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42A14NW0005 63.1332 REAUME

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Ghislau Mining Corporation Ltd.,
1015 Beaver Hall Hill,
Suite 202,
Montreal, Quebec.

Gentlemen:

This report describes the results of a program of geophysical survey carried out on your four blocks of claims, located in Beck and Nesbitt Townships, Timmins-Cochrane area, Ontario. The results are depicted on four plans accompanying this report. The survey was carried out from the middle of May to the end of July, 1964.

PROPERTY -

The four blocks of claims are listed as follows:

"Block 1": P-51820, P-51821, P-51824 and P-51825 in Lot 9, Conc. VI, Beck Township;

"Block 2": P-51826 to P-51829, inclusive, south half of Lot 1, Conc. IV, Nesbitt Township;

"Block 3": P-51920 to P-51923, inclusive, and P-66765 to P-66768, inclusive, in Lot 10, Conc. II, Nesbitt Township;

"Block 4": P-51924 and P-66762 to P-66764, inclusive, south half of Lot 12, Conc. I, Nesbitt Township.

S. S. SZETU, PH.D.
GEOLOGIST

LOCATION AND ACCESS -

The location is 14 to 23 miles to the southwest of Cochrane, on Highway No. 11 and C.N.R., and about 28 to 33 air miles to the north of Timmins.

Access to "Block 1" was by car, through Highway No. 11 to a point about 11 miles from Cochrane, west of Buskegau River; then by swamp tractor through a winter road which runs south along a power line, to about 7 miles to the south. There is a side road which leads from here west, past the south boundary of "Block 1". This road continues west to Beck-Nesbitt township line, then south to Swanson's lumber camp, which is located just east of "Block 2".

Access to "Blocks 3 and 4" was by helicopter. Abitibi Power and Paper Co. Ltd. has a private road which leads to this part of Nesbitt Township. This road is closed for the summer.

TOPOGRAPHY -

The area is characterized by large swamps and muskeg, with heavy overburden of clay, and, locally, sand and gravel. The rivers drain north to James Bay Lowland. During the survey, a large part of these claims were wet.

GEOLOGY -

Geology on Map No. P-139, Ontario Department of Mines, showed that the general area is unmapped, but there are several indicated small, circular occurrences of ultrabasic intrusives and their altered equivalents, inferred from annular aeromagnetic anomalies. These ultrabasic intrusives are on strike with the belt of ultrabasic rocks found at neighbouring Reaume township. There is an occurrence of chromite found along this ultrabasic belt at the northwest part of Reaume township. Microscopic diamonds and platinum were reported to have been found in the chromite (O.D.M. Vol. 28 and Vol. 23, Part I). The writer obtained a rock sample of volcanic from a small outcrop, one mile east of "Block 3". This rock sample has specks of fine sulphides which locally gave positive indications to a nickel test, using dimethyl-glyoxime.

AEROMAGNETIC DATA -

Aeromagnetic data flown by a lumber company and available in the Resident Geologist's office of O.D.M. in Timmins, showed that there are series of annular magnetic anomalies in the area. The highs of these anomalies are in the order of 2300 to 4500 gammas, above a rather uniform low background. The anomalies vary in size from 1/4 mile to 3/4 mile along the long axes. The 4 blocks of claims are

located on these magnetic zones, and covered different parts of various annular anomalies.

GROUND SURVEY METHODS -

The ground geophysical survey was carried out by R. A. DeDenus, Operator of Prospectors Registered, Noranda, supervised by the writer. Picket lines were cut at 300-ft. intervals, to cover the four blocks of claims. Magnetic readings were taken at 100-ft. and 50-ft. intervals along the picket lines, using an Askania magnetometer, and tied on to control stations established along the base lines. The electromagnetic survey was carried out by using a Sharpe S.E.-200 unit, and operated according to the parallel line method.

The following table lists the amount of work done on each block of claims:

	Line Cutting (in miles)	Magnetometer Survey (in miles)	Electromagnetic Survey (in miles)
Block 1 (4 claims)	6	5	4.5
Block 2 (4 claims)	6	5	4.5
Block 3 (8 claims)	11.5	10	8
Block 4 (4 claims)	6	5	4
TOTAL	29.5	25	21

SURVEY RESULTS AND INTERPRETATION -

"Block 1" - The survey outlined a magnetic area at the east half of the four claims. The highs here are from 7,000 to 11,000 gammas, within a strongly magnetic zone with readings over 3,000 gammas.

