



52F16NE8580 52F16NW0041A1 PICKEREL

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REPORT ON MAGNETOMETER SURVEY
MOSHER LONG LAC GOLD MINES CLAIMS
CONCESSIONS 2 AND 3
ECHO & PICKEREL TOWNSHIPS
DISTRICT OF KENORA, ONTARIO.

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REPORT ON MAGNETOMETER SURVEY

MOSHER LONG LAC GOLD MINES CLAIMS

CONCESSIONS 2 AND 3

ECHO & PICKEREL TOWNSHIPS

DISTRICT OF KENORA, ONTARIO

244 Bay Street
TORONTO, Ontario
December 11, 1947

REPORT ON MAGNETOMETER SURVEY
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CONCESSIONS 2 & 3
ECHO & PICKEREL TOWNSHIPS
DISTRICT OF KENORA, ONTARIO

LOCATION, ACCESSIBILITY, TOPOGRAPHY

The claim group comprises 18 claims at the N-E corner of Franciscan Lake, concessions 2 and 3, Echo and Pickerel townships, Sioux Lookout area, District of Kenora, Ontario.

The Sioux Lookout Dinorwic highway passes along the S-E margin of the claims. Bulldozed roads of the Dryden Pulp and Paper Company cross the claims so that they are readily accessible.

Considerable outcrop is present on the N claims. The S claims are covered by muskeg, a N-W striking esker, and the E part of Franciscan Lake.

FIELD WORK

A magnetometer survey of the claims was carried out by Mr. J. McGregor, B. Sc., during April, May, June of 1947. N.S lines were cut 400' apart and readings were taken at 50' intervals. A new Watt vertical magnetometer of scale constant approximately 28 gamma per division was used. The customary corrections for magnetic changes during the day and from day to day were applied. The corrected results are shown, contoured and interpreted on the magnetic survey sheet.

The geological outcrops have also been carefully mapped by Mr. McGregor and are shown on the geological map of the claims.

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ARTHUR A. BRANT
CONSULTANT IN
MINING GEOPHYSICS AND ENGINEERING PHYSICS

244 Bay Street
TORONTO, Ontario
December 11, 1947

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FIELD WORK

A magnetometer survey of the claims was carried out by Mr. J. McGregor, B. Sc., during April, May, June of 1947. N-S lines were out 400' apart and readings were taken at 50' intervals. A new Katt vertical magnetometer of scale constant approximately 28 gamma per division was used. The customary corrections for magnetic changes during the day and from day to day were applied. The corrected results are shown, contoured and interpreted on the magnetic survey sheet.

J. McGregor
B.A.

The geological outcrops have also been carefully mapped by Mr. McGregor and are shown on the geological map of the claims.

GEOLOGY

According to M. E. Hurst, Ontario Department of Mines, Volume XLI, Part VI, 1932, the formations present are:

- | | |
|--------------------|--|
| <u>Algoman</u> | - Granite and Quartz Porphyry
Granite
Diorite and Granodiorite |
| <u>Timiskaming</u> | - Greywacke
Conglomerate |
| <u>Keewatin</u> | - Volcanics, Massive, Pillow
Lavas, Agglomerates, Tuff,
Chlorite Schist. |

Observed on the property in outcrop (see geological map) were greywackes at the S side of Franciscan Lake, volcanics with some allomerates, and quartz and feldspar porphyries.

INTERPRETATION

The interpretation of the magnetic results show that from S to N. across the claims the following formations and conditions are present:

The S claim fraction is underlain by greywackes striking N 70° E, the contact showing some left-handed flexuring. Directly to the N under the central part of Franciscan lake is a band of porphyry approximately 600' wide with fairly regular boundaries. Along its N margin is a slight magnetic low interpreted as a shear, followed by altered volcanics and volcanics for a width of 600'. This is followed again essentially by a belt of porphyries perhaps 800' wide with a narrow belt of volcanics included. This brings us to the central portion of the claims.

