



41P15NE8341 2.3330 CAIRO

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GEOPHYSICAL SURVEY REPORT
MAGNETOMETER SURVEY
CAIRO PROJECT
CAIRO TOWNSHIP - NTS: 41 P/15

by

Newmont Exploration of Canada Limited
Box 105 Commerce Court West,
Toronto, Ontario M5L 1E3

REPORT ON GEOPHYSICAL SURVEY
CAIRO PROPERTY - JUNE AND JULY 1979

Introduction

Newmont Exploration of Canada Limited carried out magnetometer surveys on the Cairo project. These surveys are part of an ongoing exploration project.

The surveys were done over several claims. The twenty-five claims being covered for this assessment report are part of that project.

The mag results indicate an area of very high magnetic relief. Since the area is covered by sand, this will greatly aid geological mapping.

Location and Access

The claims lie approximately 3 miles east of Matachewan, and can be reached by Highway No.65 from Matachewan.

Property

The claims are shown on the attached location map, and are outlined on the survey maps. The claim numbers are listed as attachment #1.

Geology and Previous Work

The area has been mapped as being underlain by basalt and andesite. Serpentinite intrusions occur. Matachewan diabase dykes cut northerly through the area. Extensive sand cover masks much of the bedrock.

Previous work has consisted of trenching in the areas of basic rocks and along carbonate horizons.

A programme of detailed geological mapping and sampling is being carried on by Newmont. Results of that work will be available later.

Method of Geophysical Surveys

Magnetometer surveys were conducted with a Scintrex MP-2 proton precession magnetometer. Data were obtained at 12½m intervals on lines 100m apart. Corrections for diurnal drift were made by checking hourly at a main base station. This base station was located on the grid on the south side of Highway 66,

15m west of line 108E. A government survey bench mark, #758093, is located directly across the road from the base station. The base station is on outcrop, and is marked.

A description of the magnetomer is attached.

Geophysical Coverage

The twenty-five claims were covered as noted.

A total of 32×10^2 readings over 40 km were made for the mag survey. Parts of the grid could not be covered because of water.

Data Presentation and Results

Mag data are plotted and contoured on a grid map. The results show the area to be very active magnetically.

This report includes three maps of contoured mag results.

Conclusion

The mag results will aid geological mapping of the area.



H. Limion
Chief Geophysicist

HL/gdn

Att: Statement of Qualifications
Location Map
List of Claims
Mp-2 Spec. Sheet
3 Maps of Mag results

CAIRO

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

LEGEND

PATENTED LAND
CROWN LAND SALE
LEASES
LOCATED LAND
LICENSE OF OCCUPATION
MINING RIGHTS ONLY
SURFACE RIGHTS ONLY
ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED

NOTES

400' Surface Rights Reservation along
the shores of all lakes and river.

