

32D05NW0438 2.7475 HARKER

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TELEPHONE (416) 366-4429

REPORT



NOV 27 1984

on

MINING LANDS SECTION

MAGNETIC SURVEY

of the

## GOLDEN HARKER PROPERTY - NORTH GROUP

in

### HARKER TOWNSHIP, LARDER LAKE MINING DIVISION COCHRANE DISTRICT, NORTHEASTERN ONTARIO, CANADA

for

### DISCOVERY-LENORA JOINT VENTURE

by

Andrew J. Troop, P.Eng.

Toronto, Ontario, Canada.

November 1, 1984.

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SUMMARY

A ground based magnetic survey was completed over a 400' grid on the Golden Harker North group claims during the month of September, 1984, and the plotted results have clearly positioned the Golden Harker mineralized contact zone south of the group. Unfortunately little magnetic contrast was noted within the group other than in the vicinity of the northern boundary, and therefore additional exploration work is neither warranted nor recommended.

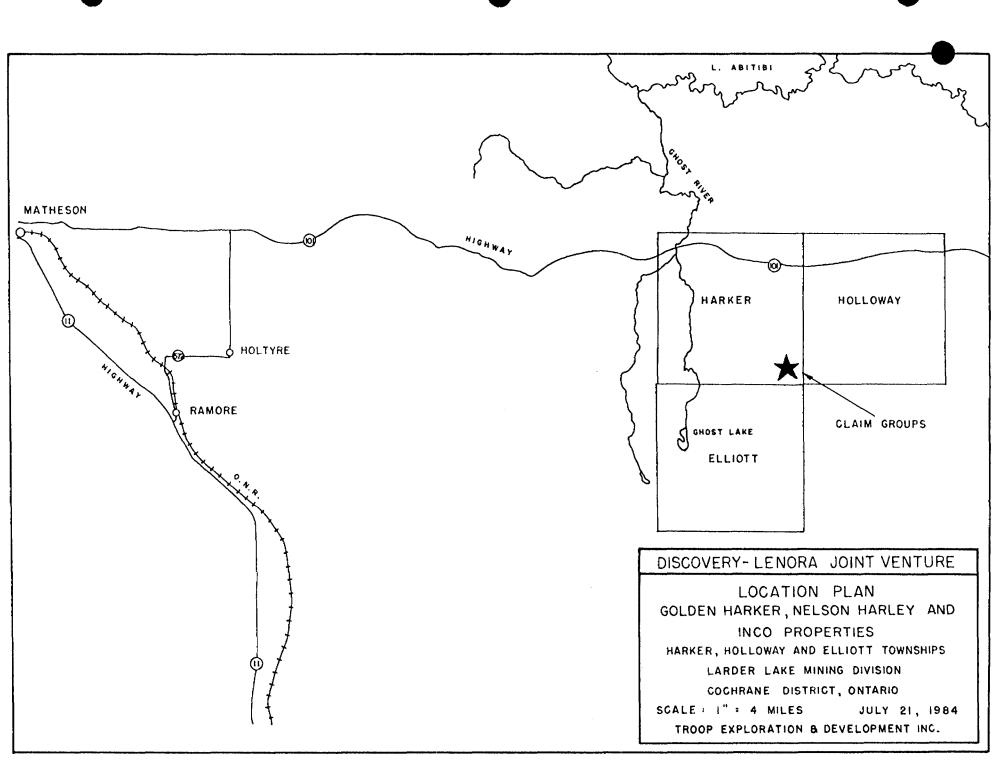
#### INTRODUCTION

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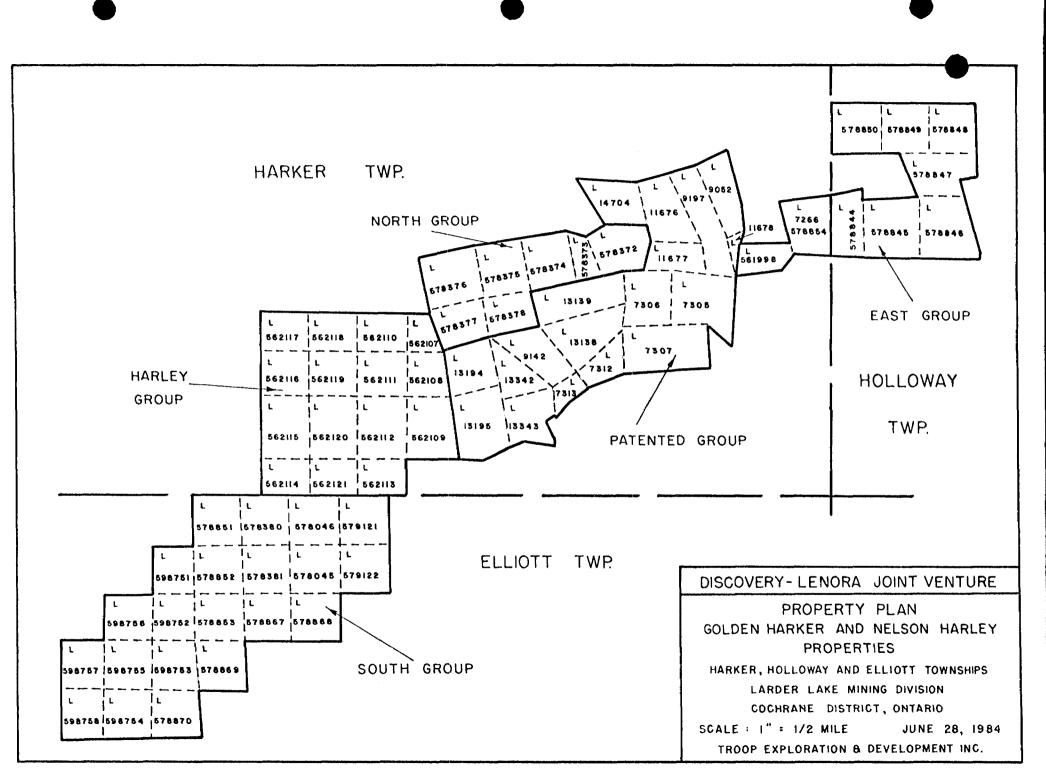
