



42801NW0024 63.1526 FOLEYET

010

KEEVIL MINING GROUP LTD. Gp 15

PROJECT IVANHOE

CLAIMS S123374 -75 -76 -77 -78 -79,

FOLEYET & IVANHOE TOWNSHIPS

REPORT ON THE
GEOLOGY AND GEOPHYSICAL SURVEYS

May 6, 1965

H. D. McLeod P. Eng.

H. D. McLeod



INTRODUCTION

Project Ivanhoe, Group No. 15 consists of 6 contiguous claims -Nos. S123374 -75 -76 -77 -78 -79 - located on the boundary between Foleyet and Ivanhoe Townships, Sudbury Mining Division, a distance of three miles approximately south of Foleyet, Ontario. The claims were staked and recorded in May, 1964, the present recorded owner being R. Michael Butler, Suite 1000, 11 Adelaide St. West, Toronto, Ontario.

The work outlined in this report was done by Geophysical Engineering & Surveys Ltd. personnel under the direct supervision of the writer. The magnetometer survey was done by R. Colquhoun, Gold Center, Ontario, the electromagnetic survey was started by R. Colquhoun but completed by A. McClemens, 85 Algonquin Blvd. E., Timmins, Ontario. The geological mapping was done by A. Matulich, graduate geologist. The field work was completed during the period September 20, 1964 to January 19, 1965.

The picket line grid and area covered by the surveys and geological mapping encompass a portion of surrounding claims. Allowance has been made for this part of the work and no credits claimed on this report.

Access to the claims is difficult. A two mile trail leads east to Muskego Lake which can be used by float aircraft. The Ivanhoe River nearby provides difficult access by canoe due to a number of rapids.

SURVEY METHODS

Line Cutting - A grid totalling approximately five miles of line was cut from a base line oriented N 60° W. Picket line spacing is 400 feet.

Magnetometer Survey - The magnetometer survey was done with a Sharpes fluxgate model M. F. 1 magnetometer having a constant of 20 gammas per scale division. Readings were taken at 100-foot intervals along all of the picket lines with fill-in readings at 50-foot intervals in areas of strong magnetic relief. Diurnal readings at one to 1 1/2 hour intervals were taken on permanent base stations. The results were corrected, plotted and contoured as shown on the accompanying map.

Approximately 260 stations were read.

Electromagnetic Survey - The vertical loop electromagnetic survey was done with a Sharpes S. E. 200 unit fitted with a special amplifier and batteries in order to increase the range to 400 feet. A reconnaissance survey of all the lines was done first using the parallel line method. In this method readings are taken at 100-foot intervals along all picket lines with the transmitter and receiver set up at the same footage on adjacent lines. The transmitter-receiver spacing thus is 400 feet.

All indicated conductors were then checked and accurately located by the fixed transmitter method. In this method the transmitter is set up on a cross over and readings are taken on the adjacent line or lines at 50-foot intervals. In this way the conductor is traced from line to line and located within 25 feet on every line.

Approximately 250 stations were read during the reconnaissance survey and 160 during the detail survey.

The results are shown on the accompanying map.

Geology - The entire grid area was carefully scouted for outcrops and any located were accurately tied in to the nearest picket line. At the same time all claim posts and topography were located.

RESULTS OF SURVEYS

Magnetometer - A number of relatively small but sharp high magnetic anomalies are present on the claims. Most of these form a narrow zone trending N 25°W to N 30°W across the northeast part of the claims. A similar anomaly in the northwest corner of the group may represent the faulted extension of the same zone. A sharp folded anomaly in the center of the group strikes almost at right angles to the other trend.

Magnetic relief ranges from 1500 gammas below background to 2050 gammas above background.

Electromagnetic Survey - Two conductors were located and outlined. One strikes N 25°W to N 30°W for a distance of 3000 feet across the northeastern portion of the area coinciding exactly with the magnetic anomalies in that area. The second lies in the south central part of the group to the southwest of the conductor above. In part this conductor lies parallel to the other however at the northwest end, is tightly folded before assuming an east-west strike. At this point it disappears. The folded portion coincides exactly with a strong magnetic anomaly.

Geology - One outcrop only was located, this lying in the northeast corner of claim S123374. This is sheared basic andesite, the shearing striking east-west and dipping 80° to the north.

