

File 63-1793



42801NW0023 83.1793 FOLEYET

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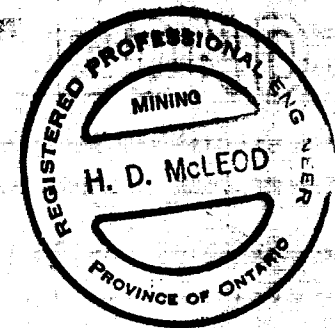
KEEVIL MINING GROUP LTD.
CLAIMS S123365-78, FOLEYET TOWNSHIP

REPORT ON THE
GEOPHYSICAL SURVEYS

November 16, 1965

H. D. McLeod P. Eng.

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SUMMARY, CONCLUSIONS & RECOMMENDATIONS

● Project Ivanhoe group no. 16, staked to protect an A.E.M. conductor located by a survey flown in April 1964, was explored by ground geophysical surveys and diamond drilling.

One strong and one moderate horizontal loop electromagnetic conductors were outlined, the latter having strong negative magnetic correlation. Both conductors were confirmed by the vertical loop electromagnetic survey.

Diamond drilling proved the strong conductor to be caused by a weakly graphitic slate horizon and the weak conductor and associated magnetic anomaly to be a pyrrhotite zone in the sediments. Wide zones of pyrite and pyrrhotite mineralization with minor amounts of sphalerite and chalcopyrite were intersected but returned very low values only.

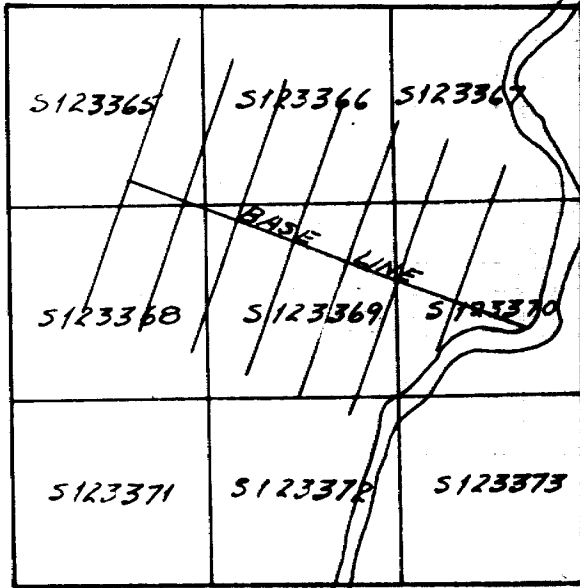
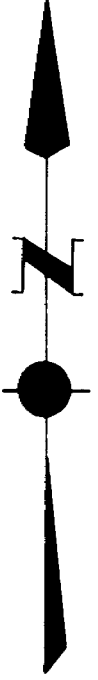
The conductors have been adequately explained and no other anomalies are indicated.

No further work on the claims is recommended.

ACCOMPANYING MAPS

- | | | | |
|-----|-----------|---|-------------------------------|
| (1) | Dwg. 2898 | - | "Magnetometer Survey" |
| (2) | Dwg. 2899 | - | "Horizontal Loop E.M. Survey" |
| (3) | Dwg. 2900 | - | "Vertical Loop E.M. Survey" |

63.1792



RIVER

IVANHOE

PROJECT IVANHOE
GROUP 16.

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

2M.

FOLEYET TOWNSHIP 1M.
IVANHOE TOWNSHIP

INTRODUCTION

Keevil Mining Group Foleyet group no. 16 consists of nine contiguous claims, numbered Sl23365 to Sl23373 inclusive, in Foleyet Township. The claims were staked and recorded in May 1964 to protect a conductor located by an airborne survey flown in April 1964. The claims presently are registered in the name of R. Michael Butler, Suite 1000, 11 Adelaide St.W., Toronto, Ontario.

Exploration work, consisting of line cutting, geophysical surveys and diamond drilling, was carried out during the period September 9, 1964 to May 4, 1965.

All work was done by Geophysical Enginerring and Surveys Ltd. personnel under the direct supervision of the writer. The magnetometer and vertical loop electromagnetic surveys were done by A. McClemens, 83 Algonquin Blvd.E., Timmins, Ontario, the horizontal loop electromagnetic survey by J. Parres, 58 Crawford St., South Porcupine, Ontario.

LOCATION AND ACCESS

The claims are located in the south-east corner of Foleyet Township, Sudbury Mining Division, a distance of 2 miles approximately to the south of Foleyet, Ontario. Approximate co-ordinates are $48^{\circ} 13'$ north $82^{\circ} 26'$ west.

Access to the claims is by bush road and trails south-east from highway 101.

DESCRIPTION OF SURVEYS

A grid totalling three miles of line was cut from a base line oriented $S 70^{\circ} E$. Lines were cut north and south at 400-foot intervals.

A magnetometer survey was done with a Sharpe Fluxgate Model M.F.1 magnetometer having a constant of 20 gammas per scale division. Readings were taken at 100-foot intervals along all the picket lines with fill-in readings at 50-foot intervals in areas of high magnetic relief. Diurnal

readings at 1 to 1½ hour intervals were taken on permanent base stations. The readings were corrected, plotted and contoured as shown on the accompanying map.