The East Group, a seven claim property, was optioned from Golden Harker Explorations Limited on January 1, 1984, and work began on May 24, 1984 by commencing a 6,400 foot diamond drilling programme on the Patented, North and South Groups (Figure 2). Phase I of the drilling was completed on August 2, 1984 and work was then begun in September, as time allowed, on a magnetic survey for the entire Golden Harker property. A 400' chained and picketed grid which was cut by Phelps Dodge Corp.of Canada, Limited was utilized for the survey and 7 miles of line were surveyed on the North Group of claims.

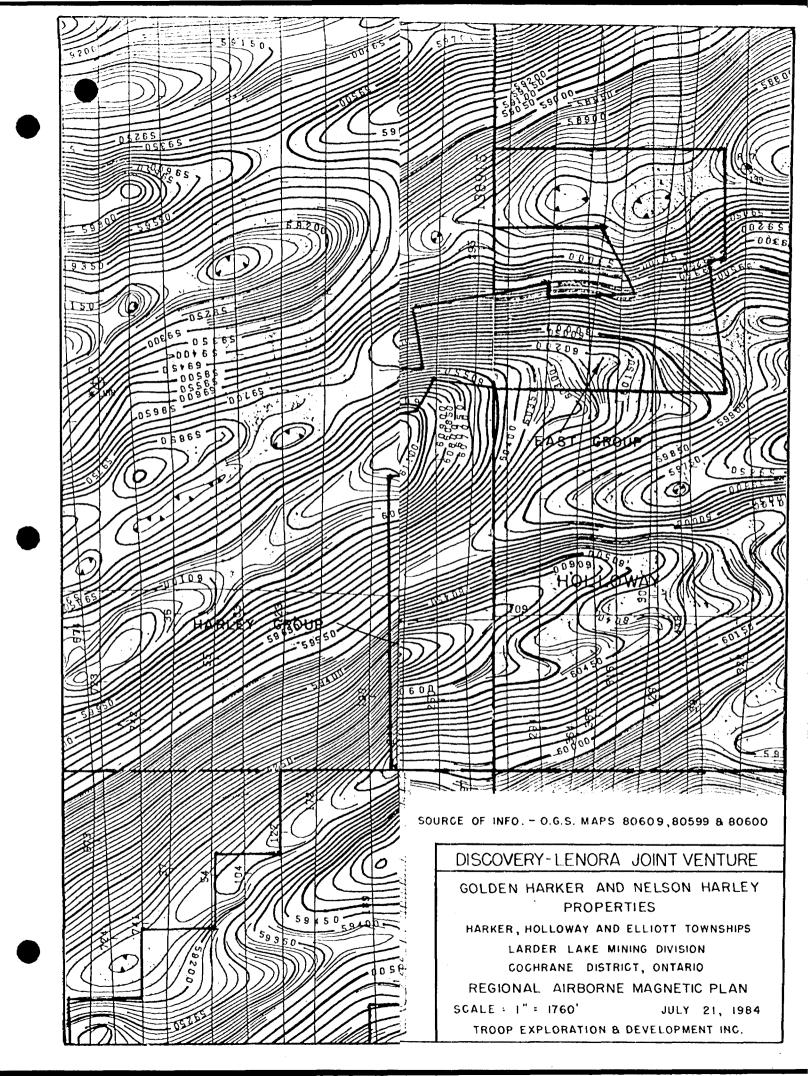
# PROPERTY, DESCRIPTION AND LOCATION

The following seven claims comprising the North Group of unpatented claims require assessment credits to be maintained in good standing by the Ontario Ministry of Natural Resources;



NH





HARKER TOWNSHIP - L 578372 L 578373 L 578374 L 578375 L 578376 L 578377 L 578377 L 578378

In all cases the recording date is October 6, 1980 and the author applied for and received an extension until April 8, 1985 to complete 177 days of assessment work.

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The claim group is located in the southeast corner of Harker Township, approximately 35 miles east of Matheson, Ontario and 7 miles south of Highway 101.

