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41014SE0038 63.315 LACKNER

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SUMMARY

The magnetometer survey recently completed on the MacDonnell-Labrasseur-Derrrough claim groups in Lackner township outlined an area continuous with the highly magnetic north-south zone containing the magnetite and magnetite-apatite rich deposits on the adjoining Nemegos Uranium Corporation property.

Within this overall magnetically high area, three major anomalous structures were observed.

The writer believes that further investigation, as outlined in this report, of these interesting areas, will prove them to contain hard magnetite and magnetite-apatite deposits similar to those uncovered on the neighboring properties.

A handwritten signature in dark ink, appearing to be the initials 'D.A.' with a stylized flourish.

INTRODUCTION

The claims covered by the survey were visited by the writer in May 1950. At that time it was proposed that a magnetometer survey be conducted with two main objects in view.

Firstly, to outline the extension of the highly magnetic area present on the adjacent property of the Nemegos Uranium Corporation and to pinpoint zones of higher magnetism within this area for further investigation.

Secondly, to prospect for other structures of interest.

The field work for the survey started on November 25, 1951 and was completed in February 18, 1952. The necessary corrections and computations together with the draughting were completed in Sudbury, Ontario following the field work.



PROPERTY

The property covered by the survey was comprised of 35 adjoining unpatented mining claims:

Nos. S-54096 to S-54101  
 S-54496 to S-54497  
 S-53643 to S-53651  
 [S-58583 to S-58591]  
 S-56494 to S-56502

9 claims. A. MacDonnell

LOCATION

The claims are situated in the north western part of Lackner township in the Sudbury Mining Division of the Province of Ontario.

ACCESSIBILITY

The property is reached by road from Nemegos Station on the main line of the Canadian Pacific Railway. Nemegos is 12 miles east of Chapleau and 140 miles north west of Sudbury. An all weather road runs north from Nemegos Station to the property of the Nemegos Uranium Corporation, for a distance of six miles. A winter road continues from this point to the property.

A close approach may be made by aircraft landing on Lackner Lake.

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### GENERAL GEOLOGY

The area is underlain by rocks of Precambrian age consisting mainly of syenite and their altered derivatives. The syenite mass is cut by later basic dikes and where visible shows pronounced shearing.

### TOPOGRAPHY

The map area is exceedingly rugged with the exception of the southerly portion which slopes down to the lake area. The central and northern parts consist of north-south striking ridges and ravines. Travel in this area is difficult and in some cases impossible due to the sheer cliff faces. The two main fault expressions are shown on the accompanying map. The property is at a considerably higher altitude than the surrounding area and the Ontario Forestry Branch has taken advantage of this fact and has erected a fire lookout tower on claim S-54097.

### STRUCTURAL GEOLOGY

North-south faulting is prevalent. Two of these faults are of major size and express themselves in deep abrupt gorges.



### ECONOMIC GEOLOGY


No deposits of commercial importance were discovered during the course of the survey. However previous test pitting revealed stringer magnetite and some chalcopyrite. The syenite adjacent to the magnetite dike registered radioactivity up to four times normal on a ratemeter.

### MAGNETOMETER SURVEY

A Sharpe A-2 Askania type magnetometer was used throughout the survey. The instrument was set for a sensitivity of 173 gammas per scale division.

A main base control point was established and all readings were corrected to the variations of this point.

A north-south base line was cut, and at 400 foot intervals along the base line east-west traverse lines were cut. Stations were read at 100 foot intervals along the traverse lines. Where anomalous readings were observed extra traverse lines spaced midway between the 400 foot traverse lines were cut and stations chained off and read. Stations in the anomalous areas were read at 50 foot intervals in order to present a clearer picture.




MAGNETOMETER SURVEY (Contd)

The two main north-south fault expressions proved impossible to traverse in several places. They were covered by reading stations established at the base of the shear cliffs and along the length and breadth of the gorges.

Twenty-nine and one half miles of the line were cut and chained and 2095 stations were read, corrected and plotted on the accompanying map.

The survey was tied-in to the main base control point of the magnetometer survey performed on the Nemegos Uranium property three miles to the south east. The tie-in was made by carrying forward the main base control point reading from the Nemegos Uranium survey with no change in the sensitivity or latitude adjustment of the instrument. The accuracy of the tie-in is assumed to be 200 gammas or approximately one scale division.



## CONCLUSIONS AND RECOMMENDATIONS

The survey outlined an area of 10,000 plus gammas which is continuous with the main north-south highly magnetic area on the adjoining Nemegos Uranium Corporation property.

