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JAN 15 1975

PROJECTS UNIT

GEOPHYSICAL SURVEY

on the

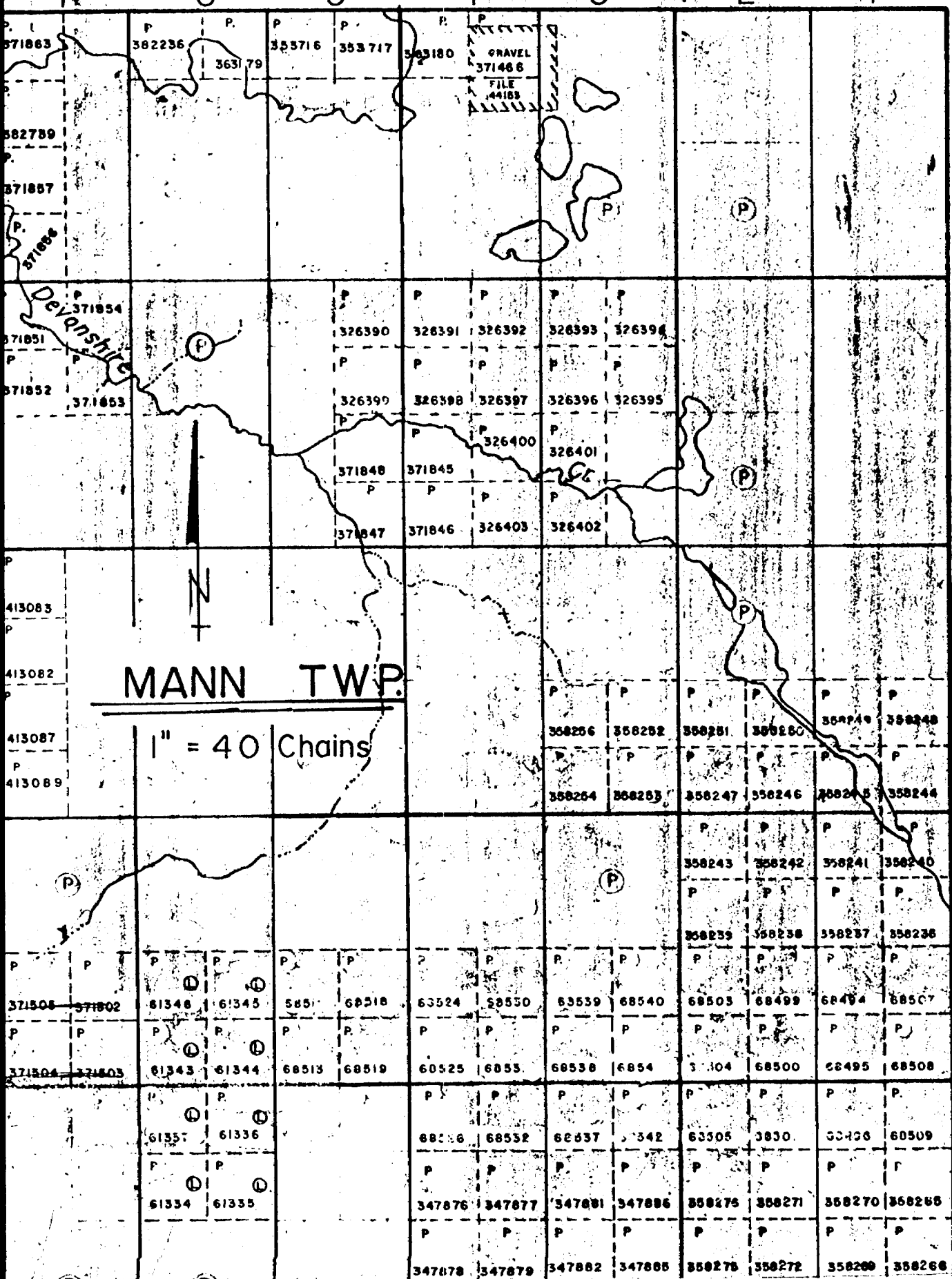
MANN #1 GROUP

Hollinger Mines Limited
Mann Township, Ontario

H.Z. Tittley, P.Eng.

Timmins, Ontario
January 8, 1975

Hanna Twp.



VI

V

IV

III

II

Newmarket Twp.

INTRODUCTION

Between October 1974 and January 1975, 4 mining claims, in Mann Township north of Timmins, Ontario, were gridded and surveyed with a portable magnetometer in order to obtain additional information about the underlying geology.

