



32D05NW0426 2.4470 HARKER

010

A Report
on
Magnetometer and VLF Surveys
on the
Harker Twp Group
of
Independant Mining Corp.

by
L.G. Hobbs, P. Eng.

RECEIVED

JAN - 5 1982

MINING LANDS SECTION

Dec. 10, 1981

Markham, Ont.

Summary

Eleven claims were staked by Independant Mining Corp. in central Harker Twp in 1980 and were surveyed in 1981. A line system totalling 14.8 miles in length served as control for magnetometer and VLF surveys. Several magnetic features were outlined including what is believed to be the southern edge and contact zone of a syenite intrusive. Further work recommendations are made which would outline possible gold bearing disseminated sulphide occurrence drill targets.

Property

The property consists of eleven claims in central Harker Twp. The claims are numbered L579093-099, L579100-101, L579105-106 and were recorded Nov. 12, 1980.

Access

Secondary logging roads cross the property and are reached via Hwy 101 to the north.

Geology

Satterly's map of the township shows central Harker Twp to be underlain by a body of Algoman syenite which intrudes a series of intermediate to basic volcanics with interflow sediments. The Independant Mining property lies at the south edge of the syenite where it abuts a fairly wide band of southwesterly trending greywacke. The greywacke outcrops on the north-east part of the claim group as do the enclosing basalts andesites and tuffs. Flow tops as determined from pillow lavas face south and a series of north-westerly trending cross faults are shown. The geology through the western and central parts of the group is unknown due to a total lack of outcrop.

The sedimentary band appears to have some potential as a host for gold mineralization. On the Imperial Reserve property the old claims of which adjoin to the east, grab samples of up to 0.17 oz Au were obtained by F.R. Joabin in 1947 in greywacke mineralized with pyrite.

The north end of the syenite body abuts another sedimentary band in the area crossed by the Destor-Porcupine fault. Here, on the old Dale property, low gold values were found in mineralized and altered greywacke apparently similar to the Imperial Reserve occurrence.

The syenite contacts especially where sediments and/or faulting occurs appear therefore to offer potential for gold exploration. The following sections describe the programme carried out on the Independant Mining group.

Surveys

Control

An east-west base line with cross lines at 400 ft intervals served as control with a total of 14.8 miles of line (including baseline) being cut. Readings of both VLF and magnetometer were taken at 100 ft picket intervals. The lines were cut by A. Foster of Matheson, Ont. and readings were by A. Fisher of Toronto.

Magnetometer Survey

A GEM GSM 8 proton magnetometer was used with diurnal corrections being effected by the time-linear method.

The contour map of the survey shows the following features.

1. A large magnetically high mass on the north-east edge of the survey and extending down to near the base line in the lines 8W and 12W area. This is probably the contact metamorphic aureole of the syenite intrusive.
2. Three generally east-west trending magnetic zones passing through 52W,13S; 52W,7N; and 56W,15N respectively. These are probably iron formations or ultrabasic sills although the southerly one could possibly be a Keweenawan diabase dike. None has any marked correlation to VLF conductors so they do not likely contain massive sulphides.
3. A general decrease in magnetic intensity going south-westerly from the large high attributed to the syenite contact zone. This is thought to be due to increasing overburden thickness in this direction.

4. A north-westerly trending linear feature running from about 32W,11S through 68W,10N. Though not highly noticeable a similar co-incident pattern can be seen on the VLF map. On the magnetic map the linear appears to truncate the east end of the southern most band of iron formation and may cut off the 52W,7N band also. If the linear is a cross fault similar to those shown on Satterly's map the two lower magnetic bands (52W,13S and 52W,7N) may be faulted offsets of each other. Other parallel linear features suggest the fault zone (if it is a fault) may be a major feature with a width up to 600-700 ft.

VLF Survey

A Geonics EM16 instrument reading the transmitter at Cutler Me (NAA) was used and both in phase and quadrature readings taken. The in phase readings were then filtered by the Fraser method and these results plotted in the form of a contour map.

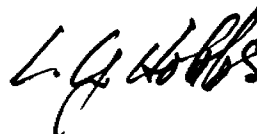
The Fraser plot shows a number of moderately high anomalous peaks but interpretable patterns are difficult to detect. Almost no correlation with magnetic features can be seen but the north-west trending linear described in the previous section is visible. Otherwise the anomalies appear to occur in a series of isolated weakly conductive zones with no readily apparent relationship to one another. Further surveying or drilling may help this interpretation but for now the pattern offers no definite exploration leads.

Suggestions for Further Work

The original concept which lead to the work described above involved the search for gold within disseminated pyrite zones near the syenite contacts. The location of the contact has now been shown by the magnetic pattern. It is suggested that an Induced Polarization (I.P.) survey be done over at least the north-east 1/3 of the claim group in an attempt to outline disseminated sulphide occurrences. At the same time the outcrops which were examined this year should

be mapped and this information correlated with the surveys. If enough funds are available to I.P. survey the interpreted fault and iron formations further west on the group so much the better. The estimated cost to survey the whole group would be approximately \$7,000.

