



42B13NW0207 2.1259 WALLS

010

R E P O R T

ON

NIGHT TOMMYER STONE

ON

WALLS TOWNSHIP PROPERTY

OF

NEWMARK MINING LTD

NEWMARK MINING DIVISION, ONTARIO

CLAIMS

S.S.M.-352949 to S.S.M.-352955

John R. Boissoneault, B.Sc., Eng.
Geologist, Engineer

June 18, 1973

INTRODUCTION

During the period of May 29 to June 8, 1973 a geophysical field party executed a magnetometer survey on the Walls Township property of Metalhawk Mining Ltd in Northern Ontario. The field party, consisting of two men, was under the supervision of a professional engineer. Sampling of surface occurrences of small gold bearing quartz veins was done at the same time.

The survey grid consisted of north-south picket lines, 300 feet apart, as was previously recommended, a total of 6.8 miles. The location of the grid, relative to property boundaries, is shown on Plate 1 on a scale of 1 in. = 400 ft.

The location and description of the property is covered in a previous report entitled "Geological Report on Walls Township Property for Metalhawk Mining Ltd". The claims involved are listed on the title page of this report, and all belong to Metalhawk Mining Ltd.

The overburden cover, over most of the property, is quite thin, probably less than 50 feet, and there are several outcrops most of them in the northcentral part of the property. Most of the land surface is relatively flat, and covered by spruce and balsam trees. There are several small ridges of moderate relief in the western half of the property. There is a small shallow lake near the western boundary of the property.

A Scintrex MF-1, "fluxgate" type magnetometer was

used for the magnetometer survey, with readings taken to an accuracy of ± 10 gamma, every 100 feet along the picket lines. The 'tie in' procedure, used to correct diurnal variation, is included in the appendix. A total of 6.8 miles were covered by the survey. Additional readings were taken at 50 foot intervals in the anomalous areas. This instrument measures the vertical component of the earth's magnetic field at the point where the reading is taken.

The purpose of the survey was primarily, to delineate geological contacts, and to trace geological trends which might be host rocks for the occurrence of gold bearing quartz veins; and secondarily, to locate metallic mineralization with anomalous magnetic susceptibility, if any should occur on the property and within the range of the instruments.

DISCUSSION OF RESULTS:

The magnetic intensity readings and contours are shown on Plate 2. Examination of these reveals a series of long narrow linear highs, trending in a direction of north-30°-west, and crossing the western half of the property. These have steep dips and are interrupted in at least two places. The anomalies appear to be the result of a series of diabase dikes as shown on Plate 1; these dikes are not uncommon in the general area.

The magnetic background between these highs and in the eastern half of the property is quite flat. It does, however, increase by about 100 gamma along a line, trending approximately east-west, south of the base line. This is

interpreted as a contact zone between granitic intrusive rock to the south, and mafic metavolcanics to the north. This interpreted contact crosses the property and appears to be displaced in two places.

There is a strong indication that at least two faults, trending in a direction of north-10°-east, cross the western half of the property. This is evidenced by the abrupt termination of magnetic trends between lines 18W and 21W and between lines 30W and 33W. The locations of these interpreted faults are shown on Plate 1.

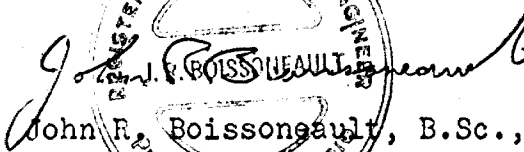
There are a few small irregular magnetic anomalies in the northeastern quarter of the property, some of which could be caused by bodies of sulfide mineralization. However, they are more likely the result of variations in magnetic susceptibility between various volcanic formations, or possibly differences in degrees of metamorphism in these flow rocks.

