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MODERN GEOPHYSICAL LIMITED

SUITE 5 - 13 ADELAIDE ST. E.

GEOPHYSICAL SURVEYS
ELECTROMAGNETIC
(VERTICAL & HORIZONTAL)
RESISTIVITY
MAGNETIC
GRAVIMETRIC
SELF-POTENTIAL



32012SE0021 63.1110 LAMPLUGH

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TELEPHONE:
EMPIRE 2-3756-57

ASSESSMENT REPORT

DIXON CLAIM GROUPS, MATHESON AREA, ONTARIO

Introduction

Modern Geophysics Limited of Toronto, on contract, carried out a detailed ground magnetometer survey on two separate claim groups situated in four adjoining townships in the Larder Lake Mining Division of Northern Ontario. The work was performed from April 22nd until May 20th, 1961, under the supervision of W.J. Sharpe of Toronto.

A Sharpe A-2 magnetometer, having a sensitivity of 20 gammas per scale division, was used. A total of 25.9 line miles, including a total of 1364 stations, were surveyed with stations at 100-foot intervals. Of this total 16.8 miles were surveyed on Claim Group No. 1 and 9.1 line miles on Claim Group No. 2.

Description of Properties

The Dixon properties, in two claim groups, consist of 30 claims. Claim Group No. 1 is composed of 20 contiguous claims in the northwest corner of Harker township and the southwest corner of Lamplugh township. Claim Group No. 2 consists of 10 contiguous claims in the northwest part of Holloway township and the southwest corner of Frecheville township. Group No. 2 is situated approximately four miles east of Group No. 1.

The two properties, with their corresponding claim numbers, are listed below. In Group No. 1 assessment work is applied for on 17 of the 20 claims; in Group No. 2 assessment work is applied for on nine of the ten claims.

<u>Group</u>	<u>Townships</u>	<u>Assessment Work</u>	<u>No Ass't Work</u>
1	Lamplugh & Harker	L70695-99 incl.; L70703-04; L70710-19 incl.	L70700-02 incl.
2	Frecheville & Holloway	L70706-09 incl; L70720-24 incl.	L70705

Location and Access

The Dixon properties are situated in Frascheville, Holloway, Lamplugh and Harker townships in the Larder Lake Mining Division of Ontario.

The properties are accessible via Highway 101 from Matheson, a town on the Ontario Northland Railway, approximately 420 miles north of Toronto. Highway 101 traverses part of Claim Group No. 1 approximately 30 miles east of Matheson. Claim Group No. 2 is reached four miles further to the east via a wagon road running north from the highway along the west boundary of Holloway township for one and one-half miles into the property.

Geology

The surveyed area is on the east extension of the Porcupine belt, an easterly-trending belt of volcanic and sedimentary rocks. Intrusive into these are sill-like bodies of gabbro, dunite and serpentized peridotite. These rocks have been tightly folded into steeply dipping beds and the basic sills now appear as almost vertical dykes. Within the serpentized peridotite in the basic sill complex, chrysotile asbestos often occurs. In fact the complex is the easterly extension of the same rock type which is host to the Johns-Manville asbestos deposits eight miles to the west.

Magnetite is disseminated throughout the serpentized mass. It is also found in abundance in seams along the margins and within the Johns-Manville asbestos veins. It is this association of magnetite and asbestos which makes magnetic surveys highly advantageous particularly in the deeply drift-covered areas.

The area has been mapped in detail by Dr. Jack Satterly of the Ontario Department of Mines in 1951 and 1952. In Claim Group No. 1 in Harker township Satterly has mapped two faults at right angles to each other, having strikes of northeast and northwest. An implied fault, represented by a northeasterly-trending river and implied by a disruption in the magnetics, also appears to cut across the property. A north-trending fault is possibly suggested by a river running north through the most westerly claim L70695.

In Group No. 2 in Holloway township Satterly has mapped a northeasterly-trending fault.

In Munro township at the Johns-Manville Mine the northeasterly striking faults have a close association with the asbestos deposits. Hence similar faults on the Dixon properties may be significant and offer some sort of structural control for asbestos vein formation if any is present.