Within this area lie three anomalies with values ranging from 14,000 to 18,000 gammas. These three areas are designated on the accompanying map as "A", "B", and "C". It may be assumed that these areas possess magnetite-apatite enrichment or result from magnetite stringers and dikes intruding the syenite mass. The major anomaly, marked "A" on the map is over 2400 feet long and up to 200 feet wide. Anomalies "B" and "C" are smaller but possess the same elongated trend.

The writer believes that these three areas warrant further investigation to determine their real nature and the extent of their economic importance. The investigation should proceed in the following manner:

- 1) The preparation of a detailed geological map of claims S-54101, S-54497, S-53645, S-53643, S-53646, S-53644, the souther part of claim S-58585, and the western part of claim S-58586.



2) The sinking of test pits where the overburden conditions permit. The pits should run east and west across the anomalies.

3) The drilling of one or more bore holes across the larger anomalies to investigate the formation at depth. The position and angle of the bore holes to be, determined by correlating the data obtained by the geological mapping and test pitting together with the information already on hand from the magnetometer survey.



James H. Hatch, P. Eng.  
Geologist.





INFORMATION TO ACCOMPANY REPORT & MAP OF GEOPHYSICAL SURVEY  
ON MACDONNELL-LABRASSEUR-DERRAUGH GROUP - LACKNER TOWNSHIP.

FIELD WORK DATES                      November 25, 1951 - February 18, 1952.  
TYPE OF INSTRUMENT                 Sharpe A-2 Askania type magnetometer  
NO. OF STATIONS                        2095  
MILES OF LINE CUT                    29½

BREAKDOWN OF MAN-DAYS

|  | <u>ACTUAL<br/>MAN-DAYS</u> | <u>ASSESSMENT<br/>FACTOR</u> | <u>ASSESSMENT CREDIT<br/>IN MAN-DAYS</u> |
|--|----------------------------|------------------------------|--|
| Line Cutters<br>(J.E. Turner, Chief Cutter)            | 95                         | 4                            | 380                                      |
| Instrument Operators<br>(T.J. Gaffney, Chief Operator) | 76                         | 4                            | 304                                      |
| Interpretation of Data<br>(J. H. Hatch)                |                            |                              |  |
| Field Work   | 5                          | 4                            | 20                                       |
| Office Work  | 7                          | 4                            | 28                                       |
| Draughting   | 10                         | 4                            | 40                                       |
| <b>TOTAL</b>   | <b>193</b>                 | <b>4</b>                     | <b>772</b>                               |

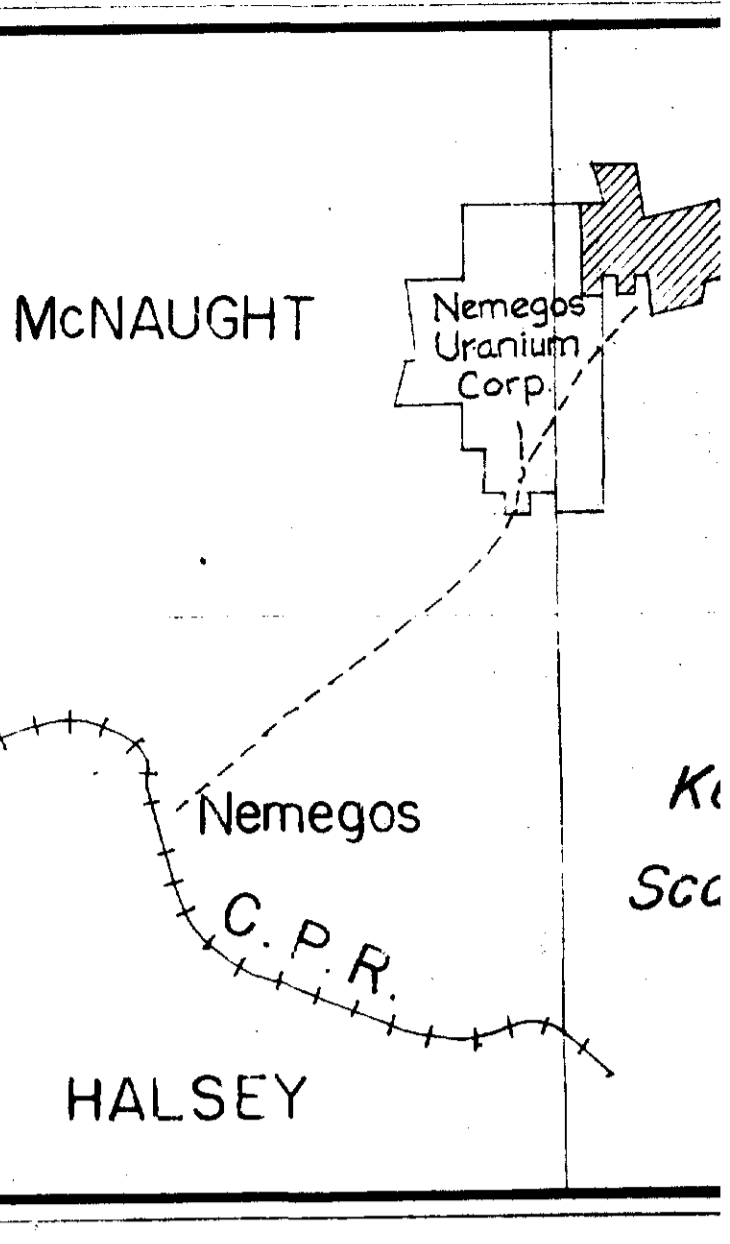
*772 days = 22 days per claim  
35 claims*