An intrusive, possibly of ultramafic composition, extending across the north part of the claims was outlined.

PROPERTY, LOCATION and ACCESS

Mann #1 Group consists of 18 unpatented mining claims, situated in the township of Mann, Porcupine Mining Division, held by Hollinger Mines Limited under option from Mr. Ty Randa of Cochrane, Ontario.

The scope of this report is a square block of four claims that occupies the W $\frac{1}{2}$ of the S $\frac{1}{2}$ of lot 4 and the E $\frac{1}{2}$ of the S $\frac{1}{2}$ of lot 5 in concession 5. The claims are numbered P-371845 to P-371848 inclusively.

TOPOGRAPHY

The area of the property is a relatively flat wooded plain typical of the undeveloped parts of the 'clay-belt' (Barlow-Ojibway formation). In the northern part of the claims, Devonshire creek has eroded a channel 400 feet wide to a depth of 20 feet. While alders abound near the creeks, the higher ground is forested with spruce, poplar and fir.

SURVEY METHOD

Linecutting

A base line originating from a diamond drill collar situated east of the northeast corner of the group was extended westerly for 3,300 feet near the north boundary of the claims. From this base line cross lines, 200 feet apart, were extended

normally, south to the creek. A second base line parallel to the first was extended across the group 1,600 feet to the south. Similarly, lines were extended north to the creek and south to the claim boundary. Stations were established at 100 foot intervals along the cross lines.

Magnetics

Variations of the earth's total magnetic field between stations were recorded with a model G-816 proton magnetometer. Control stations were established along the base lines at the even 200 foot intersections by averaging repeat loops that encompassed all these points. A curve of the diurnal was recorded by repeating the control points at convenient time intervals. From the curve, the correction for every reading could be interpolated and applied to the reading. Finally, 59,000 gammas were subtracted from the readings to make for clearer presentation of the data.

RESULTS

The results of the magnetic survey were plotted and contoured as shown on the accompanying plan entitled "Magnetic Survey" at a scale of 1 inch to 200 feet.

Considerable magnetic relief was encountered ranging in intensity from less than 500 to nearly 7,000 gammas. These higher magnetic values are thought to be due to ultramafic intrusives similar to peridotites in composition.

The outlines of the magnetic units superimposed on the magnetic contours are derived from gradient magnetic data that were obtained in conjunction with the survey.

CONCLUSIONS

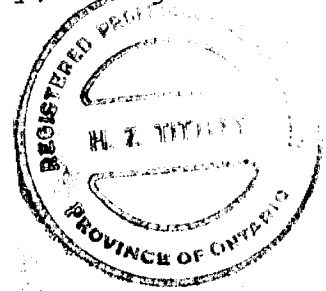
Although all the lines were not read with the magnetometer, the distribution of the magnetic units underlying the property has been successfully demonstrated.

Further magnetic work does not appear warranted
at this time.

Respectfully submitted,

H. Z. Tittley P. Eng.

H. Z. Tittley, P. Eng.



November 15, 1974.

Statement showing distribution of Assessment Days
as a result of a Geophysical Mag. Survey (including
line-cutting) performed on Claims P.371845-48 inclusive,
Mann Township, October 11 - November 13, 1974

<u>Claim Number</u>	<u>Assessment Days</u>
P-371845	40
371846	40
371847	40
371848	40

O. N. Hansen

DEPARTMENT OF LAND AND MINES

STATE OF ALASKA

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 249 Number of Readings 247
Station interval 100 feet
Line spacing 200 feet
Profile scale or Contour intervals 50, 100, 200, 300, 500 and 1000
(specify for each type of survey)

MAGNETIC

Instrument Geometric Model G-816 Proton Magnetometer
Accuracy - Scale constant 1 gamma
Diurnal correction method closed loops
Base station location 16S B.L. at 16+00'W

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
Time domain Frequency domain
Frequency Range
Power
Electrode array
Electrode spacing
Type of electrode