From the central portion of the claims northward the irregular bodies of porphyry intruded into the volcanics are present. Many of the magnetic anomalies are felt to be the result of these porphyry intrusions localising the original magnetic content of the volcanics near these intrusive contacts.

The impression is also derived that in the northerly 9 claims the main porphyry intrusive mass is near the surface, thus accounting for the many irregularly shaped porphyry suboutcroppings thought to exist. It is felt therefore that in this area mineralization and quartz stringers will be found, but that it is unlikely that a major structure going to depth exists.

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GEOLOGY

According to L. E. Hurst, Ontario Department of Mines, Volume XLI, Part VI, 1932, the formations present are:

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|--------------------|---|--|
| <u>Algonan</u> | - | Granite and Quartz Porphyry
Granite
Diorite and Granodiorite |
| <u>Timiskaming</u> | - | Greywacke
Conglomerate |
| <u>Keewatin</u> | - | Volcanics, Massive, Pillow
Lavas, Agglomerates, Tuff,
Chlorite Schist. |

Observed on the property in outcrop (see geological map) were greywackes at the S side of Franciscan lake, volcanics with some agglomerates, and quartz and feldspar porphyries.

INTERPRETATION

The interpretation of the magnetic results show that from S to N. across the claims the following formations and conditions are present:

The S claim fraction is underlain by greywackes striking $\approx 70^{\circ}$ E, the contact showing some left-handed flexuring. Directly to the N under the central part of Franciscan lake is a band of porphyry approximately 600' wide with fairly regular boundaries. Along its N margin is a slight magnetic low interpreted as a shear, followed by altered volcanics and volcanics for a width of 600'. This is followed again essentially by a belt of porphyries perhaps 800' wide with a narrow belt of volcanics included. This brings us to the central portion of the claims.

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It will be noted that the areas of porphyry are grouped in belts along the regional strike, and that over the N-S width of the claims 3 main porphyry belts are present striking approximately N 60° E. This indicates that the intrusion of the porphyry has likely been controlled by structures already present, the areas of existing outcrop likely conforming to original minor anticlinal structures.

STRUCTURAL CONSIDERATIONS

On the basis of the last statement of the above section, it would be indicated that any work contemplated should be confined to those areas where the volcanic belts have a reasonable width and continuity along the strike, The northerly 9 claims on this basis would be eliminated as likely being largely underlain by porphyry intrusions.

The main structural feature to my mind seems to be the possible shear interpreted as existing along the north margin of the porphyry at the greywacke volcanic contact. This shear would pass through the central part of Franciscan lake and if extended to the E would line up with Pickerel Arm where marked shearing definitely exists.

The left-handed flexuring aforementioned at the greywacke and volcanic contacts with the S porphyry body could be explained as due to the N margin of a westward plunging anticline.

DEPTH OF DRIFT

Depths of drift were computed for several points on the property and all were found to be under 60'.

CONCLUSIONS

It is concluded that the S half of this claim group is by far the more promising. Within the S half attention should first be given to the porphyry volcanic contact just north of the main greywacke body.

WORK SUMMARY

Time spent on field work and drafting has been submitted to the Mining Recorder, Sioux Lookout by Mr. J. McGregor. Additional items are contouring, printing, colouring, 7 days; interpretation and report by Arthur Brant, 5 days.

Arthur A. Brant

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The left-handed flexuring aforementioned at the greywacke and volcanic contacts with the S porphyry body could be explained as due to the N margin of a westward plunging anticline.

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Arthur A. Brant



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900

July 14, 1950

Dear Mr. Smith:

We have been notified of the incorporation on May 30, 1950, of Lun-Echo Gold Mines, Limited, with head office at Room 1003, 67 Yonge Street, Toronto.

The company holds the following unpatented mining claims - KRL 22832-37 inclusive, KRL 22839-40-42-43, KRL 23060, in the townships of Echo and Pickerel. One hundred and twenty days assessment work has been done on each of the claims and the company proposes to carry on surface exploration and diamond drilling during the summer.

Yours very truly,

Office of the Chief Inspector of Mines.