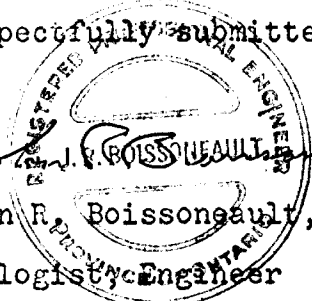
CONCLUSIONS AND RECOMMENDATIONS:

Since the sampling program, which was done at the same time as the survey, failed to establish continuity in the surface gold occurrences (only a few erratic gold assays were obtained--the best one being 0.115 oz/ton), the writer recommends that the program not be continued at this time. Exploration work is being done on a property about one mile to the west, in Hawkins Township, which could shed more light on the nature of the gold-quartz occurrences of Metalhawk Mining Ltd. It may be advisable at some time in the future,

to do further work on the property, including the testing of the magnetic anomalies referred to in the last paragraph of "Discussion of Results", with electromagnetic instruments. Until such time as a decision is made regarding this, the claims should be kept in good standing by the company.

Respectfully submitted,


John R. Boissoneault, B.Sc., P.Eng.
Geologist, Engineer



JRB/lb

June 18, 1973

Tie In Procedure to Correct Diurnal Variation

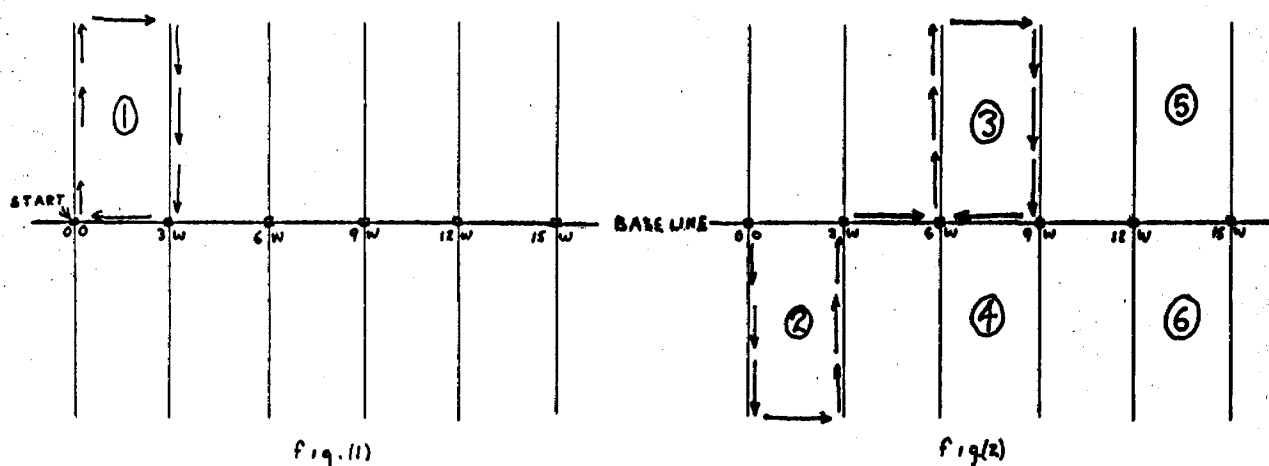


Fig. (1)

Fig. (2)

The method used to correct Diurnal Variation is one suggested by D. S. Parasnis (1966) as being "sufficiently accurate for most surveys". It consists of repeating the reading taken at a base station after an interval of less than two hours during which traverses are carried out. Any increase in the repeated reading "d" is divided by the number of readings 'n' and each reading corrected by subtracting $d/n \cdot x$ (where x = the ordinal number of the reading). For example, if the diurnal variation was +120 gamma and 60 readings were taken, the correction for the 25th reading = $-d/n \cdot x$ or $-120/60 \cdot 25 = -50$ gamma.

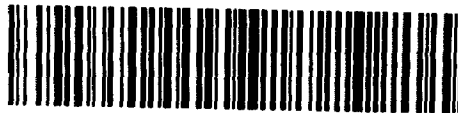
In order to extend this over the entire grid, the survey is done in loops (see map), beginning and ending at a base station on the base line and then tying in to the next base station, also on the base line. For example, when loop 1 is completed, base stations 00 and 3W are tied in. When loop 2 is completed, station 6W is tied in and loop 3 is started.