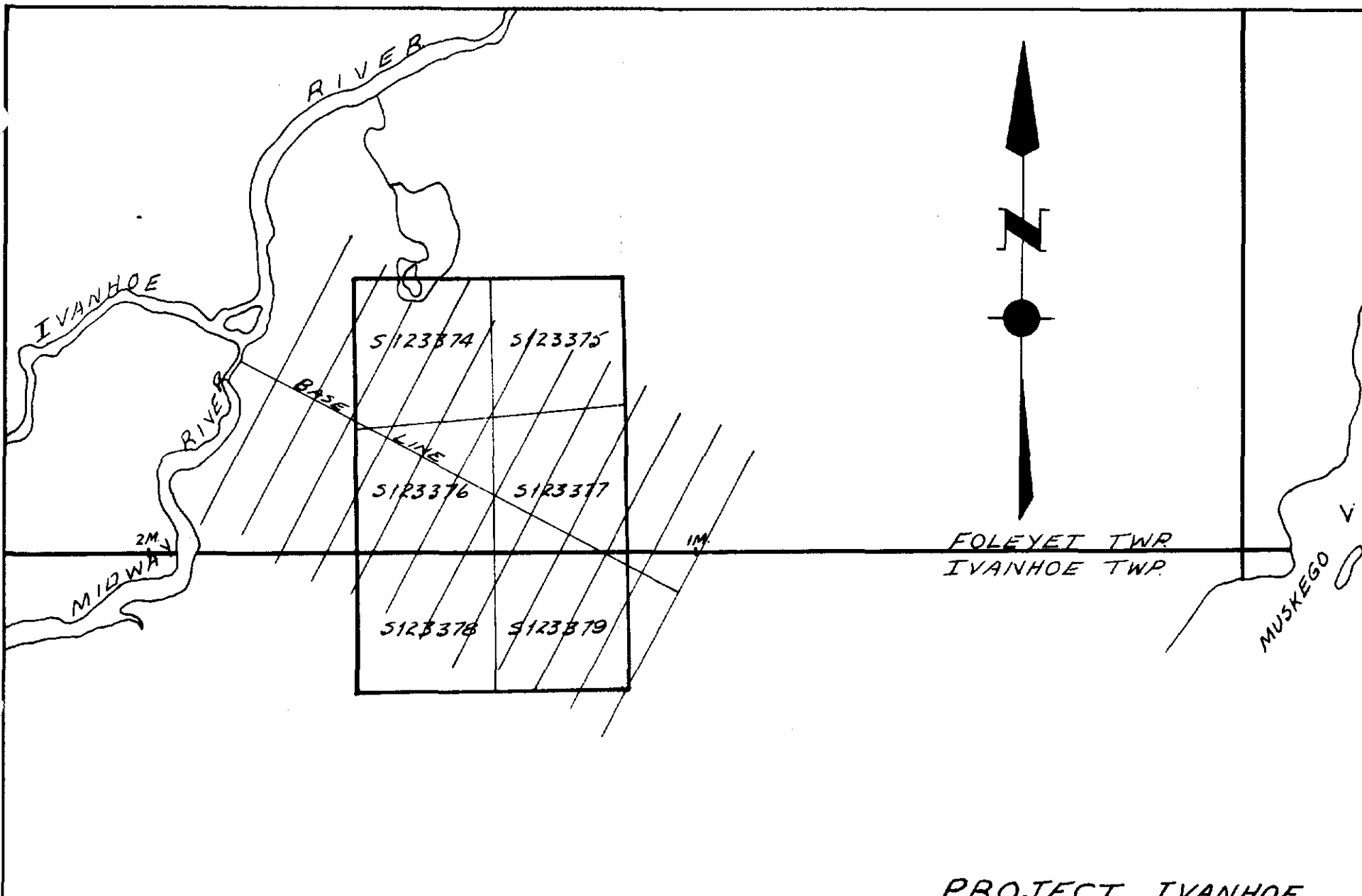
No other evidence of possible rock formation is present on or near the claims. The magnetic anomalies and conductors indicate a N 30° W trend to the formations however, one series of anomalies indicates that dragfolding is present. The conductors and magnetic anomalies probably represent sulphide or sulphide-graphite horizons.

CONCLUSIONS AND RECOMMENDATIONS

Magnetometer and electromagnetic surveys have outlined

conductors with magnetic correlation. Geological mapping failed to explain the geophysical results.

A drilling program consisting of a minimum of one hole into each of the main conductors is recommended. Further drilling would depend on the results of the initial program.



