LAFOREST-HLAVA EXPLORATION SERVICES LTD.

(705) 268-2511

24 Pine Street South, P.O. Box 1163, TIMMINS, ONTARIO P4N 7H9


010

# MAGNETOMETER
# AND
# VLF EM 16 SURVEYS
# FOR
# CANHORN MINING CORPORATION
# IN
# JESSOP TOWNSHIP
# PORCUPINE MINING DIVISION
# NTS 42/11



Timmins, Ontario
March 1988

Milan Hlava, B.Sc., F.G.A.S.

TABLE OF (





## MAPS

## INTRODUCTION

The following report describes the results of a ground magnetometer survey and VLF EM survey for Canhorn Mining Corporation on a claim group located in Jessop Township Porcupine Mining Division. The field work was completed on February 24, 1988. The report was completed on March 20, 1988.

## PROPERTY LOCATION AND ACCESS Figure 1

The Canhorn Mining Corporation property is located in the northwestern portion of Jessop Township, Porcupine Mining Division, Ontario at a Latitude of 48° 36' and Longitude of 81° 26', or approximately 16 km north northwest of Timmins.

The property is accessible via the Airport Road, north of Timmins(8 km) west on Kraft Creek Road (6 km) and north on a bush road by all terrain vehicle (8 km).

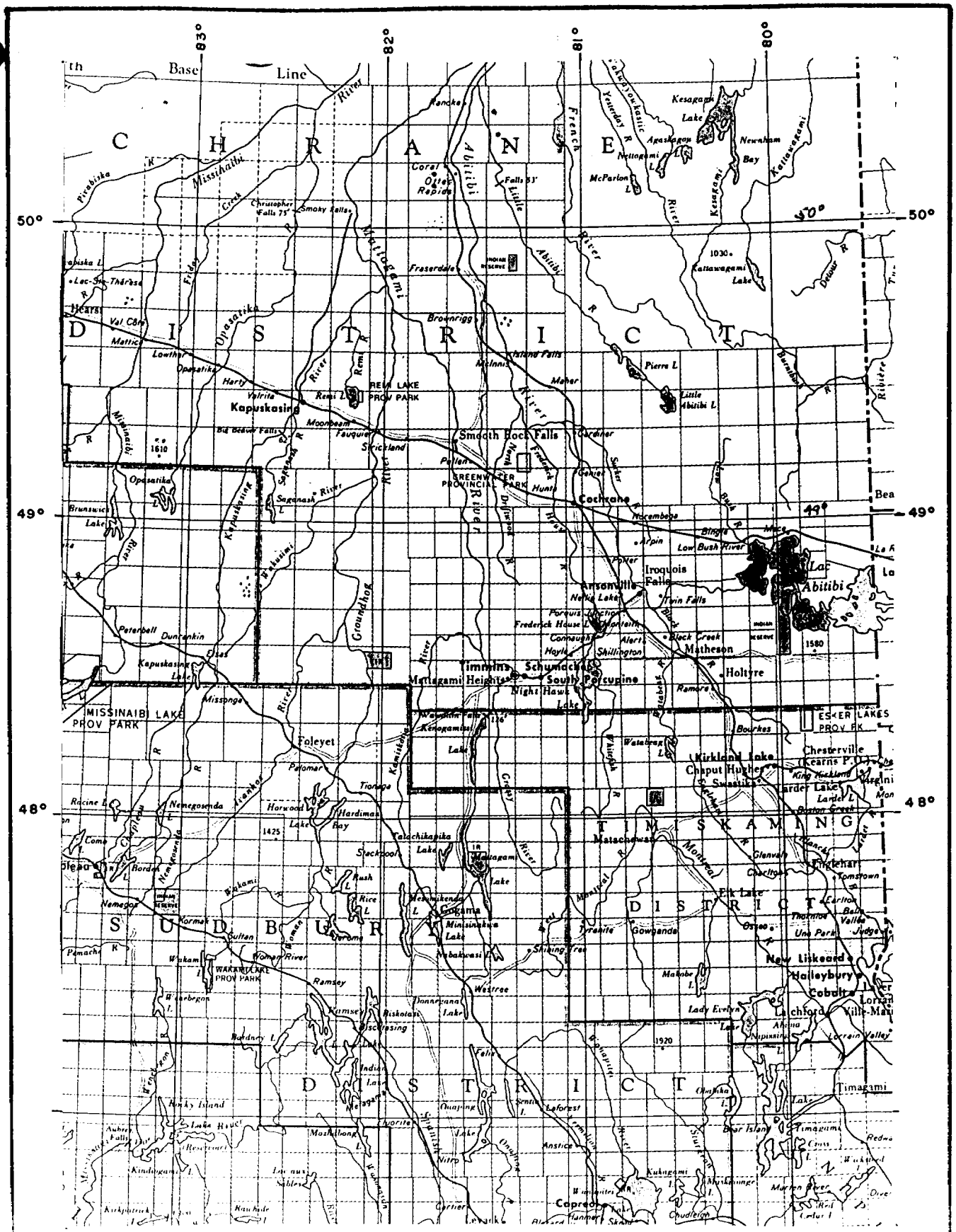
## PROPERTY DESCRIPTION Figure 2

The property consists of 57 contiguous, unpatented mining claims numbered as follows:

P 919601 - P 919620 Inclusive
P 919626 - P 919645 Inclusive
P 919651 - P 919667 Inclusive

## LINE CUTTING

The grid was chained utilizing the Metric System. The base line was established with an Azimuth of 060°. The grid lines were cut at right angles to the base line, at 100 m intervals with pickets at 25 m intervals. A total of 92.6 kilometers of grid lines and 5.4 kilometers of base lines were cut.




PROPERTY LOCATION

Scale 1"=32 miles

FIGURE 1

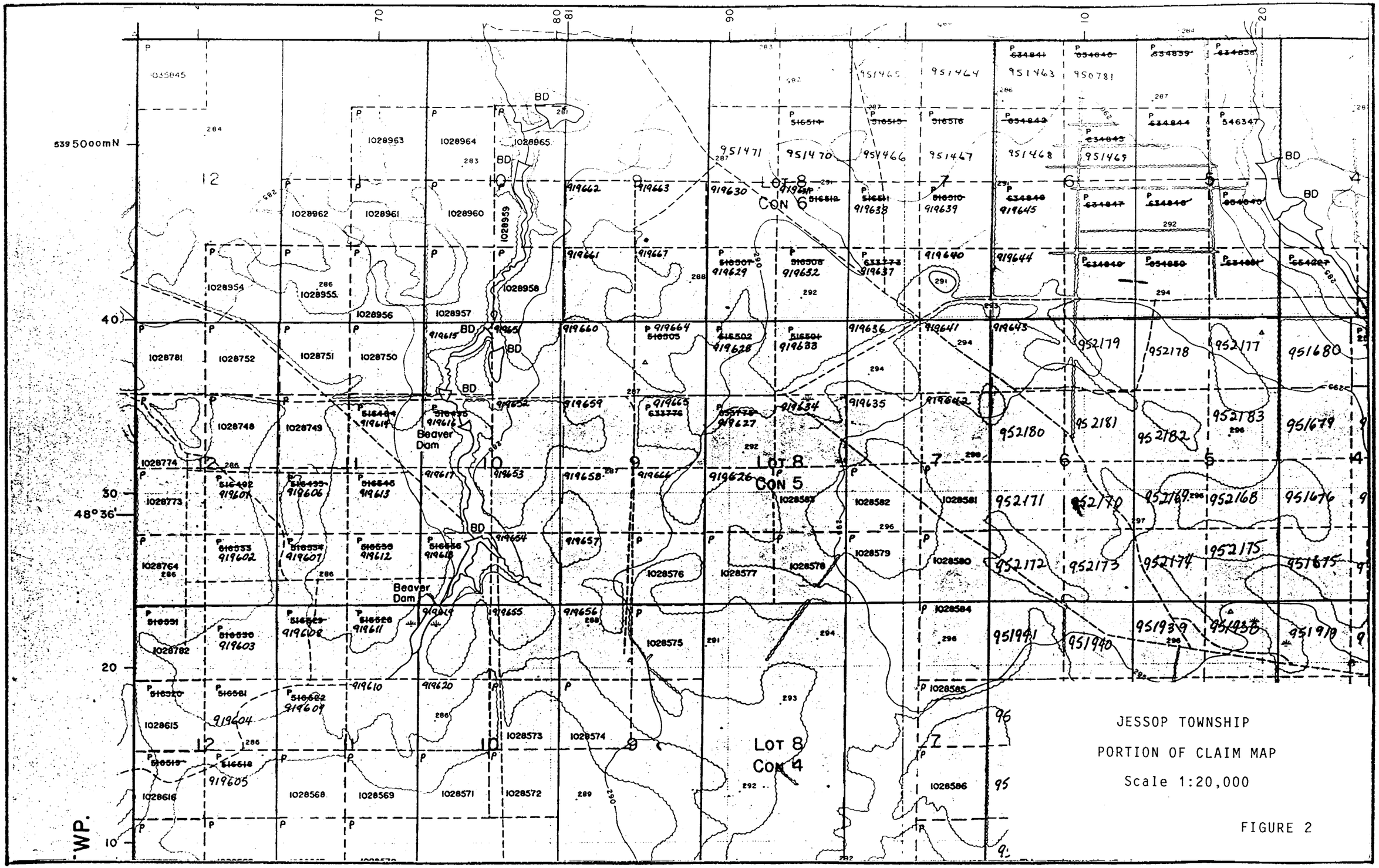

539500mN
48°36'
WP.
LOT 8
CON 6
LOT 8
CON 5
LOT 8
CON 4
Beaver Dam
Beaver Dam
JESSOP TOWNSHIP
PORTION OF CLAIM MAP
Scale 1:20,000