This strongly magnetic zone apparently runs northeast at the east part of the block and turns north-northwest at the east-central part of the block - although the south is still open. Background readings to the west of the zone are in the order of 200 - 500 gammas.

Within the area of background readings, the electromagnetic survey encountered a north-northwesterly conducting axis which runs across the central part of Claim P-51825. This conducting axis is characterized by one-sided dip up to 8 degrees, and is inferred as indicating a fault structure dipping to the west, with or without appreciable concentrations of conductive minerals.

The EM survey also encountered a weak conductor for an indicated length of about 1,000 ft. along the west edge of the north part of the magnetic zone. Maximum changes of dip angles along this conductor are from 3^{o} west to 2^{o} east. This type of weak conductor is somewhat common along serpentinized boundaries of ultrabasic intrusives and associated with fault or shear, which may carry some sulphides.

At the south end of this weak conductor and to the east, along Line 12 + 00 N., one over-all geophysical picture seems to favour the occurrence of interesting minerals which may not be directly detectable by magnetic or electromagnetic methods.

The most interesting part of the magnetic zone is located in Claim P-51821, where it changed its trend. A weak conducting point located near 900 W., L.3 + 00 N., is favourable for the occurrence of interesting minerals.

"Block 2" - The survey outlined on the ground, a magnetic zone which runs across the south half of this block of 4 claims. The situation here appears to be similar to Block 1, except for the fact that the magnetic highs are up to about 6,500 gammas, weaker than that outlined at Block 1, and the general trend is westerly, except for a local northerly trend.

The electromagnetic survey encountered several weak-to-marginal conductors, with changes of dip angles commonly from 1^{o} to 2^{o}. These conductors are inferred as fault structures. Those encountered within the magnetic zone are probably serpentinized, but not strong enough to indicate appreciable concentrations of sulphides.

"Block 3" - The survey outlined a magnetic zone with a width of about 1,100 feet across a length of two claims. The highs are in the order of 3,000 to 6,500 gammas.

The electromagnetic survey encountered a weak, reversed "cross-over" at the highest magnetic anomaly outlined at this block of eight claims. This could be accounted for by a heavy concentration of magnetite.

"Block 4" - The survey outlined a magnetic zone which runs east-west across the south part of these four claims. The highs here are in the order of 6,000 to 7,000 gammas. The width of this magnetic zone is similar to that outlined on the other blocks of claims, but somewhat widened and weakened at the west part.

The electromagnetic survey encountered several conducting points. One conducting axis, with 4 to 5 degree changes in dip angle, lies along the north edge of a strong magnetic anomaly. This occurrence is similar to a conductor encountered at Block 1, and is inferred as a fault structure with or without appreciable concentrations of sulphides along the edge of an ultrabasic intrusive.

CONCLUSIONS -

(1) The survey has outlined strong magnetic anomalies in all 4 blocks of claims. These anomalies are

inferred as basic-to-ultrabasic intrusives.

(2) The strongest anomaly is outlined on Block 1. This anomaly has apparently made a sharp turn on the property, or followed two different trends, with an interesting junction located in Claim P-51821.

(3) The electromagnetic survey encountered several conductors on Blocks 1, 2 and 4. These conductors are mostly associated with inferred faults, with or without appreciable concentrations of sulphides.

(4) If there is other interesting non-conductive mineralization associated with these basic-ultrabasic intrusives, it is most likely to be located in Block 1.

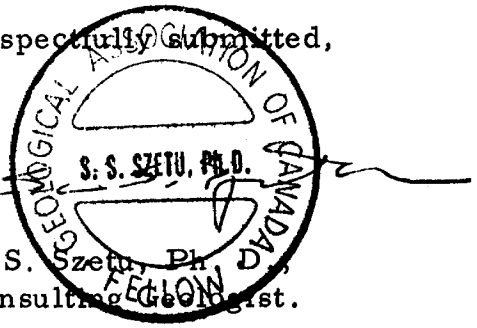
RECOMMENDATIONS -

(1) To test drill three locations at Block 1. This test diamond drilling involves a total core length of 1,300 feet. The location and details of this recommended test drilling are depicted on Plan No. 1, accompanying this report.

(2) If the above program of diamond drilling encountered some interesting indications, it is recommended to test two indications encountered at Block No. 4. The locations and details of these holes are depicted on Plan No. 4.

