



32D05NW0055 2.7361 HOLLOWAY

010

TROOP EXPLORATION & DEVELOPMENT INC.

Suite 1855 — Commerce Court West
P.O. Box 161, Commerce Court Postal Station
TORONTO, ONTARIO
CANADA
M5L 1E7

TELEPHONE
(416) 366-4429

REPORT

on

MAGNETIC SURVEY

of the

GOLDEN HARKER PROPERTY - EAST GROUP

in

HOLLOWAY TOWNSHIP, LARDER LAKE MINING DIVISION
COCHRANE DISTRICT,
NORTHEASTERN ONTARIO, CANADA

for

DISCOVERY-LENORA JOINT VENTURE

by

Andrew J. Troop, P.Eng.

2.2403

RECEIVED
OCT 30 1984
MINING LANDS SECTION

Toronto, Ontario, Canada.

October 10, 1984.

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SUMMARY

=====

A ground magnetic survey was completed over a 400' grid on the the Golden Harker East group claims during the months of August and September, 1984, and the plotted results have clearly positioned the contact between the northern magnesium-rich tholeiitic basalts and the southern iron-rich tholeiitic basalts. This contact between these two distinct rock units is of major importance since both the Golden Harker and Coin Lake gold occurrences are located at this stratigraphic position.

INTRODUCTION

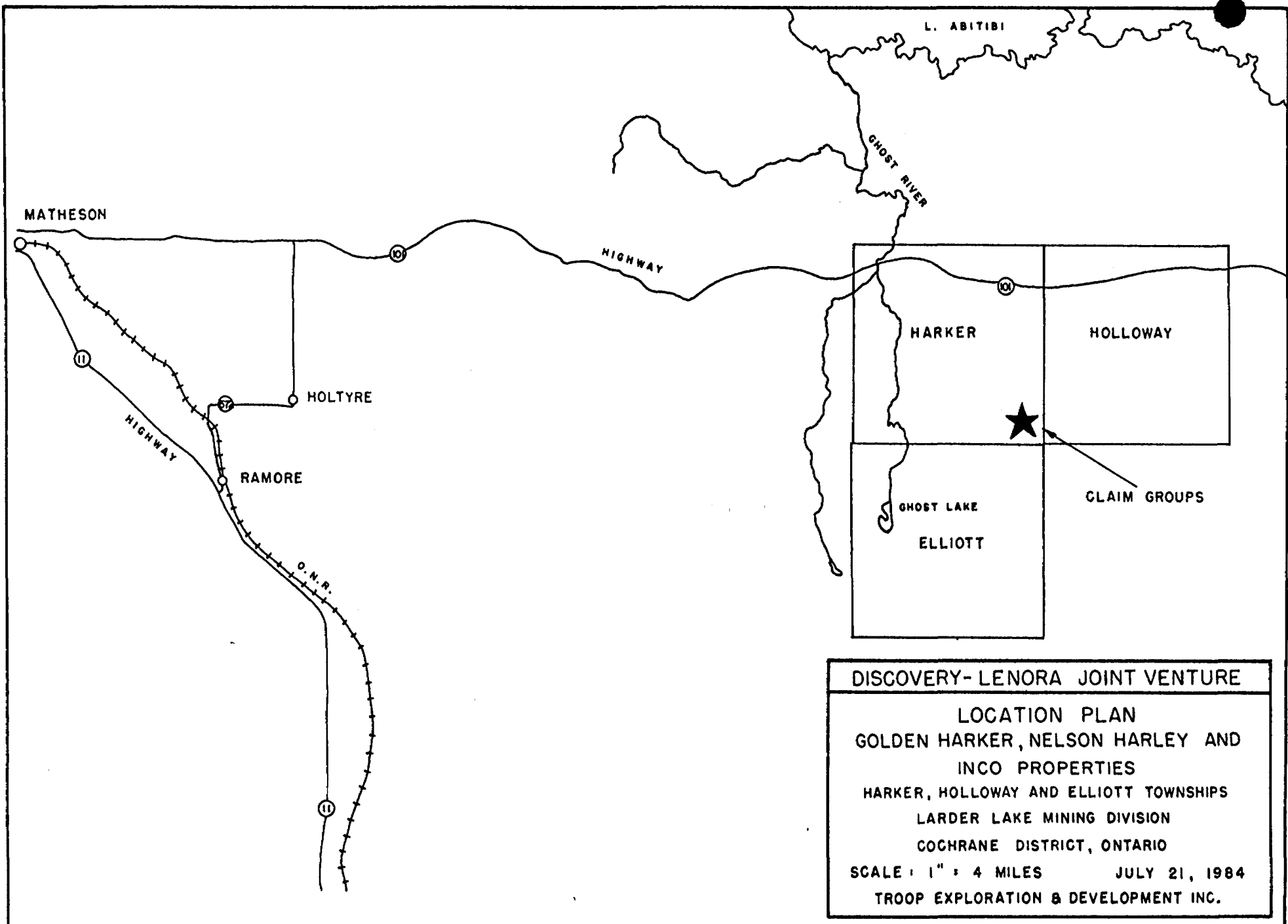
=====

The East Group, a nine 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. Phase I of the drilling was completed on August 2, 1984 and work was then begun, as time allowed, on a magnetic survey for the entire optioned property. A 400' grid which was cut in 1980 by Phelps Dodge Corp. of Canada, Ltd. was utilized for the survey and 8 miles of the lines were surveyed.

PROPERTY, DESCRIPTION AND LOCATION

=====

Of the nine claims comprising the east group only the following seven require assessment credits to be maintained in good standing with the Ontario Ministry of Natural Resources;



DISCOVERY-LENORA JOINT VENTURE

LOCATION PLAN
 GOLDEN HARKER, NELSON HARLEY AND
 INCO PROPERTIES
 HARKER, HOLLOWAY AND ELLIOTT TOWNSHIPS
 LARDER LAKE MINING DIVISION
 COCHRANE DISTRICT, ONTARIO
 SCALE: 1" = 4 MILES JULY 21, 1984
 TROOP EXPLORATION & DEVELOPMENT INC.

HARKER TWP.

NORTH GROUP

HARLEY GROUP

EAST GROUP

HOLLOWAY TWP.

TWP.

PATENTED GROUP

ELLIOTT TWP.

