



41P14NW1009 0012B1 RHODES

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**REPORT ON
MAGNETOMETER SURVEY
OVER PORTIONS OF CLAIM NOS.**

S115117 - 19

S114854 - 57

S116494

S116953

OF

**FERCO MINES LIMITED
RHODES TOWNSHIP
SUDBURY MINING DISTRICT
ONTARIO**

Prepared by:

E. Necskar, P. Eng.

**Toronto, Ontario
September 28th, 1962.**



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Key Map

Maps: (In envelope at back)

Magnetometer Survey Map - North Zone

Magnetometer Survey Map - South Zone

FORM NO. 11-1 REPORT PAPER GRAND & FOX LIMITED

INTRODUCTION

The following report describes the results of a magnetometer survey carried out over a zone of banded magnetite located in the central portion of Rhodes Township, Sudbury Mining District, Ontario. The magnetometer survey was performed between March 17th and March 26th, 1962 and further time was spent examining trenches, outcrops and studying pertinent reports on the area. The results of the field work are shown on two accompanying maps. A key map is attached to this report.

PROPERTY LOCATION AND ACCESS

The property is located in the centre of Rhodes Township about two miles east of Onaping Lake. The easiest means of access is by float plane which can land on the numerous adjacent small Lakes. Access may also be obtained by road from Benny to Onaping Lake and then by travelling several miles by boat and on foot. Old bush roads exist in the area but are only useable by tractors after freeze-up.

GENERAL GEOLOGY & ECONOMIC GEOLOGY

The claims are underlain by basic volcanics of Keewatin age which enclose narrow bands of magnetite-rich material. This occurrence appears to be associated with and/or represents the tailing out of the broken, intermittent iron bearing horizon that extends westward from Wanitapitei Lake through Parkin, Norman, Hulton, Roberts and Botha Township.

The magnetite, where seen, occurs as one or more parallel bands varying from one foot to approximately five feet in width separated by several feet of waste. Narrow veinlets, several inches in width were noted in association with the larger bands and on strike with the larger veins where such veins appear to tail out.

The magnetite in the bands varies from massive to partly siliceous and individual samples vary from 60% to 30% soluble iron. Bulk sampling

General Geology & Economic Geology-continued

indicates the average grade of the iron bands to be 45% iron.

The zone has been traced for 6500' and is still open on the southern end.

AREA COVERED BY THE SURVEY

The magnetometer survey follows the main magnetite zone for a distance of 6500' and extends for 200' on either side of the centre line. A second smaller zone, south of main occurrence, was similarly surveyed.

The survey covers approximately half of the areas of claims:

S115117 - 19

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RESULTS OF MAGNETOMETER SURVEY

The magnetic intensities on the claim group vary from - 50,000 gammas to over 50,000 gammas. The maximum variation of magnetic intensity is consequently over 100,000 gammas. The instrument was set to give a magnetic background of approximately 1,000 gammas.

Several zones of high magnetic intensity were outlined along a length of 6500 feet and a second zone 700 feet long was located to the south.

Results of Magnetometer Survey-continued

In the main zone, the magnetic areas average 75 feet in width and 500 feet in length and are elongated along the strike of the underlying formations. For the most part the zones are slightly "en echelon" usually with gaps of several hundred feet, and in one place, a slight overlap.

Trenching in areas with 50,000 gamma vertical magnetic intensity generally revealed the presence of massive magnetite several feet in width. However, in some areas closely spaced relatively narrow magnetite veinlets produced similar magnetic conditions. Generally, magnetic intensities of over 10,000 gammas appear to reflect the presence of iron formation while greenstone and diabase dykes showed no unusual magnetic characteristics.

MAGNETOMETER DATA

The magnetometer used to conduct the survey was an AEM Magnetometer manufactured by L. A. Levanto Oy, Helsinki, Finland. The serial number of the instrument is #538.

This instrument was found to give readily reproducible results in the range of accuracy required in dealing with highly magnetic iron formations.

SURVEY DATA

A total of 4 miles of line was cut and chained and an old existing baseline cleaned out, rechained and checked. Magnetometer readings were

Survey Data - continued

taken at intervals varying from 25 to 100 feet along lines 100 feet apart. The average spacing of magnetometer readings was approximately 50 feet.

Due to the soft and wet snow conditions existing during the time the work was done travel and progress was somewhat slower and more difficult than during summer months.