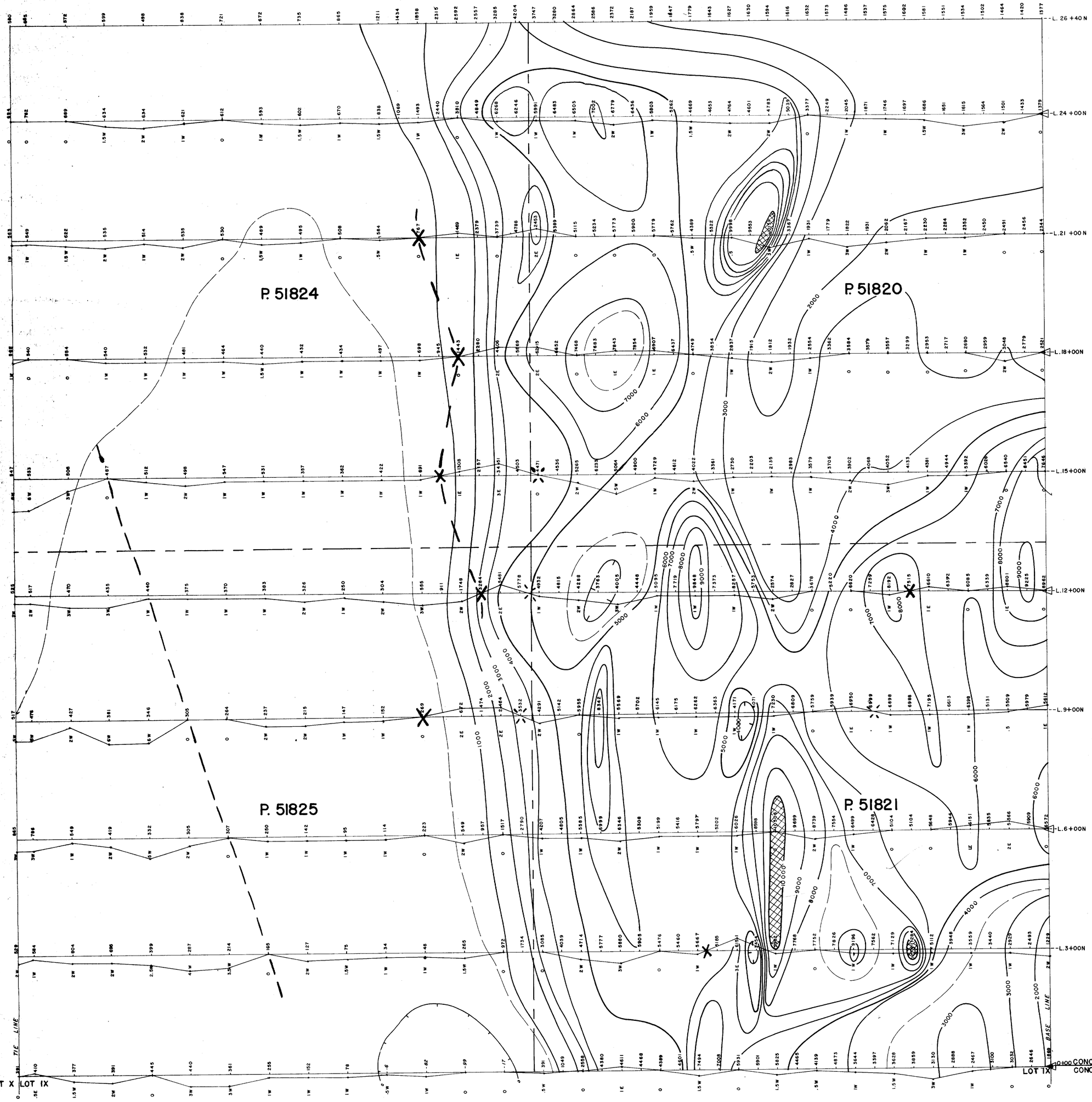
(3) An horizontal loop check survey, using a Ronka instrument, is recommended to check the magnetic anomalies and the electromagnetic indications encountered by the vertical loop method. This recommendation is subject to results obtained by the proposed test drilling to be conducted at Block 1.

Respectfully submitted,



S. S. Szetu, Ph. D.,
Consulting Geologist.

August 3, 1964.