SOUTH GROUP

DISCOVERY-LENORA JOINT VENTURE

PROPERTY PLAN

GOLDEN HARKER AND NELSON HARLEY PROPERTIES

HARKER, HOLLOWAY AND ELLIOTT TOWNSHIPS

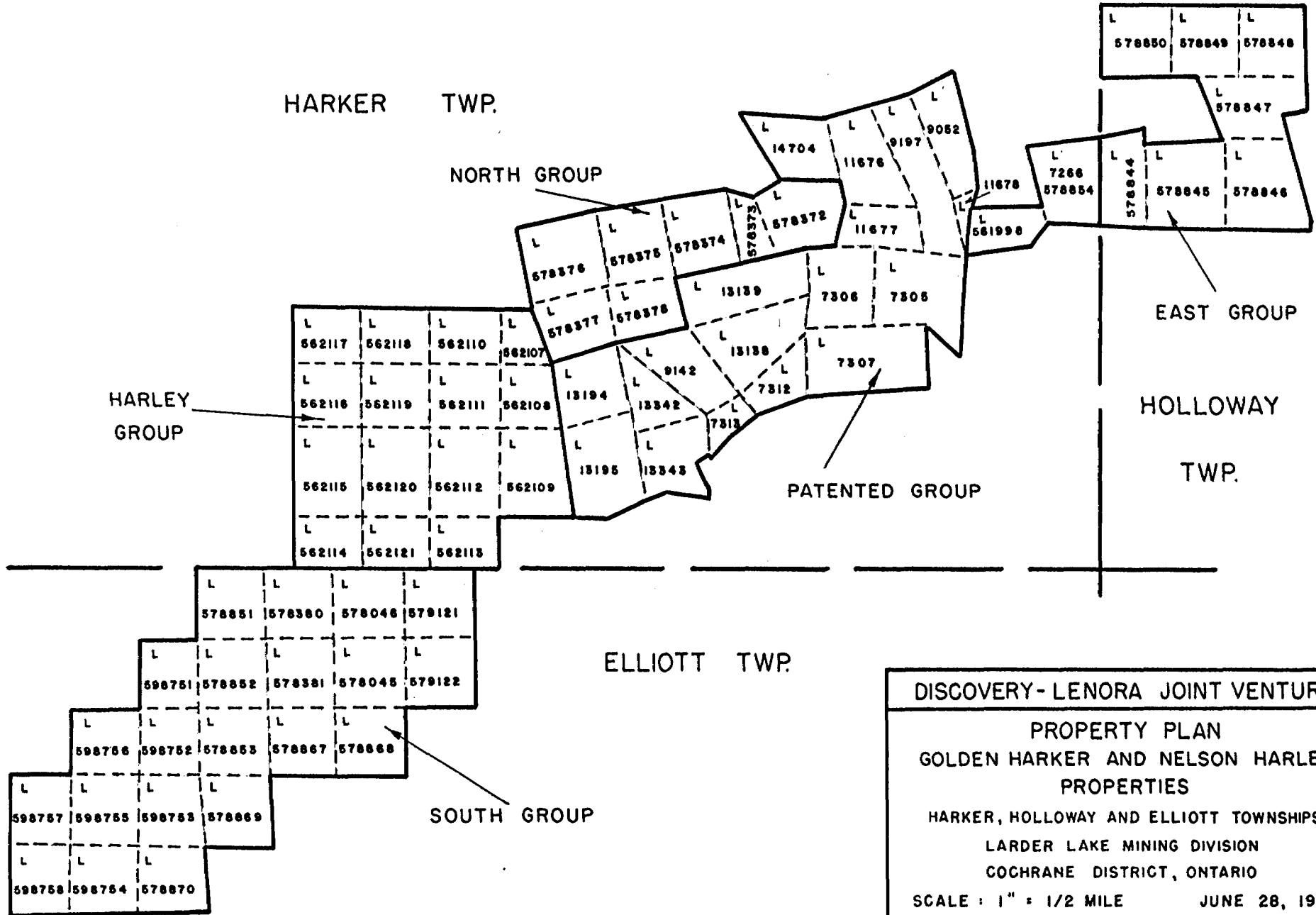
LARDER LAKE MINING DIVISION

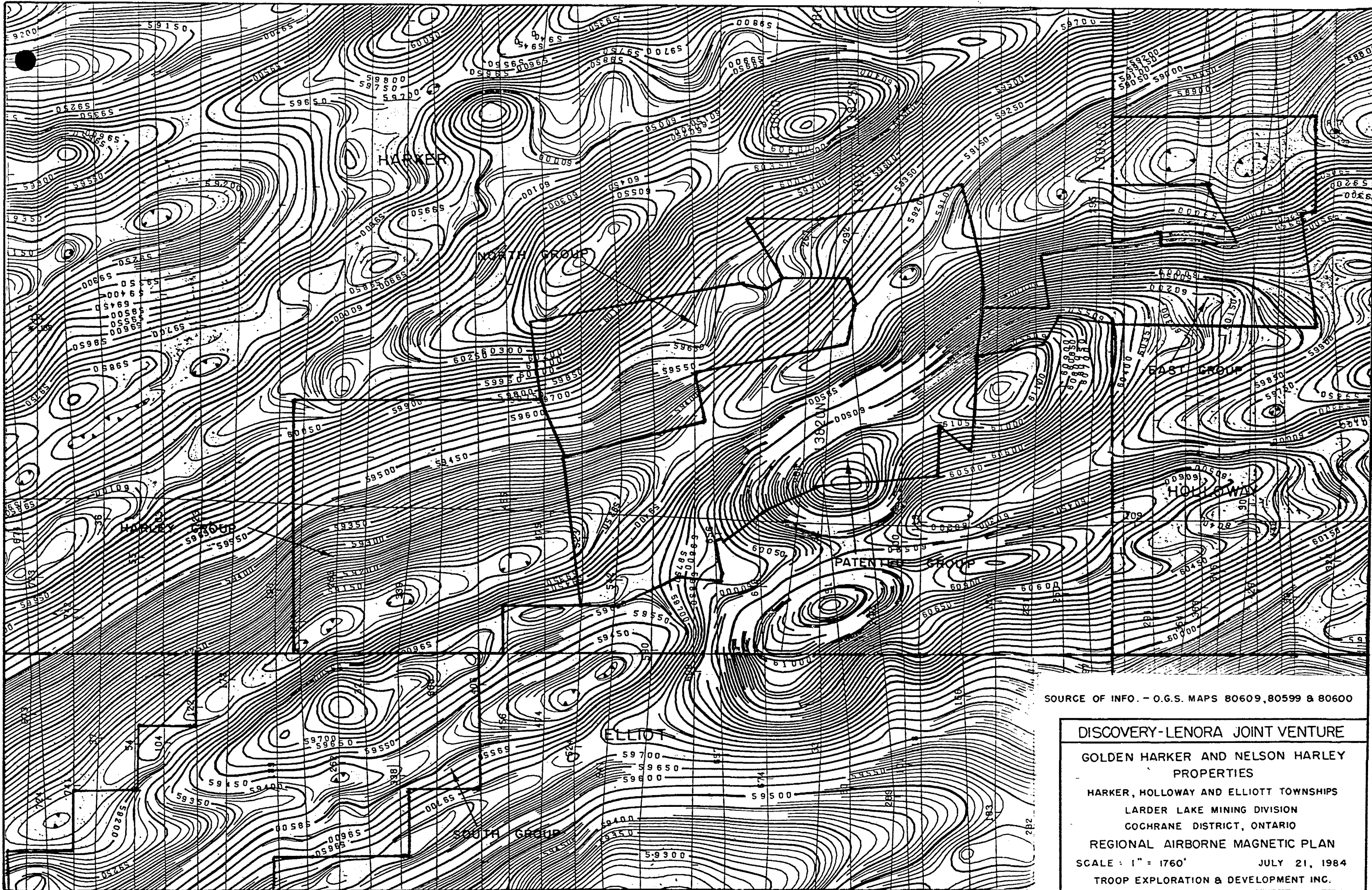
COCHRANE DISTRICT, ONTARIO

SCALE: 1" = 1/2 MILE

JUNE 28, 1984

TROOP EXPLORATION & DEVELOPMENT INC.





SOURCE OF INFO. - O.G.S. MAPS 80609, 80599 & 80600

DISCOVERY-LENORA JOINT VENTURE
 GOLDEN HARKER AND NELSON HARLEY
 PROPERTIES
 HARKER, HOLLOWAY AND ELLIOTT TOWNSHIPS
 LARDER LAKE MINING DIVISION
 COCHRANE DISTRICT, ONTARIO
 REGIONAL AIRBORNE MAGNETIC PLAN
 SCALE: 1" = 1760' JULY 21, 1984
 TROOP EXPLORATION & DEVELOPMENT INC.

HOLLOWAY TOWNSHIP - L 578844
L 578845
L 578846
L 578847
L 578848
L 578849
L 578850

In all cases the recording date is November 17, 1981 and the author applied for and received an extension till December 14, 1984 to completed 63 days of assessment work.