AREAS WITHDRAWN FROM STAKING

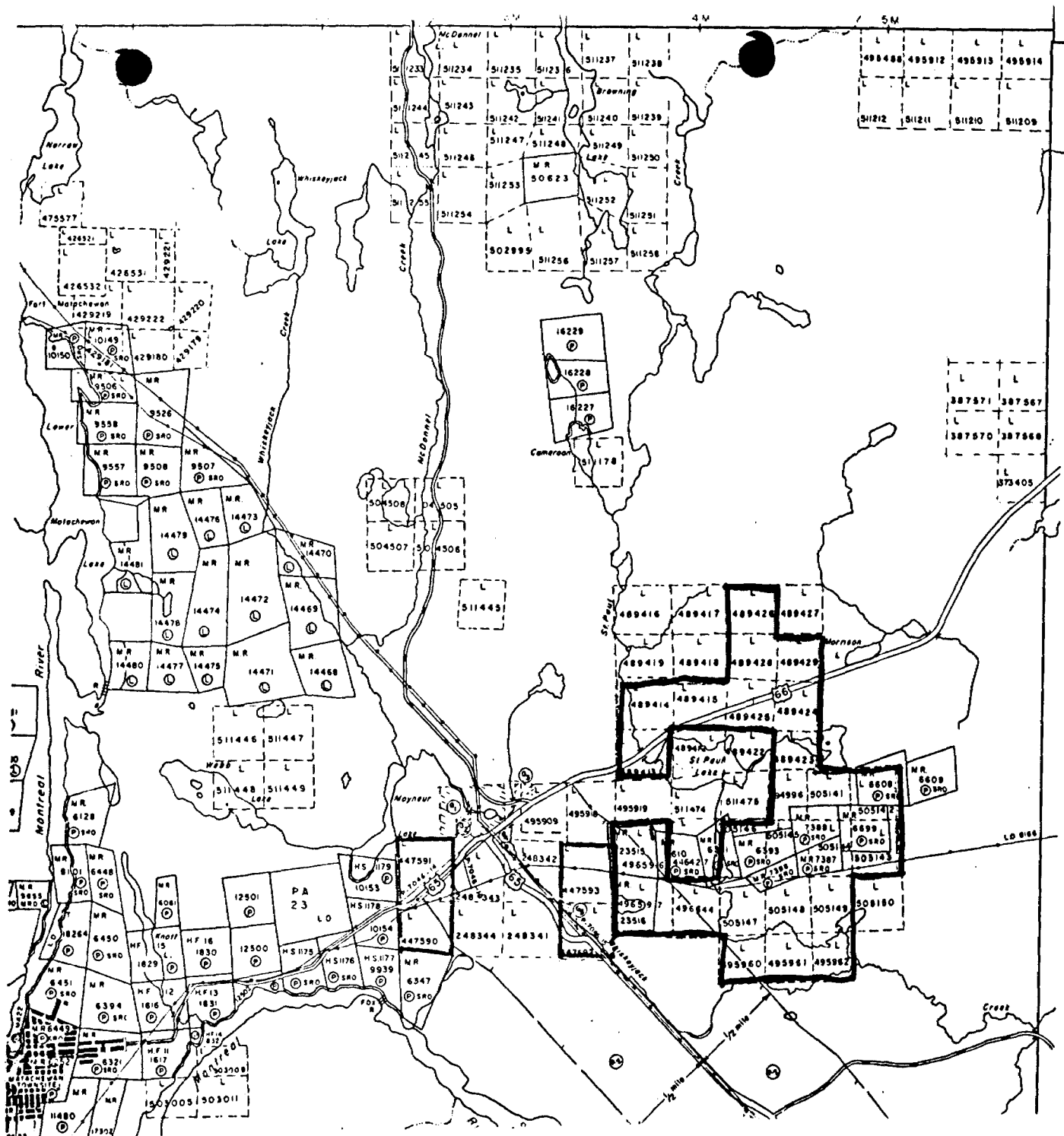
S.R. - SURFACE RIGHTS	M.R. - MINING RIGHTS
Section	Order No.
W.M.F. Tower cabin site	S.R. 1537
W.26/78	May 31, 1978 S.R. 188

SAND and GRAVEL

① M.T.C. Gravel Pit 208	④ Gravel Pit 127507
② M.T.C. Gravel Pit 1913	⑤ Gravel Pit 205
③ Gravel Pit 204, File 127307	⑥ Gravel Pit
⑦ M.T.C. Gravel Pit 3P-4, File 127307	

DATE OF ISSUE

Flavelle Twp. - M.220



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) _____ Magnetometer _____
Township or Area _____ Cairo _____
Claim Holder(s) _____ Newmont Exploration of Canada Limited _____

Survey Company _____ Newmont Exploration of Canada Limited _____
Author of Report _____ H. Limion _____
Address of Author _____ c/o Newmont, Box 105, Commerce Ct. W. _____

Toronto, Ontario M5L 1E3
Covering Dates of Survey _____ May - August, 1979 _____

(linecutting to office)
Total Miles of Line Cut _____ 46 km on claims covered _____

MINING CLAIMS TRAVERSED
List numerically

.....
 see attached list

 (prefix)

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
- Electromagnetic	
- Magnetometer	40
- Radiometric	
- Other	
Geological	
Geochemical	

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim) ^

DATE: May 26, 1980

SIGNATURE:

Author of Report or Agent

Res. Geol. Qualifications

Previous Surveys

File No.	Type	Date	Claim Holder
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[illegible]

TOTAL CLAIMS_____25

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1620 Number of Readings 3160
 Station interval 25 meters Line spacing 100 meters
 Profile scale _____
 Contour interval _____

MAGNETIC

Instrument Scintrex MP-2
 Accuracy - Scale constant + 1 gamma
 Diurnal correction method Base station tied in at 1 hour intervals
 Base Station check-in interval (hours) 1 hour
 Base Station location and value 15 meters west of P.L.108E on south side of Highway 66
(Base Station marked on outcrop)