LEGEND

- LINE CUT, B CHAINED
- 789 VERTICAL MAGNETIC INTENSITY IN GAMMA
- MAGNETIC CONTOUR
- ELECTROMAGNETIC DIP ANGLE : 1"= 10°
- MAGNETIC BASE CONTROL STATION
- MAGNETIC BASE STATION
- OFFICIAL SURVEY MARKER
- AXIS OF CONDUCTION
- X ELECTROMAGNETIC "CROSS-OVER"
- ——//—— "REVERSED CROSS-OVER"

READINGS SHOWN RELATIVE VERTICAL MAGNETIC INTENSITY IN GAMMA

10,000	– UP
9000	– 10,000
8000	– 9000
7000	– 8000
6000	– 7000
5000	– 6000
4000	– 5000
3000	– 4000
2000	– 3000
1000	– 2000
0	– 1000
100	– 0

MAGNETOMETRIC & ELECTRO-MAGNETIC SURVEYS

GHISLAU MINING CORPORATION LTD.

TOWNSHIP OF BECK – DISTRICT OF COCHRANE

PROVINCE OF ONTARIO

100 75 50 25 0 100 200 300 400
FEET

GEOLOGICAL ASSOCIATION OF CANADA
FELLOW

DRAWING BY R.A. DE DEMUS

PROSPECTORS REG'D. NORANDA, P.Q. JUNE, 1964.

63.1332

P. 51828

P. 51829

P. 51826

P. 51827

TIE LINE

BASE LINE

LOT II LOT I — LOT I — CONCESSION IV / CONCESSION III

L.24+00W L.21+00W L.18+00W L.15+00W L.12+00W L.9+00W L.6+00W L.3+00W 0+00

1000 2000 2500 3000 4000 5000 6000

LEGEND

- LINE CUT & CHAINED
- 789 VERTICAL MAGNETIC INTENSITY IN GAMMA
- MAGNETIC CONTOUR
- ELECTROMAGNETIC DIP ANGLE: 1" = 10°
- MAGNETIC BASE CONTROL STATION
- MAGNETIC BASE STATION
- OFFICIAL SURVEY MARKER
- AXIS OF CONDUCTION
- X ELECTROMAGNETIC "CROSS-OVER"
- ⤫ " "REVERSED CROSS-OVER"

READINGS SHOWN RELATIVE VERTICAL MAGNETIC INTENSITY IN GAMMA

- 6000 - UP
- 5000 - 6000
- 4000 - 5000
- 3000 - 4000
- 2000 - 3000
- 1000 - 2000
- 0 - 1000

MAGNETOMETRIC & ELECTRO-MAGNETIC SURVEYS

GHISLAU MINING CORPORATION LTD.

