



42G055W0013 63.874 TALBOTT

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ELECTROMAGNETIC REPORTINTRODUCTION

During the months of June and July 1956, an electromagnetic survey was performed for Continental Copper Mines Limited, over 29 claims in Talbott and Scholfield Townships, Ontario.

These claims were staked in 1955 to cover several mineralized zones discovered by prospecting. The mineralization consisted essentially of pyrite as stringers and disseminations along bedding planes and did not contain more than traces of base metals. The frequency with which it occurred in outcrops, however, plus the fact that many adjoining claims were subsequently staked on the basis of airborne geophysics suggested that mineralization was wide-spread in the area. The company therefore decided to explore the claims for an enrichment in the sulphides.

The survey discussed in this report was carried out as the first step of a program to explore the property for base metals. It was performed to localize the search for massive sulphide bodies, by delineating good electrically conductive zones, in the hope that such would arise from sulphide mineralization.

Reference is also made in this report to the results of a secondary magnetometer survey which was done on the claims. A discussion of this magnetic work is contained in a separate report.

SUMMARY

Fifteen parallel zones of discontinuous conductors, together with shorter sub-parallel conductors were delineated by the survey. The zones trend in a N-55°E (Ast.) direction and contain individual conductors varying to 2100 feet in length. If put end to end, the conductors would have a total length of some nine miles.

In several instances the conductors have been verified from outcrop to arise from sulphides. In the remaining cases, the magnetic data has suggested which may arise from cherting or other mineralization, and which would reflect larger zones of sulphides. Any of the conductors could mark an important target, and each should be examined.

It has been recommended that a reconnaissance geochemical program be carried out to supply direct evidence for the presence of base metal mineralization under the conductors. Soil samples along short traverses over each conductor will be tested for traces of base metals, and this data along with the results of the magnetic work and some prospecting will be used to select targets to be drilled.

LOCATION, ACCESSIBILITY AND EXTENT OF PROPERTY

The Continental Copper claims are located immediately south of the Hearst River in Talbot and Scholfield Townships, Sault Ste. Marie Mining Division, Ontario. Scholfield Township lies 26 miles south-west of the town of Hearst, while Talbot which adjoins its western side is diagonally crossed in its northwestern corner by the Algoma Central and Hudson Bay Railways. The approximate longitude and latitude of the claims is $83^{\circ} - 53'$ and $49^{\circ} - 15'$ respectively. The compass declination, where unaffected by local attraction, is $8^{\circ} 30' W$.

The best means of access is via a $6\frac{1}{2}$ mile wagon road which extends east from the flagstop of Hansen station. This road is almost completely muskeg and therefore impassable for vehicles other than tractors. Hansen is 32 miles south of Hearst, to which it is joined by the Algoma Central and Hudson Bay Railroad. Train service between the two is daily. The wagon road from Hansen continues through the claims to a small lake near the corner of Lots 25 and 26 Con. 8 and 9 in Scholfield Township. This lake may be landed upon by light aircraft, but its small size makes departures risky.

A good truck road joins Hearst with Horsey, 19 miles to the south, from which additional tractor roads extend to the vicinity of the claims.

The Company holds a group of 28 contiguous claims in Talbot and Scholfield Townships. The claims cross the common boundary of the two townships near its 6 mile post. Seven claims lie in Talbot, while those in Scholfield include the NW $\frac{1}{4}$ of lot 34 con. 7; lots 33 and 34 together with the W $\frac{1}{2}$ and NE $\frac{1}{4}$ of lot 32 and the NW $\frac{1}{4}$ of lot 31 in con. 8; the S $\frac{1}{2}$ of lot 33, the E $\frac{1}{2}$ and NW $\frac{1}{4}$ of lot 32, the W $\frac{1}{2}$ and NE $\frac{1}{4}$ of lot 31 in con. 9. Claim S.S.M. 46969 representing the SW $\frac{1}{4}$ of lot 32, con. 9 is not controlled by the Company but was included in the survey because it lies within the property outline and its information would therefore be required for a continuous geophysical picture of the claim group. An outline of the area examined is shown on the key map which accompanies this report.

The list by number of the claims together with the area covered by the survey will be found in the Appendix to this report.

GENERAL GEOLOGY

There are no detailed geological maps or reports published for this area. Map 412A Geological survey of Canada 1938 for the Hearst Kapuskasing area includes Talbot and Scholfield Townships for which it shows some geology with descriptive notes. As a rule, outcrops of rock are scarce and in some localities almost lacking.

The area is believed to be underlain by rocks of Precambrian, presumably Archaean age. They include sediments and volcanics intruded by granitic and dioritic rocks. The sediments are now largely hornblende-quartz gneisses which in places form so intricate a mixture with the intrusive granites that both have lost their main characteristics. The volcanics are dark due to extensive chloritization. There are a few reported occurrences of sulphides carrying copper and gold in the area.

LOCAL GEOLOGY

The immediate area is almost completely covered with muskeg and devoid of outcrops. The Continental Copper claims provide a local exception to this rule by having a fair amount of exposed rock. Such outcrops as were observed during the course of the survey have been included on the accompanying map. A limited amount of prospecting done after the survey was finished, provided additional information on areas between the traverse lines.

Most of the rocks observed were highly metamorphosed and recrystallized sediments with well defined bedding planes. In several instances pyrite and pyrrhotite had developed as stringers and disseminations along these planes over widths up to 15 feet. Samples of these contained only traces of copper, nickel, lead, zinc and gold. Several exposures of dark basic rock were also seen and are thought to be volcanics. Map 411A of the U.S.G. suggests the claim area is underlain by paragneisses derived from shales, greywackes, arkose and sandstone, and includes narrow bands of basic volcanics with some dioritic intrusives. Observations of the bedding in the sediments suggest a north easterly strike with a vertical or steeply south dip.

