



32D05NW0092 2.5755 ELLIOTT

010

REPORT ON
GEOLOGICAL SURVEY
OF
PERRON CLAIMS
ELLIOT AND HARKER TOWNSHIPS
DISTRICT OF COCHRANE
LARDER LAKE MINING DIVISION
FOR
A. H. PERRON

BY

P. ATHERTON B.Sc.

H. E. NEAL & ASSOCIATES LTD.
TORONTO - CANADA

JULY 1983

RECEIVED

AUG 16 1983

MINING LANDS SECTION

2.5755



32D05NW0092 2.5755 ELL10TT

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1.0 SUMMARY

The geological survey in Elliot and Harker Township was conducted by H. E. Neal & Associates Ltd. personnel during July, 1983. The survey was on behalf of A. H. Perron of Kirkland Lake. The survey was conducted over a grid cut in the bush at a line interval of 400 feet covering 12 unpatented mining claims.

The survey showed the claim group to be underlain mainly by basalt. Some andesite, rhyolite, dacite and intrusive rocks are also present. Two outcrops contain large quartz veins with associated sulphide mineralization. The largest quartz vein is 45 feet long and is located on 24E-9. The other outcrop (20E-4) is a crystalline rhyolite and contains a stockwork of mineralized quartz veins.

The geology is similar to that of the former Toronto Harker and Iris Gold Mines properties in Harker Township. Gold mineralization was found in the rhyolite on both properties.

Future work should include stripping and blasting of the mineralized quartz veins.

2.0 INTRODUCTION:

The unpatented claims held by A.H. Perron of Kirkland Lake, Ontario consist of 11 contiguous claims in Elliot and Harker Townships and one isolated claim (L545251) in Harker Township. The geological survey was conducted by H.E. Neal & Associates Ltd. personnel during July 1983. Personnel consisted of the author and an assistant. The survey was done to locate and evaluate the presence of economic minerals. The survey was conducted over a grid with picket lines every 400 feet.



ONTARIO

QUE.

TIMMINS

SURVEY AREA

THUNDER BAY

SAULT
STE MARIE

TORONTO
HAMILTON

0 100 200 300
MILES

H E NEAL & ASSOCIATES LTD.

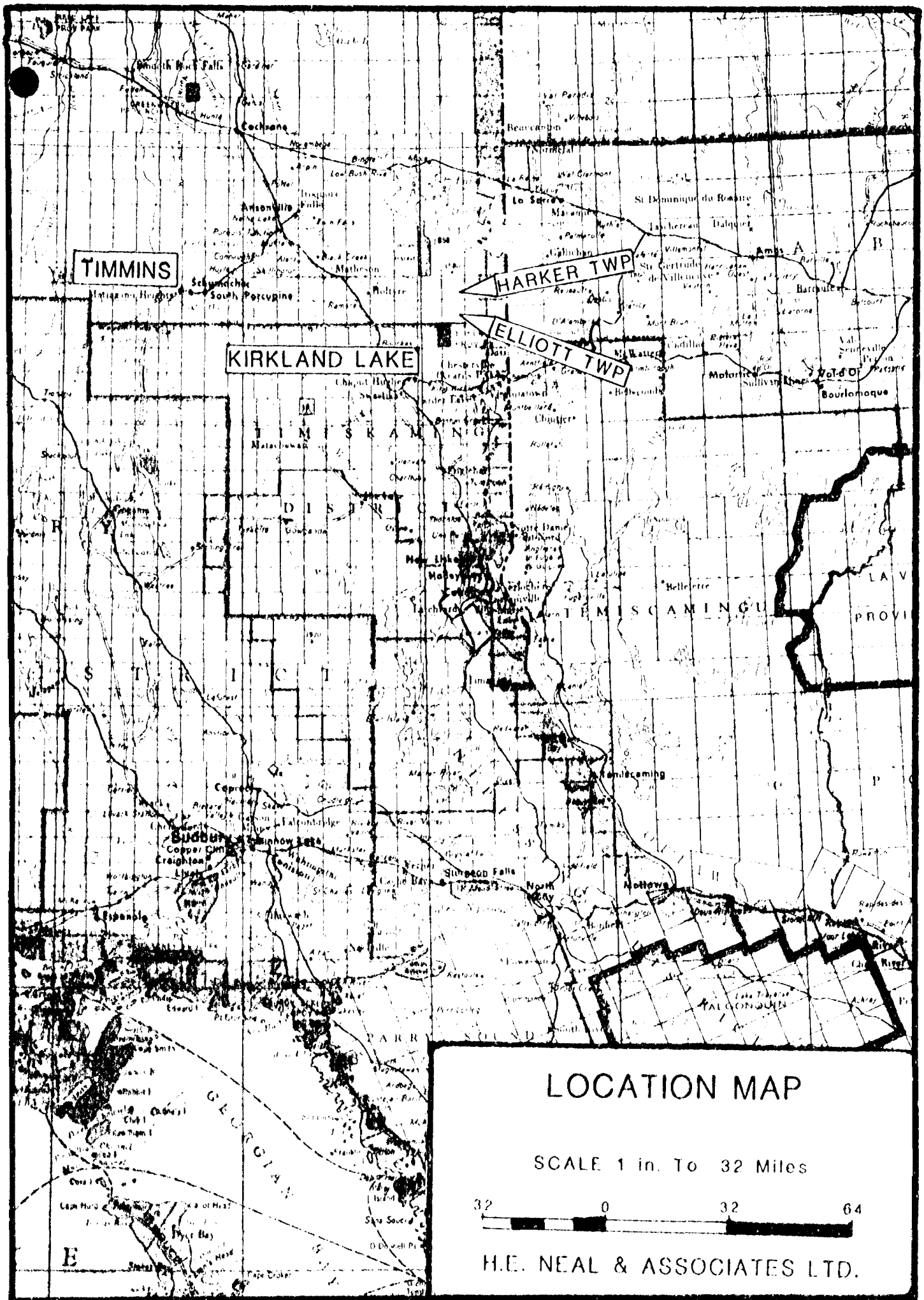
3.0 THE PROPERTY:

The property consists of 11 contiguous unpatented mining claims in Elliot and Harker Townships and one unpatented mining claim in Harker Township. The claims are listed below and are shown on the accompanying property map:

| <u>Claim No.</u> | <u>Township</u> | |
|--------------------------|-----------------|---|
| L545251 | Harker | 1 |
| L545252 and L545253 | Harker | 2 |
| L545254 to L545260 incl. | Elliot | 7 |
| L547461 | Elliot | 1 |
| L547462 | Harker | 1 |

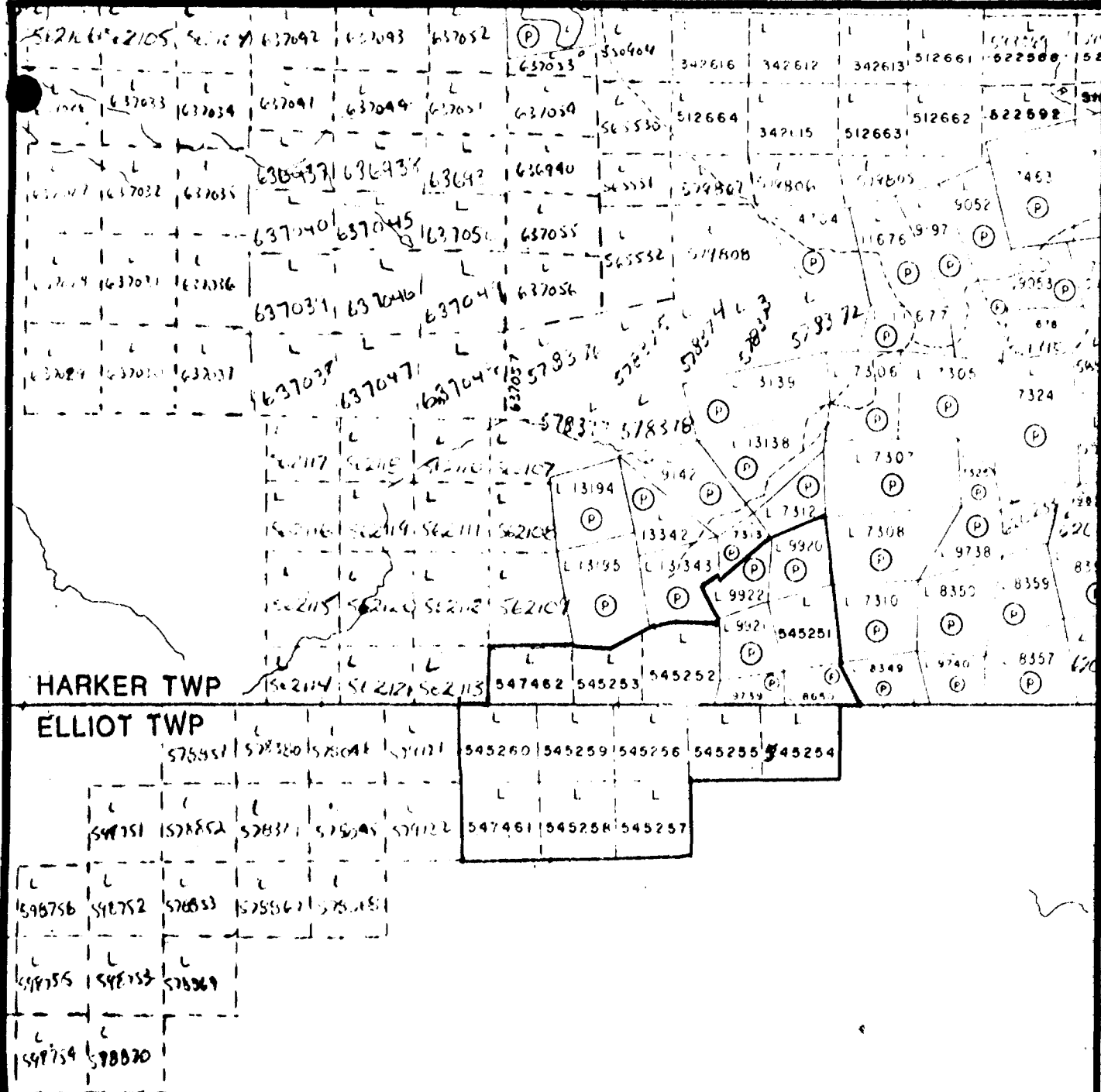
All of the claims except L545251 are contiguous.