DF/tm

Mr. R. L. Smith,
Inspector of Mines,
Box 310
KENORA, Ontario

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Mr. R. L. Smith,
Inspector of Mines,
Box 310,
KEEPA, Ontario.

SUMMARY OF DAYS WORKED IN GEOPHYSICAL SURVEY

MOSHER LONG LAC GOLD MINES. LIMITED

	<u>Line Cutting</u>	<u>Line Chaining</u>	<u>Magnet- ometer</u>	<u>Calcula- tions</u>	<u>Maps and Reports</u>	<u>Total</u>
J.P. McGregor	7	2	20	4		33
D. Duffy	22	7				29
R. Nordstorm	19	7				26
G. Wright	7	1	20			28
V. Smith	25	1				26
W. Gravelle	14					14
Dr. A. A. Brant					5	5
A. Johnson, M.A.					7	7
	94	18	40	4	12	168

Total days worked 168
Working day 10 hrs.

Actual days' work credit at 10 hrs. per working day - $\frac{10 \times 168}{8}$ - 210

Days' credit at 4 days per man - 4 x 210 - 840

Part of time spent cutting lines for geophysical survey was credited to a geological survey.

A total of 40 days' work was credited to each of the claims on which the survey was done. The excess time was necessary to finish the job.

The claim numbers, on which the survey was done, are as follows:

KRL 22832	KRL 22840	KRL 23060
22833	22841	23061
22834	22842	
22835	22843	
22836	22844	
22837	22845	
22838	22846	
22839	22847	

Main base control station is station 00N 00E. This station is located at the intersection of the Echo-Pickerel Township line and concession 2-3 line. It is marked by a 4" wooden stake driven into the ground.

December 24, 1947.

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SUMMARY OF DAYS WORKED IN GEOPHYSICAL SURVEY

LOSHNER LONG LAC GOLD MINES, LIMITED

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	Line Cutting	Line Chaining	Magnet- ometer	Calcula- tions	Laps and Reports	Total
J. P. McGregor	7	2	20	4		33
D. Luffy	22	7				29
R. Nordstrom	19	7				26
G. Wright	7	1	20			28
V. Smith	25	1				26
W. Gravelle	14					14
Dr. A. A. Brant					5	5
A. Johnson, L.A.					7	7
	94	18	40	4	12	168

Total days worked 168
Working day 10 hrs.

Actual days' work credit at 10 hrs. per working day - $\frac{10 \times 168}{8} = 210$

Days' credit at 4 days per man - $4 \times 210 = 840$

Part of time spent cutting lines for geophysical survey was credited to a geological survey.

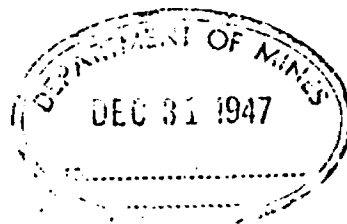
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The claim numbers, on which the survey was done, are as follows:

- | | | |
|-------------|-------------|-------------|
| KRL 22832 ✓ | KRL 22840 ✓ | KRL 23060 ✓ |
| 22833 ✓ | 22841 ✓ | 23061 ✓ |
| 22834 ✓ | 22842 ✓ | |
| 22835 ✓ | 22843 ✓ | |
| 22836 ✓ | 22844 ✓ | |
| 22837 ✓ | 22845 ✓ | |
| 22838 ✓ | 22846 ✓ | |
| 22839 ✓ | 22847 ✓ | |