Geophysical Results

The magnetometer results show a magnetically high easterly-trending zone running across both claim groups. From Satterly's maps of Harker and Holloway townships it is interpreted that these zones represent serpentinized peridotite. It is estimated from the magnetics that the peridotite has a width of from 500 to 1000 feet in this general area.

The magnetic relief which may or may not be significant is approximately 6000 gammas in Group 1 and approximately 13,000 gammas in Group 2.

Economic Considerations

Although the high magnetics outline the serpentinized peridotite, structural features are desirable to point out possible locations for the formation of economic asbestos deposits. Such features are changes in the regional strike of the sill suggesting a focal point for deformation and fracturing; magnetically disturbed area denoting a structural disturbance in an area of normally undisturbed magnetics and the presence of northeasterly-trending faults which have a definite association with the asbestos veins at the Johns-Manville mine.

These features appear to be present to some degree in the two Dixon properties.

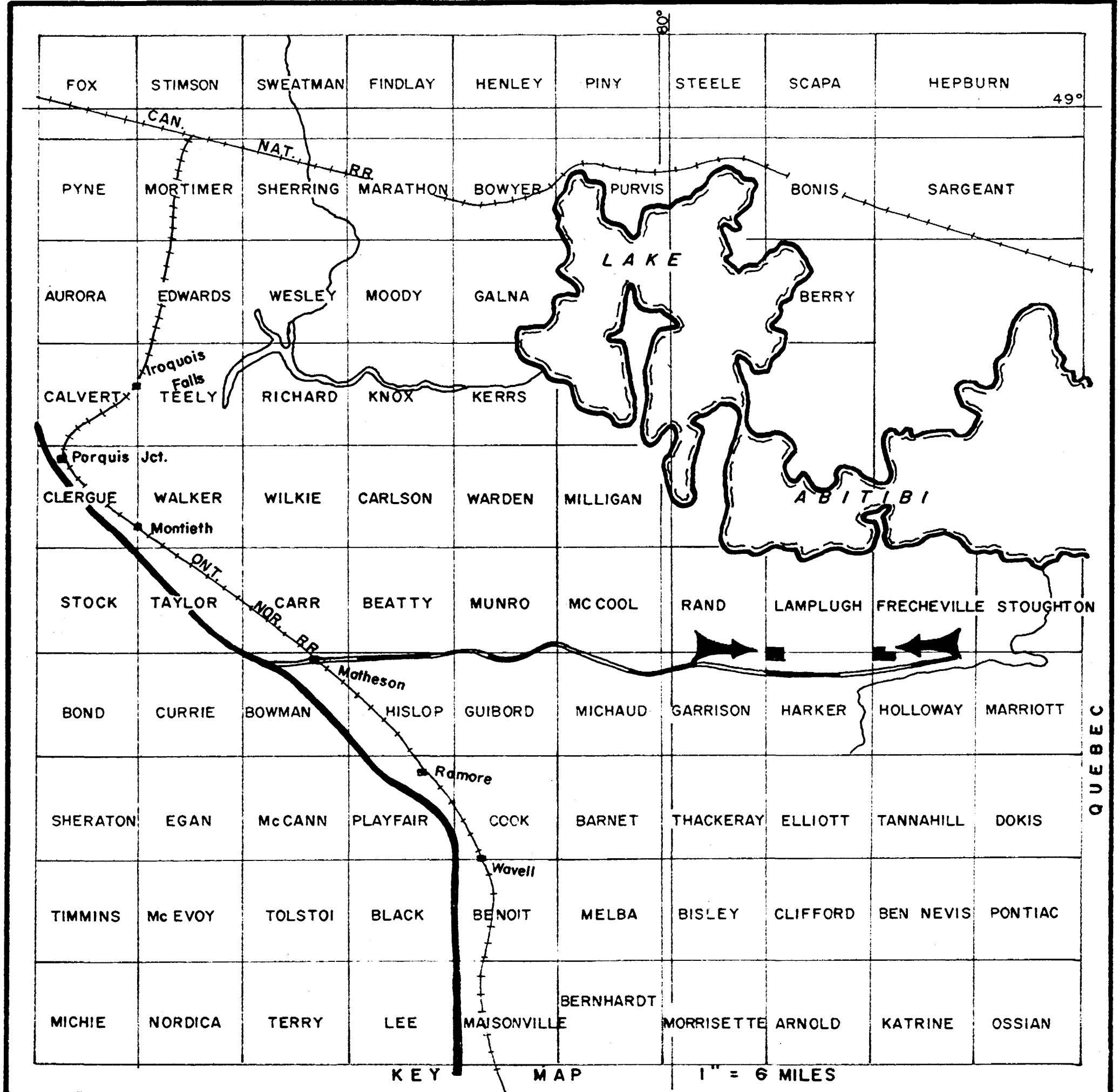
Recommendations

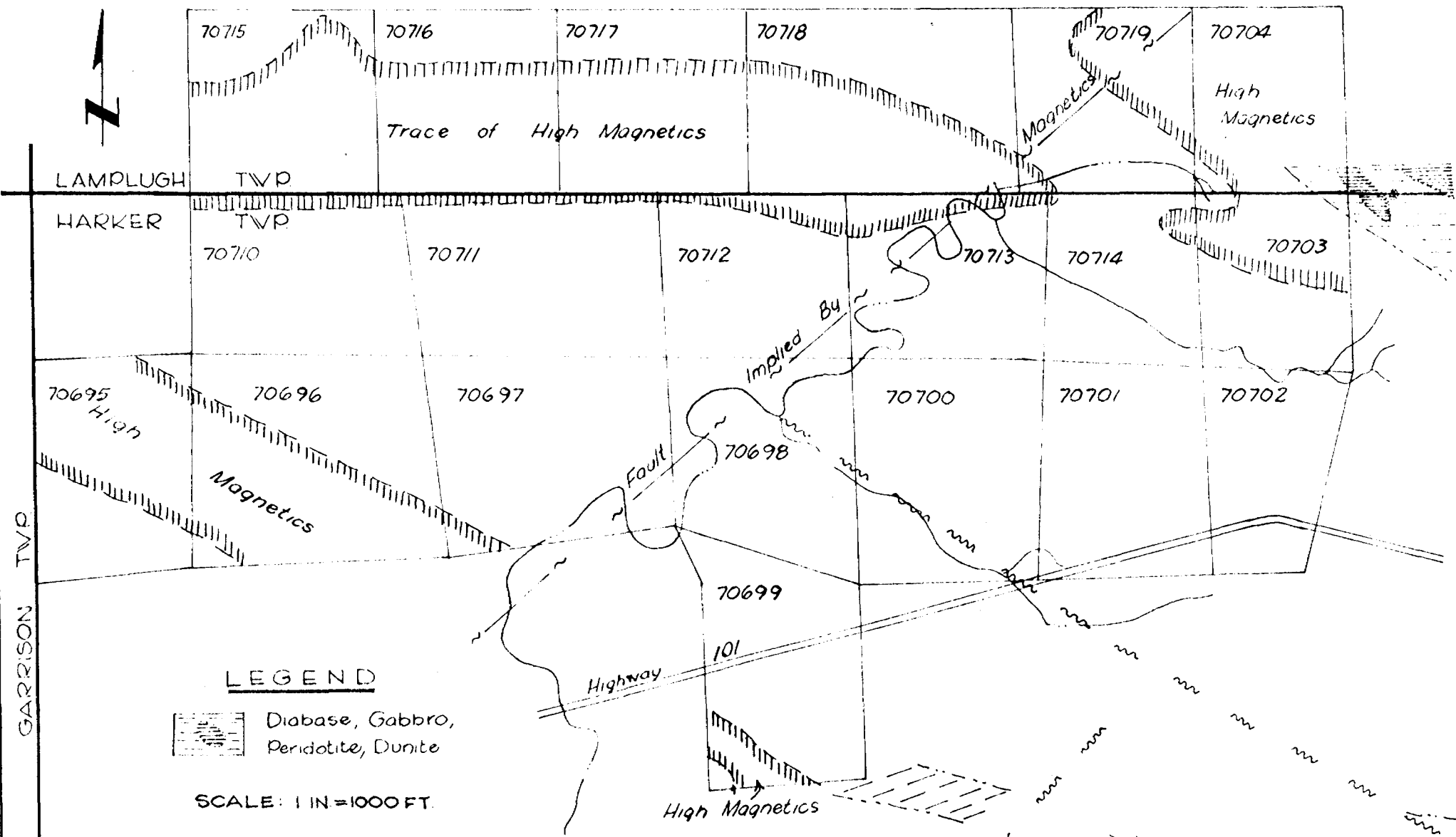
Because of the presence of the implied cross fault in Group 1, it is felt that the magnetically-high zones adjacent to the fault are the most favourable areas for the location of economic asbestos deposits in this Group. Proposed Hole No. 1, to be drilled due South at a dip of 60° , is recommended at latitude 600 N and departure 400 W. Proposed Hole No. 2 is recommended at lat. 1200 N and dep. 3500 W to be drilled south at 60° for an estimated length of 800 feet. The results of these holes will dictate the future drilling program in this claim group. If the drilling results are negative, it is recommended that no further work be done at the present time on this Group.