Overburden on the claims is thought to be relatively shallow, perhaps at most 50 feet, and in many places less than 10 feet. In several instances it was judged to be residual, with a reddish discoloration due to oxidized sulphides.

RESULTS OF THE SURVEY

All the results of the survey are plotted on the accompanying map number 1956-12 drawn to the scale of 1 inch equals 300 feet.

Beside each measurement station is shown the inclination in degrees to the horizontal of the resultant magnetic field as recorded for energization from a particular transmitter location. Transmitter locations are marked by a triangle and a code number. Series of field readings are blocked off with similar code numbers in circles to show which transmitter location they refer to. All readings have been profiled on one or the other side of their traverse line depending on the direction of their inclination, to the scale 1 inch equals 20 degrees. Northerly inclinations (shown negative) are drawn to the left, and southerly inclinations (no sign) to the right.

The presence of a conductive body distorts the otherwise horizontal direction of the magnetic field, so that it is characterized by readings which tilt away from either side of the conductor. Electrical conductor axes shown on the map are the vertical projections of the electrical axis of the target. They are shown solidly where they have been definitely indicated, or dashed where evidence is merely suggestive. Zones of axes have been marked by 1, 2, 3, --- 15, and are latter discussed.

Technical details regarding the procedure followed in performing the survey will be found in the Appendix to this report.

DISCUSSION OF RESULTS

The purpose of this type of survey is to locate those zones which are good electrical conductors. These will include any or some combination of massive sulphides or graphite, wet faults or shears, conductive interfaces, and in some cases magnetite. A prerequisite for detection is the interconnection of conductive particles so that pods or disseminations may not be located as such. The electrical conductor axes shown on the map will occur vertically above the upper edge of a body whose dip is 45° or more. As the dip of the body diminishes, the location of this axes will move farther down-dip.

The strength of conductor response (for a given transmitter distance) will depend on the conductivity, length and depth in terms of width of the target. A weaker conductor therefore will mark more poorly conducting, deeper or narrower bodies or some combination of these characteristics. Stronger response will arise from the opposite set of conditions. Since it is impossible on the basis of one survey alone to label conductors as poor, fair or excellent with any degree of accuracy, one cannot therefore determine the nature of the conducting body.

A very large number of conductors were located on the claims, so many in fact that if they were put end to end they would total some 9 miles. The majority have been grouped for reference into fifteen parallel zones which trend in a N-55^cE (Ast.) direction. Individual conductors within these zones vary to 2100 feet in length. The picture is complicated however by discontinuity and poor definition within assigned zones, plus numbers of shorter conductors which are

scattered between the zones. It is not always clear which additional conductor should be added to a zone, or which zones are merely continuations of others. The whole picture is believed to reflect discontinuous mineralization and/or shearing developed along the bedding planes in sediments which are locally faulted or folded. The results of the magnetic work show that several local departures from normal strike by the conductors can be attributed to minor folding in the bed-rock, and suggest which conductors most likely reflect sulphides. The results of drilling on adjoining claims reveal that narrow graphitic shears may be expected.

ZONE 1 contains a conductor 1500 feet long with no magnetic corroboration. It lies in a swamp and is believed to reflect deeper or more poorly conductive material.

ZONE 2 represents a conductor 900 feet long which together with a segment along strike on line 99N cuts across outcrop displaying some magnetism. Both suggest the presence of mineralization and could be directly verified.

A group of scattered conductors lying north of these zones appear to arise from weaker targets with no known surface expression.

ZONES 3, 4, 5 and 6 all fall along a magnetic zone consisting of short lenticular anomalies, having a discontinuity along line 87N. In several instances the corroborating anomaly is negative as at 30N-14W, 45N-11W, 51N-950W, 78N-7W and 81N-850W, or the conductors flank the anomalies so distinctly that they suggest shearing, as at 15N-1450W, 18N-15W, 60N-10W, 63N-950W, 66N-6W, 72N-5W, 78N-5W, 81N-2W and 84N-450W. With the exception of the latter, all the conductors are believed to arise from sulphide mineralization. Zone 4 is one of the strongest to be found on the claims, and the magnetics suggest its segment between 60N and 72N to contain the most magnetic material. The conductor at 57N-7W is thought to have been shifted 100 feet too far east due to response from neighbouring zones.

ZONE 7 is corroborated between lines 21N and 54N, and believed to reflect narrow zones of disseminated sulphides over this section. The suggested segments on lines 60N, 66N and 69N have no anomalies and could reflect shearing.

ZONES 8 AND 9 are poorly corroborated by magnetics on 30S and 21S respectively. They appear to arise from weak conductors, possibly shearing.

Several short unmarked conductors to their south at 395-4W, and 42S-5W, 950W and 1250W are corroborated by magnetics to suggest narrow sulphides. Several outcrop in the area with visible sulphides support this view.

ZONES 10 AND 11 lie along a series of short magnetic anomalies, but they appear to flank rather than coincide with each other. The suggestion is therefore that the conductors reflect scattered mineralization and/or shearing.

ZONES 12, 13, 14 AND 15 all coincide or lie adjacent to parallel series of co-linear lenticular anomalies. They probably arise therefore from a combination of pods of sulphides and shearing effects. Those conductors which are best corroborated by magnetic evidence are as follows:-

Zone 12;- 45S-3E, between lines 9S and 3S; 3N-4E, 6N-1E, 350E; 9N-425E, 12N-250E to 15N-4E; between lines 21N and 42N; 54N and 57N; 69N-10E. The segment between lines 21N and 33N gave some of the strongest electrical response on the property.

Zone 13;- between lines 54S and 42S,

Zone 15;- on lines 24N, 27N and 36N.

RECOMMENDATIONS

In several sections where there is outcrop on the claims, some prospecting or limited trenching could verify the cause of some of the conductors. The magnetic data has shown which conductors could have the greatest amount of magnetic sulphides associated with them, and therefore are likely to be most important. These zones should receive first attention.