A horizontal loop electromagnetic survey was done with a Ronka 300-foot cable H.E.M. unit. Readings were taken at 100-foot intervals along all the lines with fill-in readings at 50-foot intervals in anomalous areas. The contoured results are shown on the accompanying map.

A vertical loop electromagnetic survey was done with a Sharpe S.E. 200 V.E.M. unit fitted with an amplifier and special batteries to increase the range to 500 feet. A detail survey of the H.E.M. anomalies only was done. In this method the transmitter is set up on the conductor on one line and readings taken at 50-foot intervals along a section of the adjacent line or lines. In this way the conductor is traced from line to line and accurately located within 50 feet on every line. The results, plotted as profiles, are shown on the accompanying map.

DIAMOND DRILLING

Two holes were drilled as follows to test the conductors:

<u>NO.</u>	<u>CO-ORDINATES</u>	<u>BEARING</u>	<u>DIP</u>	<u>CORE SIZE</u>	<u>LENGTH</u>
64-11	2700N , 16700E	S 20° W	45°	AXT-1 1/8"	600.0 ft.
64-12	8700N , 12700E	S 20° W	45°	AXT-1 1/8"	<u>448.0</u> ft.
				Total	1048.0 ft.

RESULTS OF SURVEYS

The magnetometer survey located several narrow oval-shaped anomalies trending N 60° W to N 70° W. The two main ones form a N 70° W striking trend and consist of strong negative ranging to a maximum of 7800 gammas below background. A small positive anomaly with relief of 800 gammas above background lies on the north flank of one negative anomaly. The remaining anomalies are positive with relief ranging from 200 to 700 gammas above background.

The horizontal loop electromagnetic survey located two anomalies. One is a linear N 70° W striking trend with an 800-foot section of very strong conductivity. The second is a one line oval-shaped feature with relatively poor conductivity. The main anomaly has no magnetic correlation, however, the small anomaly lies directly over one of the strong negative magnetic anomalies.

The vertical loop detailed electromagnetic survey confirmed both horizontal loop conductors and extended the small one. In this survey the main anomaly has a 1600-foot length of excellent conductivity and the other a 400-foot section of good conductivity.