# ACCESSIBILITY, TOPOGRAPHY AND LOCAL RESOURCES

One may reach the general area via Highway 101 east from Matheson, Ontario for 35 miles, then southwest for 7 miles along an unimproved gravel road to within half a mile of the east boundary of the North Group.

The terrain is typically preCambrian with areas of heavy to light bush, muskeg, swamp and sand plains. The eastern portion of the claim group has been completely denuded by past timbering operations and all that remains are piles of slash and timberjack ruts.

There are no economically viable resources other than the possibility of a mineral occurrence beneath the surface.

HISTORY

The only record of pre-Phelps Dodge exploration work was a diamond drill hole noted on Satterly's geological map within the boundary of claim L 578374. Phelps Dodge drilled one diamond drill hole on claim L 578372 but failed to reach bedrock and the Discovery-Lenora Joint Venture completed one drill hole on claim L 578373. The JV hole was submitted for assessment credit on July 23, 1984. Phelps Dodge's exploration work on the property is a matter of record, since most of the data has been filed for assessment credits.

#### GEOLOGY

The North Group is underlain by preCambrian rocks of undetermined age consisting of assumed non-magnetic basic, intermediate and perhaps felsic lavas. The basic units are located near the northern and southern limits of the group while the intermediates and felsics are expected to be found within the central portion of the group. Data from one old diamond drill hole plot was used to tentatively position the felsic volcanic horizon.

# GEOPHYSICAL RESULTS

The magnetic readings were taken at either 50 or 100 foot intervals along seven miles of cut and chained picket lines that were spaced 400' intervals. A Scintrex MF-2 Fluxgate magnetometer was used and all readings were recorded when facing grid north. The magnetometer was set to read only a portion of the total magnetic field, therefore all plotted readings should be increased by approximately 58,000 gammas to equal the total field.

Consistently low magnetic readings were observed over the southern portion of the claim group, there is a gradual increase towards the northwest corner. There are also a number of high readings that traverse the central portion of claim L 578374. It is also to noted that relatively high readings were recorded along a southwest trending strike line from the old Harker Shaft, and these represent the contact between the low magnesium tholeiitic basalts to the north and the high iron tholeiitic basalts to the south.

# CONCLUSIONS AND RECOMMENDATIONS

There are no interesting magnetic contrasts to be found on the North Group, and therefore, further diamond drill testing is not recommended at this time. The Joint Venture have been drill testing the southwest extension of the Harker Shaft mineralization and it is to be noted that the magnetic results faithfully locate this particular horizon.

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Therefore, in the writer's opinion, magnetic surveys are the most valuable geophysical method for this limited area, and electromagnetic methods are basically non-diagnostic in the search for Golden Harker type of mineralization.

> Respectfully Submitted, TROOP EXPLORATION & DEVELOPMENT INC.

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Andrew J. Troop, D.Eng President.

AJT/jmt

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## REFERENCES

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- (1) Satterly, J. Geology of Harker Township, O.D.M. Vol. LX, Pt. 7, 1951, pps. 30 - 33. Map 1951-4.
- (2) Ferguson, S.A., Groen, H.A., Haynes, R. Gold Deposits of Ontario, Part 1, Mineral Resources Circular No. 13, 1971, pp. 72, Ontario Division of Mines.
- (3) OGS. Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson-Black River Area, Harker & Holloway Twps. District of Cochrane, March to July 1983.

#### CERTIFICATE

I, the undersigned, Andrew John Troop of the Borough of Scarborough in the County of York, Province of Ontario, hereby certify:

- 1. That I am a Consulting Mining and Exploration Geologist and reside at 67 Toynbee Trail, Scarborough, Ontario, Canada, MIE 1G1.
- 2. That I graduated from the University of Manitoba in 1949 with Bachelor of Science (Hons.) and Master of Science (Geology) degrees.
- 3. That I have been engaged in the geological profession continuously since graduation.
- 4. That I am a Member in good standing of the Association of Professional Engineers of the Province of Ontario and the Province of Manitoba.
- 5. That 1 do not not have nor do I expect to receive directly or indirectly an interest in the property or securities of Discovery Mines Limited nor Lenora Explorations Limited.
- 6. That the accompanying report on the Golden Harker North Group Property in the Harker Township Area, Larder Lake Mining Division, Ontario, for the Discovery-Lenora Joint Venture is based on the supervision of the magnetic surveying and other programmes during the period June 30th through September 30th, 1984 and on related exploration activity on adjoining properties.
- 7. That I consent to the use of this report in whole or in part, provided proper reference is made, by the above mentioned Companies in a prospectus or statement of material facts related to the raising of funds for the continuation of this exploration or development project.

Dated at Toronto, Ontario, Canada, this 1st day of November, 1984.

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File No 27475

Mining Lands Section

Control Sheet

TYPE OF SURVEY \_\_\_\_ GEOPHYSICAL \_\_\_\_ GEOLOGICAL \_\_\_\_ GEOCHEMICAL \_\_\_\_ EXPENDITURE

# MINING LANDS COMMENTS:

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