Any one of the conductors however could mark an important zone and to attempt a detailed investigation of each would require a long and costly program. It is recommended therefore, that along with a limited amount of prospecting, each of the conductors have soil samples taken which may be tested for traces of base metals. In this way direct evidence may be gained of which conductors arise from base metal mineralization. With this information plus the magnetic data a selection of targets may be made for drilling.

Overburden on the claims is not judged to exceed 50 feet at most, with many areas being more thinly covered. Indeed in several instances the overburden had an almost residual character. Soil samples where they are taken should be at least 3 feet in depth and from 25 to 50 feet apart. A short traverse of 300 feet over each conductor would be required.



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MAGNETOMETER REPORT

INTRODUCTION

During the months of August and September, 1956, a magnetometer survey was performed for Continental Copper Mines Limited, over 29 claims in Talbot and Schelfield Townships, Ontario.

These claims had been staked to cover several sulphide discoveries made by prospecting. The showings consisted of disseminated pyrite and pyrrhotite, and although they only contained traces of base metals, their frequency of occurrence in the area encouraged an exploration program for enrichments along their course. The extensive masking covering the claims, however, precluded prospecting as a method to determine geology or locate additional sulphide bodies.

An electromagnetic survey performed on the claims delineated fifteen parallel zones of discontinuous conductors. Several conductors were shown by outcrop to reflect sulphides, but the majority had no surface expression to explain their cause. It was necessary, therefore, to have some corroborative evidence to select the more important ones for detailed investigation. Since those sulphides which had been observed were magnetic, it seemed likely that any others in the area would be magnetic also.

The magnetometer survey discussed in this report was performed to determine the distribution of the more magnetic zones of bed-rock on the property. With this data it was hoped to gain a more informative picture of the underlying geology, and to assess the relative importance of the conductors. The presence of a magnetic anomaly over a conductor would support its claim to reflect sulphide mineralization, and select it for further investigation. For a variety of reasons, however, its presence or absence could neither verify nor eliminate the possibility of ore.

A discussion of the results of the electromagnetic survey performed over these claims is contained in a separate report.

RESULTS

A large number of pod-like anomalies varying to 700 feet in length and beyond plus or minus 12,000 gauss in strength, were located. Most of these occur within series of weak lenticular anomalous zones varying to 3000 feet in length, and lying co-linearly along parallel north-easterly horizons.

The magnetic zones are thought to reflect pyrrhotite and pyrite developed as stringers and disseminations along bedding planes in the underlying sediments. The strong pod-like anomalies reflect concentrations of these minerals, the greatest being where the anomaly is also conductive. The small size of most of the anomalies, however, suggests that the majority of the magnetic sulphide zones reflected will be 5 to 20 foot widths of narrow stringers. In a few cases the targets could be twice this size.

Since any anomaly could reflect a base-metal sulphide zone, it has been recommended that all be examined geochemically beginning with the largest and strongest. In regions of outcrop some prospecting may also be done to verify the cause of the anomalies.

This geochemical information plus the magnetic and electrical data will allow a selection of targets to be drilled.

LOCATION, ACCESSIBILITY AND EXTENT OF PROPERTY

The Continental Copper claims are located immediately south of the Hearst River in Talbott and Scholfield Townships, Sault Ste. Marie Mining Division, Ontario. Scholfield Township lies 26 miles south-west of the town of Hearst, while Talbott which adjoins its western side is diagonally crossed in its northwestern corner by the Algona Central and Hudson Bay Railways. The approximate longitude and latitude of the claims is $83^{\circ}-53'$ and $49^{\circ}-15'$ respectively. The magnetic declination, where unaffected by local attraction, is $8^{\circ} 30'W$.

The best means of access is via a $6\frac{1}{2}$ mile wagon road which extends east from the flagstop of Hansen station. This road is almost completely rutted and therefore impassable for vehicles other than tractors. Hansen is 22 miles south of Hearst, to which it is joined by the Algona Central and Hudson Bay Railways. Train service between the two is daily. The wagon road from Hansen continues through the claims to a small lake near the corner of Lots 25 and 26, Con. 8 and 9 in Scholfield Township. This lake may be landed upon by light aircraft, but its small size makes departures risky.

A good truck road joins Hearst with Morsey, 19 miles to the south, from which additional tractor roads extend to the vicinity of the claims.

The Company holds a group of 25 contiguous claims in Talbott and Scholfield Townships. The claims cross the common boundary of the two townships near its 6 mile pose. Seven claims lie in Talbott, while those in Scholfield include the NW 1/4 of lot 34, Con. 7;

Lots 33 and 34 together with the NE $\frac{1}{4}$ and NE $\frac{1}{4}$ of Lot 32, and the NW $\frac{1}{4}$ of Lot 31, in Con. 8; the SE $\frac{1}{4}$ of Lot 33, the E $\frac{1}{2}$ and NW $\frac{1}{4}$ of Lot 32, the NE $\frac{1}{2}$ and NE $\frac{1}{4}$ of Lot 31 in Con. 9. Claim S.S.N. 15769 representing the SE $\frac{1}{4}$ of Lot 32, Con. 9 is not controlled by the Company but was included in the survey because it lies within the property outline and its information would therefore be required for a continuous geophysical picture of the claim group. An outline of the area examined is shown on the Key Map which accompanies this Report.

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The area is believed to be underlain by rocks of Precambrian, presumably Archean age. They include sediments and volcanics invaded by granitic and dioritic rocks. The sediments are now largely hornblende-silica gneisses which in places form so intricate a mixture with the intrusive granites that both have lost their main characteristics. The volcanics are dark due to extensive chloritisation. There are a few reported occurrences of sulphides carrying copper and gold in the area.