As a further check, when the last loop is completed at 15W, all the base stations are read on the way back. This is done as quickly as possible to minimize the effects of drift.

One makes the assumption that the change 'd' occurred at a fairly constant rate, and that the time interval between the readings is relatively constant.

The method allows reasonably accurate corrections, for drift in the instrument due to such factors as temperature changes, as well as, for diurnal variation.

John Bismant



42B13NW0207 2.1259 WALLS

900

GEOPHYSICAL - GEOLOGICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey GEO PHYSICAL

Township or Area WALLS TOWNSHIP

Claim holder(s) METAL HAWK MINING LTD.

Author of Report JOHN BISSONBAULT

Address 670 SPRUCE ST. NORIN, TIMMINS, ONT.

Covering Dates of Survey MAY 30 TO JUNE 8
(linecutting to office)

Total Miles of Line cut 7 1/4

MINING CLAIMS TRAVERSED

List numerically

SSM-352949
(prefix) (number)

SSM-352950

SSM-352951

SSM-352952

SSM-352953

SSM-352954

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical

DAYS
per claim

--Electromagnetic 40

--Magnetometer

--Radiometric

--Other

Geological

Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: June 14, 1975 SIGNATURE: John Bissonbaault
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications 2.740

Previous Surveys 63,3013 not for assessment
Credits L.D.

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 6

OFFICE USE ONLY

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 340 Number of Readings 372
Station interval 100 FEET
Line spacing 300 FEET
Profile scale or Contour intervals 100' gamma (MAGNETIC CONTOURS)
(specify for each type of survey)

MAGNETIC

Instrument SNARPE MF-1 (FLUXGATE TYPE)
Accuracy - Scale constant ± 10 gamma
Diurnal correction method SURVEY IS DONE IN LINES RETURNING TO BASE STATIONS WITHIN 2 HOURS (SEE REPORT)
Base station location BASE LINE PICKETS ARE BASE STATIONS. THEY ARE 02, 3W, 6W, 9W, 12W, 15W, 18W, 21W, 24W, 27W, 30W, 33W.