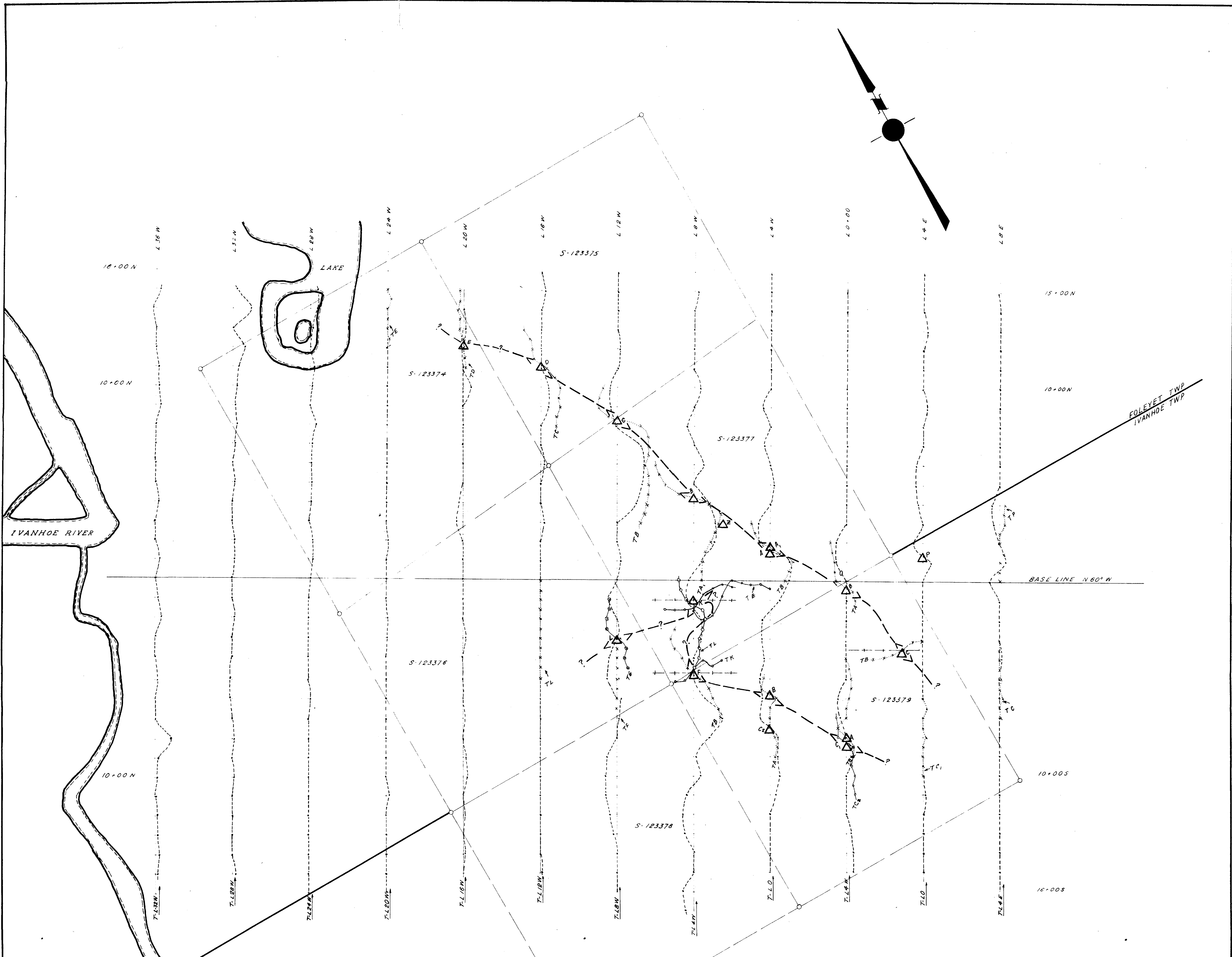
PROJECT IVANHOE
GROUP 15.