In Group 2 two holes are recommended. Proposed Hole No. 3 is recommended at lat. 600 S and dep. 3500 E to be drilled due South at 60° for an estimated length of 1000 feet. Proposed Hole No. 4 is recommended at lat. 1300 S and dep. 4500 E to be drilled due North at 60° for a recommended length of 1400 feet. The results of this drilling will decide any future work on this group.


All of which is respectfully submitted,

W.S. Matthews
W.S. Matthews, P. Eng.





LEGEND

-  Diabase, Gabbro, Peridotite, Dunite

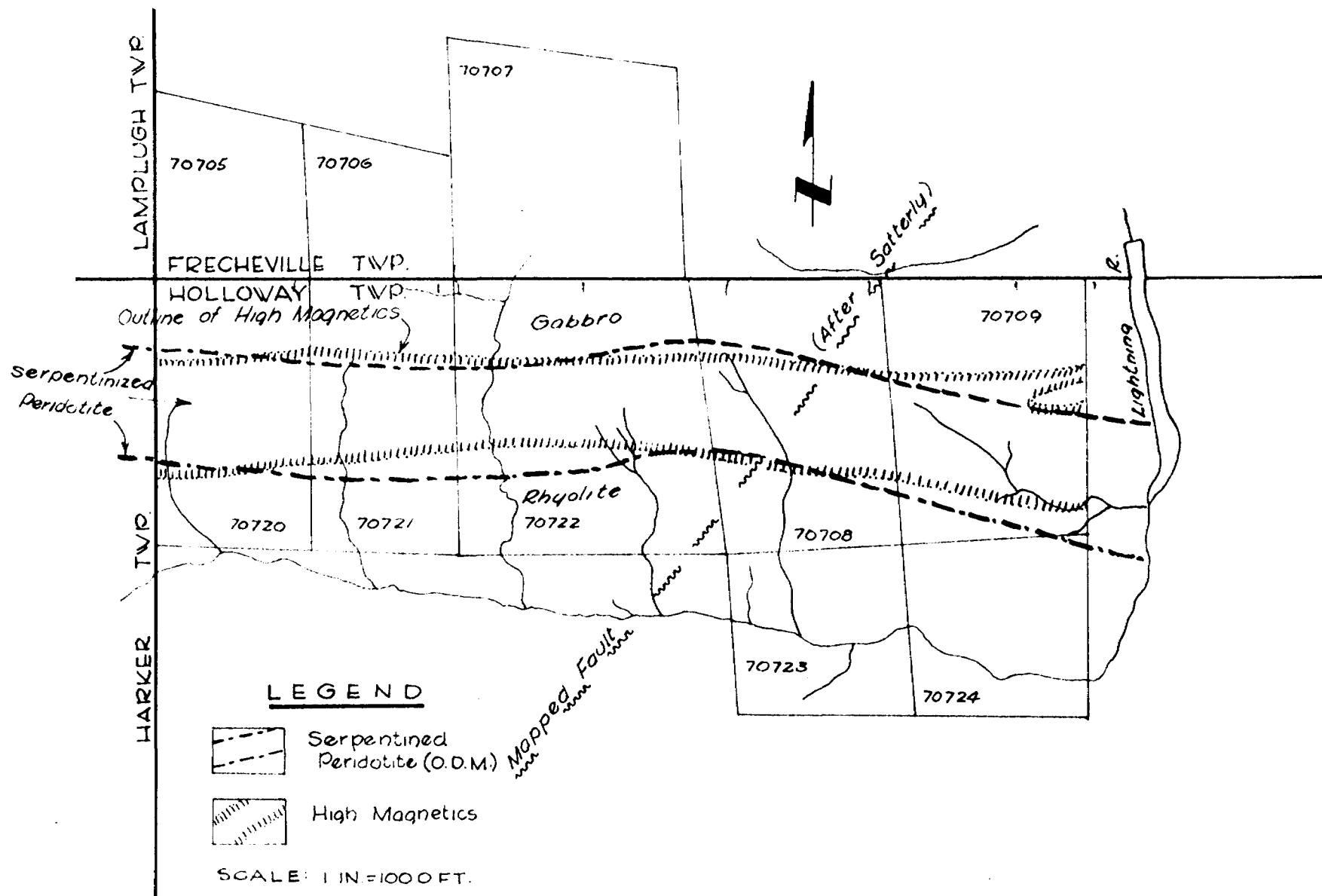
SCALE: 1 IN. = 1000 FT.