The number of 8-hour man days required to complete the survey is as follows:

	<u>Man Days</u>	<u>Attributable to Assessment Work</u>
Line Cutting, Chaining & Picketing	21 x 4	84
Operating Magnetometer	16 x 4	64
Preparation of Report	4 x 4	16
Draughting	<u>4 x 4</u>	<u>16</u>
	45	180

SEE NEW REVISED SHEET

CONCLUSIONS & RECOMMENDATIONS

The magnetometer survey shows that the magnetite bearing zone is narrow in width and quite discontinuous. It is generally too low grade and too small to be a source of lump ore and is also too small and too distant from other deposits to be considered a source of beneficiating ore. Therefore no further work is recommended.

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Survey Data - continued

taken at intervals varying from 25 to 100 feet along lines 100 feet apart. The average spacing of magnetometer readings was approximately 50 feet.

Due to the soft and wet snow conditions existing during the time the work was done travel and progress was somewhat slower and more difficult than during summer months.

The number of 8-hour man days required to complete the survey is as follows:

	<u>Man Days</u>	<u>Attributable to Assessment Work</u>
Line Cutting, Chaining & Picketing	$14 \times \frac{12 \times 4}{8}$	84
Operating Magnetometer	$10 \frac{2}{3} \times \frac{12 \times 4}{8}$	64
Preparation of Report	$2 \frac{2}{3} \times \frac{12 \times 4}{8}$	16
Draughting	$2 \frac{2}{3} \times \frac{12 \times 4}{8}$	16
	<hr/>	<hr/>
	45	180

CONCLUSIONS & RECOMMENDATIONS

The magnetometer survey shows that the magnetite bearing zone is narrow in width and quite discontinuous. It is generally too low grade and too small to be a source of lump ore and is also too small and too distant from other deposits to be considered a source of beneficiating ore. Therefore no further work is recommended.

Conclusions & Recommendations-continued

However, should further work be contemplated, the most economical and effective way to further examine the zone is to strip the relatively light overburden and map and chip sample the cleaned surface.

Respectfully submitted,



E. Neczkar, P. Eng.

EN/dl

Toronto, Ontario
September 28, 1962.

APPENDIX

Names and addresses of personnel employed on survey, and
dates on which each worked:

E. Necskar, Geologist and Operator
911 - 159 Bay Street, Toronto 1, Ontario
March 17 - 26, 1962
September 25-26, 1962
12 days magnetometer surveying, draughting and report
preparation at 12 hours each

C. Ross, Line Cutter
Wanapetoi, Ontario
March 17 - 25, 1962
8 days linecutting at 12 hours each

D. Martel, Operator and Linecutter
Benny, Ontario
March 17-22, 1962
6 days line cutting at 12 hours each
March 23-24, 1962
2 days magnetometer work at 12 hours each

W. Stephens, Draughtsman
911 - 159 Bay Street, Toronto 1, Ontario
September 25, 1962
1 day draughting and report preparation at 12 hours

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Names and addresses of personnel employed on survey, and
dates on which each worked:

E. Necskar, Geologist and Operator
911 - 159 Bay Street, Toronto, Ontario

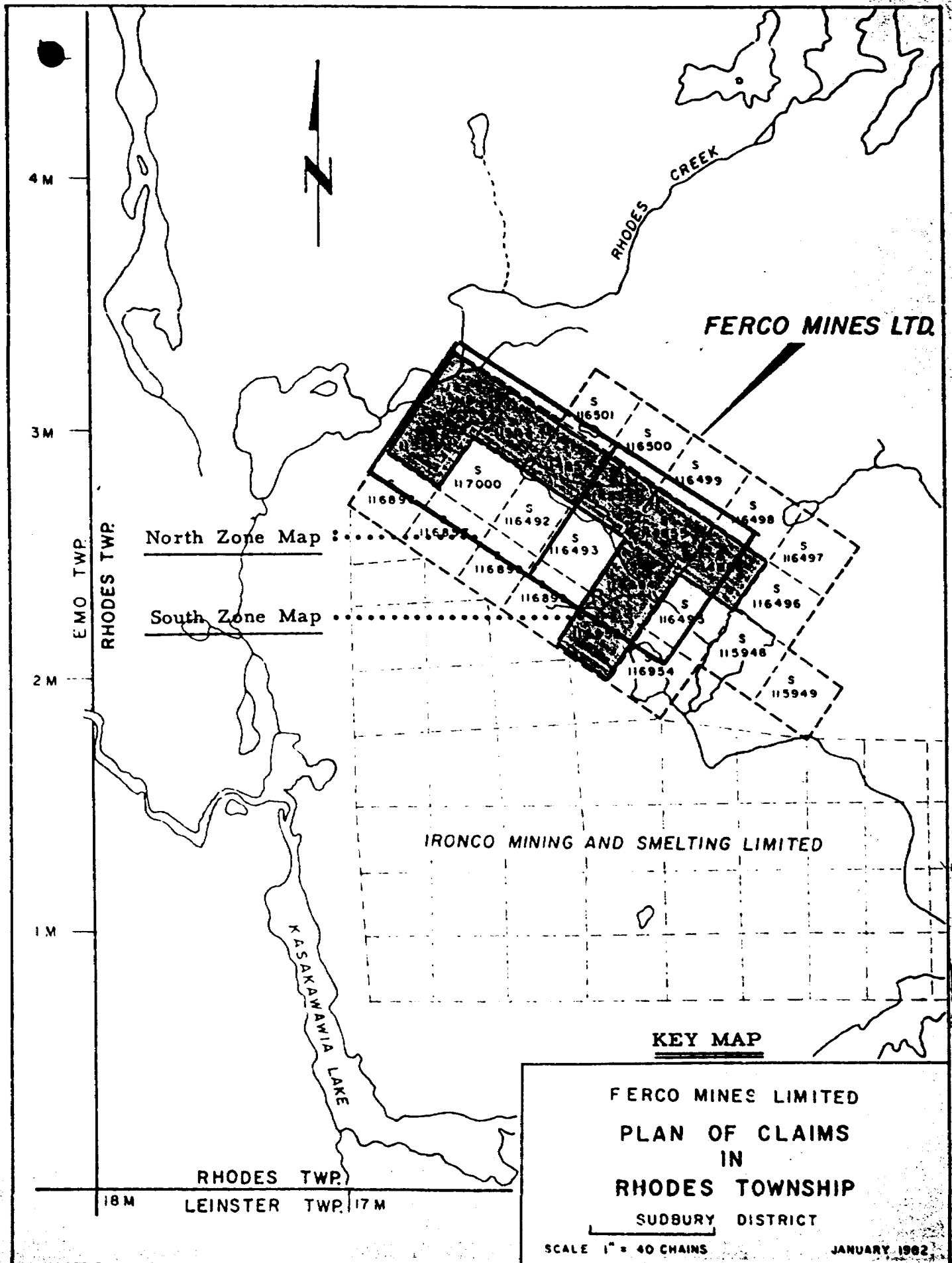
March 17 - 26, 1962
September 25-26, 1962

C. Ross, Line Cutter
Wanapetel, Ontario March 17-25, 1962

D. Martel, Operator and Linecutter
Benny, Ontario March 17-24, 1962

W. Stephens, Draughtsman
911-159 Bay Street, Toronto, Ontario

September 25, 1962.



FERCO MINES LTD.

North Zone Map :

South Zone Map :

IRONCO MINING AND SMELTING LIMITED

KEY MAP

FERCO MINES LIMITED
 PLAN OF CLAIMS
 IN
 RHODES TOWNSHIP
 SUDBURY DISTRICT

SCALE 1" = 40 CHAINS

JANUARY 1962

EMO TWP.
 RHODES TWP.

RHODES TWP.
 LEINSTER TWP.

18M

17M

4M

3M

2M

1M



KASAKWAMIA LAKE

RHODES CREEK

116501

116500

116499

116498

116497

116496

116495

115946

115949

117000

116492

116493

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SUPPLEMENT TO REPORT OF WORK

Form 12A

STRIPPING & TRENCHING

on Claims

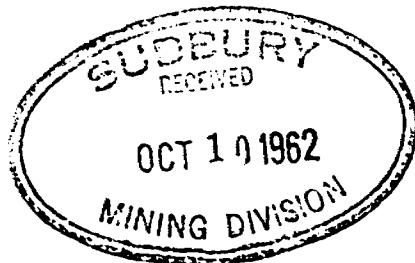
S 115117 - 19, S 114854 - 57,

S 116496 & S 116953

Between March 23 and April 9, 1962 three men were employed by Ferco Mines Limited for the purpose of exposing and sampling bands of iron formation on Claims S114854 and S114856 in Rhodes Township. Manual stripping work consisted of shallow trenches over magnetic highs in an effort to expose bed rock for sampling purposes. Areas of exposed iron formation are shown on the attached maps. Most work was concentrated in the pit areas which are located in bulldozed trenches where it was required to clear away the snow and clean the surface for sampling. ~~purposes.~~

Rock trenching consisted of drilling and blasting three pits 3'x4' by 10 to 14' in length in order to expose fresh surfaces and provide material for a bulk sample and mill test. These pits are located on the attached magnetometer map. Rock samples from these pits assayed 45% soluble iron.