GEOLOGY

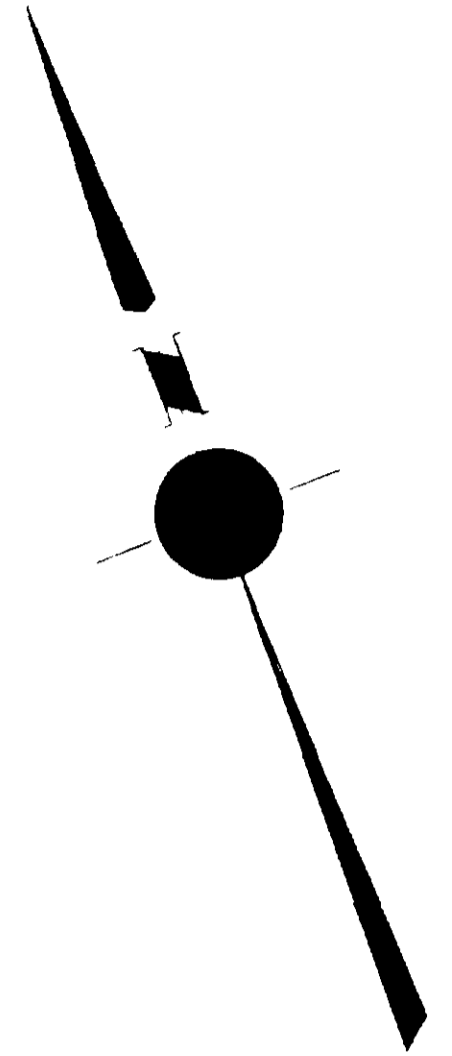
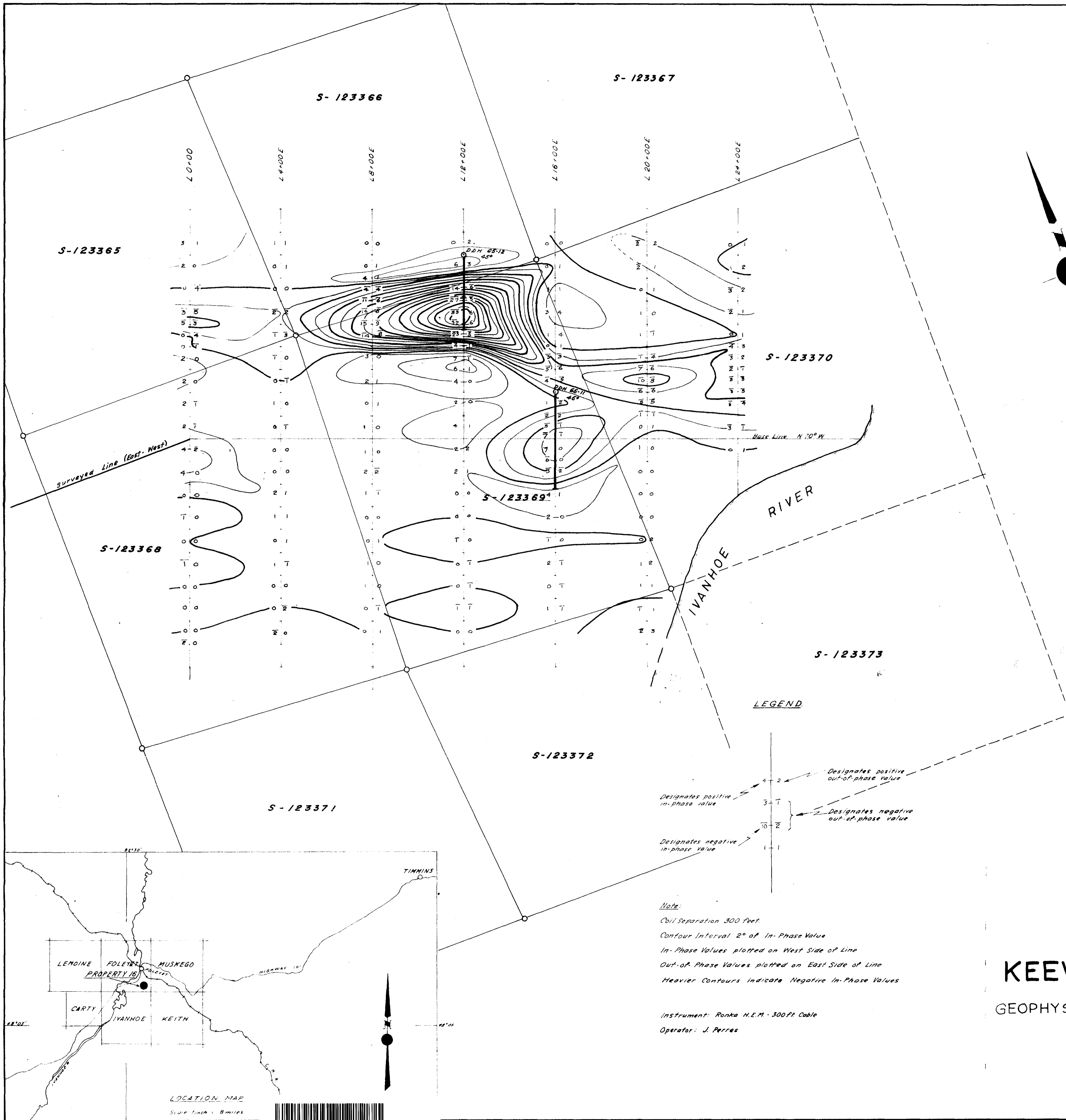
No geological mapping was done, however, a few scattered outcrops of sediments are known to be present on and close to the claims group.

Drill hole 65-11 intersected uniform and evenly bedded greywackes. A 40-foot section containing seams, stringers and disseminated grains of pyrrhotite accompanied by some pyrite and minor chalcopyrite appears to