The claim group is located in the southwest corner of Holloway 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 and then southwest for 6 miles along an unimproved gravel road to within half a mile of the west boundary of the East Group.

The terrain is typically preCambrian with areas of heavy bush, swamp, muskeg and the occasional prominent hill consisting of either glacial debris or a multitude of bedrock exposures.

There are no economically viable resources other than scattered stands of harvestable pine and spruce trees.

HISTORY

=====

A record and ground search by Phelps Dodge failed to reveal any any prior exploration work on the group, but during our

magnetometer surveying several old diamond drill roads were noted on claim L 578845 and perhaps some old unrecorded diamond drilled was performed in the past. Phelps Dodge's work is a matter of record and need not be catalogued.

GEOLOGY

=====

The group is underlain by preCambrian rocks of undetermined age which consist of mainly basic lava flows. These flows have been mapped as either high magnesium or iron rich tholeiites and, as such, their contact is readily apparent from the results of a magnetic survey. It is to be noted that the Golden Harker gold concentrations are found at or near this contact and therefore its exact ground location is of prime importance.

GEOPHYSICAL RESULTS

=====

The magnetic readings were taken at either 50 or 100 foot intervals along eight miles of cut picket lines that were spaced 400' apart. 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 readings should be increased by approximately 58,000 gammas to equal the total field.

Consistently low magnetic readings were recorded over the northern portion of the claim group, while to the south, the rocks have a much higher signature. This reflects the presence of the northern low magnetic susceptibility, low magnesium basalts, and

the relative position of the the southern or hanging wall high iron magnetic basalts.

On the main Golden Harker Patented Group, the gold bearing interflow material is to be found at this contact between these two distinct rock units and therefore, its' location along strike is of major importance.