The claims are held by A.H. Perron of Kirkland Lake, Ontario and all are being submitted for assessment credits.



4.0 LOCATION AND ACCESS:

The 12 claims are located in Harker and Elliot Townships, District of Cochrane in the Larder Lake Mining Division. The claims are located between the 9 and 10 mile posts along the Harker, Elliot Township boundary. The claims are located 30 miles southeast of Matheson, Ontario. Access to the claims is by Highway 101 east from Matheson and south through Harker Township by logging road to within 3½ miles of the property by truck. Direct access to the claims is by all terrain vehicle.



HARKER TWP

ELLIOT TWP

ELLIOT & HARKER CLAIMS
 PROPERTY MAP
 SCALE 1 TO 1/2 MILE
 H.E. NEAL & ASSOCIATES LTD.

5.0 PREVIOUS WORK:

1947 - Trenching and blasting of several trenches by the Good Fish Mining Company Limited and Iris Gold Mines Limited. Several mineralized quartz veins were sampled.

1982 - Ground magnetic and VLF-EM surveys were conducted over the claims covered by the present survey for A.H. Perron.

6.0 GEOLOGY:

6.1 General Geology

The rocks in Elliot and Harker Townships are Archean in age and are part of the Abitibi greenstone belt. The townships and surrounding area are underlain by a complex assemblage of volcanic, sedimentary and plutonic rocks. The map area is part of a larger area that is bounded by the Destor Porcupine Fault to the north and the Larder Lake Fault to the south. The rocks make up part of a large synclinorium that trends east-west from Noranda to west of Timmins.

The volcanic rocks underlying the two townships are tholeiitic mafic to felsic lavas. These rocks are older than the calc-alkaline rocks that underly the south part of Elliot Township.

The intrusive rocks in the area range from felsics to mafic in composition.

Faulting is divided into three major sets. The oldest set is southwest trending strike faults. These are intersected and offset by northwest and northeast trending cross faults.

6.2 Geology of the Claim Group

The claim group is underlain by a series of southwest striking felsic to mafic volcanics. These rocks are intruded by a northeast trending diabase dike that is probably middle to late Precambrian (Matachewan) in age.

6.2.1 Basalt and Andesite

Most of the outcrops that occur in the claim group are basalt and andesite. These rocks range from massive fine grained to coarse diabasic flows which are the most common varieties to the pillowed, spherulitic and fragmental varieties.

The massive fine grained to diabasic lavas are best exposed on the Elliot Township claims although they are common in the Harker claims also. They have a massive blocky texture. Pyrite occurs as widely disseminated cubes and small flecks throughout the rock and is generally less than 1%. A porphyritic diabasic basalt is located on the north side of outcrop 4W-2. Large feldspars up to 1 inch occur on the outcrop.

Pillow lavas up to 30 feet in width occur. The pillows can be spherulitic as in outcrop 20W-4 or as dark green to grey as in BL-13E. All pillows face south.

The spherulitic lava and pillow lavas contain spherules up to $\frac{1}{2}$ inch

but are generally less than $\frac{1}{4}$ inch. These lavas were not seen in the Elliot Township claims.

Fragmental lavas are common on claim L545251 as agglomerate or flow top breccias. The flows are quite thick and the rocks could be one or the other. Outcrops of hyaloclastite occurs on outcrop 24W-5 and BL-16W. The fragments are ringed and concentric in appearance. The fragments are mainly composed of chert.

6.2.2 Dacite

Dacite occurs as a medium grey to green brittle rock in outcrop 32W-1 and 20W-1 and 2. The dacite in these outcrops is massive textured and barren of pyrite. This rock is not common in the claim group and may be altered andesite.

6.2.3 Rhyolite

Rhyolite occurs in scattered outcrops throughout the claim group. The outcrop distribution indicates three and possibly four separate bands. The rhyolite is mainly pink to black to bluish grey with a fine grained massive texture. Pyrite is generally less than 1% although a pink crystalline outcrop (20E-4) contains up to 2% coarse cubes of pyrite. Covellite and specularite are also present in this outcrop. The pyrite occurs mainly along fracture planes.

6.2.4 Intrusive Rocks

The intrusive rocks that occur on the property are diabase, gabbro and lamprophyre.

The diabase occurs as a northeast trending dike up to 75 feet wide and extensively exposed on claim L545251. The rock ranges from a black fine grained texture near the contacts to coarse grained in the centre of the intrusive.

One outcrop of gabbro occurs on outcrop 12E-3. This is a coarse grained rock with a salt and pepper texture. No pyrite was seen in this rock.

Lamprophyre dikes occur on outcrops BL-14E and BL-12E. The lamprophyre on outcrop BL-14E is 1" to 2" wide. On outcrop BL-12E is a little over 1".

6.3 Structure

Two northwest trending faults were observed on outcrop BL-14E and 28E-5. The faults are right lateral in movement and are probably subsidiary to larger northwest trending faults located in the area. Another larger northwest trending fault is suggested by the magnetometer map in the vicinity of line 4E where a small stream occupies a wide depression.