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

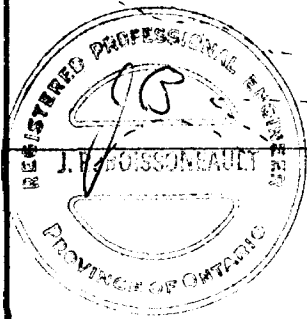
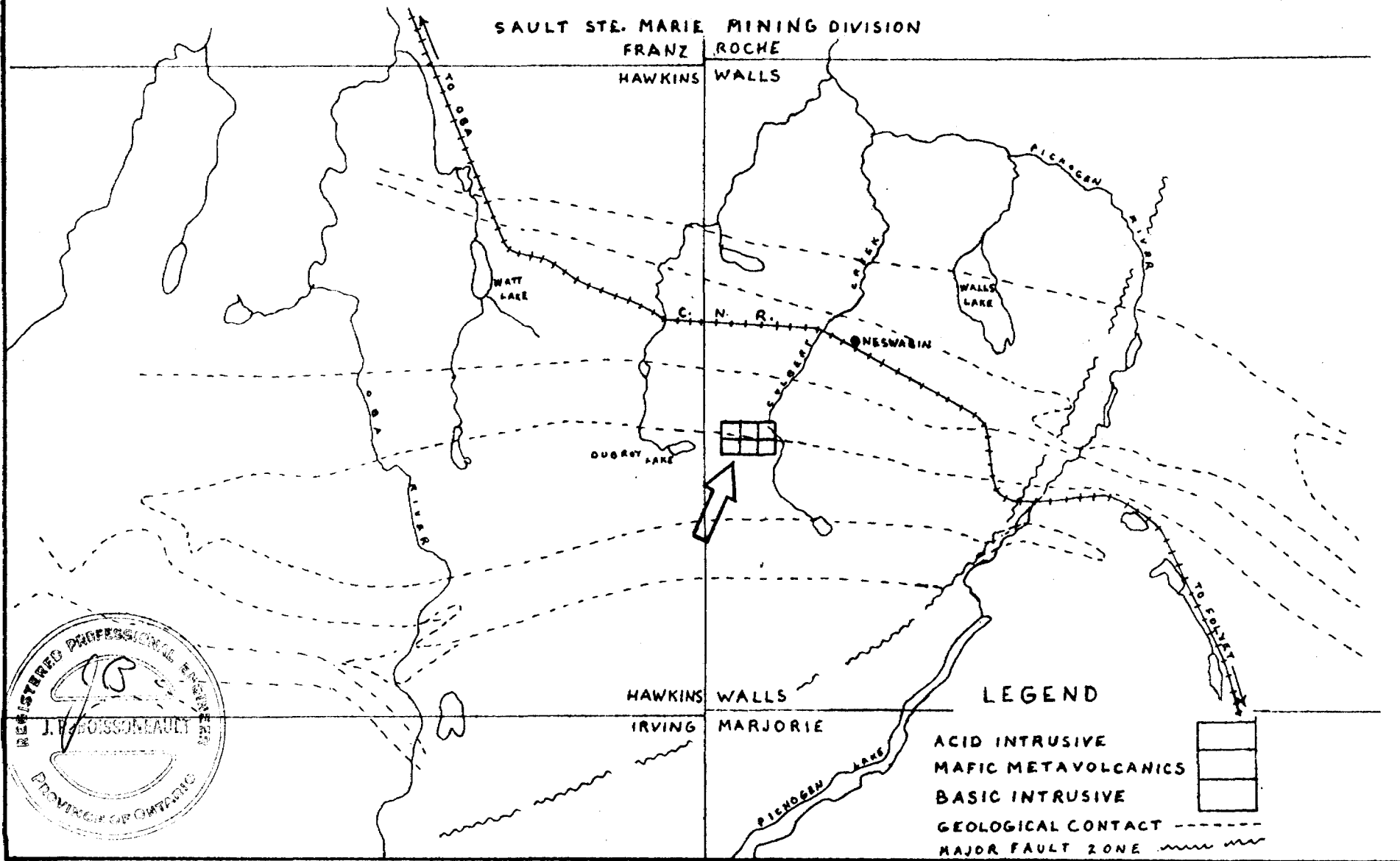
Instrument _____
Time domain _____ Frequency domain _____
Frequency _____ Range _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

GEOLOGICAL MAP METALHAWK MINING LTD.