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Most of the rocks observed were highly metamorphosed and recrystallized sediments with well defined bedding planes. In several instances pyrite and pyrrhotite had developed as stringers and disseminations along these planes over widths up to 15 feet. Samples of these contained only traces of copper, nickel, lead, zinc and gold. Several exposures of dark basic rock were also seen and are thought to be volcanics. Map 412A of the G.S.C. suggests the claim area is underlain by paragneisses derived from shales, greywackes, arkoses and sandstone, and includes narrow bands of basic volcanics with some dioritic intrusives. Observations of the bedding in the sediments suggest a north-easterly strike with a vertical or steeply south dip.

Overburden on the claims is thought to be relatively shallow, perhaps at most 50 feet, and in many places less than 10 feet. In several instances it was judged to be residual, with a reddish discoloration due to oxidized sulphides.

RESULTS OF THE SURVEY

All the results of the survey are plotted on the accompanying Map number 1956-17, drawn to the scale 1 inch equals 300 feet.

Beside each reading station is shown the gamma value of the vertical component of the earth's magnetic field, in relation to that at Base Station A located at 24N-15R. The magnetic value of this station was arbitrarily chosen as 922 gammas.

Contours of equal vertical magnetic intensity have been drawn at intervals of 500 gammas.

Zones of magnetic anomalies have been marked by "A", "B", "C", etc., and are later discussed.

Technical details regarding the procedure followed in performing the survey will be found in the Appendix to this Report.

DISCUSSION OF RESULTS

Magnetic anomalies arise from magnetite, ilmenite, or pyrrhotite, or some combination of these minerals. The sign of an anomaly - whether it is positive or negative, is usually determined by the attitude and direction of polarization of the body. In northern latitudes, positive anomalies occur over the upper edge of a body, while negative ones mark the footwall side or lower pole depending on whether the body is deep-seated or shallow. Ilmenite, very acid rocks, reverse polarization or otherwise magnetic rocks in a more magnetic host can also give rise to negative anomalies.

The magnetic method is depth limited, the expected anomaly varying with depth in terms of target width. A given zone twice the depth gives only one quarter the response so that deeper narrow targets can be missed, while a closer approach to surface of a homogeneous bed-rock can create a "topography" anomaly.

The survey located a large number of pod-like anomalies varying up to 700 feet in length with magnetic relief to beyond plus or minus 12,000 gammas. These pods are usually within lenticular anomalous zones of a few hundred gammas relief which vary to 500 feet in width and 3000 feet in length. The zones trend in a N-55°E (Ant.) direction and series of them appear to lie co-linearly along parallel horizons through the claims. Eight such horizons have been selected due to the

strength and frequency of the anomalies along them. Markers of a given horizon bear the same letter and are distinguished by subscripts. The pattern is quite complicated, however, by discontinuity along the horizons, plus markers of shorter anomalies scattered irregularly between them, so that in many cases it is not clear what the exact relationships are.

The zones are believed to reflect essentially pyrrhotite and magnetic pyrite which have developed as narrow stringers and disseminations along bedding planes in the underlying sediments. The stronger anomalies mark concentrations of these minerals, but in no case does the amount of magnetic material present appear to be very great. The suggestion is that the targets causing the strong anomalies are with few exceptions very narrow, say 5 to 20 feet widths, of narrow stringers which are quite shallow. The weaker portions of magnetic zones probably reflect a very few stringers or disseminations of magnetic sulphides.

The general increase in magnetic level over the south central portion of the claims is thought to reflect a closer approach to surface of the bed-rock plus a slight increase of magnetic sulphides. The geologic dip of formations is indicated to vary from near vertical to a few degrees to the south-east. It is corroborated by the many magnetic dipoles having their negative portions (down-dip part) to the south-east.

The electromagnetic results have shown a number of parallel series of conductors, some of which coincide with the anomalies. A conductor is essentially a reflection of continuity in the underlying conductive material and could equally well mark a massive body or a parallel series of thin stringers. A relatively narrow development of sulphides say down to 1/4 inch, having good length and depth extent, could give very strong electrical response. The most important anomalies therefore will be coincident conductors and strong magnetic anomalies.

Anomaly A, together with similar smaller ones elsewhere about the property, which are merely closures of areas of slightly increased response, are thought to reflect closer approaches to surface plus slight disseminations of magnetic material in the underlying bed-rock. A short conductor through A could reflect a stringer of sulphides or a shoring.

Horizon B is shown to include three members which are generally on strike, however, it is doubtful if all are related to the same geologic horizon. B₁ with no electrical corroboration, may reflect a pod of disseminated sulphides; B₂ appears to arise from a dyke-like body lying along line 87N and running into rocks with increased magnetic sulphides plus a closer approach to surface at its upper end. A sulphide

stringer or shearing could account for the conductor through B₂ and could be verified in nearby outcrop. B₃ occurs on outcrop and with its flanking conductor could also reflect a condition of near surface bed-rock with stringers of sulphides.

The C horizon which has been shown to include zone C₁ some 3000 feet long, plus six smaller anomalies on strike for a mile, appears to be one of the most important ones on the property. The relationship of C₆ to this horizon is in doubt, for it is also close to the strike of the B zone. The magnetics suggest a discontinuity along 87N either in the form of a dike or a mineralized fault, and C₆ has been taken to be a member folded to the north in its vicinity.

C₁ and C₂ could reflect a series of narrow stringers folded on line 39N, or two parallel zones beginning and ending respectively on this line. They do not appear to reflect large amounts of magnetic material, the most continuous amounts of which are suggested under conductors at 21N-16W; 30N-14W; 16W; 36N-15W; 39N-12W; 14W.

C₃, C₄, C₅, C₆ and C₇ are among the strongest anomalies located by the survey, and the latter two could reflect targets to 50 feet in width. Conductors exist through C₃, C₄, the negative portion of C₆, and C₇. With the geologic disturbances suggested near line 87N, the anomalies in its vicinity would appear to be the ones which could be most important.