CONCLUSIONS AND RECOMMENDATIONS
=====

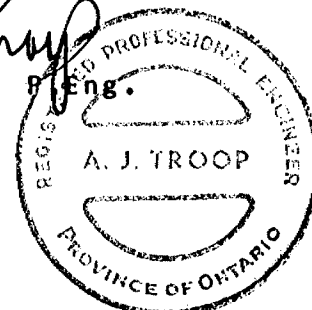
It is apparent that the previous electromagnetic survey completed by Phelps Dodge Corp. several years ago was not helpful with respect to lithological identification, but as noted above the magnetic survey was able to position the interesting contacts with reasonable accuracy.

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

Respectfully Submitted,

TROOP EXPLORATION & DEVELOPMENT INC.

Andrew J. Troop
Andrew J. Troop, P. Eng.
President.



AJT/jmt

REFERENCES

=====

- (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.

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, M1E 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 I do 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 - East Group Property in the Holloway 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 24th, 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 10th day of October, 1984.

Andrew J. Troop
Andrew J. Troop, P. Eng.





32D05NW0055 2.7361 HOLLOWAY

900

Mining Lands Section

File No 2.7361

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

-map not contained

leg. L.D.

J. Hurst

Signature of Assessor

Date

Type of Survey: **MAGNETOMETER**

Claim Holder's Name: **GOLDEN HARKER EXPLORATIONS LIMITED** 2.136d

Address: **80 Richmond Street West, Suite 604, TORONTO, Ontario M5H 2S9**

Survey Company: **TROOP EXPLORATION & DEVELOPMENT INC.**

Name and Address of Author (of Geo-Technical report): **Andrew J. Troop, 67 Toynbee Trail, SCARBOROUGH, Ontario M1E 1G1**

Date of Survey (from & to): 20 07 84 / 13 09 84
 Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut: (not continuous)

Prospector's Licence No.: **T-1250**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	20
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	578844				
	578845				
	578846				
	578847				
	578848				
	578849				
	578850				

RECEIVED
 DEC 11 1984
 MINING LANDS SECTION

PLEASE NOTE: AMENDED REPORT

LARDER LAKE
 MINING DIV.
RECEIVED
 OCT 16 1984
 7 8 9 10 11 12 1 2 13 14 15 3

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Total number of mining claims covered by this report of work. **7**

Instructions
 Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **October 15, 1984**

Recorded Holder or Agent (Signature): *Andrew J. Troop*

For Office Use Only

Total Days Cr. Recorded: **140**

Date Recorded: **OCT 16 1984**

Date Approved as Recorded: **85.1.18**

Mining Recorder: *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **Andrew J. Troop, P.Eng., 67 Toynbee Trail, SCARBOROUGH, Ontario M1E 1G1**

Date Certified: **Oct. 15, 1984.**

Certified by (Signature): *Andrew J. Troop*

27361

TROOP EXPLORATION & DEVELOPMENT INC.

Suite 1855 — Commerce Court West
P.O. Box 161, Commerce Court Postal Station
TORONTO, ONTARIO
CANADA
M5L 1E7

TELEPHONE
(416) 366-4429

January 11, 1985.

Mr. S.E. Yundt, Director,
Land Management Branch,
Ministry of Natural Resources,
Whitney Block, Room 6643,
Queen's Park,
TORONTO, Ontario
M7A 1W3

RECEIVED

JAN 14 1985

MINING LANDS SECTION

File: 2.7361

Dear Sirs:

Further to your correspondence of December 14th, 1984,
we hereby enclose two contoured copies of the Golden Harker
Explorations Limited magnetic data plans.

Trusting that you will find this in order, we remain

Yours very truly,

TROOP EXPLORATION & DEVELOPMENT INC.

Andrew J. Troop
Andrew J. Troop, P.Eng.
President.

AJT/jmt
Encls.
cc: Golden Harker Explorations Limited

RECEIVED	
Land Management Branch	
CIRCULATE <input type="checkbox"/>	<input type="checkbox"/>
COMMENTS PLEASE <input type="checkbox"/>	<input type="checkbox"/>
BY	
JAN 14 1985	
S. E. YUNDT	
J. R. MORTON	
J. C. SMITH	<input checked="" type="checkbox"/>
GOOD	
N	
BOOK	
R. 6643	

December 14, 1984

File: 2.7361

Golden Harker Explorations Limited
80 Richmond Street West
Suite 604
Toronto, Ontario
M5H 2S9

Dear Sirs:

RE: Geophysical (Magnetometer) Survey submitted
on Mining Claims L 578844 et al in the Township
of Harker and Holloway

Enclosed is the plan, in duplicate, for the above-mentioned survey. Please complete the contouring of the magnetic data on these plans and return the plans to this office quoting file 2.7361.