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 _____

MINING CLAIMS TRAVERSED

L-489413

L-489414

L-489415

L-489423

L-489424

L-489425

L-489426

L-489428

L-489429

L-494996

L-495960

L-495961

L-495962

L-496596

L-496597

L-496644

L-505141

L-505142

L-505143

L-505144

L-505145

L-505146

L-505147

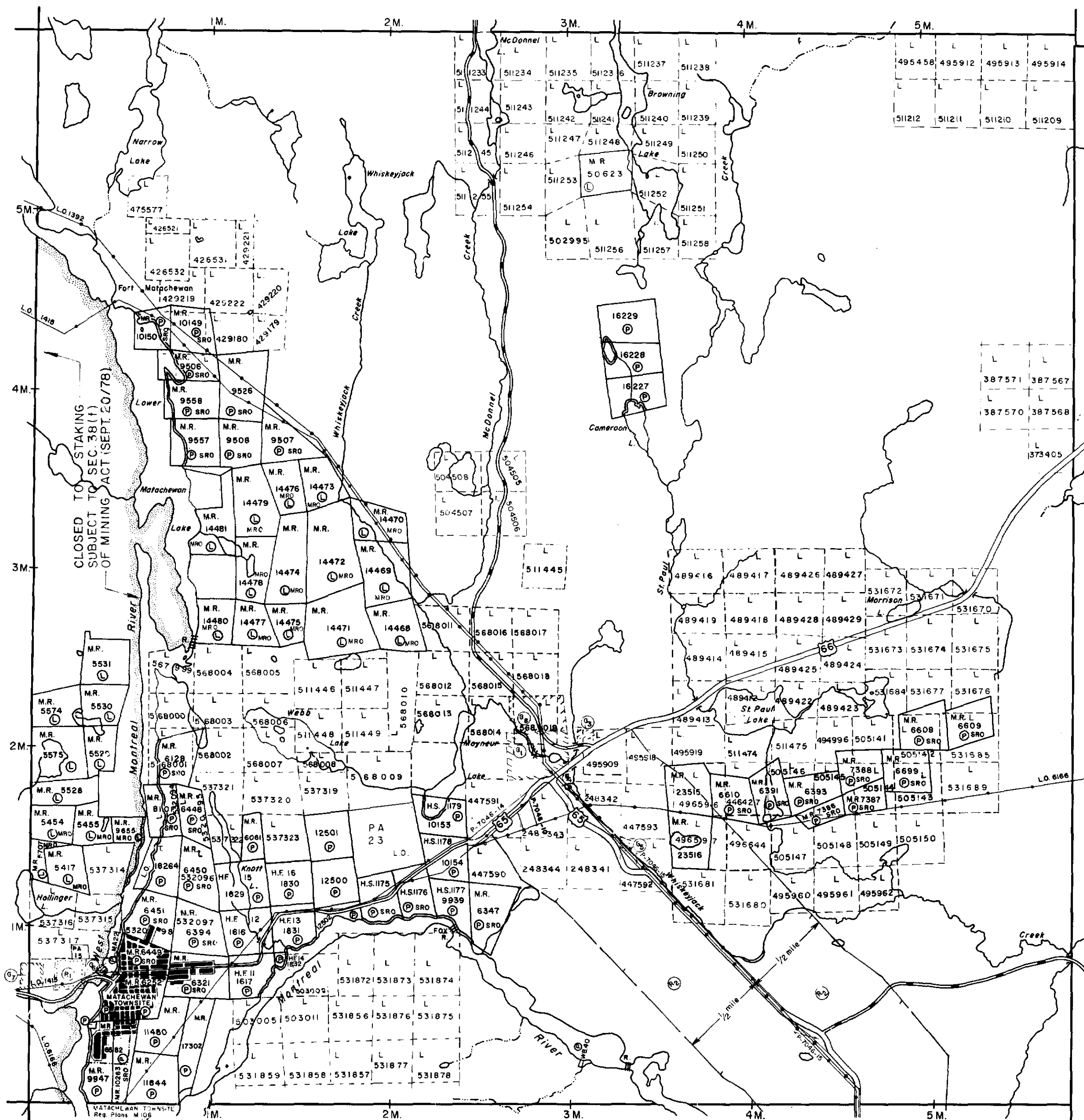
L-505148

L-505149

TOTAL CLAIMS - 25

Alma Twp. - M.202

Powell Twp. - M.241



Kimberley Twp. - M.226

2.3330

THE TOWNSHIP
OF

CAIRO

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(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.

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers

AREAS WITHDRAWN FROM STAKING			
S.R. - SURFACE RIGHTS	M.R. - MINING RIGHTS		
Section	Order No.	Date	Disposition
(1) V.H.F. Tower cabin site	S.R.	15376 v 2	
(2) W. 26/78	May 31, 1978	S.R.	188522

SAND and GRAVEL

- (1) M.T.C. Gravel Pit 206
- (2) M.T.C. Gravel Pit 1313
- (3) Gravel Pit 204, File 127307
- (4) M.T.C. Gravel Pit 3F-4, File 127307
- (5) Gravel Pit 205
- (6) Gravel Pit
- (7) M.T.C. Gravel pit 3F-21

DATE OF ISSUE

JUN 11 1980

SURVEYS AND MAPPING
BRANCH

PLAN NO. **M.210**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



113N -
110N -
109N -
108N -
107N -
106N -
105N -
104N -
103N -
102N -
101N -
100N -
99N -
98N -
97N -
96N -
95N -
94N -
93N -
92N -
91N -
90N -