COMPILATION OF GEOLOGY & GEOPHYSICS

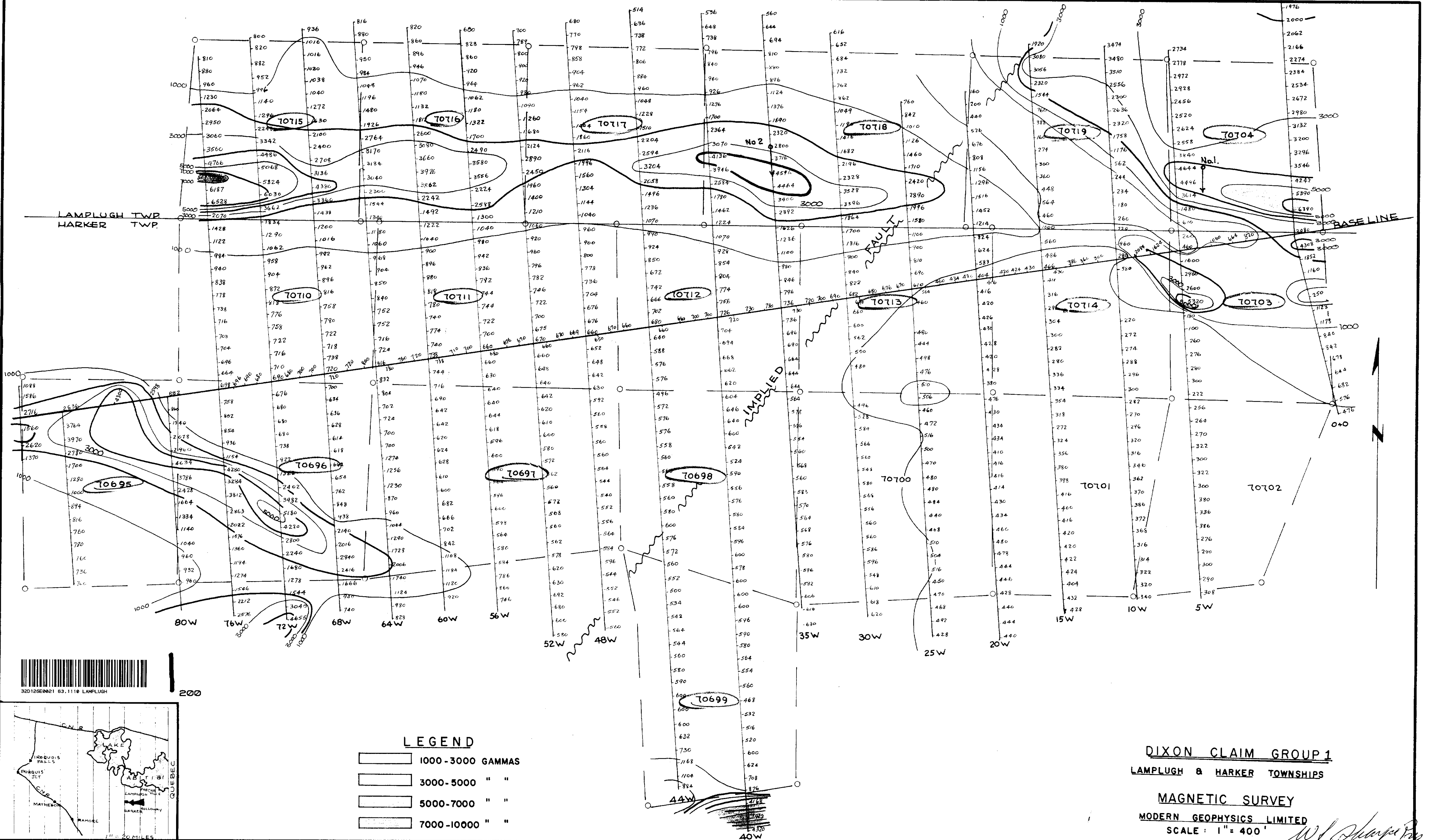
GEOLOGY AFTER SATTERLY (O.D.M. 1951)