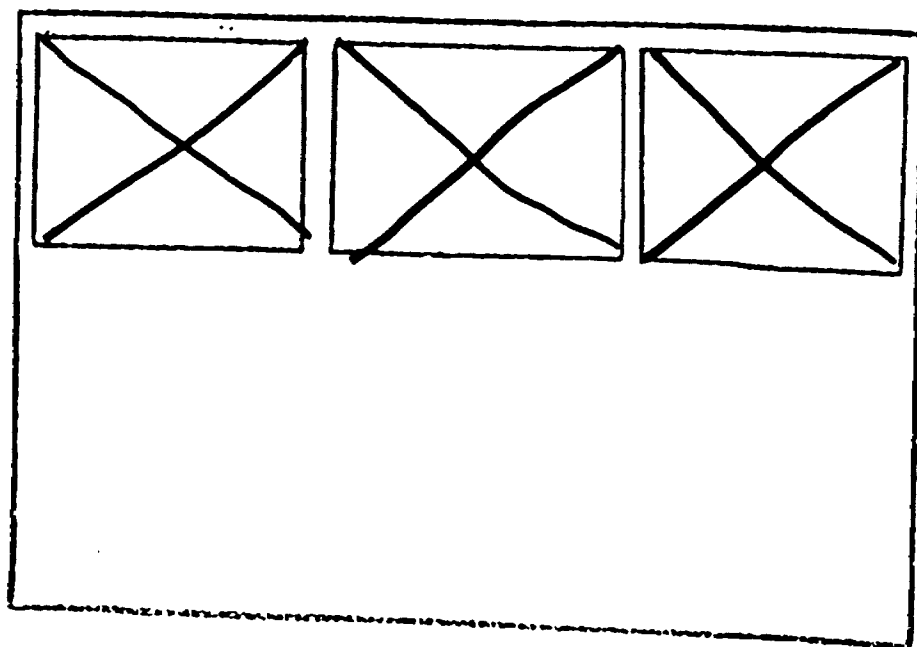
Main base control station is station OCN COE. This station is located at the intersection of the Echo-Pickerel