base station reading.

Results and Conclusions

The VLF-EM survey shows a number of cross-overs on the claims covered.

The topography is quite variable and further work is required to assess whether the conductors are caused by overburden or bedrock sources.

Respectfully submitted

November 18, 1981

R.A. MacGregor, P. Eng.

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.
- I attended Queen's University for two years in the Mining-Geology course.
- 4. I personally supervised the field work covered by this report.

DATE

R. A. MacGregor

2.4377



32D04SE0227 2.4377 HEARST

1982 11 12

2,4377

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

Dear Sir:

RE:

Geophysical (Electromagnetic) Survey on Mining Claims L 523352 et al in the Townships of Skead and Hearst.

The Geophysical (Electromagnetic) Survey assessment work credits as listed with my Notice of Intent dated September 13, 1982 have been approved as of the above date.

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

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: R.A. MacGregor Sault Ste Marie, Ontario

cc: Resident Geologist
Kirkland Lake, Ontario



Oct 12, 1982

Your file:

Our file: 2.4377

September 13 1982

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

Dear Mr. Koleszar:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

Yours very truly,

E.F. Anderson
Director
Lands Administration Branch
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

/las

Encl.

- cc Superior Northwest Inc. Sault Ste. Marie, Ontario
- cc Mr. G. H. Ferguson, Q.C. Mining & Lands Commissioner Toronto, Ontario



Notice of Intent for Technical Reports

F11e 2.4377

September 13, 1982

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Am Who 64 \$50 Report of Work If number of mining claims traversed exceeds space on this form, attach a list. (Geophysical, Geological, Paspurces Geochemical and Expenditures) Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. The Mining Act - Do not use shaded areas below. Township or Area Skead & Hearst VLY-EM Claim Holder(s) Prospector's Licence No. T-626 SUPERIOR NORTHWEST INC. Survey Dates (linecutting to office) Survey Company Total Miles of line Cut Day | 11 | 80 | Day | 11 | 81 Colex Explorations Inc. Name and Address of Author (of Geo-Technical report) R.A. MacGregor, 134 Palace Dr., SAULT STE. MARIE, Ontario Special Provisions Credits Requested Mining Claims Traversed (List in numerical sequence) Mining Claim Instructions Expend, Days Cr. Mining Claim Days per Claim Geophysical Prefix Prefix For first survey: - Electromagnetic LU 24497 ىم 5233 20 L Enter 40 days. (This includes line cutting) Magnetometer 531379 - Radiometric 532819 For each additional survey: using the same grid: - Other 532835 Enter 20 days (for each) Geological 532836 Geochemical 532837 Man Days 545046 Instructions Days per Claim Geophysical 545047 Complete reverse side - Electromagnetic and enter total(s) here 545048 - Magnetometer 545049 - Radiometric 545050 - Other 54505**4** Geological 511693 Geochemical Airborne Credits Days per Note: Special provisions credits do not apply Electromagnetic to Airborne Surveys. Magrietometer Radiometric Expenditures (excludes power stripping) Type of Work Performed Performed on Claim(s) Calculation of Expenditure Days Credits Total Expenditures Days Credits \$ Total number of mining Instructions claims covered by this 13 Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected report of work For Office Use Only Total Days Cr. Date Recorded in columns at right. VOV Report Completed Date of Report Nov. 18/81

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.

Certification Verifying Report of Work

Ministryof Natural urces

ame and Postal Address of Person Certifying

R.A. MacGregor, 134 Palace Dr. Sault Ste. Marie, Ont.

180451. Report of Work (Geophysical, Geological, Geochemical and Expenditures)

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Certified by (Signature)

Township	or Area
1/16 NO	Picase type or print, If number of mining claims travers exceeds space on this form, attach a li Only days credits calculated in t "Expenditures" section may be enter in the "Expend. Days Cr." column Do not use shaded areas below.