A number of strong negative anomalies occur along the C horizon and some are conductive as at 30N-14W; 45N-11W; 51N-950W; 78N-7W; 81N-850W. These negatives could reflect reverse polarized bodies or be the lower poles of shallow masses whose near surface portion lies under adjoining positives. A conductor through them could result, therefore, from a conductive mass dipping vertically or slightly north-west or a non-conductive mass dipping south-east with a conductive stringer or shear flanking its lower pole.

Horizon D is also felt to be one of the more important ones on the property. D₁ has a very weak conductor believed to reflect a more continuous sulphide stringer in a zone of weak mineralization. D₂ and D₃ are also believed to reflect a weak series of sulphide stringers over lengths of 2500 and 1400 feet respectively, and there is the suggestion of a northerly fault displacing them and continuing on between C₁ and C₂. D₂ is conductive for its whole length and D₃ only on lines 42N and 45N. The anomaly in D₂ appears to reflect the widest mineralization - say 60 feet, of any strong anomaly located.

D₄ is non-conductive and thought to reflect narrow weak mineralization.

The E horizon is shown to consist of five small anomalies scattered along a 2½ mile course. Each are believed to reflect local

concentrations of magnetic sulphides, which, except for E₁, are of small amounts. Short weak conductors through E₁ and at 21N-725W in E₂ are believed to reflect narrow sulphide stringers or shearings. A small anomaly north of E₁ and joined to it appears to arise from similar conditions.

Horizon F with three short weak anomalous zones is also believed to reflect locally small amounts of magnetic sulphides. A conductor through F₁ is thought to reflect narrow stringers in evidence in nearby outcrop. A short conductor is present at 45N-2E.

The G horizon shown to contain seven anomalous zones may actually include several sub-parallel horizons. The anomalies are all believed to reflect local pods or concentrations of stringers of sulphides. Conductors occur through G₁, 9S-250E; 6S-250E; 3S-3E; 3N-4E; 6N-1E; 12N-275E; 15N-350E; G₅ and G₇. It is thought that a fault may be displacing G₄ from G₅ and that G₇ reflects the strongest sulphide concentration.

Both the H and K horizons are made up of short lenticular anomalous zones believed to reflect pods of magnetic sulphides. In no case does the amount of sulphide present appear to be very large. H₁, H₂ and K₁ have conductors suggesting that the mineralization they reflect is of a more continuous nature.

RECOMMENDATIONS

Any of the anomalies could mark a base-metal sulphide deposit, and although their sizes suggest small amounts of magnetic material close to surface, they do not remove the possibility of ore. Additional non-magnetic ore-grade material could be present near surface or at a deeper horizon.

It is recommended therefore, that each anomaly be examined geochemically for direct evidence of base-metals, and that this information plus the electrical and magnetic data be used as a guide for drilling.

The geochemical reconnaissance should begin with the best anomalies such as G₄, G₅, G₆, D₂, D₃, G₇, H₁, and H₂. Because of the ambiguity in interpretation, negative anomalies should be considered to be as important as all others.

In areas where outcrop is known to exist some additional mapping could be done to provide a better picture of the underlying rock type and the causes of nearby anomalies.

CONTINENTAL COPPER MINES LIMITED

MAGNETOMETER SURVEY

OF

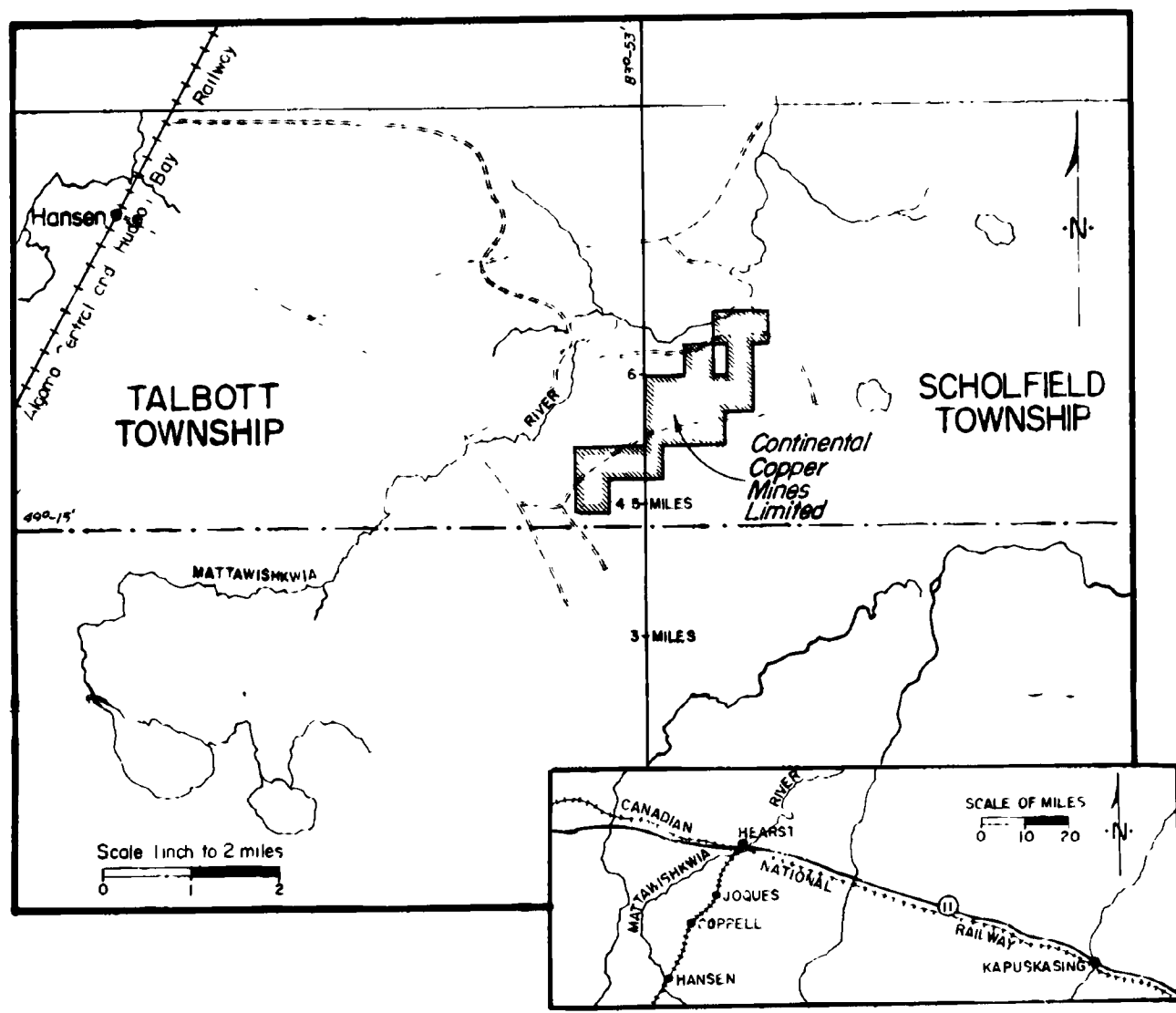
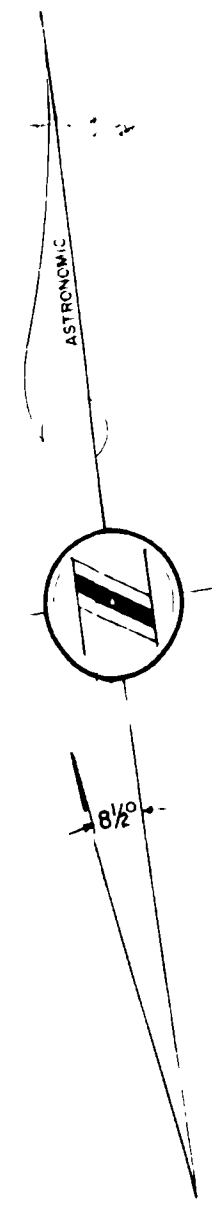
SCHOLFIELD CLAIM GROUP