For further information, please contact Doug Isherwood at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6443
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

D. Isherwood:mc

cc: Mining Recorder
Kirkland Lake, Ontario

cc: Andrew J. Troop
c/o Troop Exploration and Development Inc
Suite 1855
Commerce Court West
P.O. Box 161
Commerce Court Postal Station
Toronto, Ontario
M5L 1E7

Encl.

File # 578844) Mining Act

Type of Survey(s) **MAGNETOMETER** Township or Area **HOLLOWAY & HARKER TWPS.**

Claim Holder(s) **GOLDEN HARKER EXPLORATIONS LIMITED** Prospector's Licence No. **T-1250**

Address **80 Richmond Street West, Suite 604, TORONTO, Ontario M5H 2S9**

Survey Company **TROOP EXPLORATION & DEVELOPMENT INC.** Date of Survey (from & to) **20 07 84 | 13 09 84** Total Miles of line Cut (not continuous)

Name and Address of Author (of Geo-Technical report) **Andrew J. Troop, 67 Toynbee Trail, SCARBOROUGH, Ontario M1E 1G1**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	
	- Radiometric	
For each additional survey: using the same grid: Enter 20 days (for each)	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits	Geophysical	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	- Electromagnetic	
	- Magnetometer	
	- Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	578844				
	578845				
	578846				
	578847				
	578848				
	578849				
	578850				

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures \$ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. **7**

For Office Use Only

Total Days Cr. Recorded **140** Date Recorded **OCT 16 1984** Mining Recorder *[Signature]*

Date Approved as Recorded **140** Branch Director *[Signature]*

Date **October 15, 1984** Recorded Holder or Agent (Signature) *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying **Andrew J. Troop, P.Eng., 67 Toynbee Trail, SCARBOROUGH, Ontario M1E 1G1**

Date Certified **Oct. 15, 1984.** Certified by (Signature) *[Signature]*

1984 11 05

Your File:
Our File: 2.7361

Mining Recorder
Ministry of Natural Resources
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We received reports and maps on October 30, 1984 for a Geophysical (Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 578844 et al in the Township of Holloway.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