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of Report ept. 21/81	ded Horder or Agent (Si	ignature)		480	Date Approved			Resional	Branch Director	
Ification Verifying Report		3	l					J		
hereby certify that I have a per		owledne of	the	facts set fo	orth in the Report of	of Worl	Canner	ed hereto	navino performed	the work



Technical Assessment Work Credits

File				
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Recorded Holder Superior Northwest	Inc
Township or Area	
Hearst and Skead To	ownsnips
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic days	L 511693 L 522792 - 93
Magnetometer days	L 523348 to 50, inclusive L 531370
Radiometric days	L 532819 L 532835 to 37, inclusive
Induced polarization days	L 545046 to 51, inclusive L 545054
Section 86 (18) days	L 545954
Geological days	
Geochemicaldays	
Man days ☐ Airborne ☐	
Special provision 🔀 Ground 🔀	
Credits have been reduced because of partial coverage of claims. Credits have been reduced because of corrections	
to work dates and figures of applicant.	
Special credits under section 86 (15a) for the following	mining claims
No credits have been allowed for the following mining cl	aims
F***	Insufficient technical data filed
L 523351 - 52	

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:

1982 07 06

Mr. R.A. MacGregor 134 Palace Drive Sault Ste. Marie, Ontario P6B 5H5

Dear Sir:

Re: Geophysical (Electromagnetic) Survey submitted on Mining Claims L 523352 et al, in the Twp. of Skead and Hearst

Enclosed is the final page (in duplicate) for the abovementioned report. Please sign both pages and return them to this office.

For further information, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1316

A. Earr/amc

Encl.

cc: Mining Recorder
Kirkland Lake, Ontario



Geotechnical

File		_	
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(A)	Natural Resources	Report
Ontario		Approval

Mining Lands C	omments			
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To: Geophysics	Mr Barlew.			
Comments				
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Comments				
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		Date	Signature	
Approved	Wish to see again with corrections			•
To: Mining Land	Section, Room 6462, Whitney Block.	(Tel: 5-1380)		
593 (81/10)				

December 18, 1981

Office of the 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 Geophysical (Electromagnetic) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L.523352 et al, in the Townships of Skead and 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

cc: R.A. MacGregor Sault Ste. Marie, Ontario OKFICE USE ONLY

837 (5/79)

Ministry of Natural Resources

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.