THE TOWNSHIP OF 2.169

MANN

DISTRICT OF
AGHRANE
ROBOUPINE
MINING DIVISION

SCALE - 1 INCH = 40 CHAINS

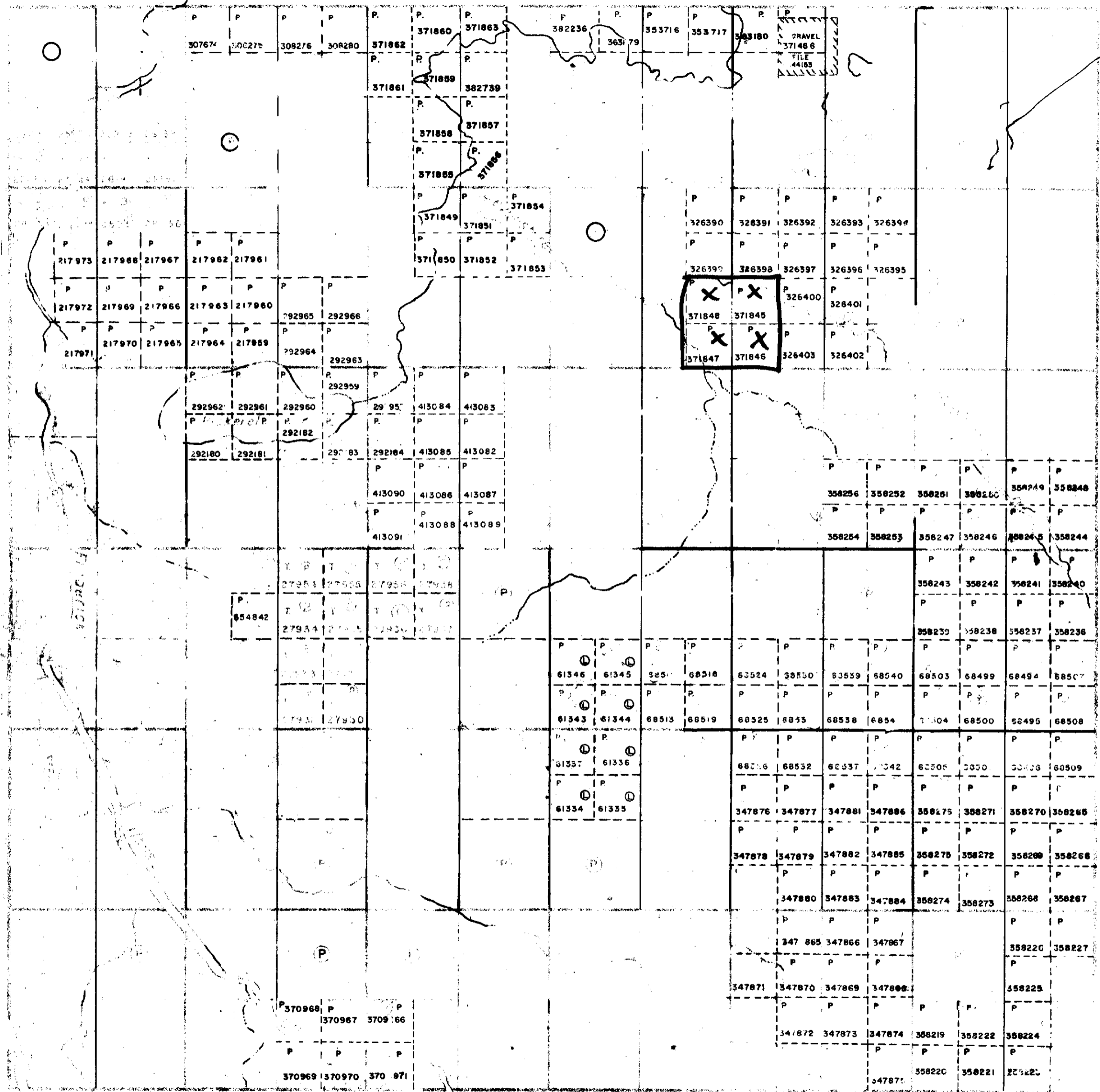
LEGEND

- PAVED ROADS
- GRAVEL
- LEASES
- UNOCCUPIED LAND
- DIVERSITY OF OCCUPATION
- ROADS
- IMPROVED PLOTS
- RAILROAD
- POWER LINES
- MINING CLAIMS
- WATER COURSES

NOTES

400' Surface Rights Encroachment
 100' Surface Rights Encroachment
 50' Surface Rights Encroachment
 25' Surface Rights Encroachment
 12.5' Surface Rights Encroachment

- MINING LANDS -
DATE OF ISSUE
JAN 17 1975
MINISTRY
OF NATURAL RESOURCES



Newmarket Twp

MANN TWP

Little Twp