Respectfully submitted,



L.G. Hobbs, P. Eng.



Imperial Reserve Mines, Limited

Imperial Reserve Mines, Limited, own a group of 19 patented claims in the centre of Harker township.

The original showings were made on claims L. 13404 and L. 13408. Later additional finds were made on claims L. 13407 and L. 27600. In 1942, surface work and a diamond-drilling programme of four holes were carried out in the northeast corner of the claim group.

Rock exposures are confined largely to the northeast and southwest parts of the group. Teddy Bear creek has its source within the group and drains across it to the northeast. The rocks are mainly basic lavas, pillowed or diabasic, with flow breccia tops. Angling across the group is a 400-foot band of sediments (greywacke), which is poorly exposed except for a few outcrops on claim L. 27600. The lavas are cut by a feldspar porphyry dike on claim L. 13407 and by a number of small lamprophyre dikes. A narrow, fresh diabase dike cuts both the sediments and lavas on the west boundary of claim L. 27600. The lavas and sediments trend about N. 70° E., and dip vertically, or nearly so, in the southwest part of the group. Top determinations in the lavas indicate that they face south. Data for the sediments were not found.

On claim L. 27600, the band of sediments is mineralized with pyrite. Grab samples taken by F. R. Joubin in 1947¹ returned 0.01-0.17 ounces of gold per ton. In 1948, a large timbered trench found to the north of the outcrop had caved and no rock is exposed. Fragments of yellow sediments (carbonatized?) were seen beside the trench.

On claim L. 13407, a red feldspar porphyry dike 3-15 feet wide was traced for a length of 500 feet, and picked up again 150 feet to the east, on the next outcrop. It could not be traced farther east. It trends east-west. Horseshoes of lava, 4 and 30 feet wide, were noted at two places in the dike. The lavas to the north of the dike are strongly sheared, to the south they are massive. The rock to the north is a crenulated black schist with carbonate lenses and stringers, and pyrite. It may be a highly altered sediment. The shearing trends approximately east-west and dips 72°-75° S. This zone of shearing has been explored by trenches and pits which, in 1949, were overgrown or filled with water. Joubin² reports that one of the drill holes cross-sectioned this zone and intersected a series of syenite dikes in the lavas. Two mineralized zones were found, 8 and 10 feet wide, which gave assays averaging about 0.06 ounces of gold per ton.

Iris Gold Mines, Limited³

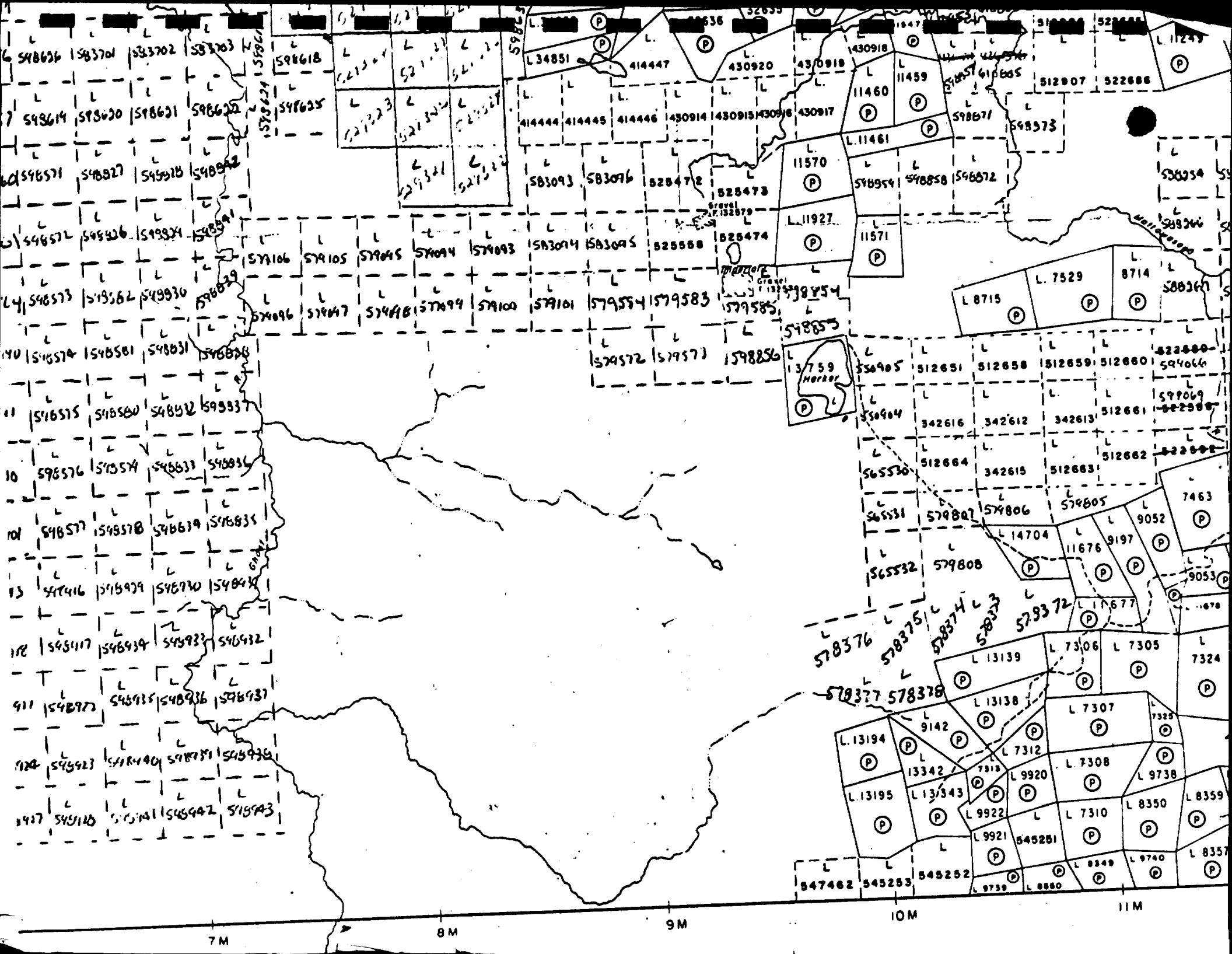
Iris Gold Mines, Limited, owns a group of 17 patented claims in the southeast corner of the township. Surface work has been carried out on showings in claims L. 9738, L. 8650, L. 9920, L. 8705, and L. 7324. A programme of diamond-drilling was carried out on the No. 1 showing on claim L. 9738. The writer has no information on the number of holes or footage drilled.