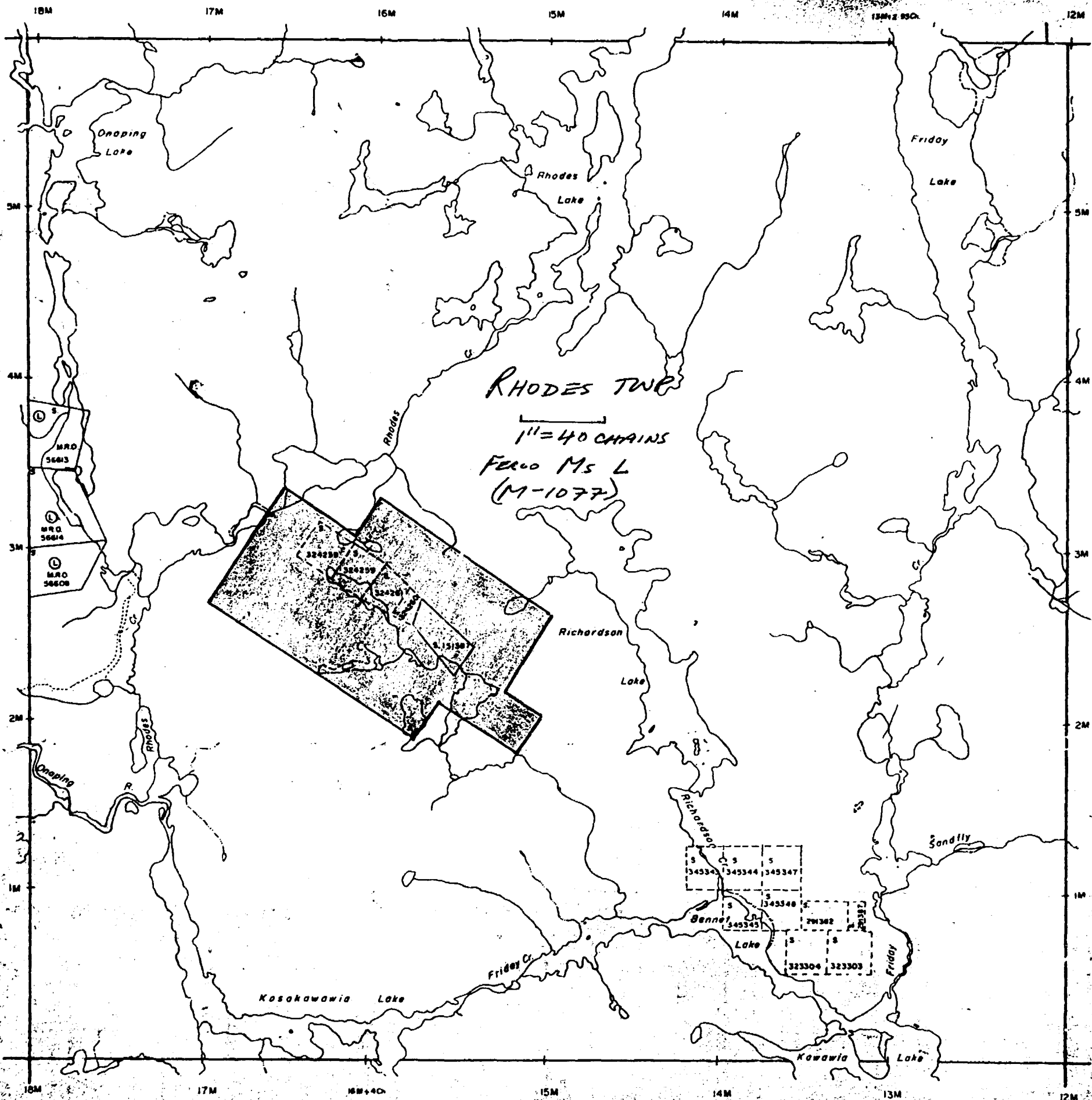
E. Neuzker



DUNBAR TWP. M.768

EMO TWP. M.768

BOTHA TWP. M.674



LEINSTER TWP. M.985

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

RHODES - 0012-B1, #1, #2

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)