42B01NW0024 63.1526 FOLEYET

200

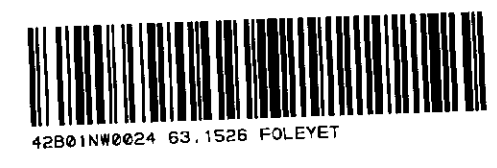
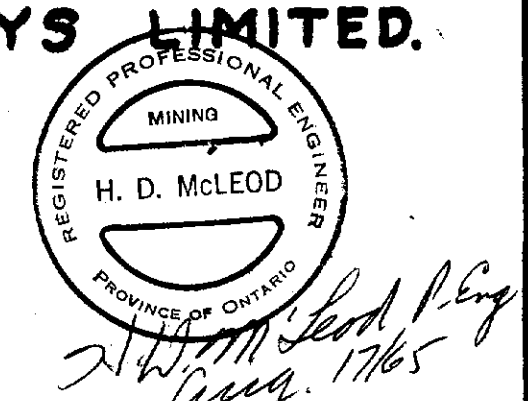
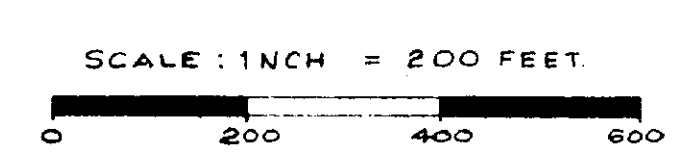
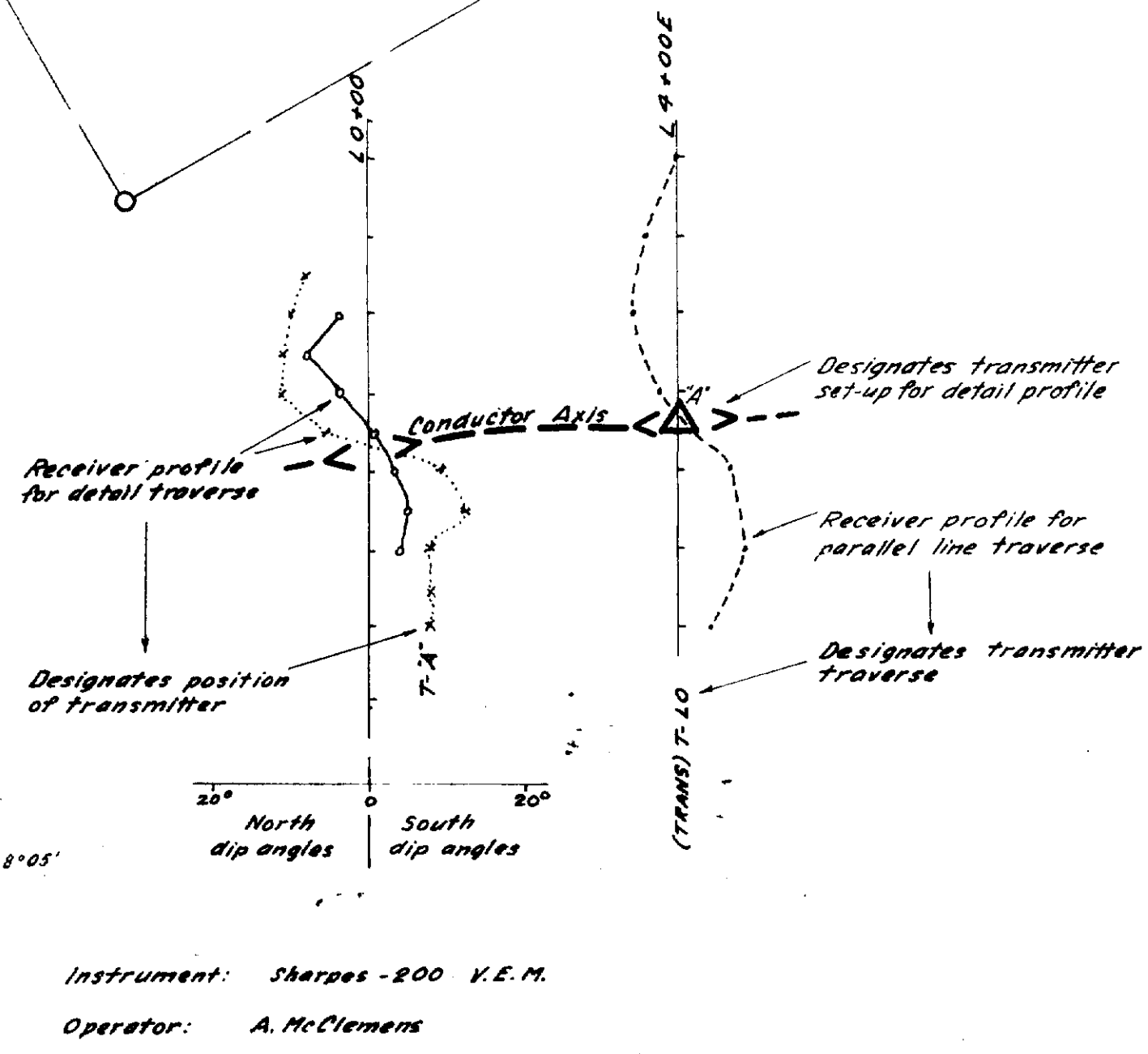
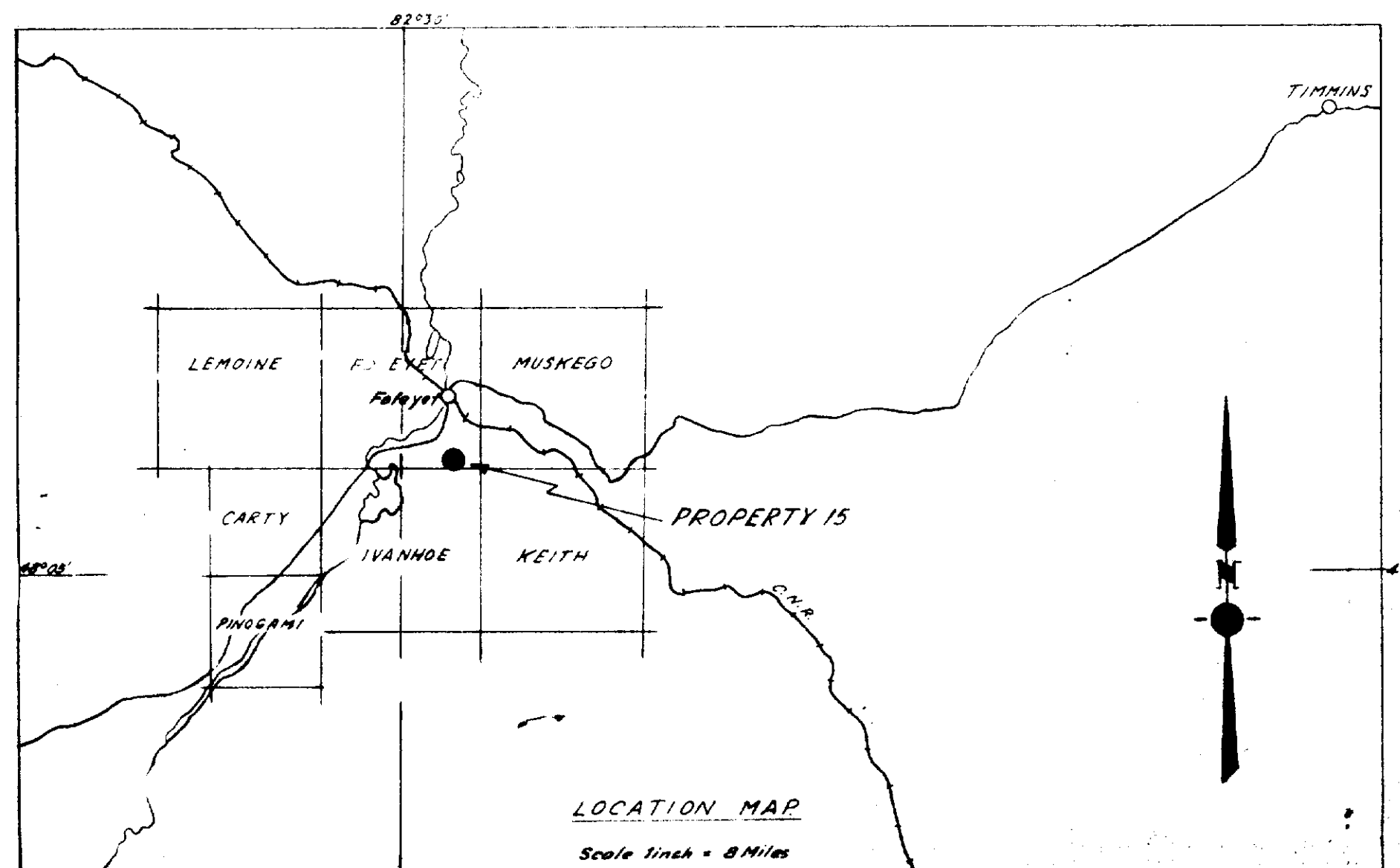
SCALE: 1 = 1/4 MILES. MAY, 1965.