cause both the conductor and magnetic anomaly. The sulphide mineralization comprises from 5% to 20% of the volume.

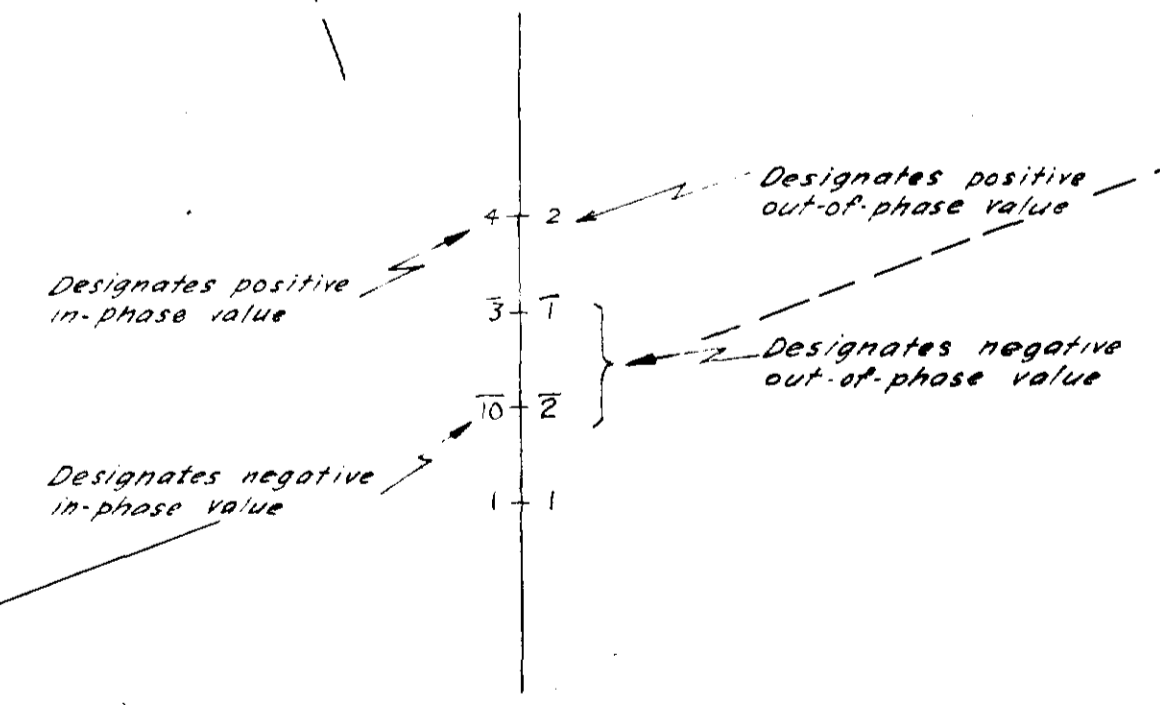
Hole 65-12 intersected interbedded conglomerate, slate, grit, argillite and greywacke. The conductor apparently is a weakly graphitic slate bed. A 123-foot section of the sediments contains from 2% to 5% pyrite accompanied by minor amounts of pyrrhotite, chalcopyrite and sphalerite.