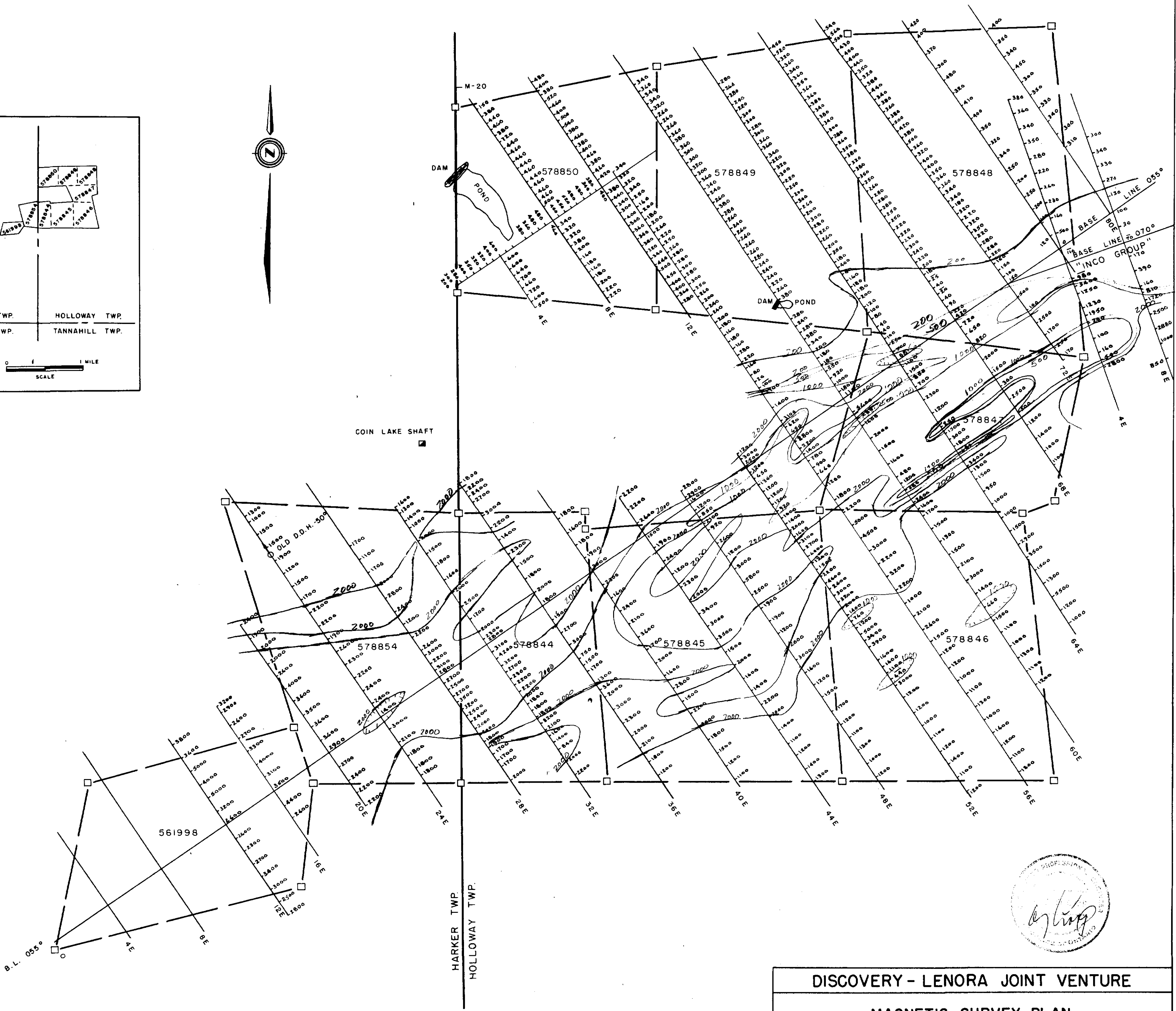
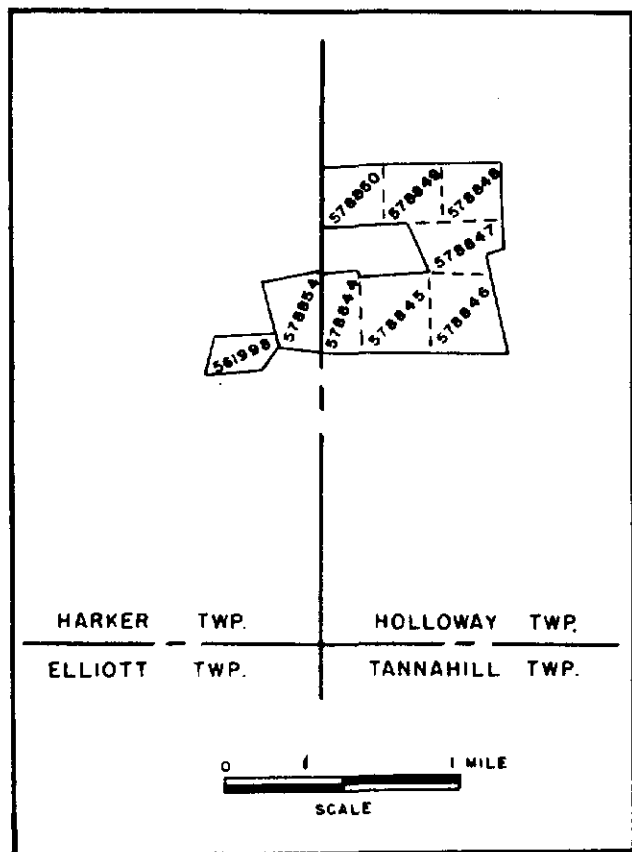
Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

S. Hurst:sc

cc: Troop Exploration & Development Inc
Suite 1855 - Commerce Court West
P.O. Box 161
Commerce Court Postal Station
Toronto, Ontario
M5L 1E7



DISCOVERY - LENORA JOINT VENTURE

MAGNETIC SURVEY PLAN
GOLDEN HARKER PROPERTY
EAST GROUP
HARKER & HOLLOWAY TWPS., LARDER LAKE MINING DIVISION
COCHRANE DISTRICT, ONTARIO

SCALE: 1" = 400'
AUGUST 15, 1984
TROP EXPLORATION AND DEVELOPMENT INC. TORONTO

INSTRUMENT: SCINTREX FLUXGATE MODEL MF-2