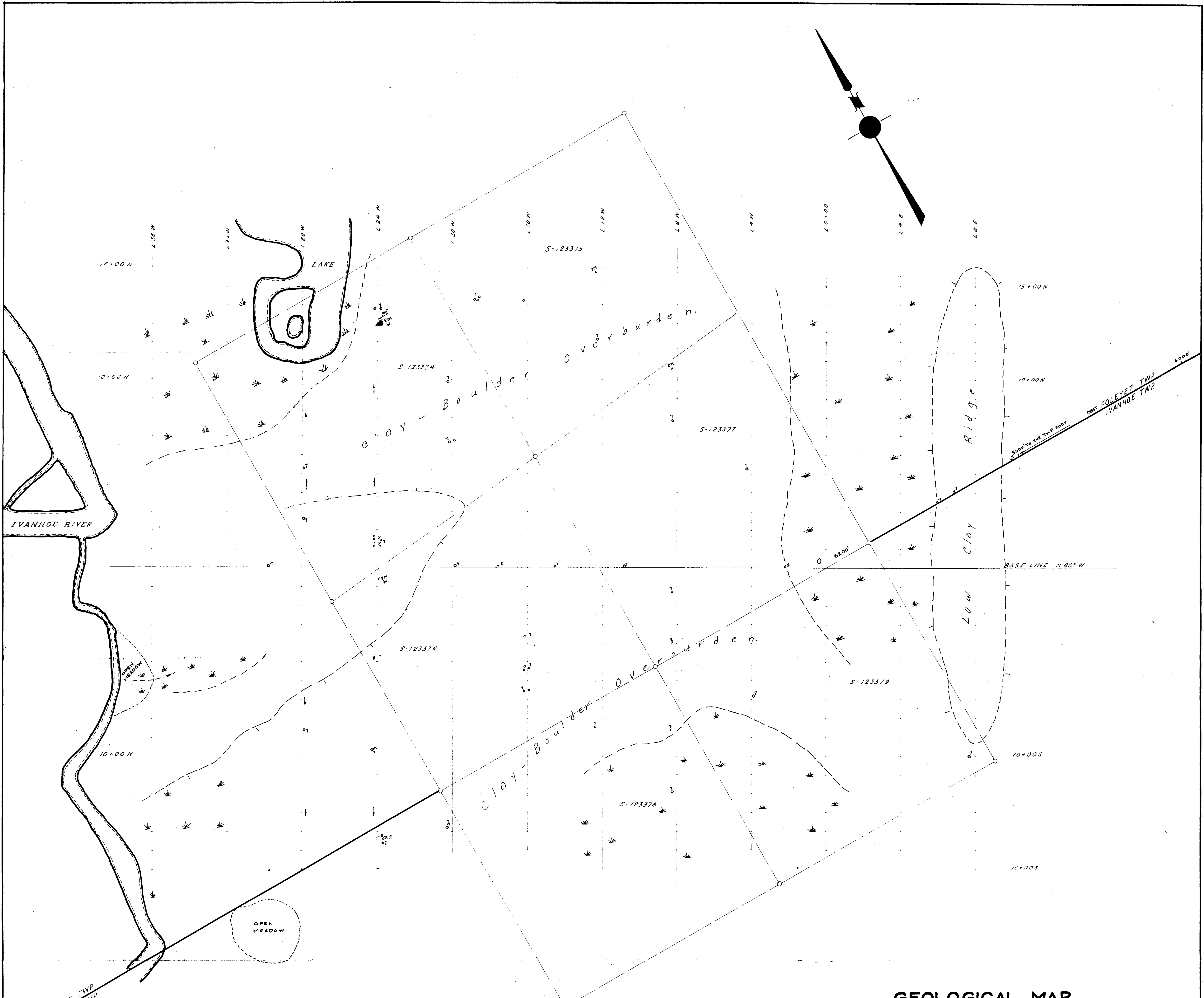


**VERTICAL LOOP
E.M. SURVEY.**

OF
PROPERTY 15
TOWNSHIP OF FOLEYET
PROVINCE OF ONTARIO.
FOR

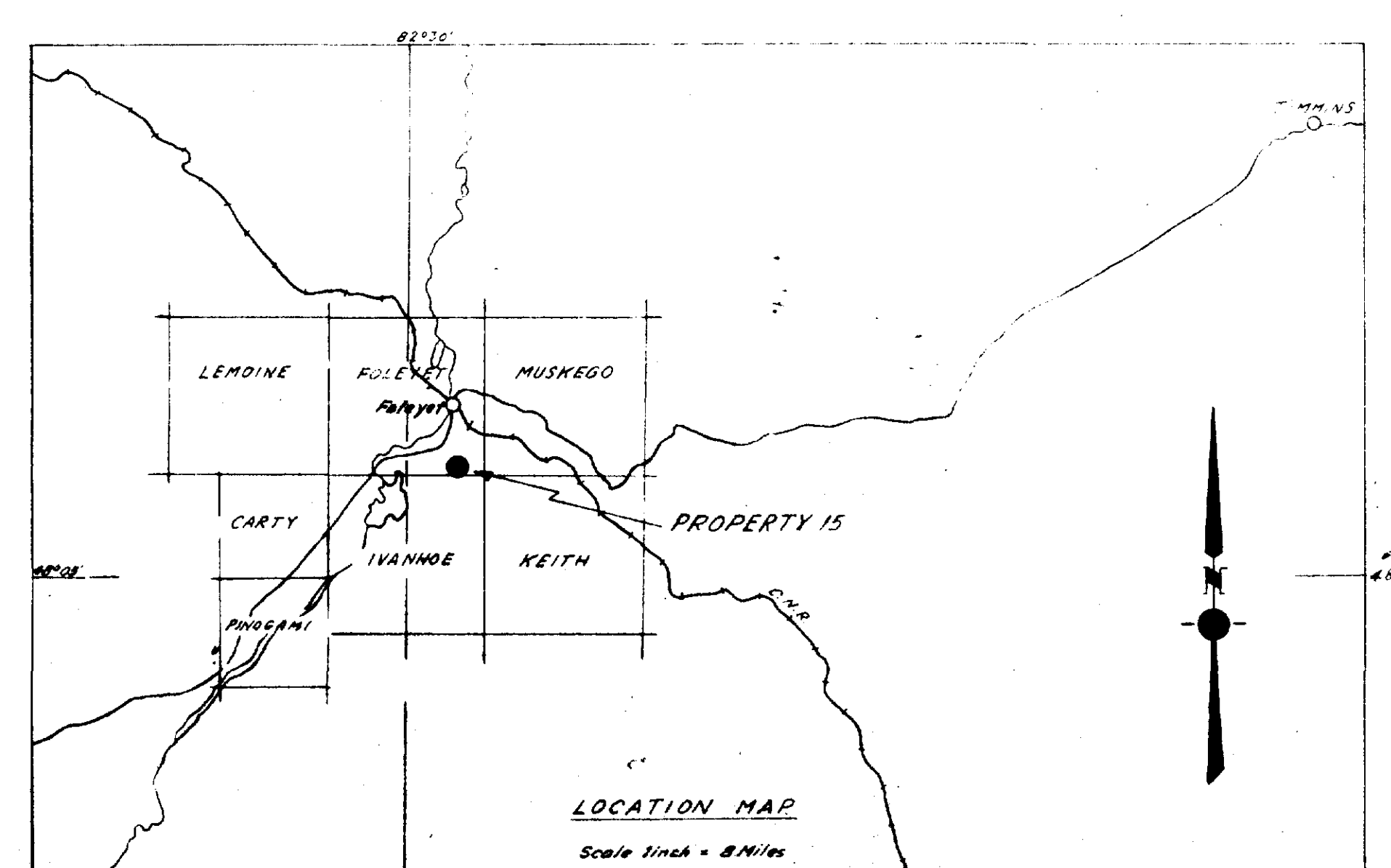
KEEVIL MINING GROUP LTD.
GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.