Strike of the formations, as indicated by the geophysics, is uniformly N 60° W to N 70° W. Dip appears to vary, ranging from 65° to the north to vertical. Tops of the beds appear to face to the south.

Samples of the mineralization returned very low values in copper, zinc and silver.



LEGEND

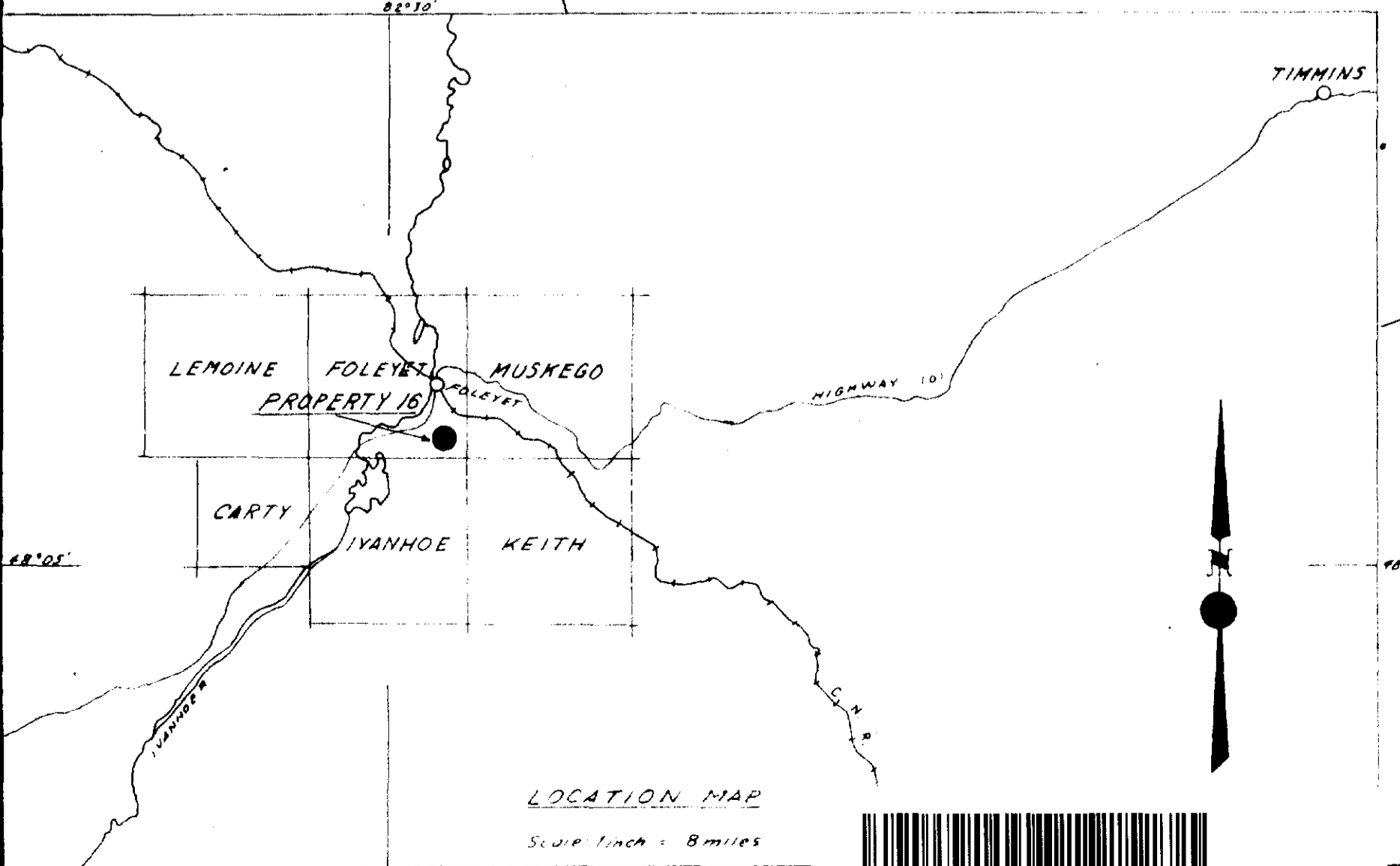
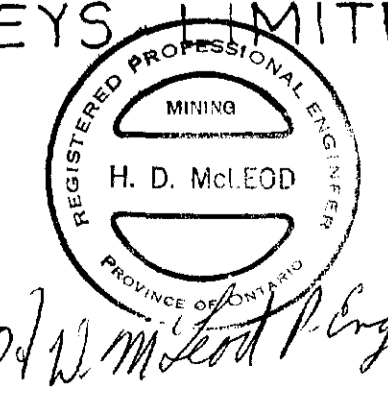
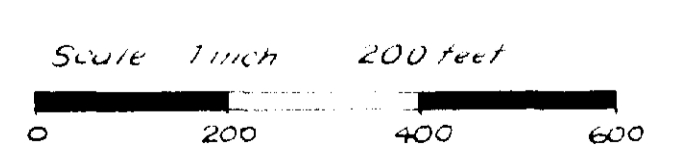