TOWNSHIP OF NESBITT - DISTRICT OF COCHRANE

PROVINCE OF ONTARIO

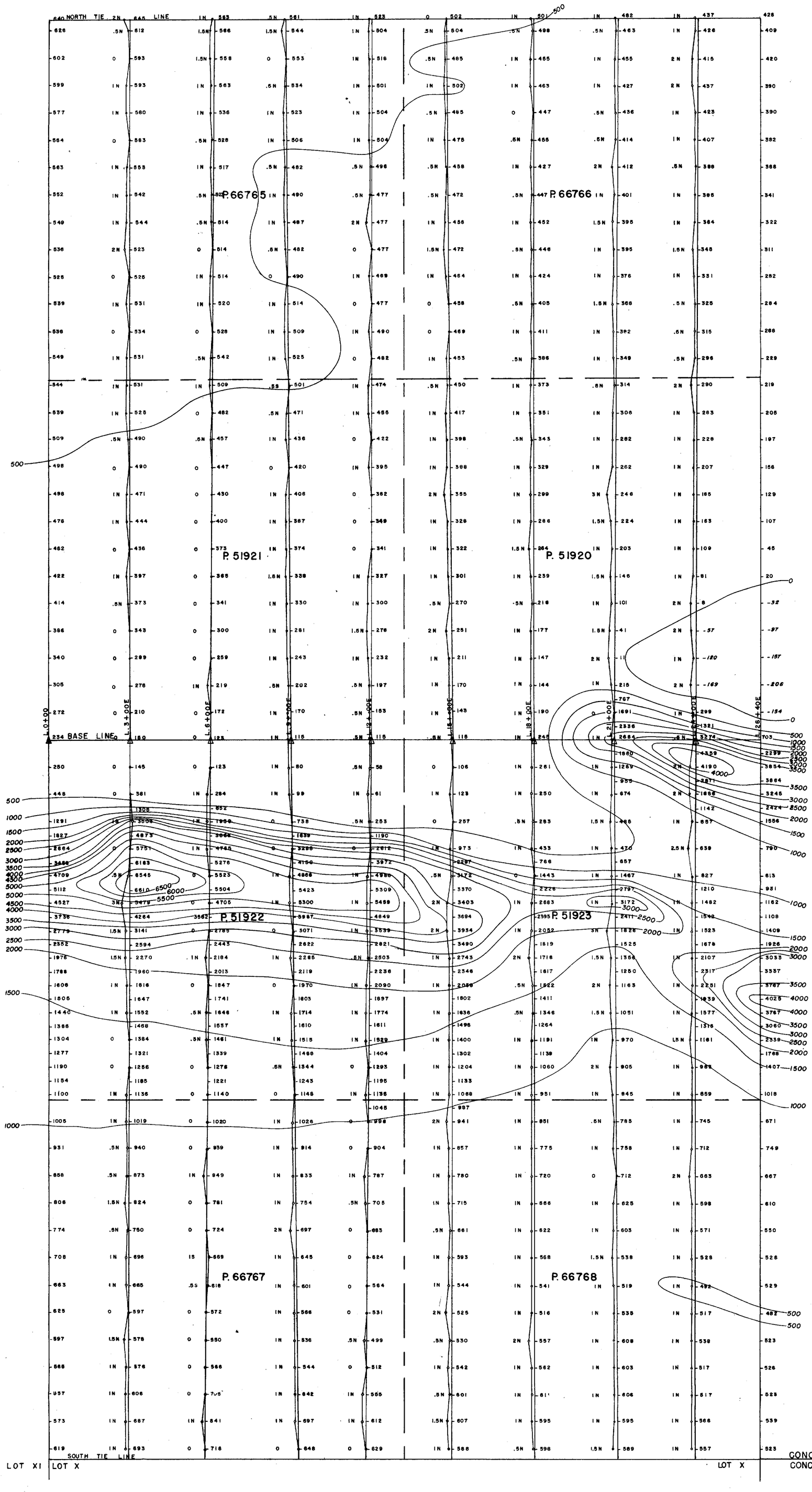
100 75 50 25 0 100 200 300 400 FEET

210

DRAWING BY R. A. DE REMUS

PROSPECTORS REG'D. NORANDA, P.Q. JUNE, 1964.

63.1332



LEGEND

- LINE CUT & CHAINED
- 789 — VERTICAL MAGNETIC INTENSITY IN GAMMA
- MAGNETIC CONTOUR
- 2N — DIP ANGLE: 1" = 20°
- ▲ MAGNETIC BASE CONTROL STATION
- △ MAGNETIC BASE STATION
- ◈ OFFICIAL SURVEY MARKER
- ✕ ELECTROMAGNETIC "CROSS-OVER".

READINGS SHOWN RELATIVE VERTICAL MAGNETIC INTENSITY IN GAMMA

- 6000 — UP
- 5000 — 6000
- 4000 — 5000
- 3000 — 4000
- 2000 — 3000
- 1000 — 2000
- 500 — 1000
- 0 — 500
- -300 — 0

MAGNETOMETRIC & ELECTRO-MAGNETIC SURVEYS

GHISLAU MINING CORPORATION LTD.