Township line and concession 2-3 line. It is marked by a 4" wooden stake driven into the ground.

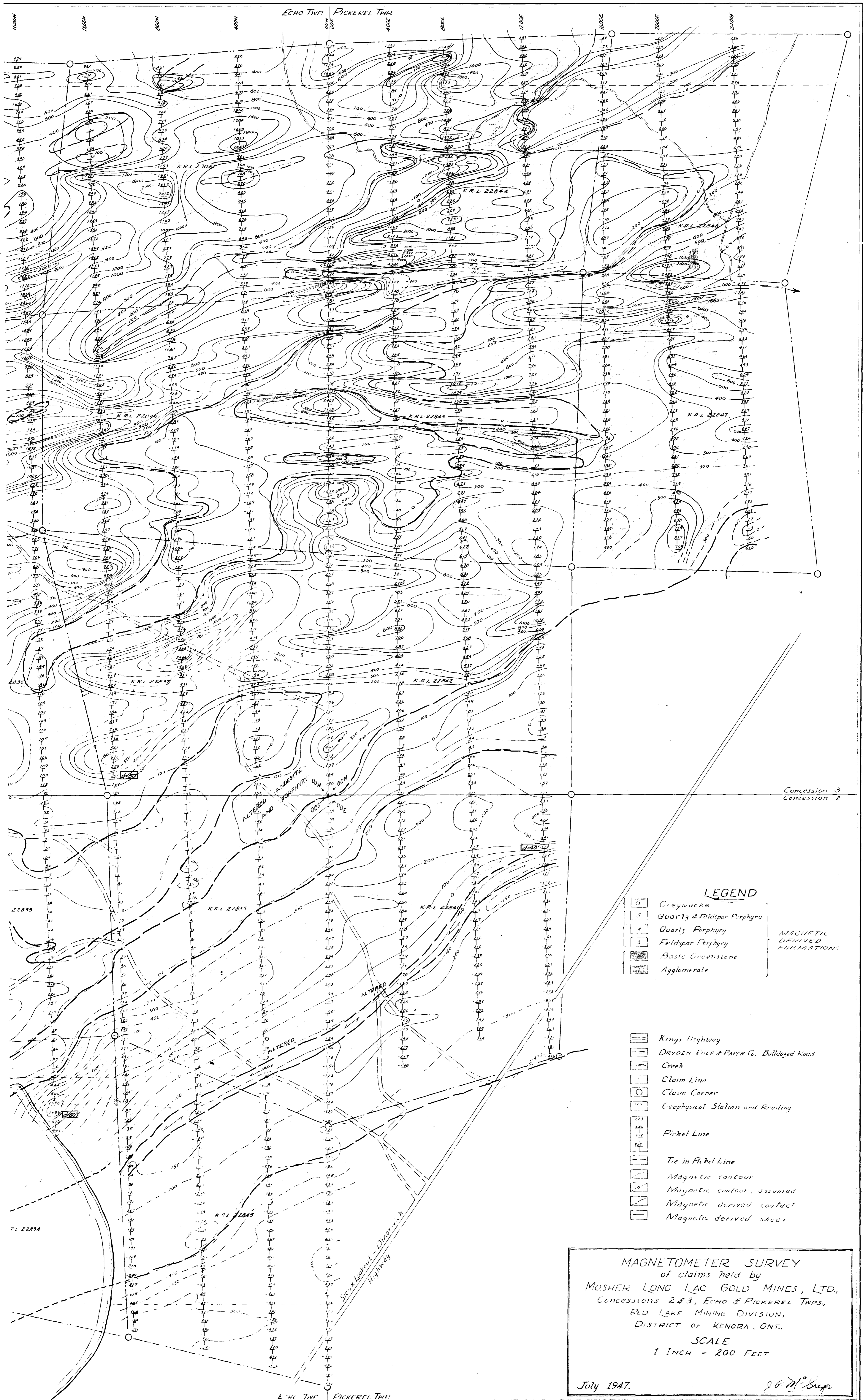
December 24, 1947.



SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52F/16NW-0041-A1(1,2,3)

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



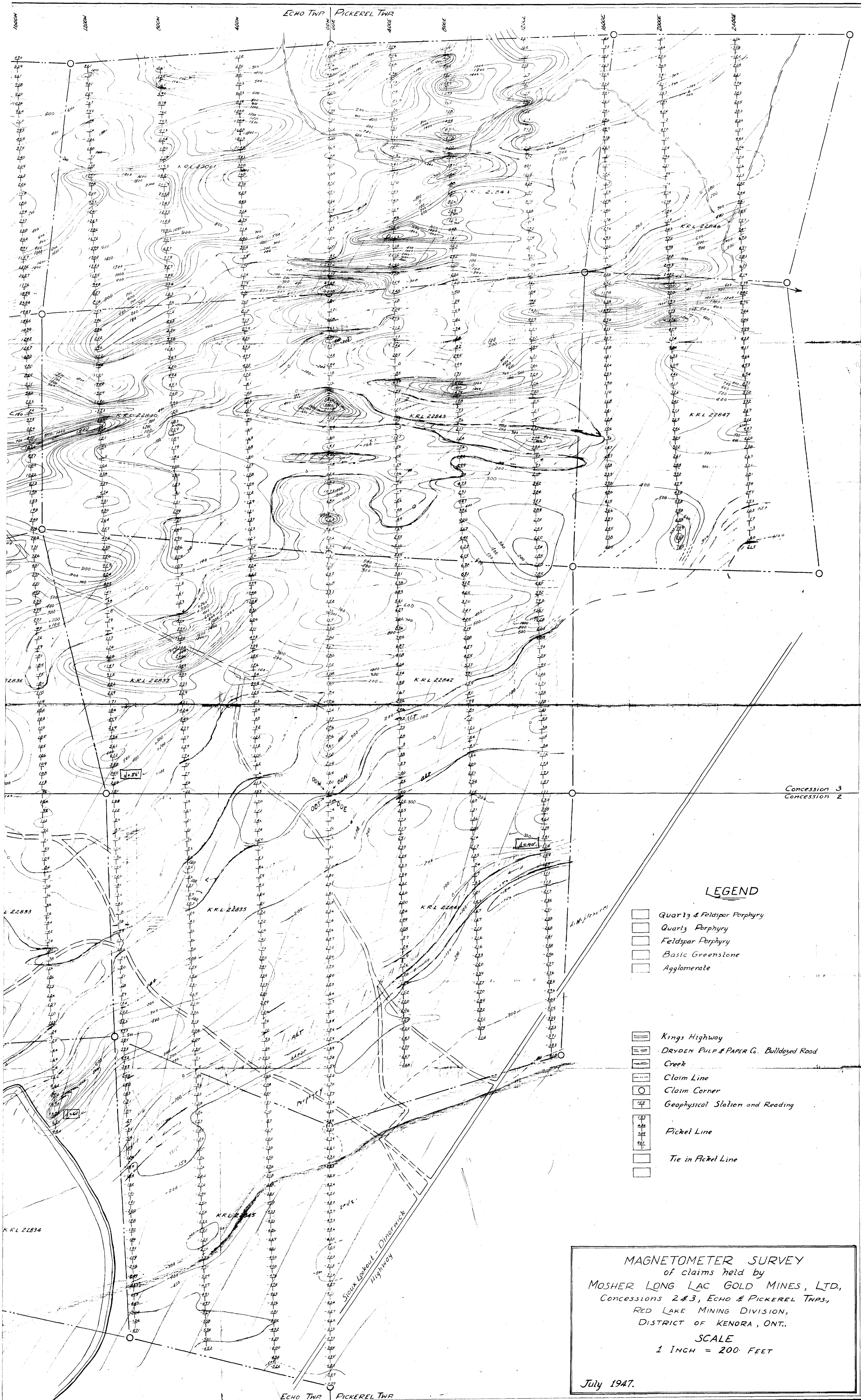


Concession 3
Concession 2

LEGEND

- | | | |
|--|--|-------------------------------|
| | Greywacke | } MAGNETIC DERIVED FORMATIONS |
| | Quartz & Feldspar Porphyry | |
| | Quartz Porphyry | |
| | Feldspar Porphyry | |
| | Basic Greenstone | |
| | Agglomerate | |
| | Kings Highway | |
| | Dryden Fulp & Paper Co. Bulldozed Road | |
| | Creek | |
| | Claim Line | |
| | Claim Corner | |
| | Geophysical Station and Reading | |
| | Picket Line | |
| | Tie in Picket Line | |
| | Magnetic contour | |
| | Magnetic contour, assumed | |
| | Magnetic derived contact | |
| | Magnetic derived shear | |

MAGNETOMETER SURVEY
 of claims held by
MOSHER LONG LAC GOLD MINES, LTD.,
 Concessions 2 & 3, ECHO & PICKEREL TOWNS,
 RED LAKE MINING DIVISION,
 DISTRICT OF KENORA, ONT.
 SCALE
 1 INCH = 200 FEET
 July 1947. J. G. M. Supt.