Rock is fairly well exposed in large and small scattered outcrops, which are mainly lavas with three interbanded rhyolite flows. The common basic lava is a diabasic flow with a flow breccia top. Pillowed flows, some of which are spherulitic, are less common. The spherulitic varieties are found to the south of the largest rhyolite flow. The rhyolite flows have been described previously on page

¹F. R. Joubin, private report to the company, Dec. 17, 1947.

²*Ibid.*

³Gold assays quoted, unless shown otherwise, are taken from a report by R. Storen for Iris Gold Mines, Ltd., Nov., 1947, and are published by the permission of A. E. Perron.



Lance
adp

Ministry of
Natural
Resources

08108-527
Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)



32D05NW0426 2.4470 HARKER

900

(File L579093)

The Mini.

Type of Survey(s) VLF EM + MAGNETOMETER		Township or Area HARKER	
Claim Holder(s) L. G. Hobbs.		Prospector's Licence No. A35092	
Survey Company L. G. Hobbs. P. Eng.		Survey Dates (linecutting to office) Day Mo. Yr. Day Mo. Yr. 1 5 81 1 11 81	
Name and Address of Author (of Geo-Technical report) L. G. Hobbs Suite 9 - 101 Amber St. MARKHAM ONT L3R3B2			

Special Provisions Credits Requested

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
L	579093				
	579094				
	579095				
	579096				
	579097				
	579098				
	579099				
	579100				
	579101				
	579105				
	579106				

Man Days

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

Airborne Credits

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

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures ÷ = 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.

Report Completed

Date of Report **Nov 1 1981**

Recorded Holder or Agent (Signature) *L. G. Hobbs.*

For Office Use Only

Total Days Cr. Recorded **660**

Date Recorded **NOV 9 1981**

Mining Recorder *[Signature]*

Date Approved as Recorded **Oct 21/83**

Regional/Branch Director *[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

RECEIVED
NOV 20 1981
MINING LANDS SECTION

RECEIVED
NOV - 9 1981
AM 7 18 19 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work. **11**

Mining Lands Comments

To: Geophysics *Mr. Barlow.*

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <i>Sept 21/83</i>	Signature <i>[Signature]</i>
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To: Geology - Expenditures

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geochemistry

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

Suite 4,101 Amber St.
Markham, Ont. L3R3B2
Aug. 7, 1983
(416)491-4075

Mr. F.W. Matthews
Whitney Block, Rm. 6450
Queen's Park
Toronto, Ont.
M7A1W3

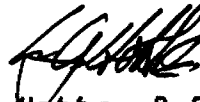
Dear Mr. Matthews,

Please find enclosed two copies of my VLF survey map as you requested in your letter of Aug. 4/83.

I am glad that you sent the notice registered as I was quite unaware that the request had been made previously. I cant be sure if the previous notice got lost in the mail or got to this office but didn't get to me. We have had trouble with mail up here.