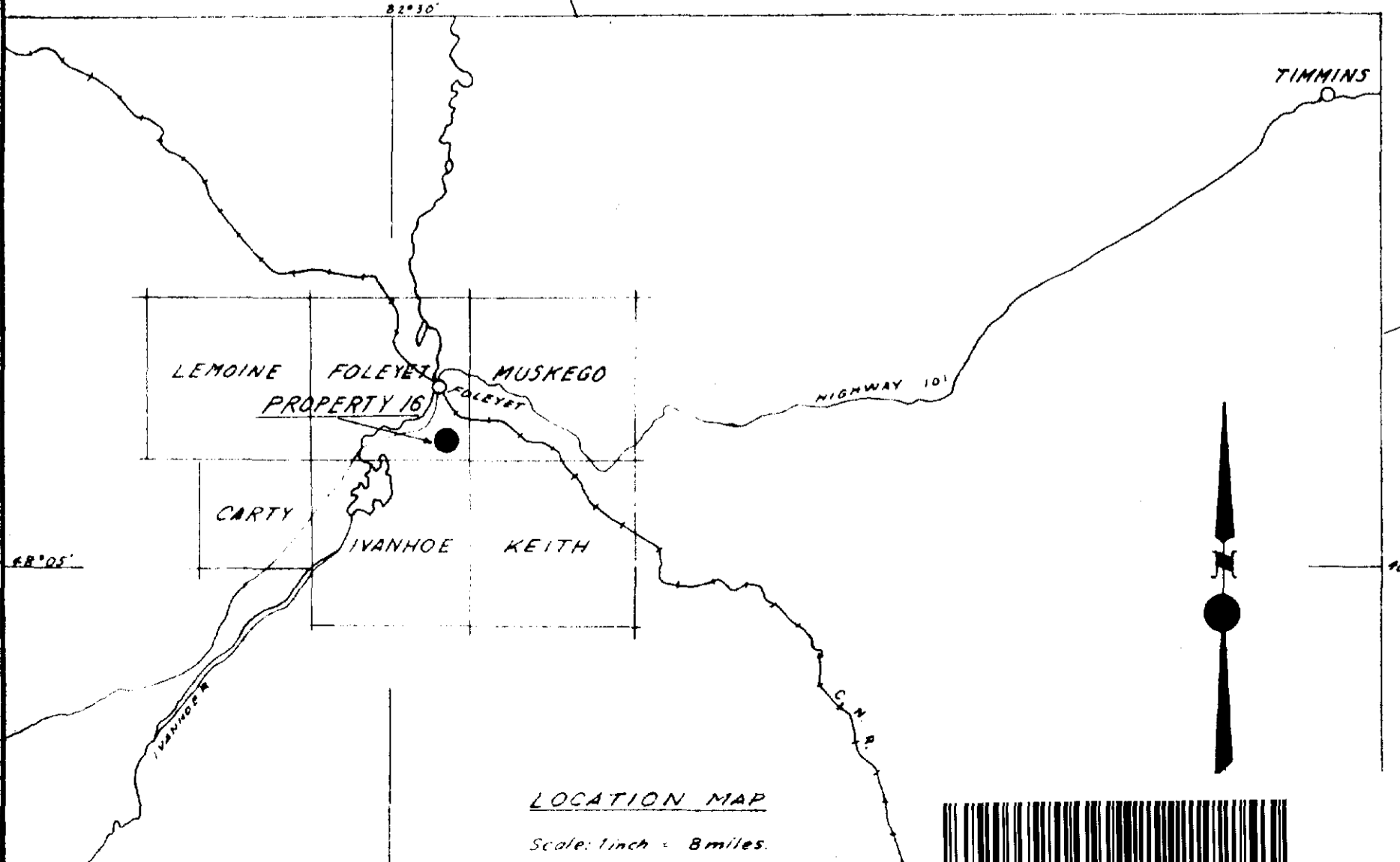
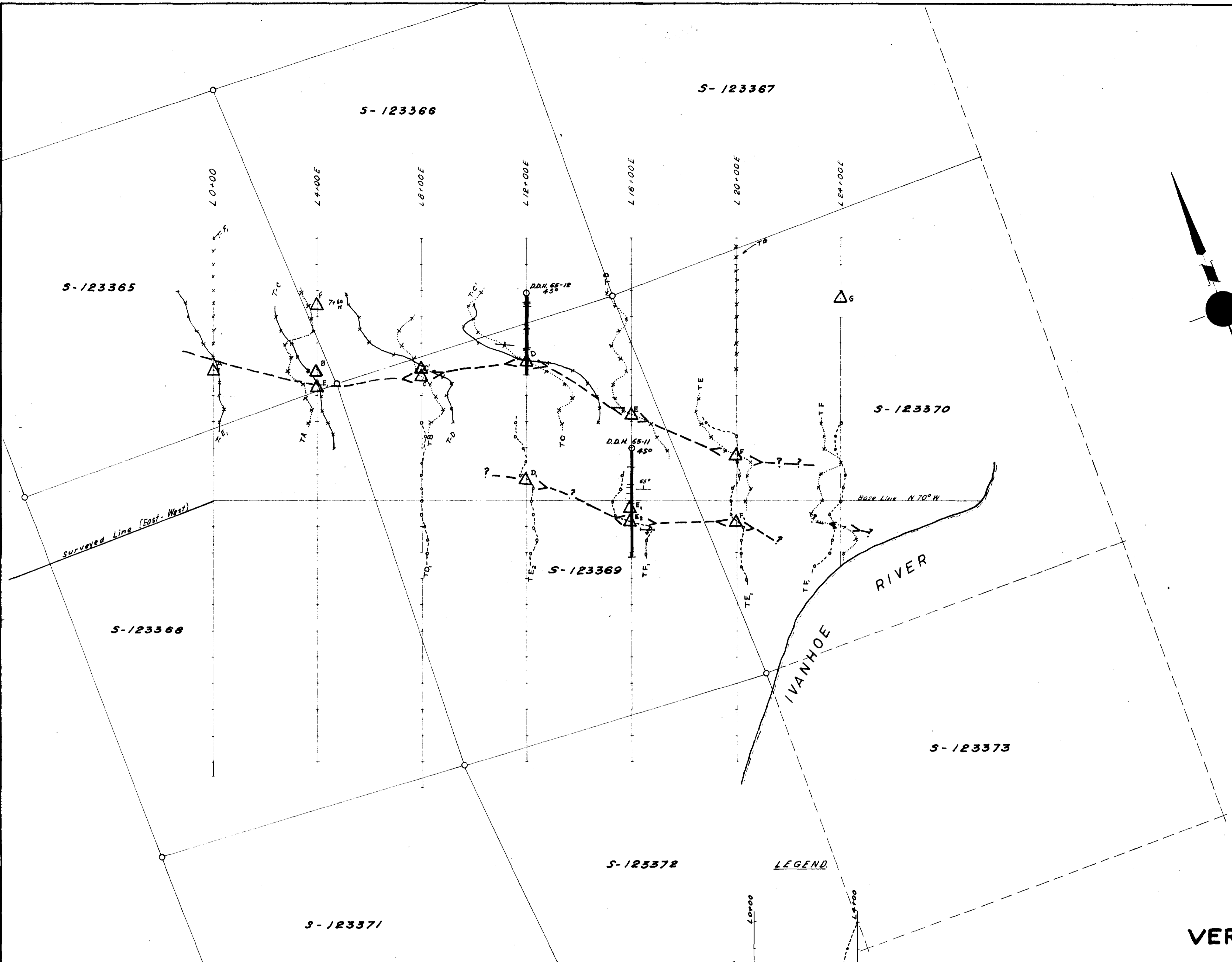
Note:
 Coil Separation 300 Feet
 Contour Interval 2° of In-Phase Value
 In-Phase Values plotted on West Side of Line
 Out-of-Phase Values plotted on East Side of Line
 Heavier Contours indicate Negative In-Phase Values