DIXON CLAIM GROUP 1

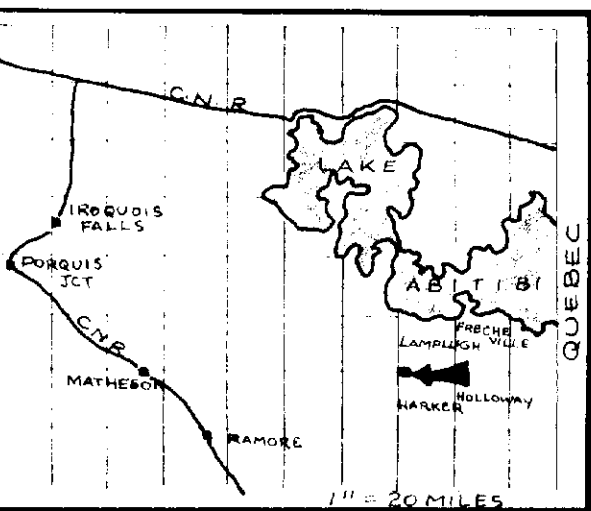
HARKER AND LAMPLUGH TOWNSHIPS



COMPILATION OF GEOLOGY & GEOPHYSICS
 GEOLOGY AFTER SATTERLY (O.D.M. 195)
DIXON CLAIM GROUP 2
 FRECHEVILLE & HOLLOWAY TOWNSHIPS.