FIGURE 2

## GROUND MAGNETOMETER SURVEY

The ground magnetometer survey was completed utilizing a proton magnetometer Geometrix Model G-816 capable of reading total field values to an accuracy of ± 1 gamma. The main base station was established at BL 0 + 00 with a value of 58,796 gammas. Secondary base stations were established at 100 m intervals along the base line to provide data for diurnal corrections. Diurnal variation was corrected by tieing in to the base stations at time intervals less than 60 minutes. Maximum misclosure was 25 gammas. A total of 4,156 readings were taken.

## VLF EM 16 ELECTROMAGNETIC SURVEY

The electromagnetic survey was carried out utilizing a Geonics EM 16, VLF EM receiver. The unit measures the vertical In-phase component (tangent of the tilt angle of the polarization ellipsoid) and vertical Out-of-phase component (the short axis of the polarization ellipsoid compared to the long axis) of the secondary field generated in the vicinity of the conductors.

The transmitter station used for the survey was NAA Cutler Maine with a frequency of 24.0 kHz. The Azimuth to the station (NAA) is 130°. All the readings were taken with the operator facing north.

A total of 3,940 readings were taken within the property.

## SURVEY RESULTS - MAGNETOMETER

The results of magnetometer survey are presented on Maps 1A, 1B, 1C and 1D in back pockets.

The maximum magnetic relief within the property is approximately 1,943 gammas. The prominent circular magnetic high between lines 28 + 00E and 30 + 00E at 8 + 50N is probably due to the presence of mafic intrusive. The linear magnetic high between L8 + 00E, 1 + 50S and L11 + 00E, 11 + 00N is caused by the presence of diabase dike. The linear magnetic low between L1 + 00W, 7 + 50S and Line 11 + 00N reflects the existence of a major fault.

## SURVEY RESULTS VLF EM 16

The survey results are presented on Maps 1A, 1B, 1C and 1D in back pockets. A total of three anomalies were interpreted.

ANOMALY #1 — L9 + 00W, 4 + 62N - L6 + 00W, 3 + 75N
The best response is on Line 8 + 00W. This anomaly is most likely due to the presence of a graphitic horizon because it is non-magnetic.

ANOMALY #2 — L10 + 00W, 2 + 25N - L9 + 00W, 2 + 62N
The best response is on Line 10W where it coincides with a 714 gamma magnetic anomaly.

ANOMALY #3 — L9 + 00W, 1 + 32N - L8 + 00W, 1 + 32N
The best response is on line 9 + 00W where it coincides with a 1,347 gamma magnetic anomaly.

## CONCLUSIONS AND RECOMMENDATIONS

The conductive zones located all occur in a geological environment suitable for gold or base metal mineralization.

Prior to making a decision to further evaluate these anomalies Canhorn Mining Corporation should complete detail compilation of previous work on the property and conduct a horizontal loop survey because in my opinion, the VLF survey did not detect all the anomalies within the property due to the deep conductive overburden.

Respectfully submitted

Milan Hlava

Milan Hlava, B.Sc., F.G.A.S.

CERTIFICATE

# CERTIFICATE

I, Milan Hlava of the City of Timmins, Province of Ontario, Canada and the Town of Surrey, Province of British Columbia, Canada do state:

1. That I am a practising consulting geologist with offices at 24 Pine Street South, P. O. Box 1163, Timmins, Ontario P4N 7H9 and 14746 90A Avenue, Surrey, B. C. V3R 1B2.

2. That I am a graduate of Komensky University, Bratislava, Czechoslovakia (1968) with a degree of Bachelor of Science in Exploration Geology.

3. That I have practised my profession as a Geologist continuously since 1968 and as a Consulting Geologist continuously since 1984.

4. That I am a Fellow of the Geological Association of Canada since 1972.

5. That I have no interest directly, indirectly nor anticipated in Canhorn Mining Corporation or the property reported on in this report.

6. That I am familar with the material contained in this report, having examined all the material myself and visited the property myself in the field.

7. That the conclusions reached in this report are my own.

Respectfully submitted

Milan Hlava

Milan Hlava, B.Sc., F.G.A.S.

on this file

Ministry of Northern Development and Mines

Ontario

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8806.033

M

Page 1 of 2

Apps. 15

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

Type of Survey(s)
Geophysical Survey

2.1

42A11SW0085 2.11093 JESSOP

900

Claim Holder(s)
Canhorn Mining Corporation

Address
67 Yonge Street, Suite 1202, Toronto, Ontario M5E 1J8

Survey Company
Laforest-Hlava Exploration Services Ltd

Date of Survey (from & to): 15 11 87 (Day Mo. Yr.) – 24 02 88 (Day Mo. Yr.)