Instrument: Ronka H.E.M. - 300ft Cable
 Operator: J. Perres

RONKA E.M. SURVEY.
 OF
PROPERTY 16
 TOWNSHIP OF FOLEYET,
 PROVINCE OF ONTARIO.

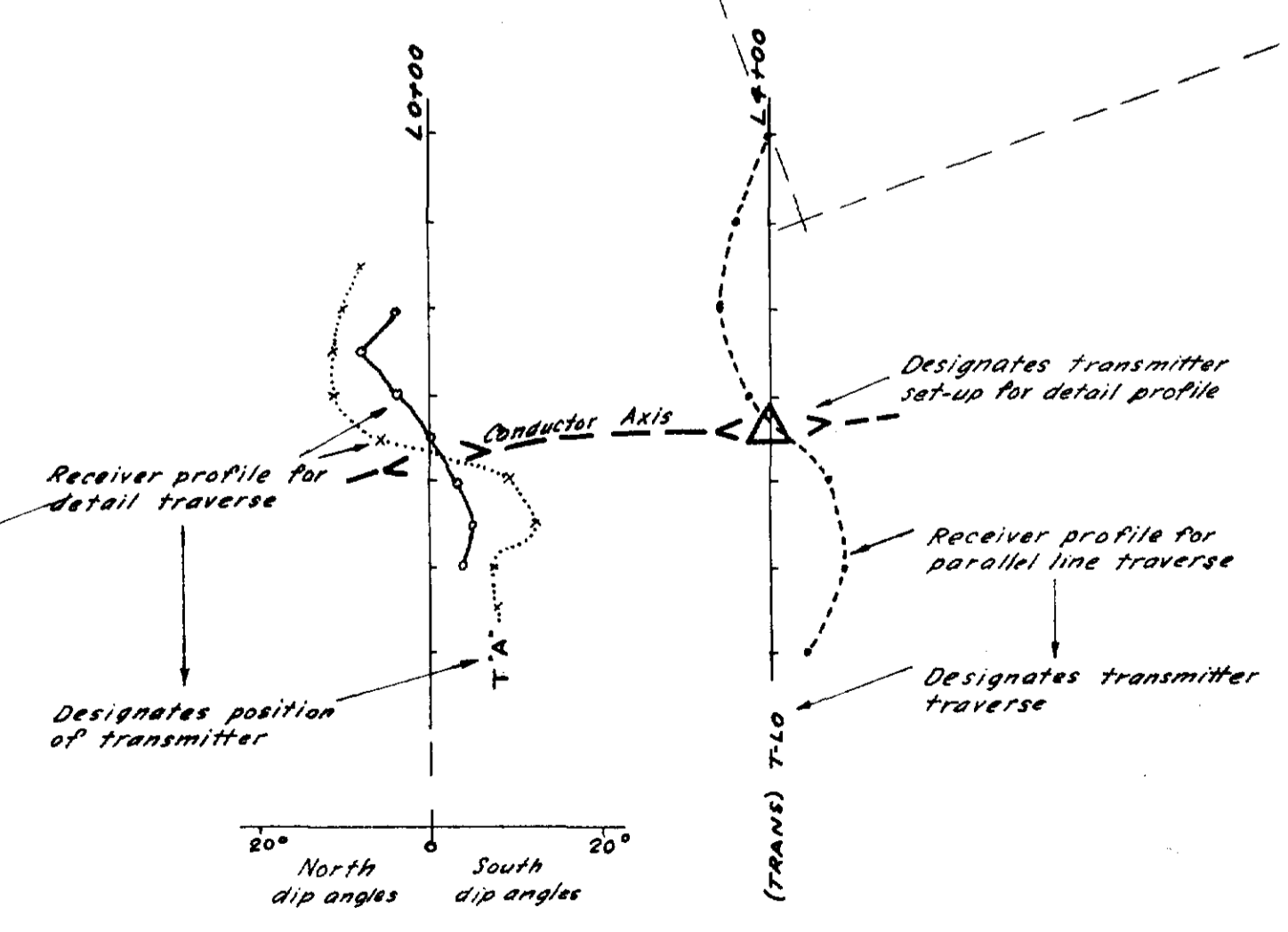
FOR
KEEVIL MINING GROUP LTD.
 BY
GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.





S-123372

LEGEND



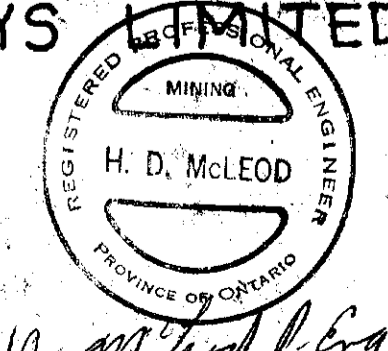
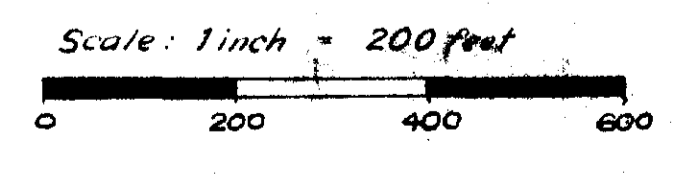
Instrument: Sharpes SE-200 W.E.M.
 Operator: A. McClellens