GEOLOGICAL MAP
 OF
PROPERTY 15
 TOWNSHIP OF FOLEYET
 PROVINCE OF ONTARIO.

FOR
KEEVIL MINING GROUP LTD.
 GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

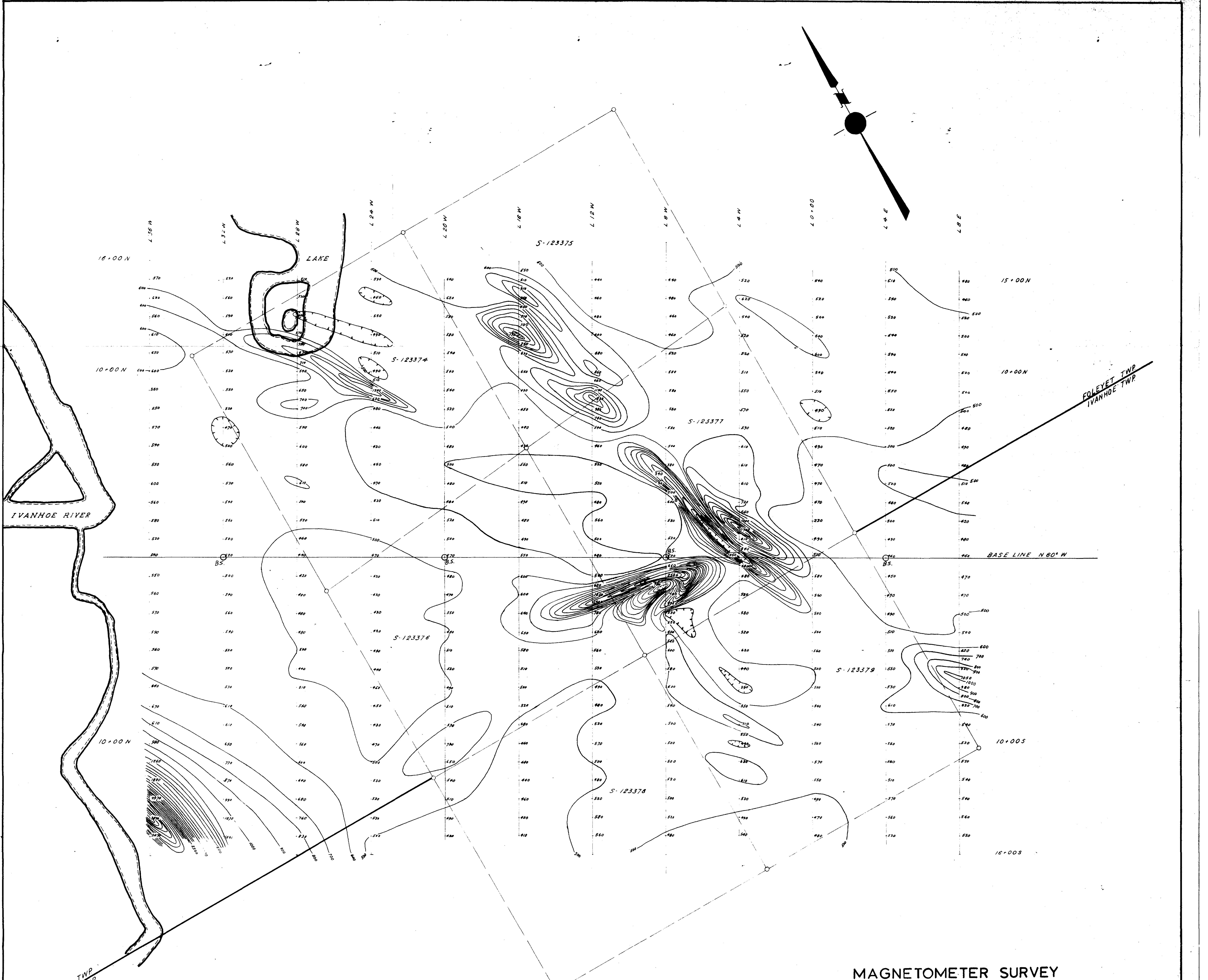


- Andesite
- Boulders 1- Granite, 2- Andesite
- Outline of Outcrop
- Strike & Dip of Shearing
- Swamp

SCALE: 1 INCH = 200 FEET
 0 200 400 600



H. D. McLeod, P. Eng.
 1965



MAGNETOMETER SURVEY

OF
PROPERTY 15

TOWNSHIP OF FOLEYET
PROVINCE OF ONTARIO.