DEC 81981
DEC 81981

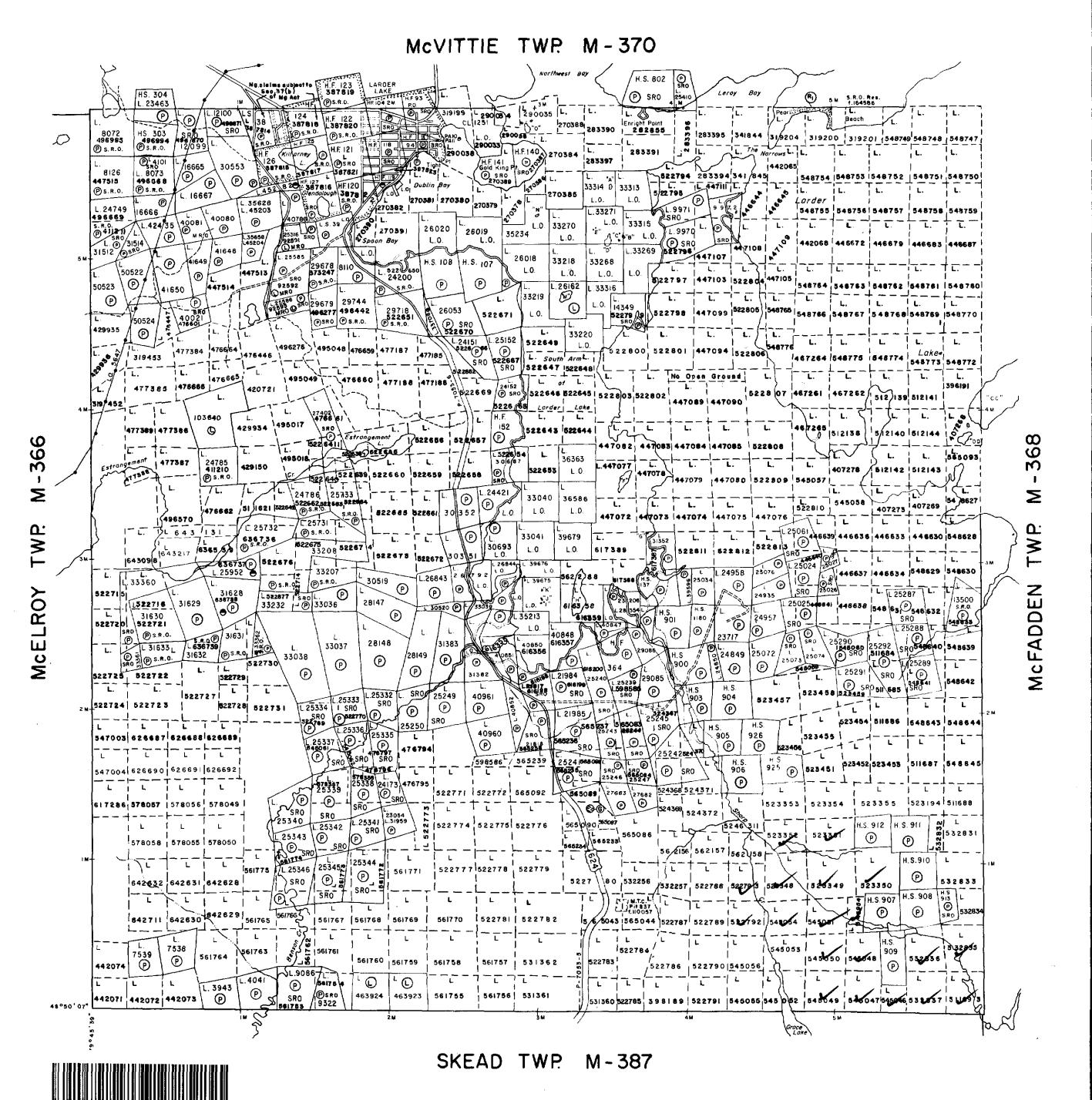
Type of Survey(s) VLF-EM
Township or Area Hearst & Skead
Claim Holder(s) Superior Northwest Inc.
Survey Company Colex Explorations Inc.
Author of Report R.A. MacGregor
Address of Author 134 Palace Dr. S.S. Marie, Ont.
Covering Dates of Survey January - November 1981 (linecutting to office)
Total Miles of Line Cut
SPECIAL PROVISIONS CREDITS REQUESTED Complysical DAYS per claim
Geophysical
ENTER 40 days (includes —Electromagnetic 20 Magnetometer
line cutting) for first Magnetometer Radiometric
ENTER 20 days for each —Otheradditional survey using Geological
same grid. Geological Geochemical
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys) Magnetometer Electromagnetic Radiometric
(enter days per claim)
DATE: Nov. 18/81 SIGNATURE: Author of Report or Agent
Res. GeolQualifications
Previous Surveys
File No. Type Date Claim Holder

MINING CLAIM List nur	IS TRAVERSED nerically
L 511693 (prefix) L 522792	(number)
L 523348 L 523349	
L 523350	
L 523351 L 523352	
L 531376	
L 532819 L 532835	
L 532837 L 545046	
L 545047	
L 545088 L 545049	
L 545050	
L 545051	
L545954	
TOTAL CLAIMS.	21

GEOPHYSICAL TECHNICAL DATA

Mamber of Stati	ons850	Number of Readings _	850
Station interval	100 feet	Line spacing	400 feet
Profile scale	1" = 40°		
Contour interval			
Instrument			
Accuracy — S	cale constant		
Diurnal correc			
Accuracy — S Diurnal correct Base Station of	heck-in interval (hours)	· · · · · · · · · · · · · · · · · · ·	
Base Station l	ocation and value		
·· Instrument	Phoenix VLF-2		
Coil separation	n N/A		
Accuracy	+ ^		
Method:	☐ Fixed transmitter	☐ Shoot back ☐ In lir	ne 🗆 Parallel line
Frequency	Cutler, Maine ()	17.8 KHz)	
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Parameters me	asured DIP ungle of the) Idaditalit IIdiu	
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Scale constant			
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INDUCED POLARIZATION



THE TOWNSHIP 0F

HEARST

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	• ar 🕑
CROWN LAND SALE	c.s
LEASES	, (D
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L. 0 .
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
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IMPROVED ROADS	
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NOTES

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

Township of Hearst lies entirely within the CORPORATION of the TOWNSHIP of LARDER File: 129282.

Staking of mining claims within the Town of Larder Lake shown thus in the Sec. 37(b) of the Mining Act (R.S.O. 1970).