NOTE: This survey done to supplement the Ranka Survey done previously

VERTICAL LOOP E.M. SURVEY

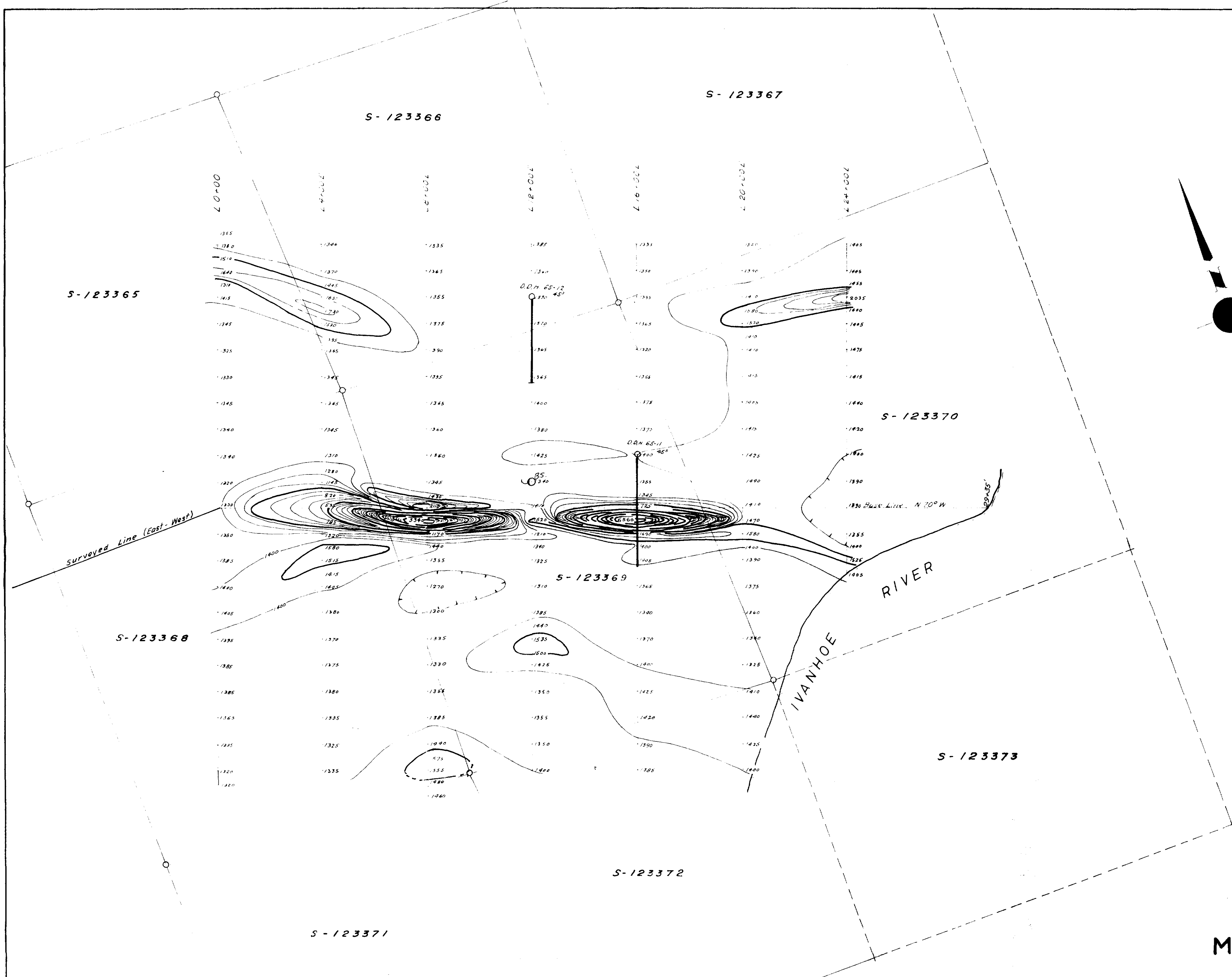
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 TOWNSHIP OF FOLEYET,
 PROVINCE OF ONTARIO.

FOR
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 GEOPHYSICAL ENGINEERING AND SURVEYS LIMITED.



Drawn by J.R.M. N.T.S. 42/91
 Checked by SEPT. 1964 JOB 879. **DWG. 2900**





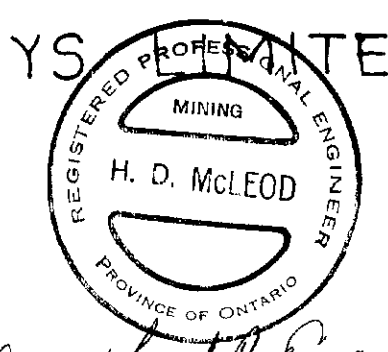
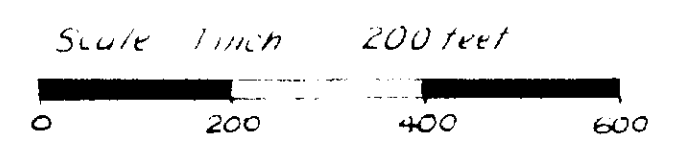
MAGNETOMETER SURVEY

OF
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Note:
 Values shown thus 730 are in gammas
 Contours shown thus 700 at 100 gamma intervals
 Heavier contours thus 1000 at 500 gamma intervals

Instrument: Sharpes Fluxgate MF-1 Magnetometer.
Operator: A. McClemons.
OBS: Base Station.



H.D. McLeod Eng.