*A. MacDonnell portion  
9 claims · 22 days per claim  
Total 198 days.*

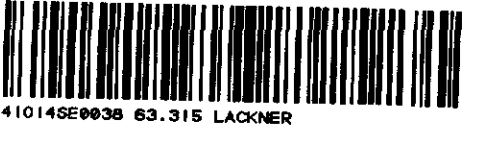




Portage Lake

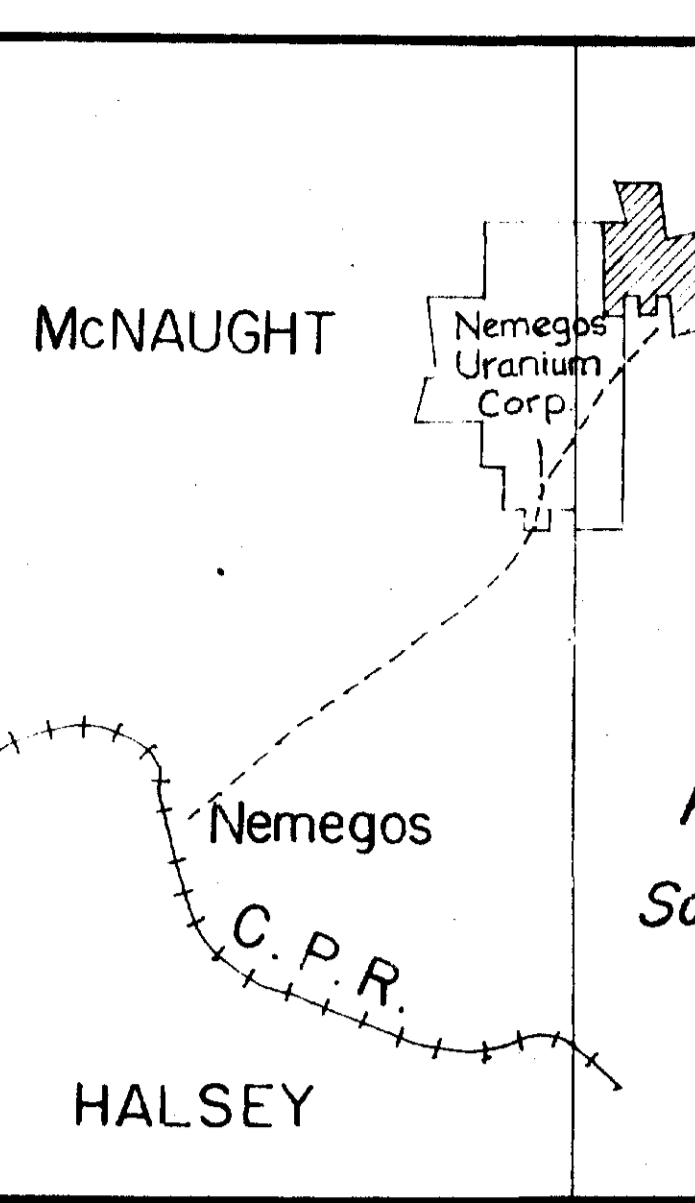


b



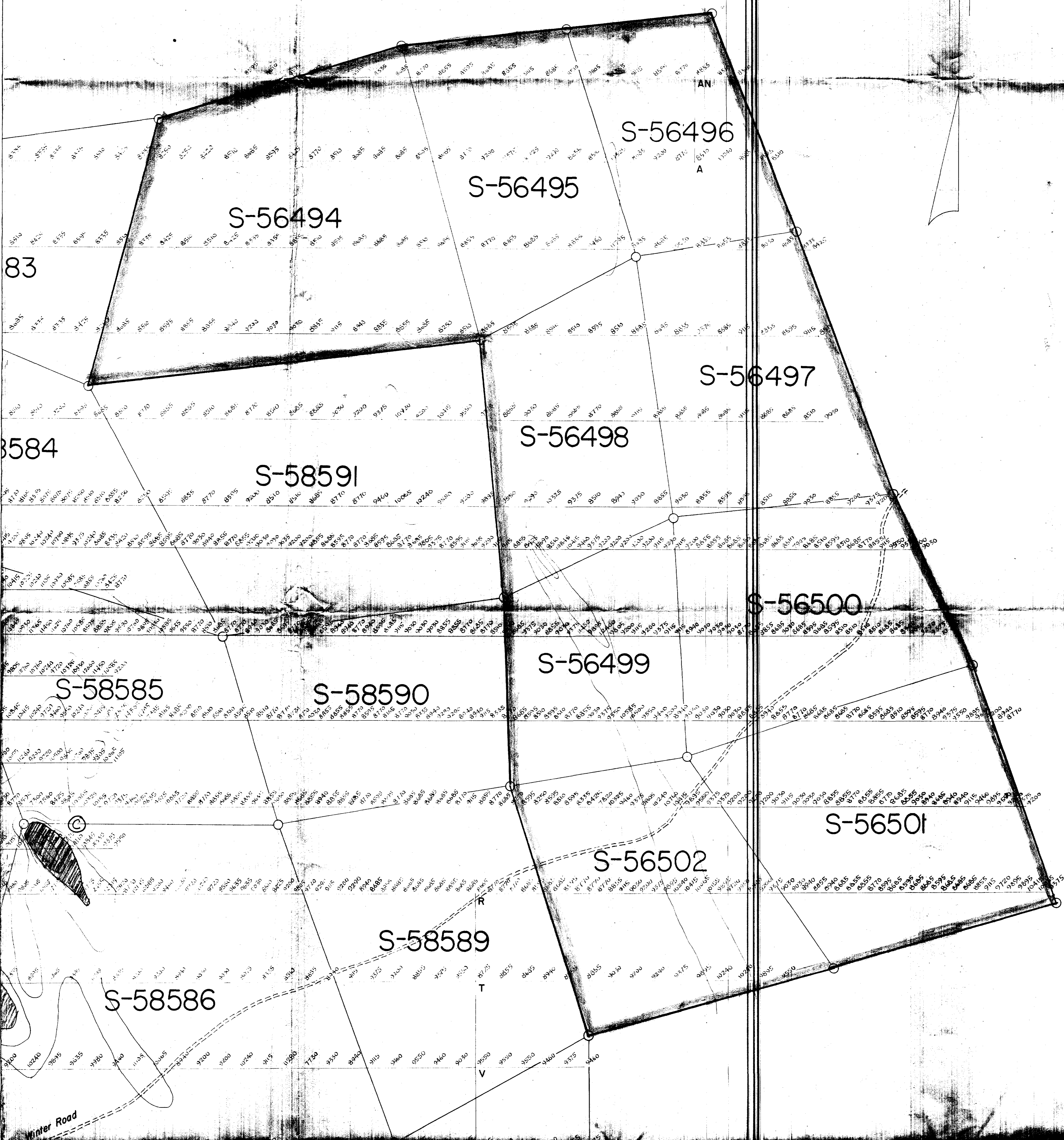