The rocks strike 65° to 75° and have dips ranging from vertical to 80° south. These are probably part of the north limb of a steep syncline to the south.

6.4 Mineralization

Large quartz veins occur in two places in claim L545251. They occur on outcrops 20E-4 and 24E-9. The quartz vein on outcrop 24E-9 is about 40 feet long and is exposed in a trench. The quartz is white to grey and contains wall rock fragments up to 3 inches. Pyrite concentrations are up to 1% and occur as coarse cubes. Chalcopyrite, covellite and specularite are also present in small quantities. The wall rock is a silicified, carbonatized basalt.

Outcrop 20E-4 is a pink coarse to fine crystalline rhyolite. Quartz veins up to 2 inches occur as a stockwork throughout the outcrop. Pyrite occurs as coarse disseminated cubes up to 2%. Specularite and chalcopyrite are rare but are present as occasional flecks. There is no evidence of any previous work on this outcrop.

Grab samples were taken from each location and sent for assay. The results are not available at present.

7.0 CONCLUSIONS AND RECOMMENDATIONS:

The geology of the unpatented claims is similar to the geology on the adjacent Iris Gold Mines property to the east. The rhyolite on the Iris property has returned significant gold values in the past (Storen 1947).

Other trenches found during the present survey were too overgrown and caved and nothing was seen in them. No assays by the Goodfish Mining Company were reported.

Future work on the property should include reopening the trench on outcrop 24E-9, in claim L545251 and blasting and sampling of the trench and outcrop 20E-4.

Peter G. Atherton B.Sc.

Peter G. Atherton B.Sc.

H.E. Neal & Associates Ltd.

8.0 REFERENCES:

- JENSEN L.S. 1971e: Elliot Township, District of Cochrane;
Ont. Dept. Mines and Northern Affairs, Prelim. map
P.705, Geol. Surv. scale 1 inch to $\frac{1}{4}$ mile. Geology 1971.
- 1978: Geology of Thackeray, Elliot, Tannahill and
Dokis Townships, District of Cochrane; Ontario Geological
Survey Report 165,71p. Accompanied by Maps 2367, 2368,
scale 1:31680 (1 inch to $\frac{1}{2}$ mile).
- SATTERLY, J. 1951: Geology of Harker Township, District of Cochrane;
Ont. Dept. Mines (Vol. 60, Pt. 7 p. 1-47 (published 1952).

CERTIFICATE

I, Peter G. Atherton of 5425 Croydon Road, Burlington, Ontario,
do hereby certify that:

1. I am a graduate geologist residing at the above address.
2. I am a graduate of Brock University in Geology and have worked for H.E. Neal & Associates Ltd. in that capacity since 1975.
3. I have no interest directly or indirectly nor do I expect to have any interest in the properties held by Alex H. Perron.
4. My report is based on personal examination of the property and supervision of the surveys being conducted on the property.

Dated this 9th day of August, 1983 at Toronto, Ontario.

Signed

Peter G. Atherton B.Sc.

P.G. Atherton B.Sc.
Geologist,
H.E. Neal & Associates Ltd.

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy -- Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters -- On time _____ Frequency _____

 -- Off time _____ Range _____

 -- Delay time _____

 -- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent
p. p. m.
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, (circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____



Type of Survey(s) **Geochemical and Expenditures**

Claim Holder(s) **JOHN E. PIRRON** 32D05NW0092 2.5755 ELL10TT **900**

Address **103 GOVERNMENT RD. E. K-18782 K-18983**

Survey Company **H.E. NEAL & ASSOC. LTD.** Date of Survey (from & to) **01 07 83 15 09 83** Total Miles of line Cut

Name and Address of Author (of Geo-Technical report)

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

| Prefix | Number | Days Cr. | Prefix | Number | Days Cr. |
|--------|--------|----------|--------|--------|----------|
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| | 547462 | | | | |

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 AUG 23 1983
MINING LANDS SECTION

LARDER LAKE
 MINING DIV.
RECEIVED
 AUG 15 1983
 AM 7 18 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work. **12**

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

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

\$ + **15** =

For Office Use Only

Total Days Cr./Date Recorded **240** Mining Recorded **11/11**

Recorded **AUG 15 1983** Date Approved as Recorded **83.11.04**

Total number of claims **12** Branch Director **[Signature]**

Date **Aug 15/83** Recorded Holder or Agent (Signature) **Peter G. Atherton**

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 **PETER G. ATHERTON % H.E. NEAL & ASSOC. LTD. 606-55 Queen**

Date Certified **Aug 15 1983** Certified by (Signature) **[Signature]**

H. E. NEAL & ASSOCIATES LTD.
Mineral Consultants

Ste. 606, 55 Queen Street East, Toronto, Canada M5C 1R6 Telephone: (416) 368-0166

August 12, 1983

Mr. E. F. Anderson,
Director,
Land Management Branch,
Whitney Block, Room 6450,
Queens Park,
Toronto, Ontario
M7A 1W3

RECEIVED

AUG 16 1983

MINING LANDS SECTION

Dear Sir: Re: Alex Perron Claims

Enclosed please find the following reports submitted for assessment work credits by H. E. Neal & Associates Ltd. on behalf of Alex H. Perron:

- 2 copies - Report on Geological Survey of Perron Claims, Elliot and Harker Townships, District of Cochrane, Larder Lake Mining Division, Ontario
- 2 maps - Scale 1 inch to 200 feet
(one map to accompany each report)

Yours very truly,

Peter G. Atherton B.Sc.