200

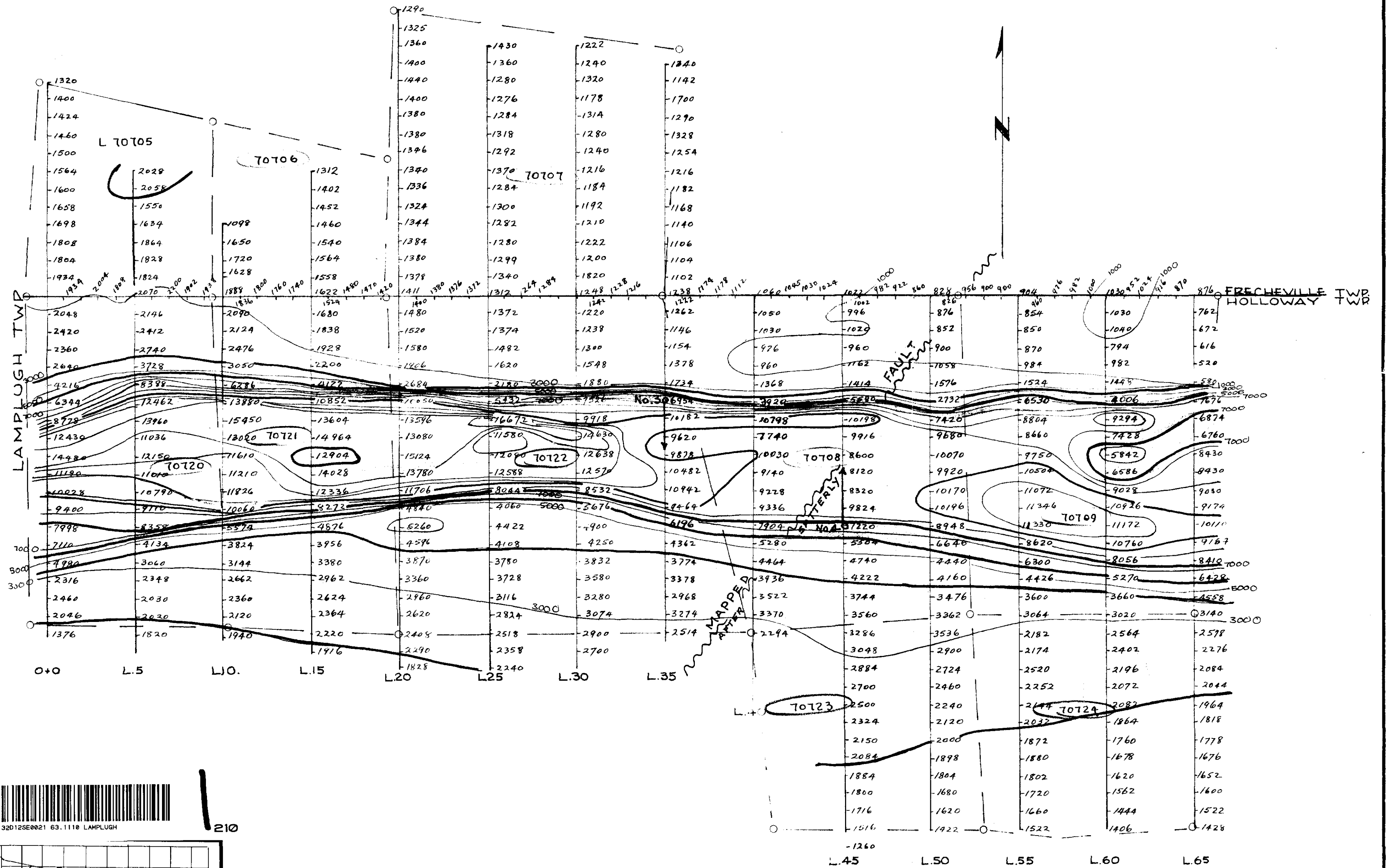


LEGEND

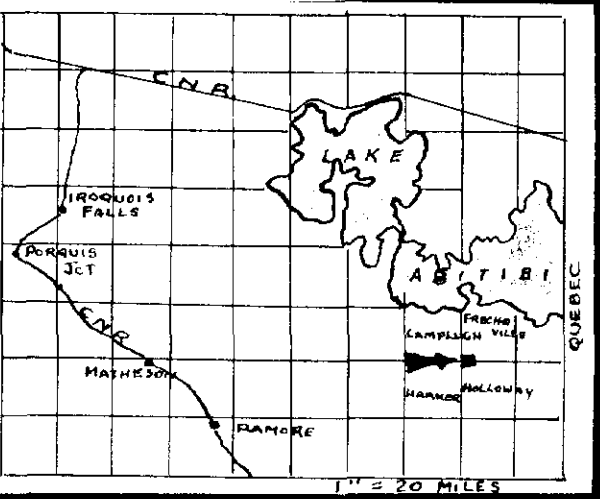
- 1000 - 3000 GAMMAS
- 3000 - 5000 " "
- 5000 - 7000 " "
- 7000 - 10000 " "

DIXON CLAIM GROUP 1
LAMPLUGH & HARKER TOWNSHIPS
MAGNETIC SURVEY
MODERN GEOPHYSICS LIMITED
 SCALE: 1" = 400'

W. J. Harper



210



LEGEND

[Line style 1]	1000 - 3000 GAMMAS
[Line style 2]	3000 - 5000 " "
[Line style 3]	5000 - 7000 " "
[Line style 4]	ABOVE 7000 " "

DIXON CLAIM GROUP 2
FRECHEVILLE & HOLLOWAY TOWNSHIPS
MAGNETIC SURVEY
MODERN GEOPHYSICS LIMITED
SCALE: 1" = 400'

W. J. Shayer Pres