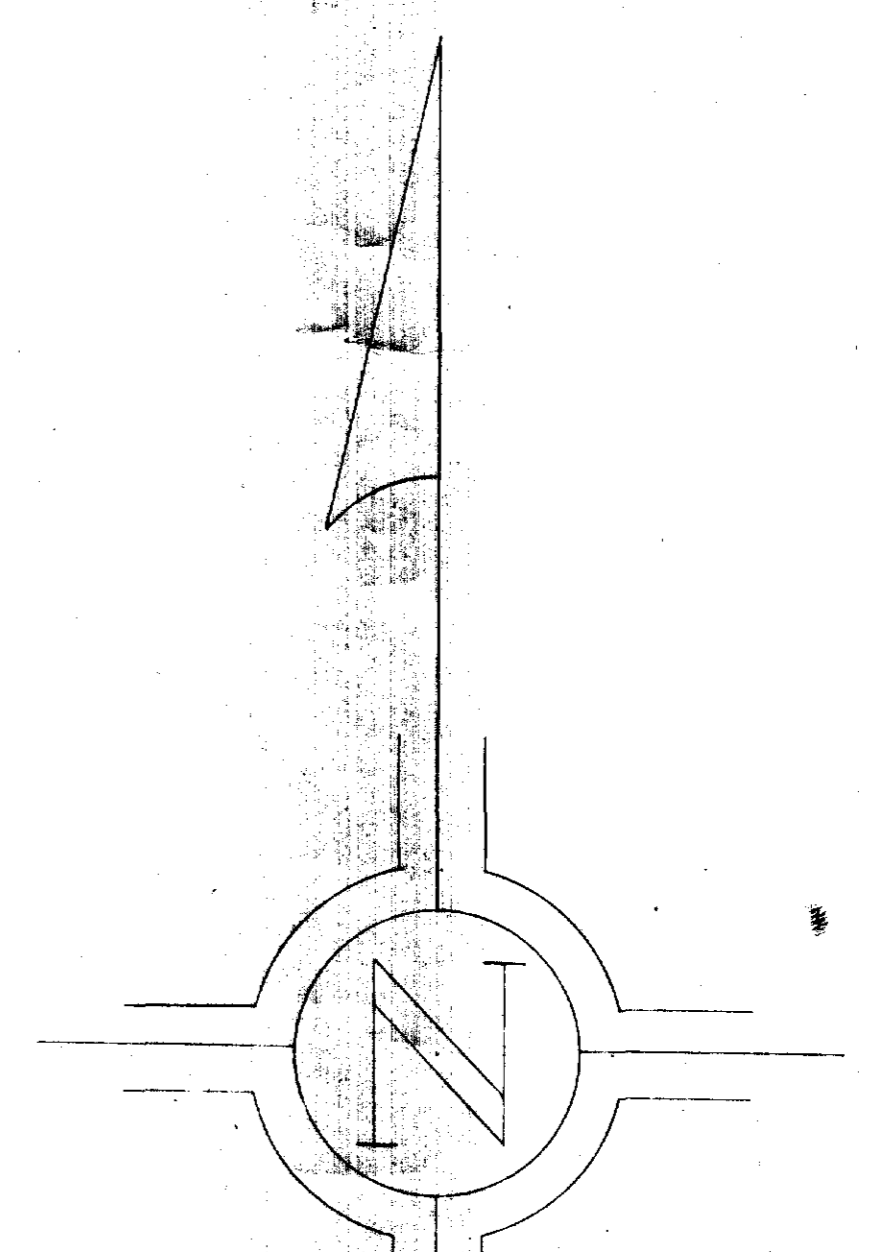
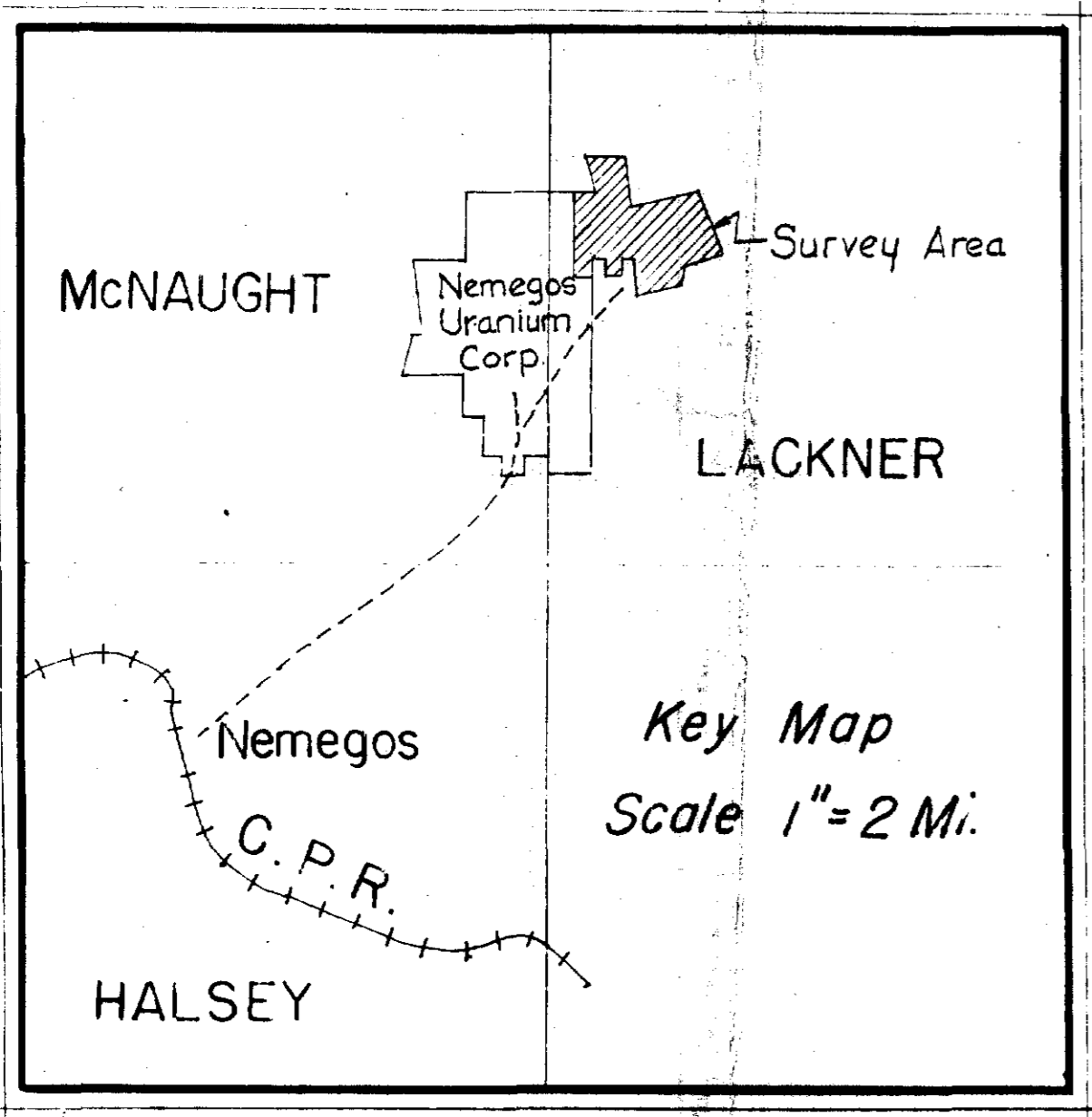