Hoping this will be satisfactory, I am,

Yours truly,



L.G. Hobbs, P.Eng.

RECEIVED

AUG 9 1983

MINING LANDS SECTION

August 4, 1983

2.4470

REGISTERED

Mr. L.G. Hobbs
Suite #4
101 Amber Street
Markham, Ontario
L3R 3B2

Dear Sir:

RE: Geophysical (Electromagnetic & Magnetometer) Survey
submitted on Mining Claims L 579093 et al in the
Township of Harker.

Enclosed is a copy of our letter requesting additional
information for the above mentioned survey.

Unless you can provide the required data by August 17, 1983,
the mining recorder will be directed to cancel the work credits
recorded on November 9, 1981.

For further information, please contact Mr. F.W. Matthews at
416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380.

S. Hurst:sc

Encls:

cc: Mining Recorder
Kirkland Lake, Ontario

2.4470

2.4470

Mr. L.G. Hobbs
Suite 4
101 Amber Street
Markham, Ontario
L3R 3B2

Dear Sir:

RE: Geophysical (Electromagnetic & Magnetometer) Survey
submitted on Mining Claims L 579093 et al in the
Township of Harker

Your V.L.F. is Fraser filtered. This type of map must be accompanied by another V.L.F. map (in duplicate) with the raw data plotted at each station. On receipt of this map, a statement of assessment work credits will be issued. For further information, please contact Mr. F.W. Matthews at 965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:sc

cc: Mining Recorder
Kirkland Lake, Ontario



Mining Lands Comments

ULF map needs raw data.

To: Geophysics

Mr Barlow.

Comments

- ULF map needs raw readings plotted

Approved

Wish to see again with corrections

Date Oct 29/82

Signature Ryan Plow

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

LD

Approved

Wish to see again with corrections

Date

Signature

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

January 29, 1982

2.4470

Office of the Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L.579093 et al, in the Township of Harker.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

J. Skura/bk

cc: L.G. Hobbs
Markham, Ontario

2.447D

	<u>E.M.</u>	<u>Mag.</u>		<u>E.M.</u>	<u>Mag.</u>
L-579093	✓	✓	579099	✓	✓
94	✓	✓	100.	✓	✓
95	✓	✓	579101	✓	✓
96	✓	✓	579105	✓	✓
97	✓	✓	579106	✓	✓
579098	✓	✓			

J.K.

LAMPLUGH TWP. M-358

THE TOWNSHIP
OF

HARKER

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

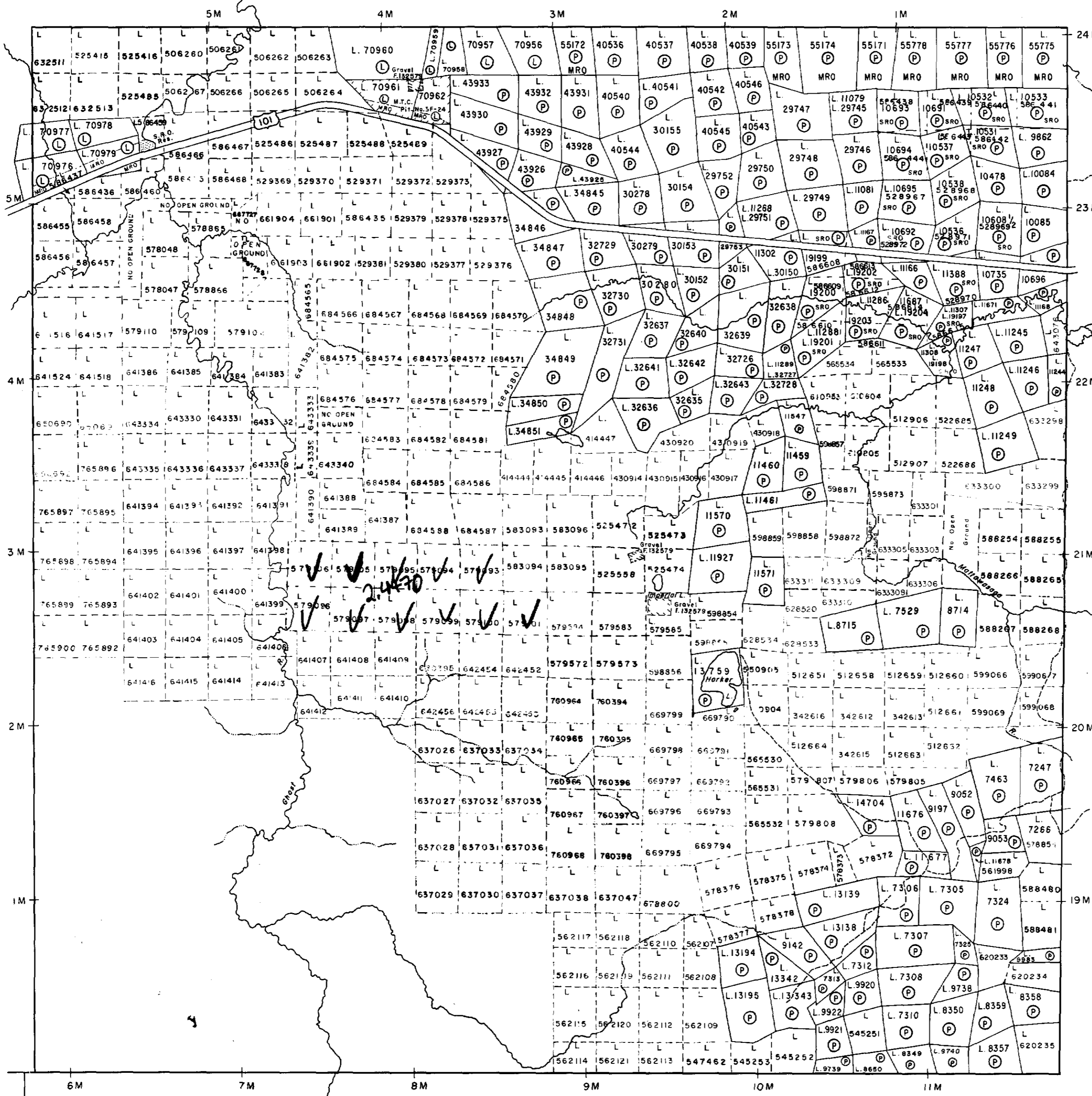
- PATENTED LAND ● or (P)
- CROWN LAND SALE C.S.
- LEASES (L)
- LOCATED LAND Loc.
- LICENSE OF OCCUPATION L.O.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- CANCELLED
- PATENTED S.R.O.