WALLS TOWNSHIP

SAULT STE. MARIE MINING DIVISION

FRANZ ROCHE
HAWKINS WALLS



LEGEND

- ACID INTRUSIVE
- MAFIC METAVOLCANICS
- BASIC INTRUSIVE
- GEOLOGICAL CONTACT
- MAJOR FAULT ZONE

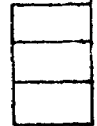


PLATE 1

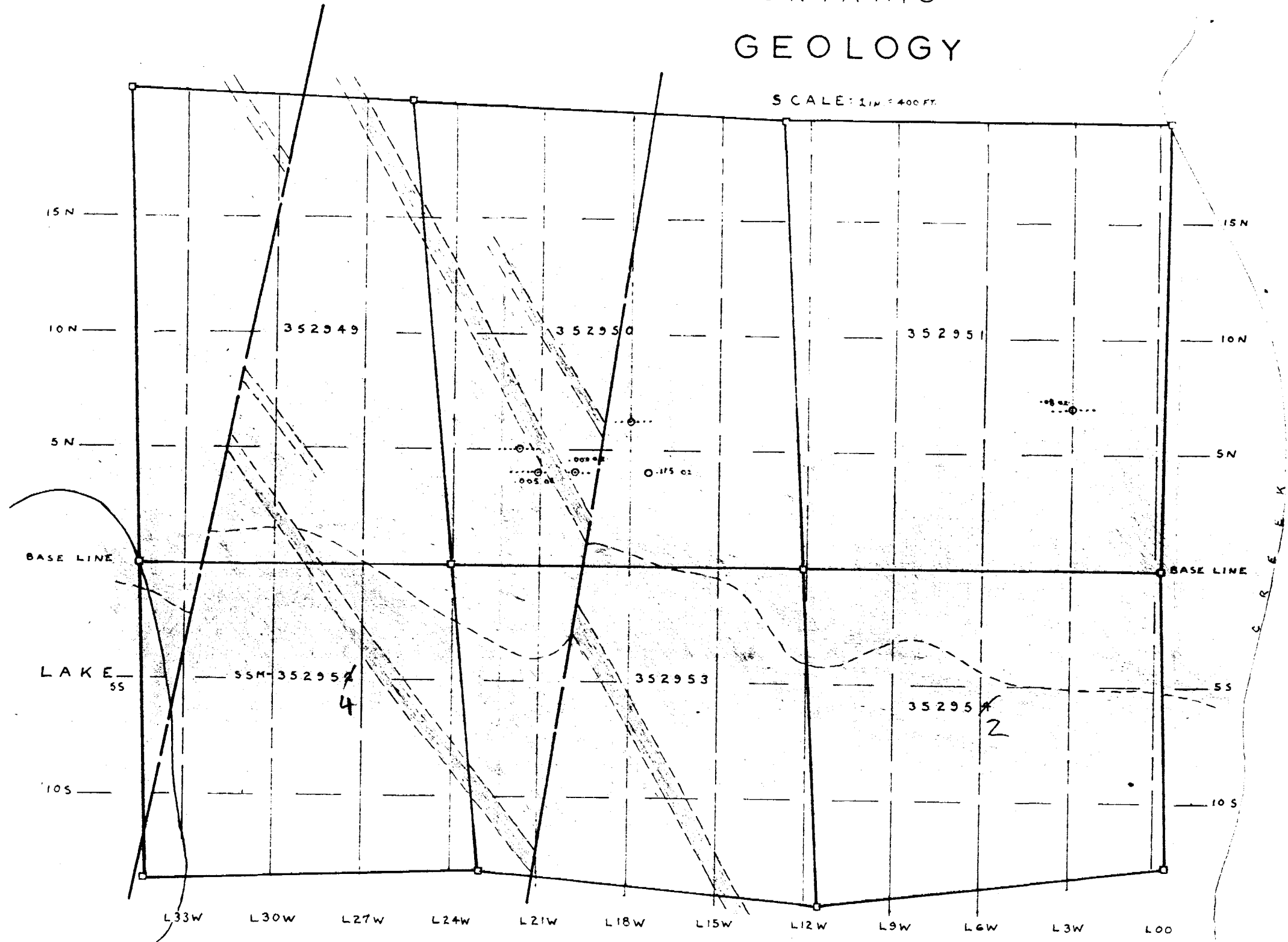
METALHAWK MINING LTD.

WALLS TWP. PROPERTY ONTARIO

GEOLOGY



SCALE: 1" = 400 FT.



- LEGEND
- DIABASE DIKES
 - GRANITIC INTRUSIVE
 - MAFIC METAVOLCANICS
 - GEOLOGICAL CONTACT
 - QUARTZ VEIN
 - SAMPLED POINT
 - FAULT (INTERPRETED)
 - CLAIM BOUNDARY
 - PICKET LINE
 - 352954: CLAIM NUMBER (ALL S.S.M.)
 - CLAIM POST