Peter G. Atherton B.Sc.
H. E. Neal & Associates Ltd.



Ministry of
Natural
Resources

Geotechnical
Report
Approval

File
25755

Aug. 26/83.

Mining Lands Comments

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To: Geophysics

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| Comments |
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| <input type="checkbox"/> Approved | <input type="checkbox"/> Wish to see again with corrections | Date | Signature |
|-----------------------------------|---|------|-----------|

To: Geology - Expenditures *Mr. Kustra.*

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| Comments |
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| <input checked="" type="checkbox"/> Approved | <input type="checkbox"/> Wish to see again with corrections | Date <i>Oct 20/83</i> | Signature <i>Kustra</i> |
|--|---|-----------------------|-------------------------|

To: Geochemistry

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| Comments |
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| <input type="checkbox"/> Approved | <input type="checkbox"/> Wish to see again with corrections | Date | Signature |
|-----------------------------------|---|------|-----------|

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

2.5755

August 19, 1983

Mr. George Koleszar
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 Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims L 545251 et al in the Townships of Harker and Elliot.

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 very truly,

E. F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Telephone: (416) 965-1380

A. Barr/as

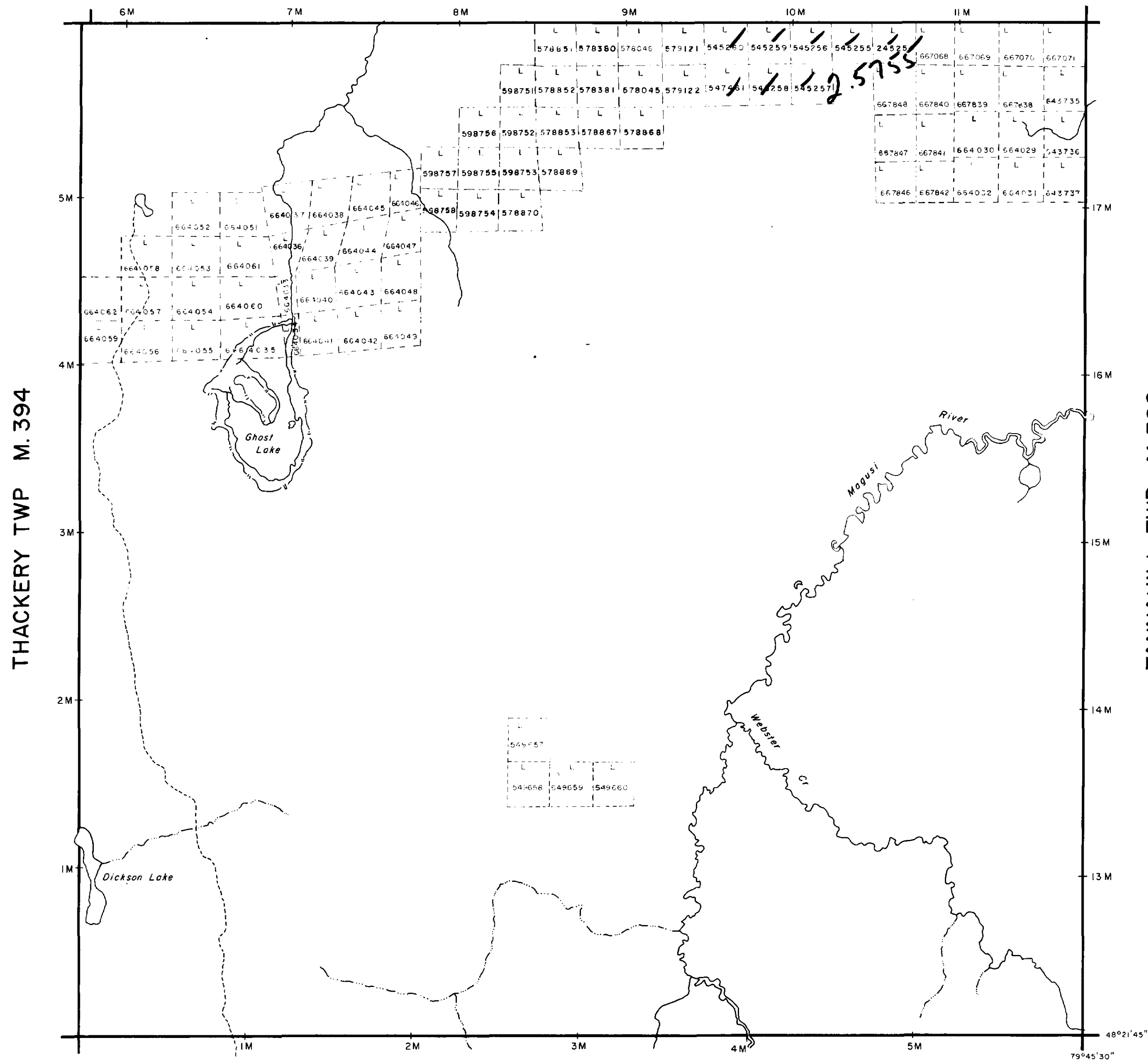
cc Alex E. Perron
Kirkland Lake, Ontario