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

DATE OF ISSUE
OCT 14 1983
Ministry of Natural Resources
TORONTO

PLAN NO. **M-353**
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



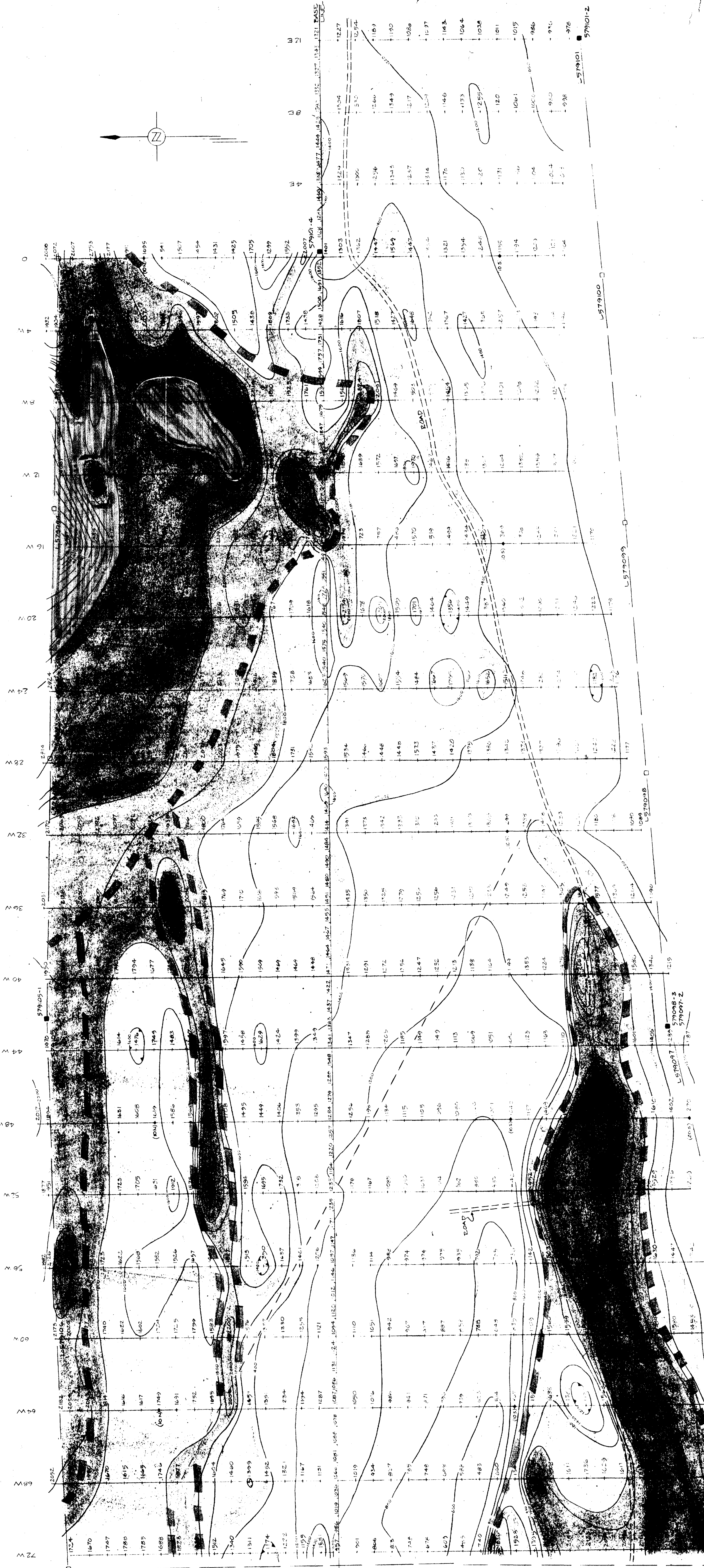
GARRISON TWP. M-349

HOLLOWAY TWP. M-356

ELLIOTT TWP. M-347



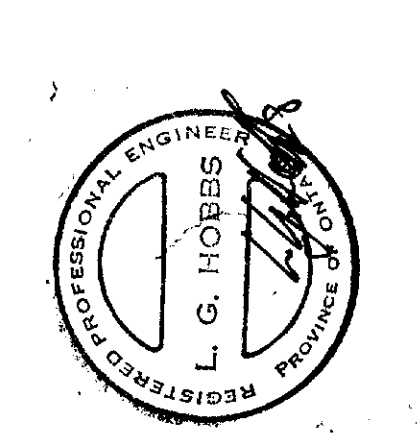