SCHOLFIELD AND TALBOTT TOWNSHIPS

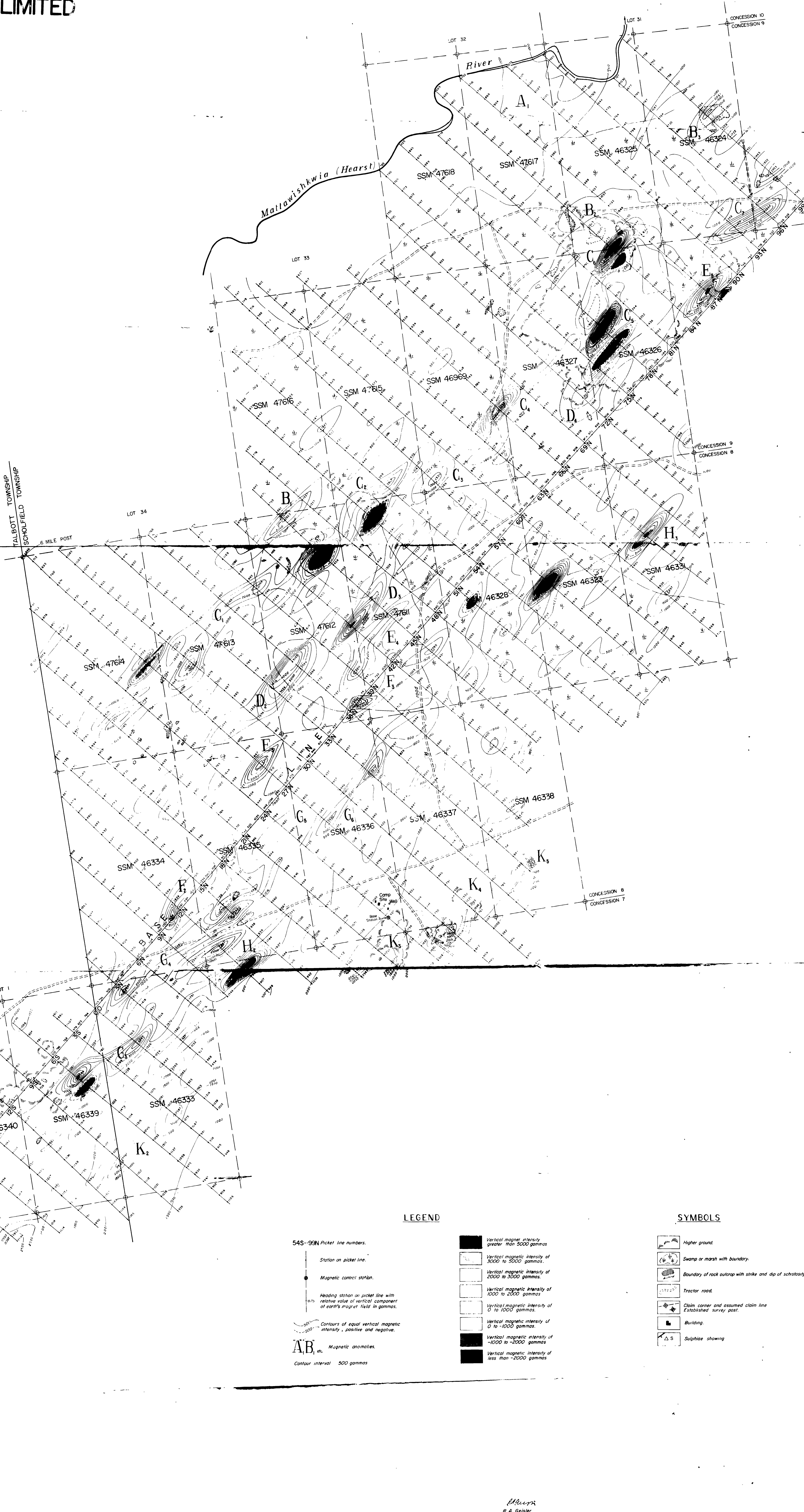
SAULT STE. MARIE MINING DIVISION

ONTARIO

SCALE: 1 inch to 300 feet



KEY MAP



LEGEND

- 54S-99N Picket line numbers.
- Station on picket line.
- Magnetic control station.
- Heading station on picket line with relative value of vertical component of earth's mag. field in gammas.
- Contours of equal vertical magnetic intensity, positive and negative.
- Magnetic anomalies, A, B, etc.
- Contour interval 500 gammas
- Vertical magnetic intensity greater than 5000 gammas
- Vertical magnetic intensity of 3000 to 5000 gammas.
- Vertical magnetic intensity of 2000 to 3000 gammas.