Peter Atherton
Toronto, Ontario

File: 2.5755

| | Geol. | | | | | |
|----------|-------|--|--|--|--|--|
| L 545251 | ✓ | | | | | |
| 252 | ✓ | | | | | |
| 253 | ✓ | | | | | |
| 254 | ✓ | | | | | |
| 255 | ✓ | | | | | |
| 256 | ✓ | | | | | |
| 257 | ✓ | | | | | |
| 258 | ✓ | | | | | |
| 259 | ✓ | | | | | |
| 260 | ✓ | | | | | |
| 547461 | ✓ | | | | | |
| 462 | ✓ | | | | | |

HARKER TWP M. 353



NOTES

400' surface rights reservation along the shores of all lakes and rivers.

LEGEND

- PATENTED LAND (P) or ●*
- PATENTED FOR SURFACE RIGHTS ONLY (P) or ●*
- LEASE (L) or ●*
- LICENSE OF OCCUPATION L.O.
- CROWN LAND SALES C.S.
- LOCATED LAND Loc.
- CANCELLED C.
- MINING RIGHTS ONLY M.R.O.
- SURFACE RIGHTS ONLY S.R.O.
- HIGHWAY & ROUTE NO. (17)
- ROADS ---
- TRAILS ---
- RAILWAYS ---
- POWER LINES ---
- MARSH OR MUSKEG ---
- MINES ✕

*used only with summer resort locations or when space is limited

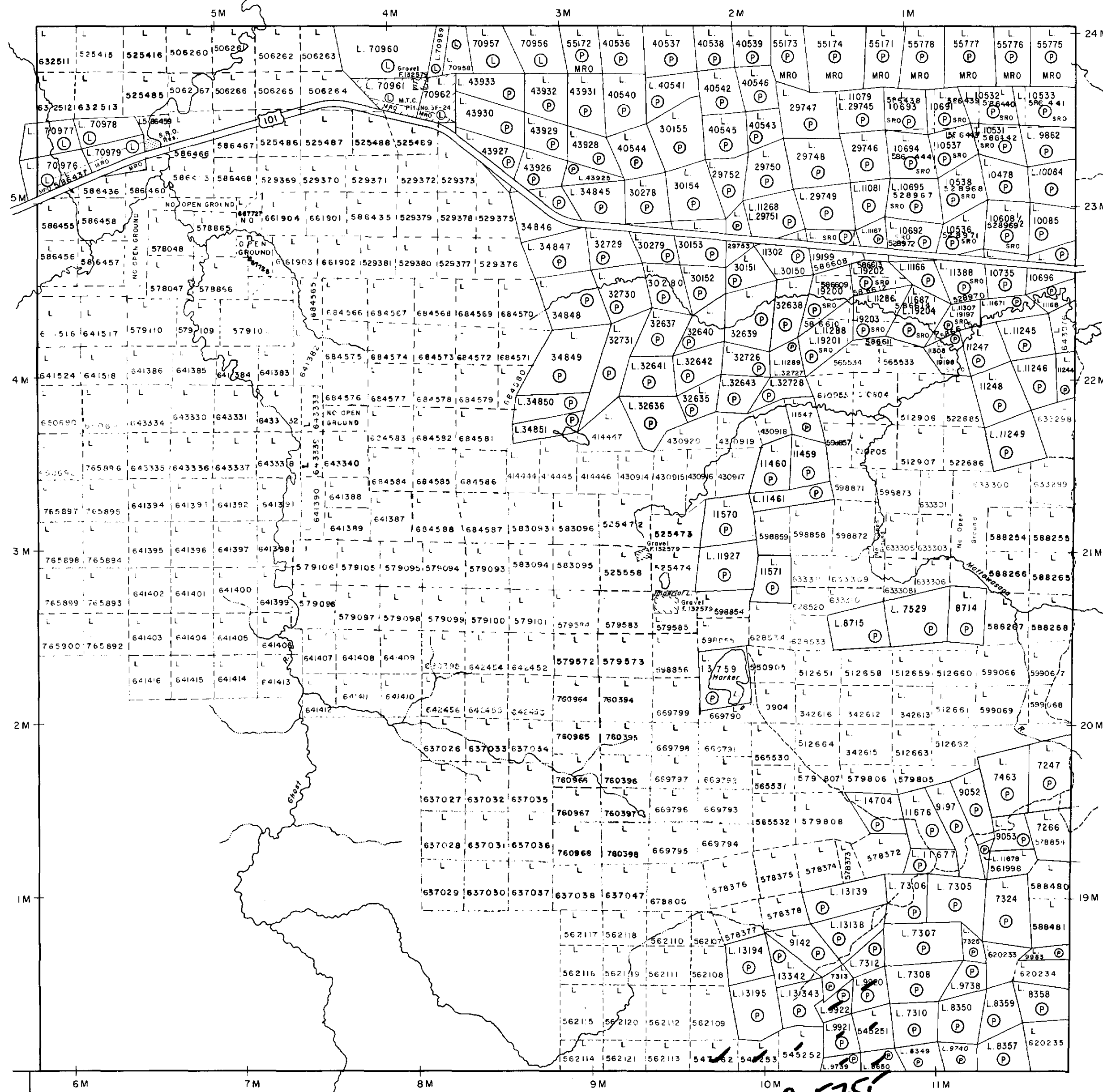
TOWNSHIP OF
ELLIOTT
 DISTRICT OF
COCHRANE
LARDER LAKE
 MINING DIVISION
 SCALE : 1 INCH = 40 CHAINS (1/2 MILE)