3205NW0426 2.4470 HARKER



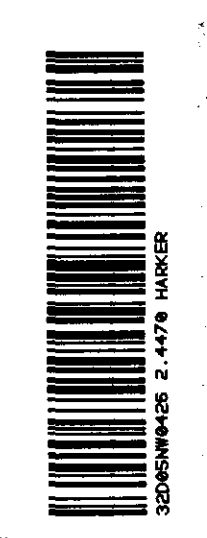
INDEPENDANT MINING CORP.
 MAGNETOMETER SURVEY
 OF
 HARKER TWP GROUP
 Scale 1 in. = 200 ft
 Oct. 1951 L. G. HOBBS, P. ENG.

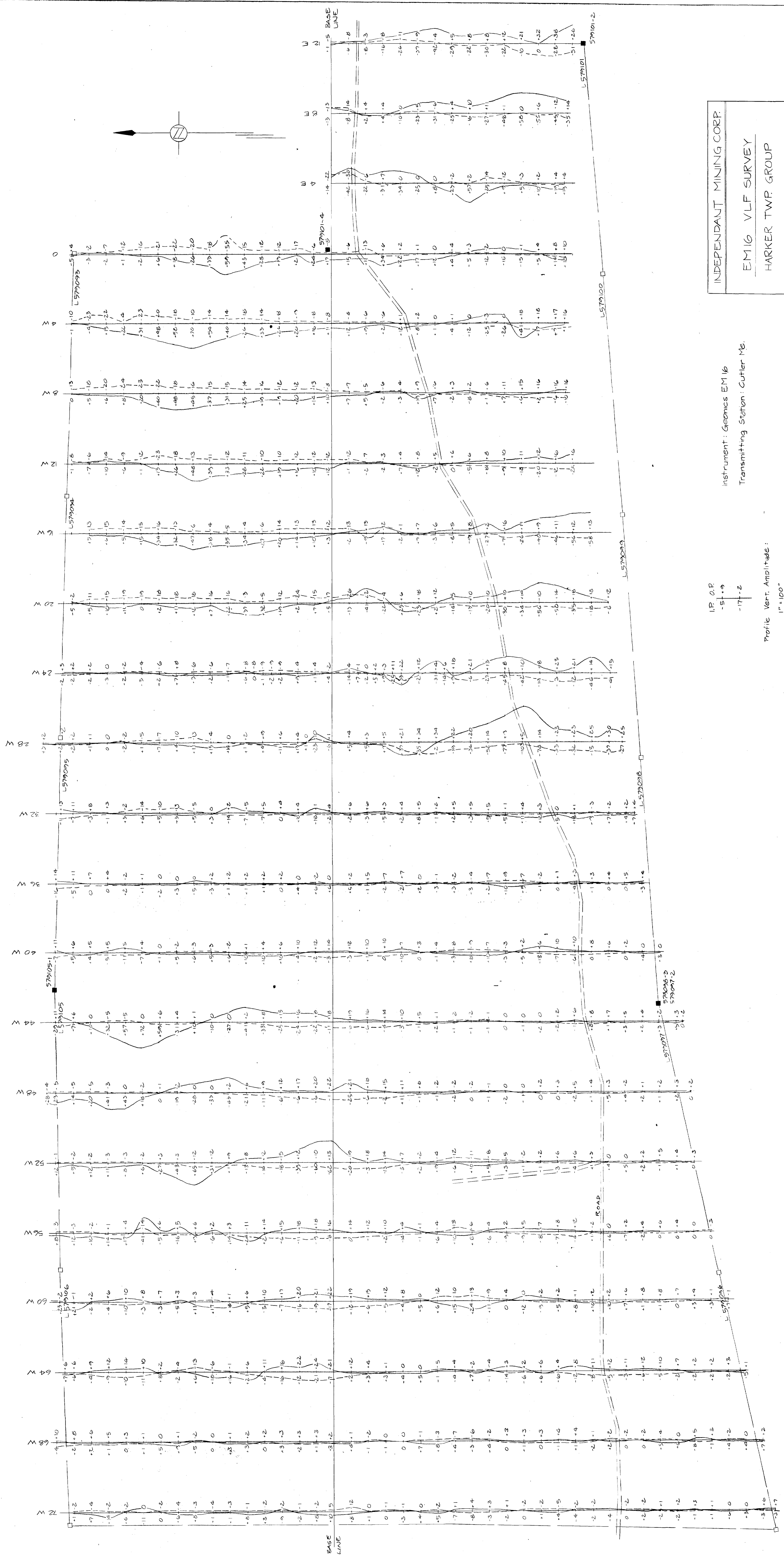
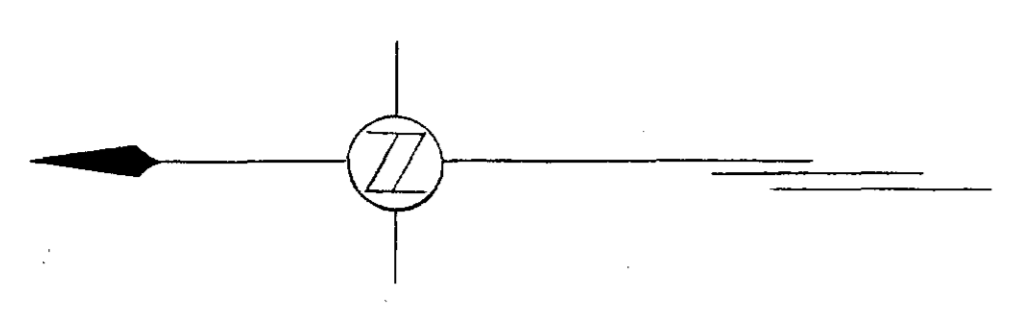
Instrument: GEM, GSM-8 proton magnetometer