Portage Lake



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PLAN OF MAGNETOMETER SURVEY  
MacDonnell - Labrasseur-Derrault Groups  
(DM Scott Option)

Township of Lackner - District of Sudbury

Scale 1" = 200'

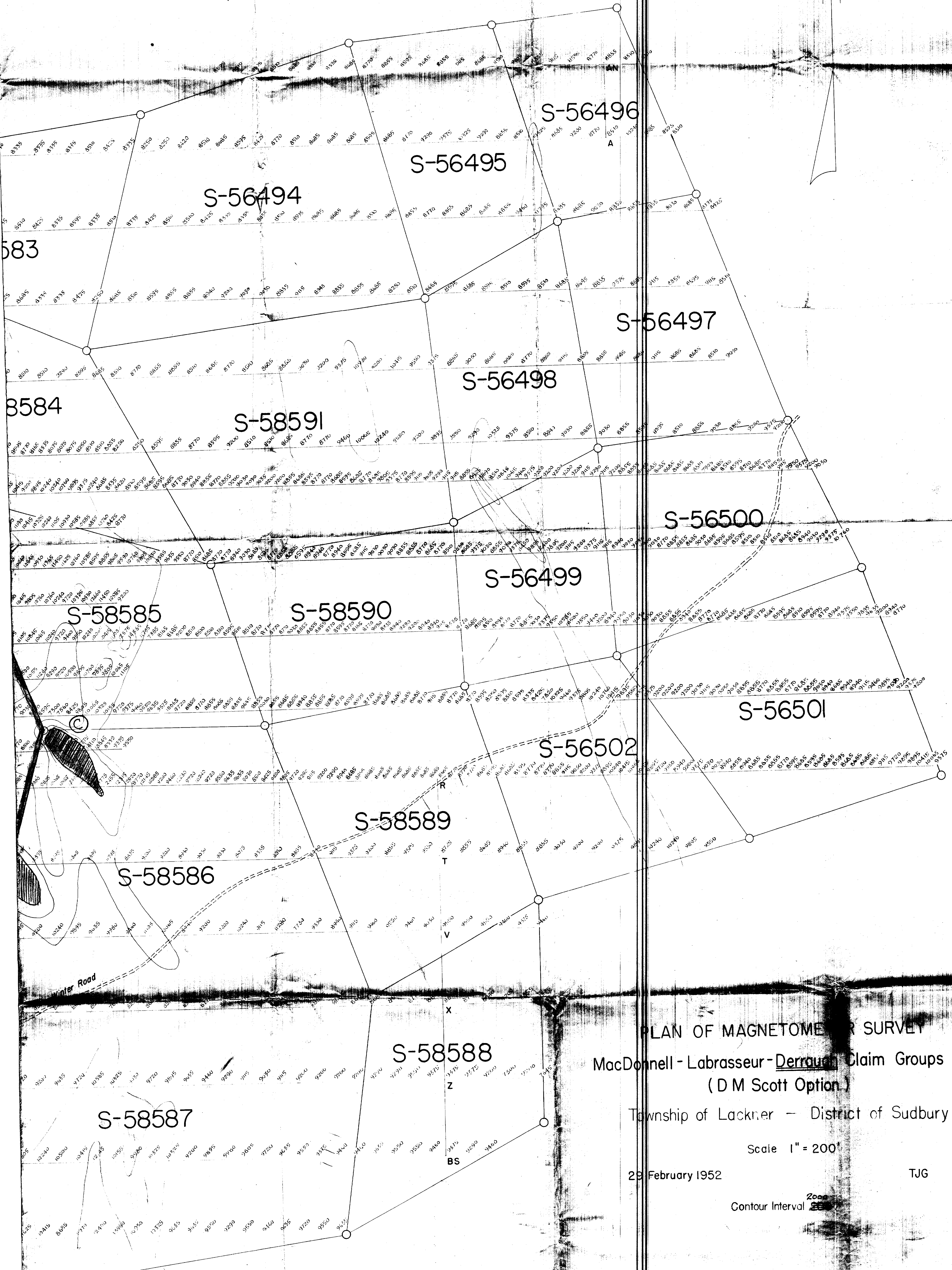
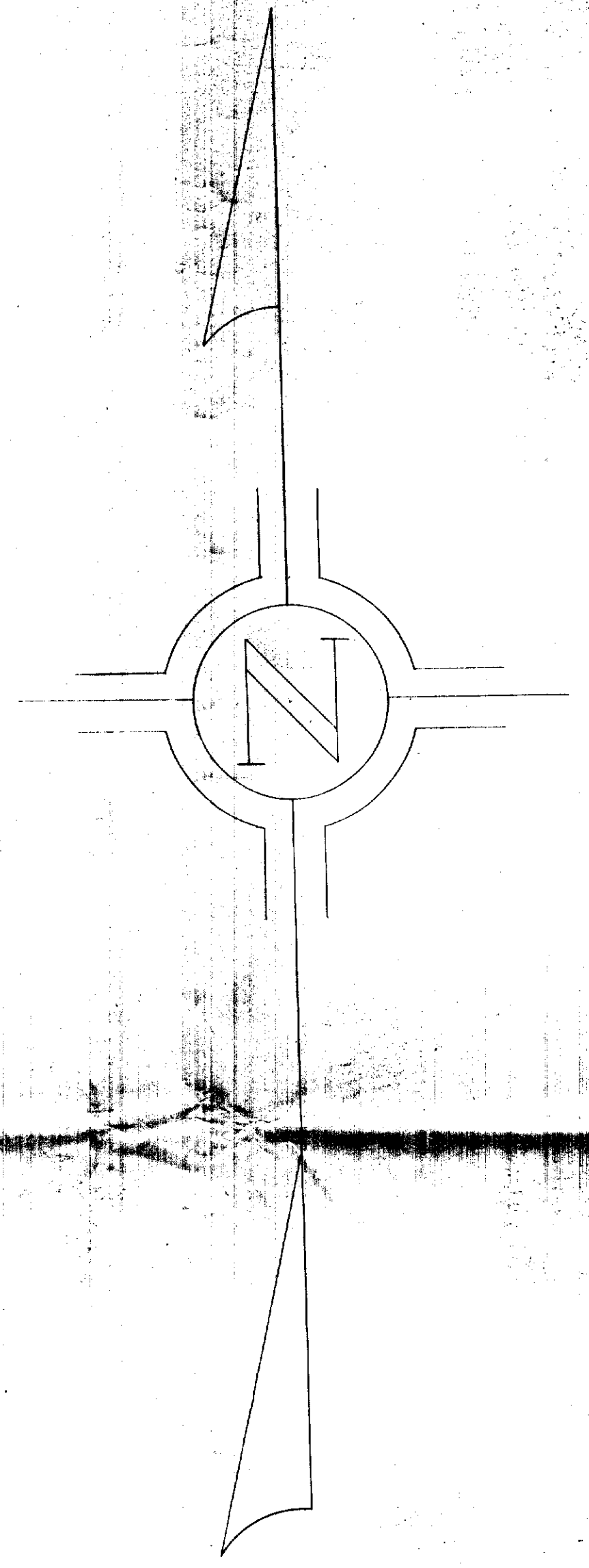
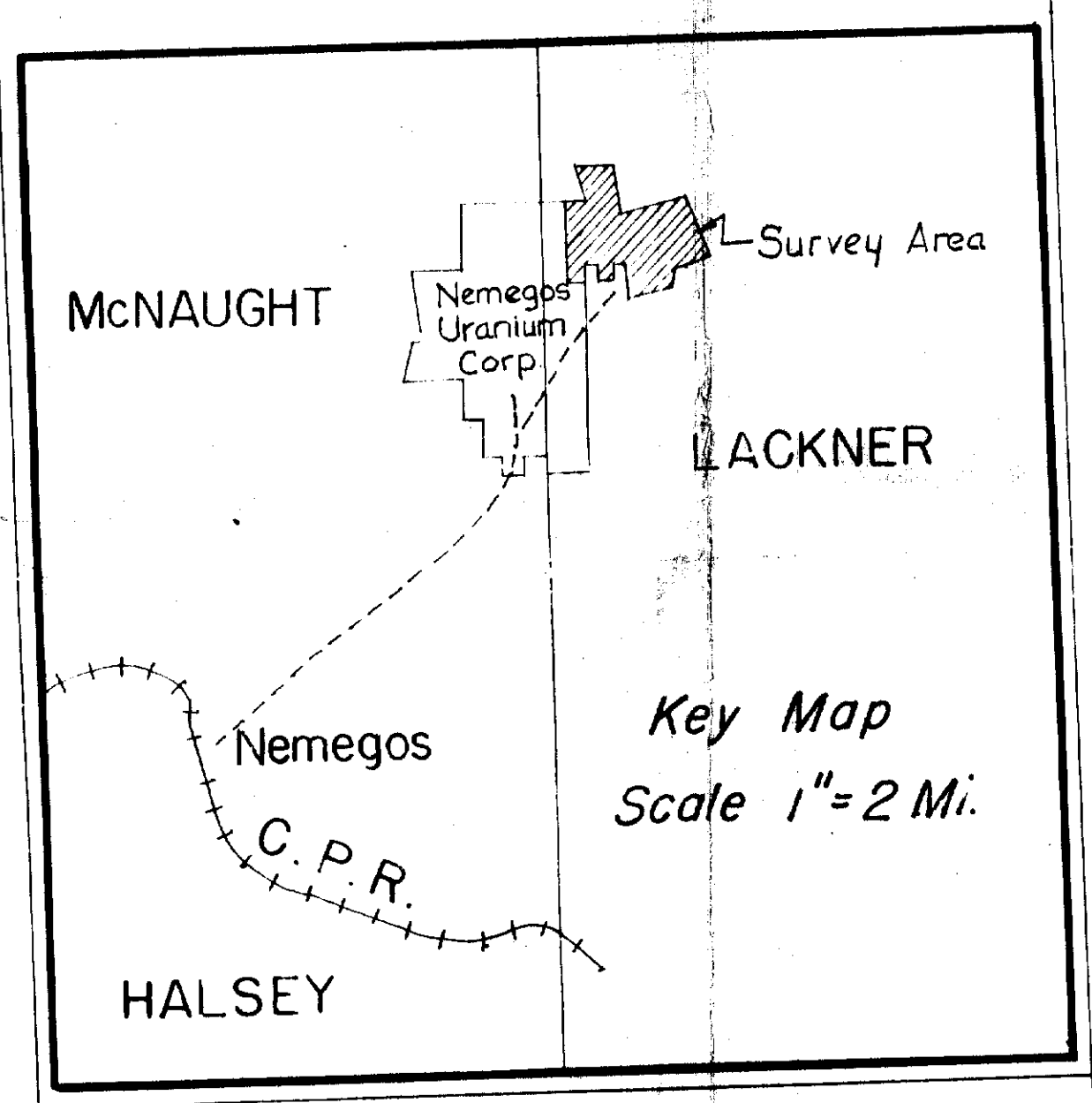
29 February 1952

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Contour Interval 200'







PLAN OF MAGNETOMETER SURVEY  
MacDonnell-Labrasseur-Derrault Claim Groups  
(DM Scott Option)  
Township of Lackner - District of Sudbury

Scale 1" = 200'

29 February 1952

TJG

Contour Interval 200'