- Vertical magnetic intensity of 1000 to 2000 gammas
- Vertical magnetic intensity of 0 to 1000 gammas.
- Vertical magnetic intensity of -1000 to -2000 gammas
- Vertical magnetic intensity of less than -2000 gammas

SYMBOLS

- Higher ground.
- Swamp or marsh with boundary.
- Boundary of rock outcrop with strike and dip of schistosity.
- Tractor road.
- Claim corner and assumed claim line
- Established survey post.
- Building.
- Sulphide showing.

R. A. Gruber
December 5, 1956

CONTINENTAL COPPER MINES LIMITED

ELECTROMAGNETIC SURVEY

OF

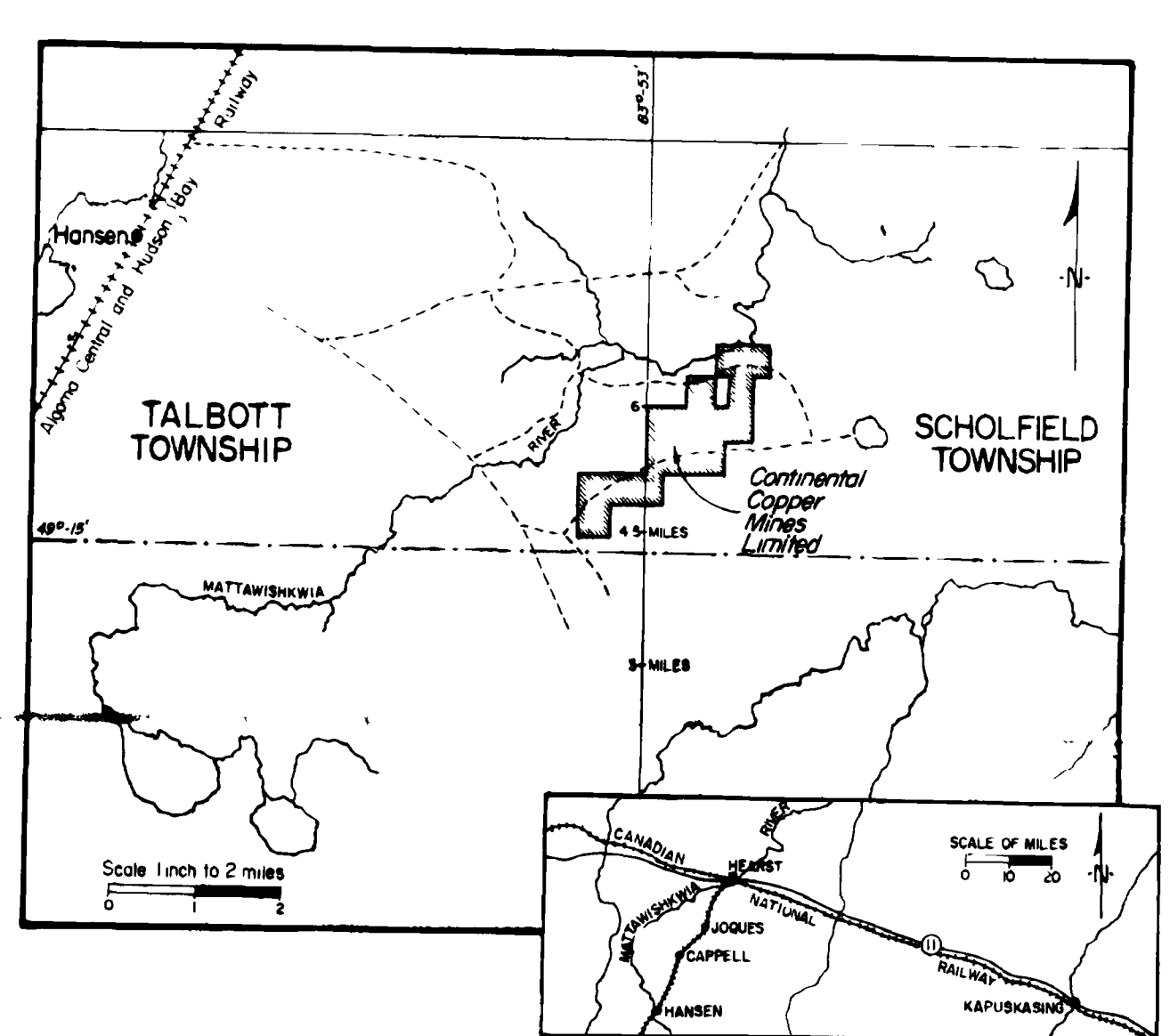
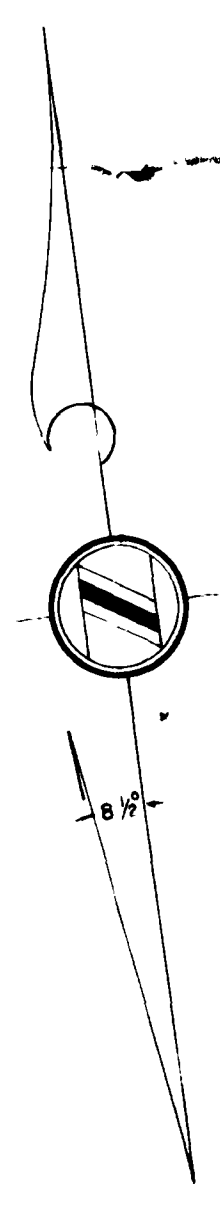
SCHOLFIELD CLAIM GROUP