PLATE 2

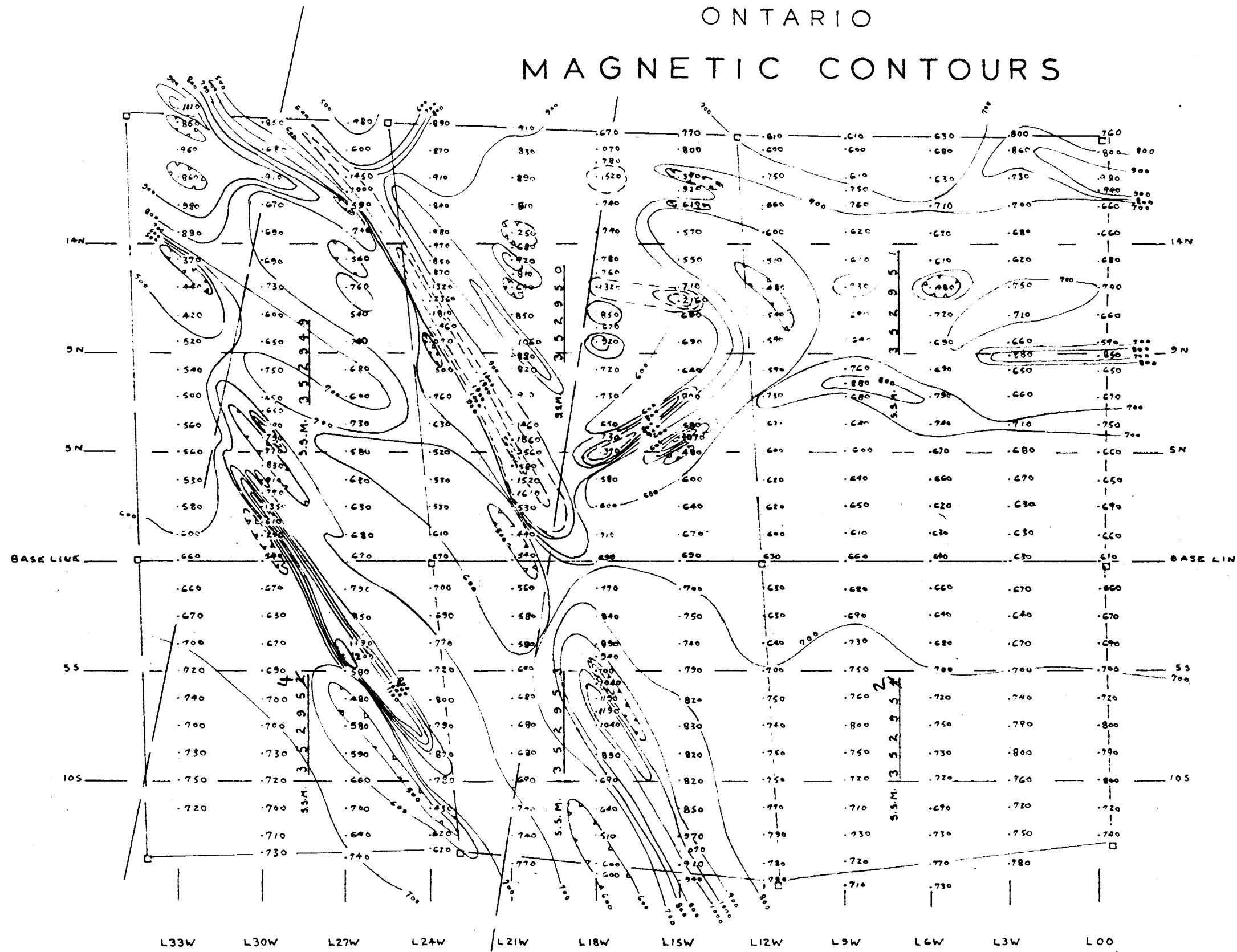
METALHAWK MINING LTD.

WALLS TWP PROPERTY
ONTARIO

MAGNETIC CONTOURS



SCALE: 1 IN. = 400 FT.



INSTRUMENT: SHARPE MF-1 (FLUXGATE)
ACCURACY: ± 10 gamma
STATION INTERVAL: 100 FT.
CONTOUR INTERVAL: 100 gamma, 500 gamma

LEGEND

100 gamma contour

500 gamma contour

CLAIM LINE

CLAIM NUMBER 352951 (ALL S.S.M.)

READING 0700

FAULT (INTERPRETED)