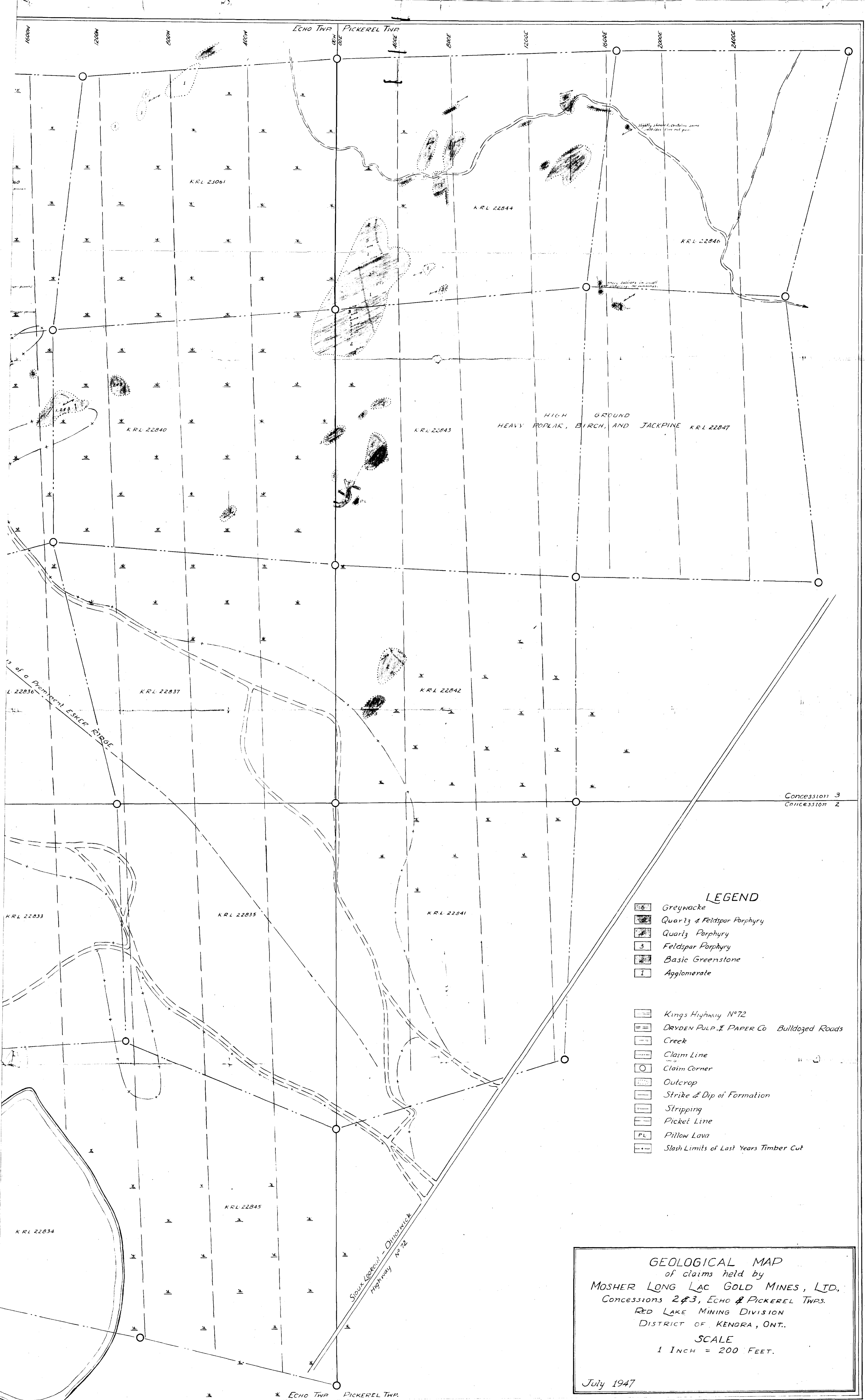
Concession 3
Concession 2

LEGEND

- Quartz & Feldspar Porphyry
- Quartz Porphyry
- Feldspar Porphyry
- Basic Greensstone
- Agglomerate
- Kings Highway
- DRYDEN PULP & PAPER Co. Bulldozed Road
- Creek
- Claim Line
- Claim Corner
- Geophysical Station and Reading
- Picket Line
- Tie in Picket Line

MAGNETOMETER SURVEY
of claims held by
MOSHER LONG LAC GOLD MINES, LTD.,
Concessions 2 & 3, ECHO & PICKEREL TWP.,
RED LAKE MINING DIVISION,
DISTRICT OF KENORA, ONT.
SCALE
1 INCH = 200 FEET
July 1947.

52F/16NW-0041-A1 #2



LEGEND

- Greywacke
- Quartz & Feldspar Porphyry
- Quartz Porphyry
- Feldspar Porphyry
- Basic Greenstone
- Agglomerate
- Kings Highway N°72
- DRYDEN PULP & PAPER Co Bulldozed Roads
- Creek
- Claim Line
- Claim Corner
- Outcrop
- Strike & Dip of Formation
- Stripping
- Picket Line
- Pillow Lava
- Slash Limits of Last Years Timber Cut

GEOLOGICAL MAP
of claims held by
MOSHER LONG LAC GOLD MINES, LTD.
Concessions 2 & 3, ECHO & PICKEREL TWPS.
RED LAKE MINING DIVISION
DISTRICT OF KENORA, ONT.
SCALE
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