SCHOLFIELD AND TALBOTT TOWNSHIPS

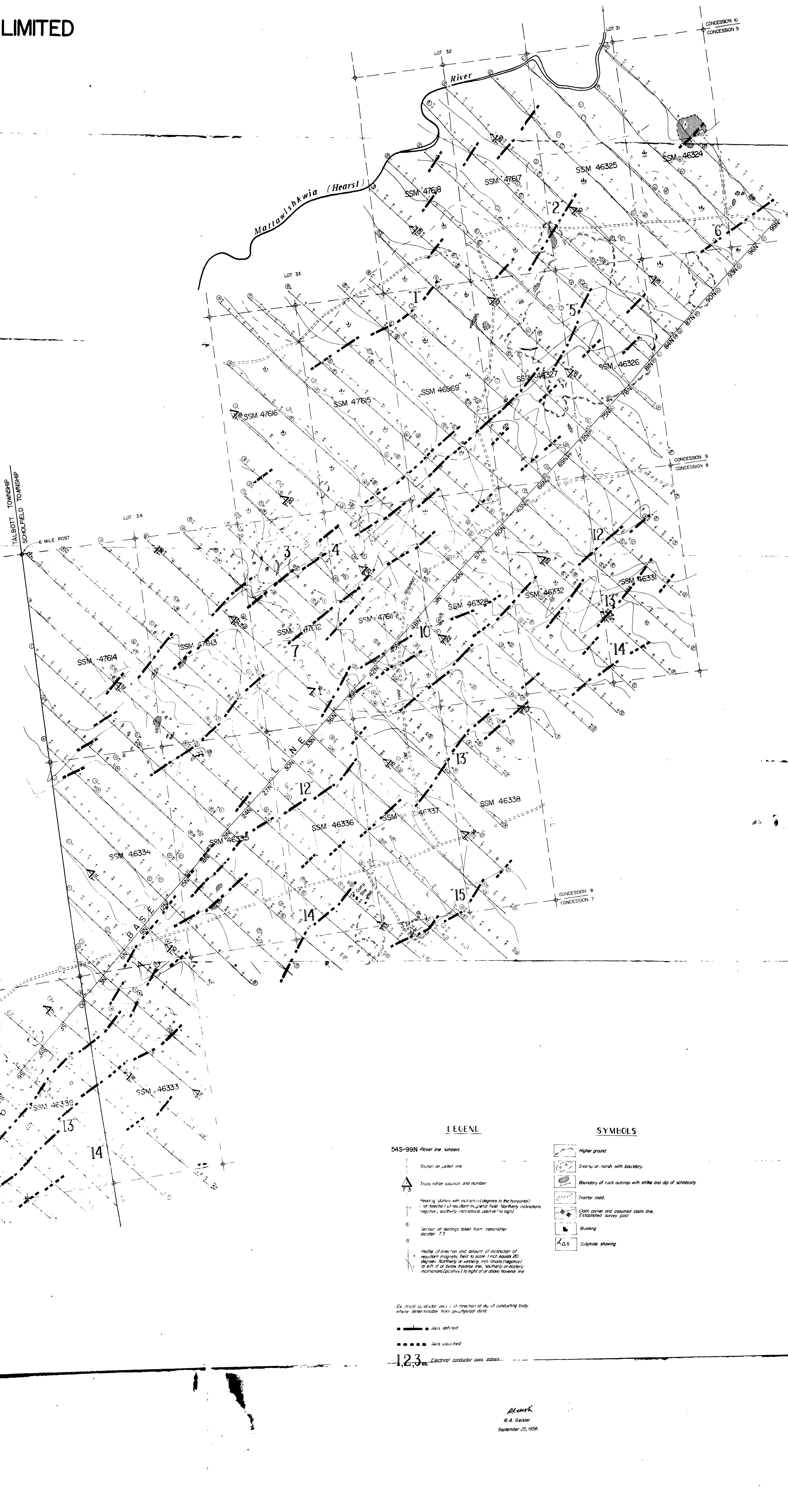
SAULT STE. MARIE MINING DIVISION

ONTARIO

SCALE: 1 Inch to 300 feet



KEY MAP



LEGEND

- 545-99N Picket line numbers
- Stakes on picket line
- Transmitter location and number
- Bearing station with tick mark (degrees to the horizontal)
- 1st deflection of no. above magnetic line; Northern indications negative, southern indications positive to sign
- Section of geodetic taken from transmitter location
- Profile of direction and amount of inclination of resultant magnetic field to scale 1 inch equals 30 degrees; Northern or westerly inclinations (negative) to left of or below traverse line, Southern or easterly inclinations (positive) to right of or above traverse line
- Ex. (first conductor line) = direction of dip of conducting body where determinable from geophysical data
- Airs def. net
- Airs assumed
- 1,2,3 Electrical conductor area zones

SYMBOLS

- Higher ground
- Swamp or marsh with boundary
- Boundary of rock outcrop with strike and dip of schistosity
- Tractor road
- Claim corner and assumed claim line
- Established survey post
- Building
- Sulphate showing

Blank
R.A. Gaiser
September 25, 1956