DR. JBK PLAN NO. **M. 347**
 DATE 20 Aug 71

MINISTRY OF NATURAL RESOURCES
 SURVEY AND MAPPING BRANCH



LAMPLUGH TWP. M-358



GARRISON TWP. M-349

HOLLOWAY TWP. M-356

ELLIOTT TWP. M-347

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.

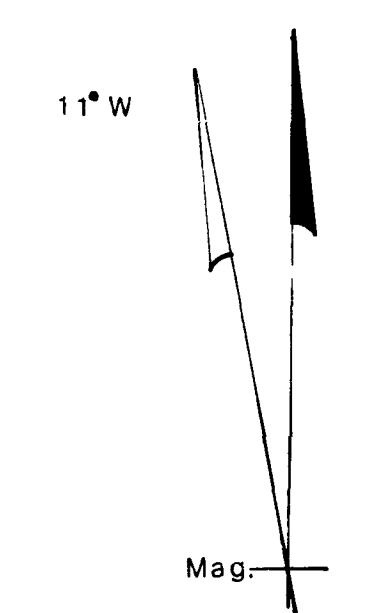
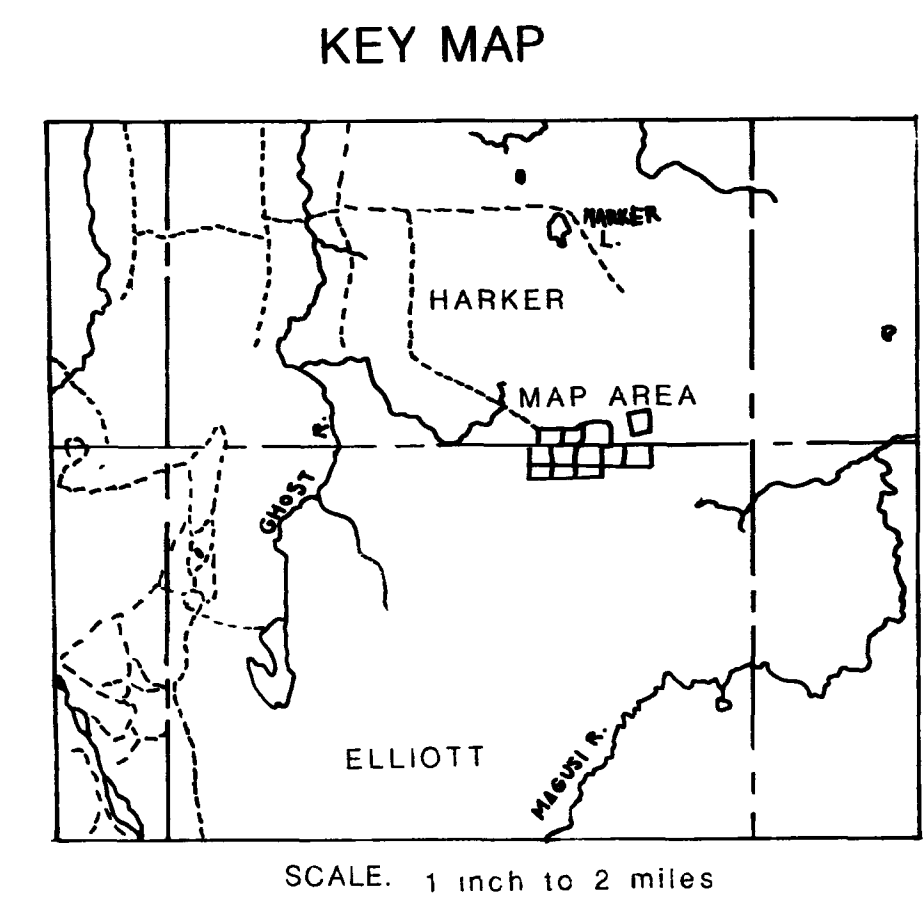
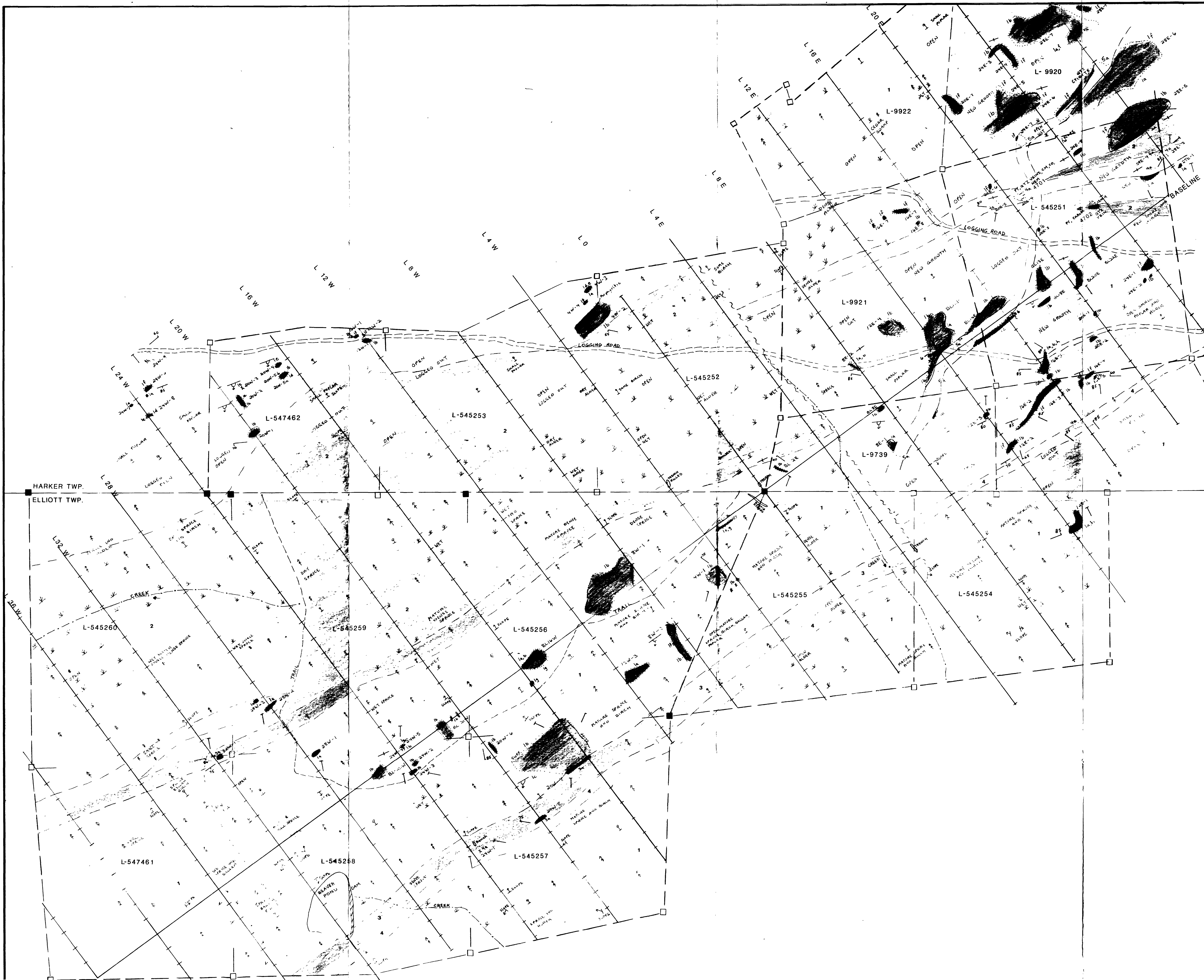
NOTES