SAND AND GRAVEL

QUARRY PERMIT

Areas withdrawn from staking under Section 43 of the Mining Act (RSO1970)

OrderNo. 🖲 W14/80NR.

Disposition 26/11/80 S.R.O.

DATE OF ISSUE

JUL 29 1982

Ministry of Natural Resources TORONTO

2.4377

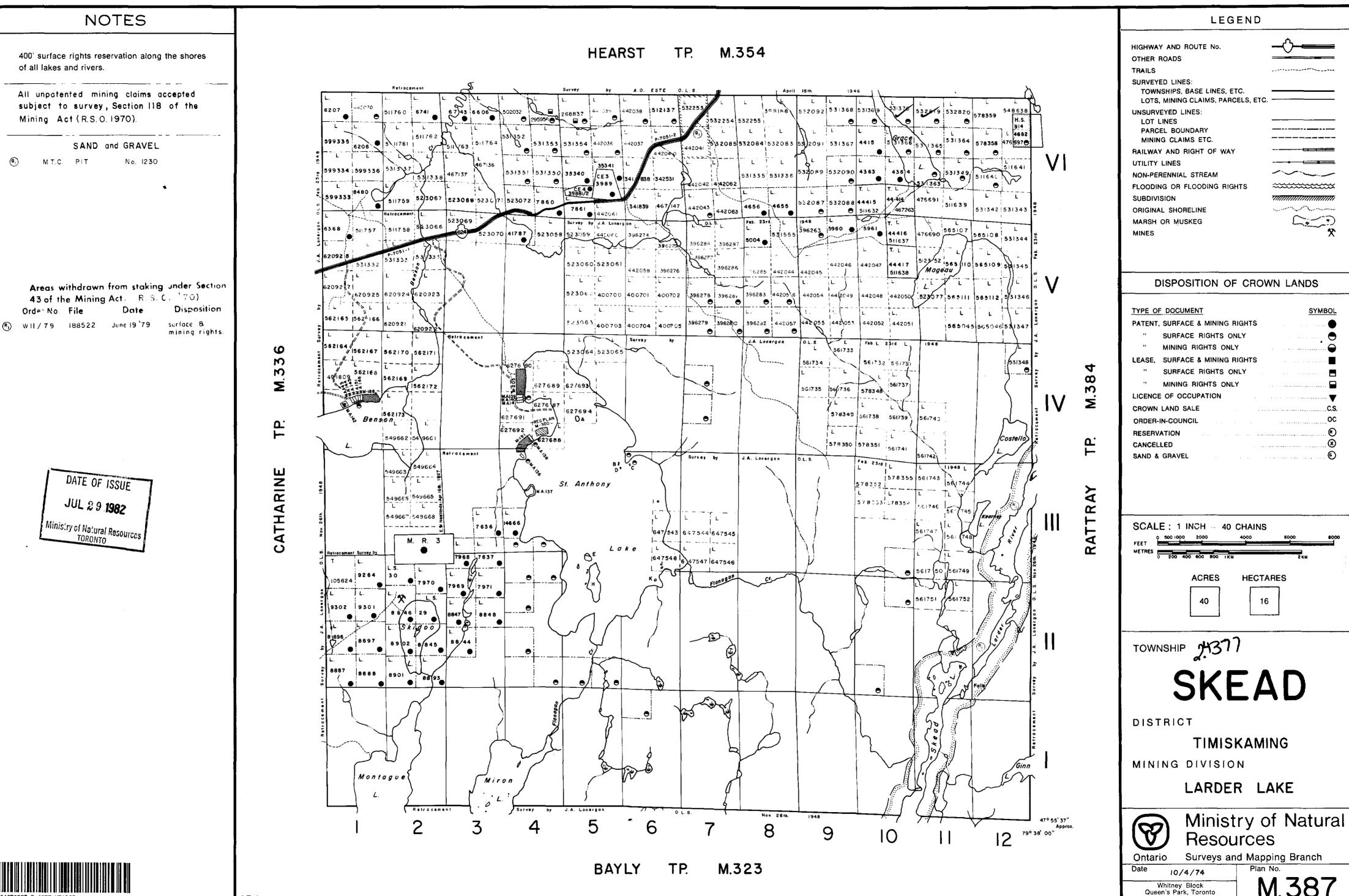
PLAN NO.

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

200



M.387