FOR

KEEVIL MINING GROUP LTD.

GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.

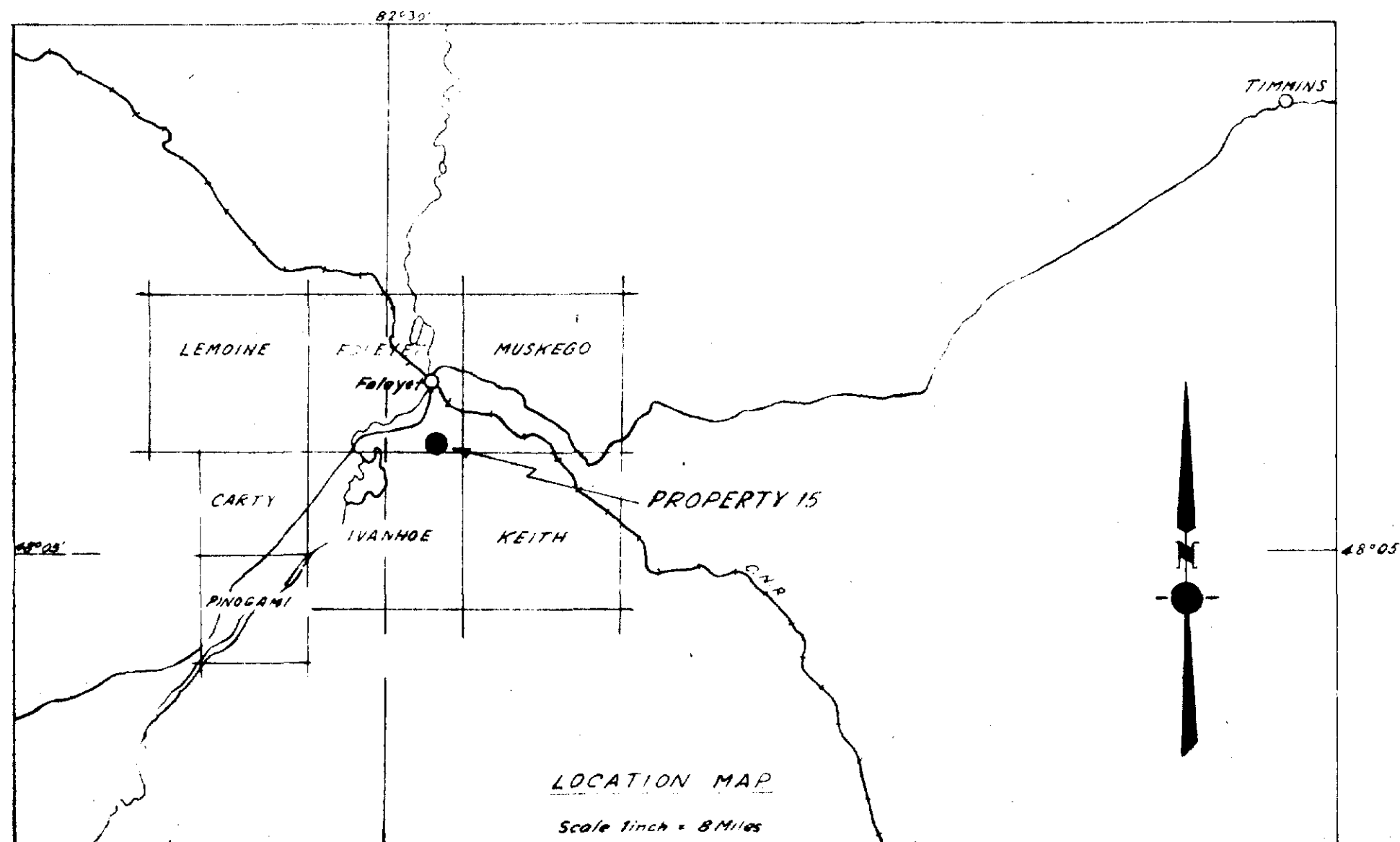
LEGEND.

Note: Values shown thus $\begin{matrix} 730 \\ | \\ 785 \end{matrix}$ are in gammas
Contours shown thus $\sim 700 \sim$ at 100 gamma intervals

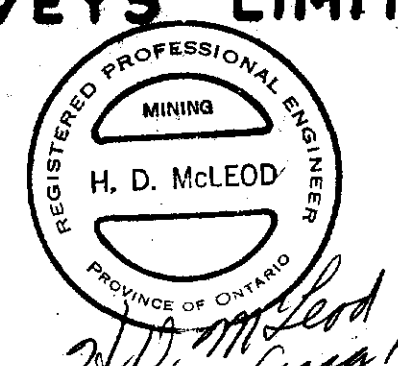
Instrument: Sharpes Fluxgate Model M.F.1 Magnetometer

Operator: R. Colquhoun

Obs. - Base Station.



SCALE: 1 INCH = 200 FEET.



H. D. McLEOD
21/11/65
17/65