LINEAR: 3200 - 3300
 INFERRED CONTACTS: 2200 - 3200
 CLAIM POSTS (LOCATED): 1800 - 2200
 CLAIM POSTS (NOT LOCATED): 1400 - 1800
 0 - 1400



24470



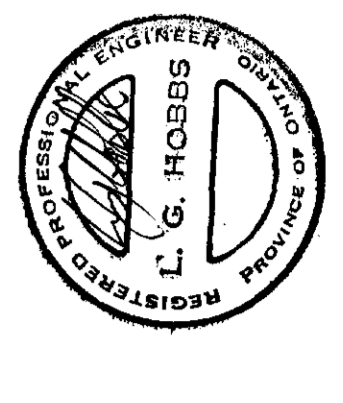


INDEPENDANT MINING CORP.
EM16 VLF SURVEY
HARKER TWP. GROUP
Scale 1 in. = 200 ft.
Aug. 7, 1983 L. G. HOBBS, P. ENG.

Instrument: Geonics EM16
Transmitting Station: Cutler M6.

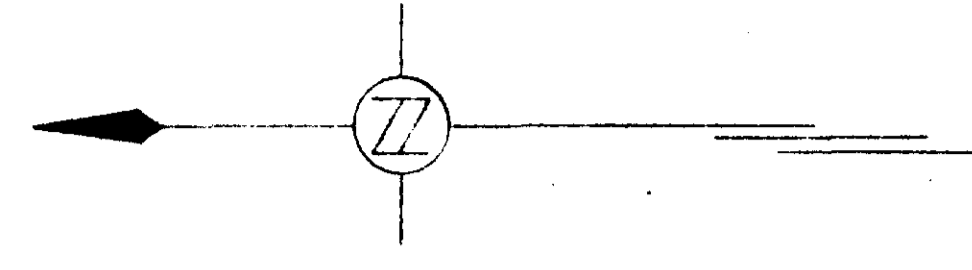
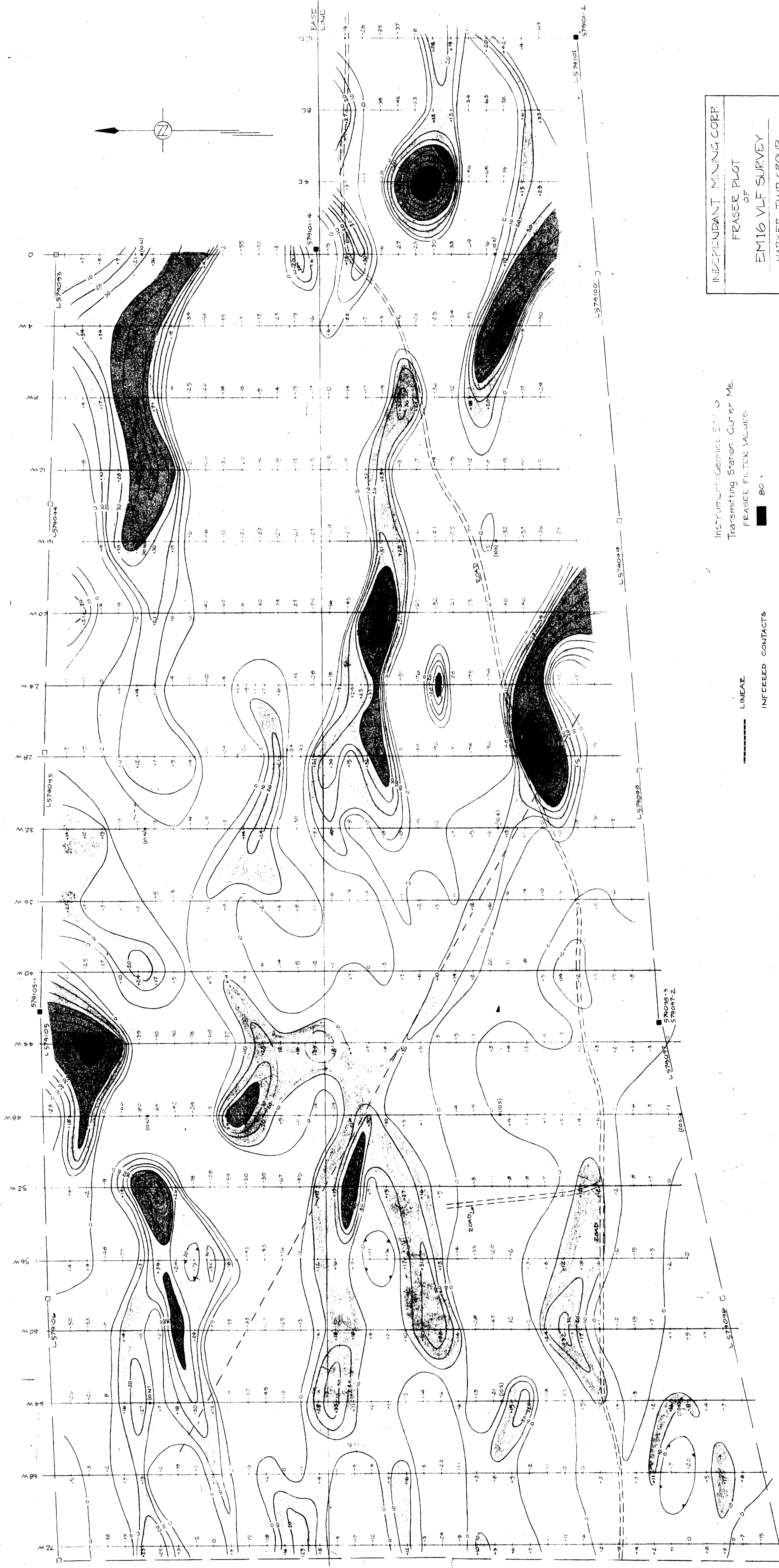
IP 0.0
-51.0
-17.2

- Profile Vert. Amplitude:
1" = 100'
--- In Phase (I.P.)
- - - Out of Phase (O.P.)
- CLAIM POSTS (LOCATED)
 - CLAIM POSTS (NOT LOCATED)



24470





INDEPENDANT MINING CORP
 FRASER PLOT
 OF
 EM16 VLF SURVEY
 HARKER TWP GROUP
 Scale 1 in = 200 ft.
 Oct. 1981 L. G. HOBBS, P. ENG.

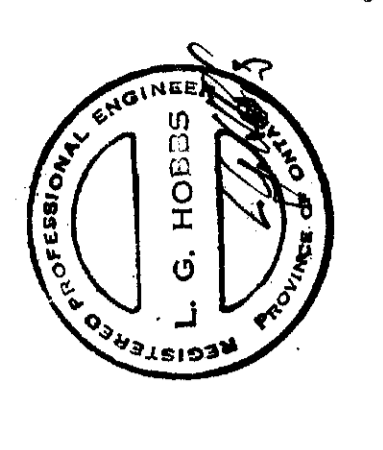
Instrument: Geonics EM 16
 Transmitting Station: Currier Me.
 FRASER FILTER VALUES

■	80
■	40-80
□	10-40

LINEAR

INFERRED CONTACTS

- CLAIM POSTS (LOCATED)
- CLAIM POSTS (NOT LOCATED)



2.11.78