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

PLAN NO. M-353

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH





- LEGEND**
- 1 BASALT a) fine grained massive b) diabasic, gabbroic massive c) pillow lava d) spherulitic lava e) spherulitic pillow lava f) flow top breccia g) hyaloclastite h) vesicular
 - 2 ANDESITE a) fine grained massive
 - 3 DACITE a) fine grained massive
 - 4 RHYOLITE a) fine grained massive b) spherulitic pillow lava c) vesicular
 - 5 a) DIABASE b) GABBRO
 - 6 LAMPROPHYRE

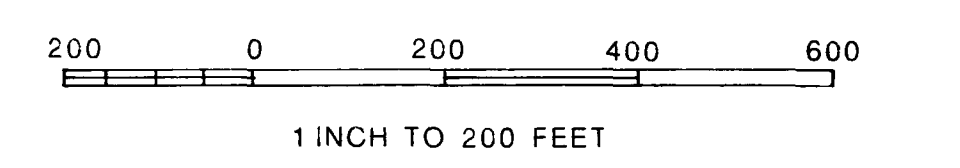
- SYMBOLS**
- LOCATED CLAIM POSTS
 - ASSUMED CLAIM POSTS
 - 4701.4702 SAMPLE NUMBERS
 - OUTCROP and OUTCROP AREA
 - × SMALL OUTCROP
 - JOINTING- vertical and inclined
 - STRIKE- vertical and inclined
 - LOGGING ROAD
 - TRAIL
 - TRENCH
 - FAULT- KNOWN, ASSUMED
 - CONTACT- KNOWN, ASSUMED
 - ▽ PILLOW
 - INTERMITTENT STREAM
 - ~ SWAMP
 - ↑ SLOPE
 - ↑ POPLAR
 - ↑ SPRUCE

Pete J. O'Connell, D.S.C.

ALEX H. PERRON
ELLIOTT AND HARKER CLAIMS

ELLIOTT AND HARKER TOWNSHIPS

GEOLOGICAL MAP



H.E. NEAL & ASSOCIATES LTD.

TORONTO CANADA
DRAWN BY S.D. DATE: JULY 1983
APPROVED BY H.E.N. DRAWING No 83-6-1