TOWNSHIP OF NESBITT — DISTRICT OF COCHRANE

PROVINCE OF ONTARIO

200 150 100 50 0 200 400 600 800
FEET

Rock 3

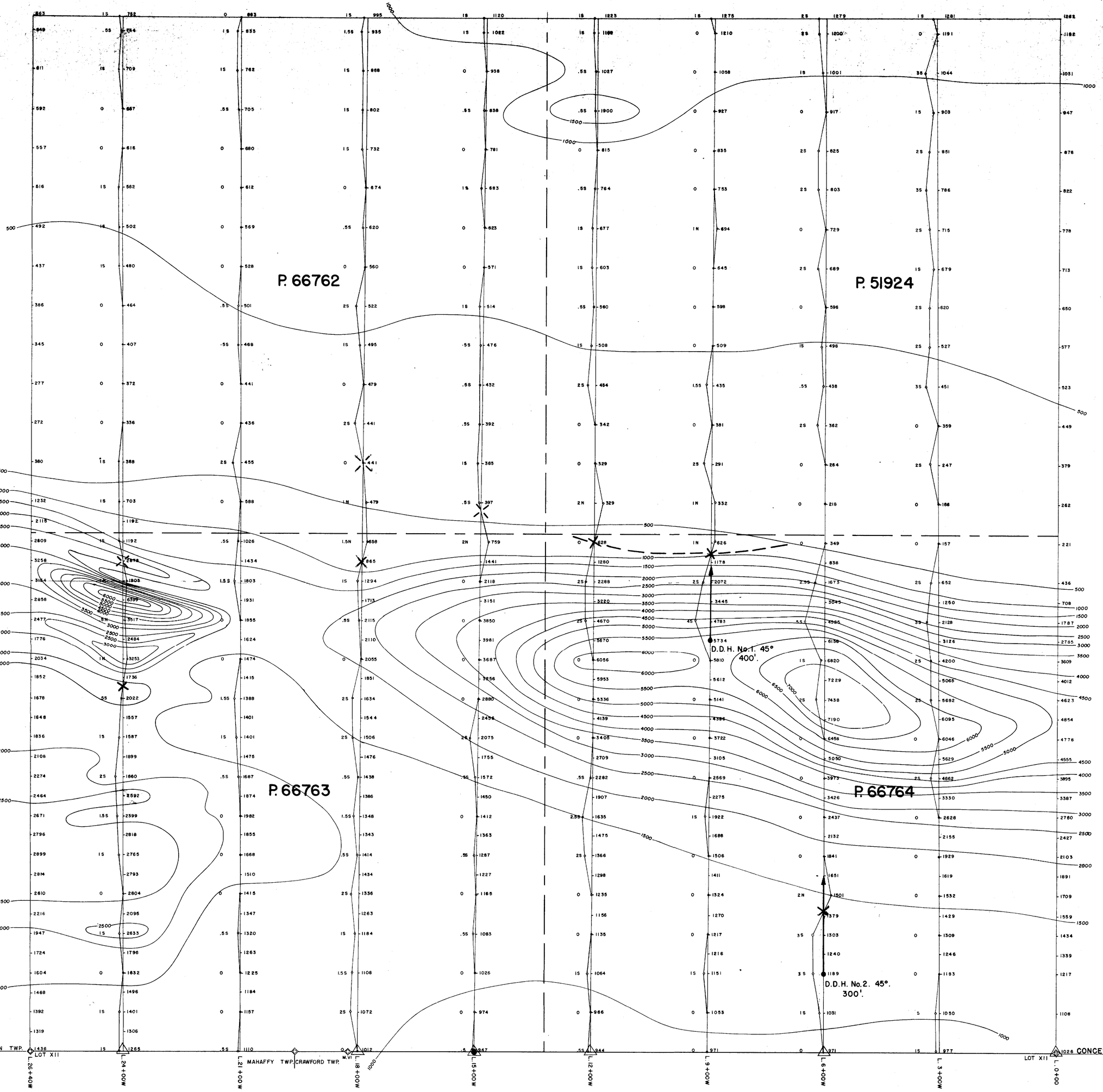
GEOLOGICAL ASSOCIATION OF CANADA
S. S. SZETU, Ph.D.
FELLOW

220

DRAWING BY R. A. DE DENUS

SUPERVISION AND DIFFERENTIATION BY S.S. SZETU PH.D.
SURVEY BY PROSPECTORS REG'D. NORANDA, P.Q. JULY, 1964.

63.1332



LEGEND

- LINE CUT & CHAINED
- 789 VERTICAL MAGNETIC INTENSITY IN GAMMA
- MAGNETIC CONTOUR
- 4N DIP ANGLE : 1"= 10°
- MAGNETIC BASE CONTROL STATION
- MAGNETIC BASE STATION
- OFFICIAL SURVEY MARKER

READINGS SHOWN RELATIVE VERTICAL MAGNETIC INTENSITY IN GAMMA.

- 6000 – UP
- 5000 – 6000
- 4000 – 5000
- 3000 – 4000
- 2000 – 3000
- 1000 – 2000
- 500 – 1000
- 0 – 500

- ELECTROMAGNETIC "CROSS-OVER".
- ELECTROMAGNETIC "REVERSED CROSS-OVER".
- AXIS OF ELECTROMAGNETIC CONDUCTION.
- PROPOSED DIAMOND DRILL HOLE

MAGNETOMETRIC & ELECTRO-MAGNETIC SURVEYS

GHISLAU MINING CORPORATION LTD.

TOWNSHIP OF NESBITT – DISTRICT OF COCHRANE.

PROVINCE OF ONTARIO

100 75 50 25 0 100 500 900 1300 FEET