Total Miles of line Cut: 98 km

Name and Address of Author (of Geo-Technical report)
Milan Hlava, 24 Pine St S., P.O. Box 1163, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

| Special Provisions | | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | Geophysical - Electromagnetic | 40 |
| | - Magnetometer | 20 |
| For each additional survey: using the same grid: Enter 20 days (for each) | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Man Days | | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | Geophysical | |
| | - Electromagnetic | |
| | - Magnetometer | |
| | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | |
| | Magnetometer | |
| | Radiometric | |

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calendar Days Expenditure Days Credits

Total Expenditures: $ ÷ 15 = FEB 25 1988

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: Feb. 25, 1988

Recorded Holder or Agent (Signature): Milan Hlava

RECEIVED
MAR 10 1988
MINING LANDS SECTION

RECEIVED
FEB 25 1988

RECORDED
FEB 25 1988

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES OFFICE
MAY 12 1988
RECEIVED

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Number | Expend. Days Cr. |
|---|---|---|
| P | 919601 | |
| | 919602 | |
| | 919603 | |
| | 919604 | |
| | 919605 | |
| | 919606 | |
| | 919607 | |
| | 919608 | |
| | 919609 | |
| | 919610 | |
| | 919611 | |
| | 919612 | |
| | 919613 | |
| | 919614 | |
| | 919615 | |
| | 919616 | |
| | 919617 | |
| | 919618 | |
| | 919619 | |
| | 919620 | |
| | 919626 | |
| | 919627 | |
| | 919628 | |
| | 919629 | |

| Mining Claim Prefix | Number | Expend. Days Cr. |
|---|---|---|
| P | 919630 | |
| | 919631 | |
| | 919632 | |
| | 919633 | |
| | 919634 | |
| | 919635 | |
| | 919636 | |
| | 919637 | |
| | 919638 | |
| | 919639 | |
| | 919640 | |
| | 919641 | |
| | 919642 | |
| | 919643 | |
| | 919644 | |
| | 919645 | |
| | 919651 | |
| | 919652 | |
| | 919653 | |
| | 919654 | |
| | 919655 | |
| | 919656 | |
| | 919657 | |

Total number of mining claims covered by this report of work: 57

For Office Use Only

Total Days Cr. Recorded: 3420

Date Recorded: Feb. 25/88

Date Approved as Recorded: 5 May 88

Mining Recorder: [signature]

Branch Director: [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying

Milan Hlava, 24 Pine St S., P.O. Box 1163, Timmins, Ontario P4N 7H9

Date Certified: FEB 25/88

Certified by (Signature): Milan Hlava

Ministry of Northern Development and Mines

Ontario

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

W 3033

Mining Act

Page 2 of 2

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

| Type of Survey(s) | Township or Area |
|---|---|
| Geophysical Survey | Jessop |

| Claim Holder(s) | Prospector's Licence No. |
|---|---|
| Canhorn Mining Corporation | T-1733 |

Address: 67 Yonge Street, Suite 1202, Toronto, Ontario M5E 1J8

| Survey Company | Date of Survey (from & to) | Total Miles of line Cut |
|---|---|---|
| Laforest-Hlava Exploration Services Ltd. | 15 Day \| 11 Mo. \| 87 Yr. — 24 Day \| 02 Mo. \| 88 Yr. | 98 km |

Name and Address of Author (of Geo-Technical report): Milan Hlava, 24 Pine St S., P.O. Box 1163, Timmins, Ontario P4N 7H9

## Credits Requested per Each Claim in Columns at right

| Special Provisions | | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | Geophysical - Electromagnetic | |
| | - Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Man Days | | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | Geophysical | |
| | - Electromagnetic | |
| | - Magnetometer | |
| | - Radiometric | |
| | - Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | |
| | Magnetometer | |
| | Radiometer | |

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MAR 10 1988
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

RECEIVED
FEB 25 1988

Performed on Claim(s)

Calendar Year

| Total Expenditures | | Total Days Credits |
|---|---|---|
| $ | ÷ 15 = | |

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: Feb. 25, 1988

Recorded Holder or Agent (Signature): Milan Hlava

## Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|
| P | 919658 | |
| | 919659 | |
| | 919660 | |
| | 919661 | |
| | 919662 | |
| | 919663 | |
| | 919664 | |
| | 919665 | |
| | 919666 | |
| | 919667 | |

Total number of mining claims covered by this report of work: 57

For Office Use Only

Total Days Cr. Recorded | Date Recorded | Mining Recorder

Date Approved as Recorded | Branch Director

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Milan Hlava, 24 Pine St S., P.O. Box 1163, Timmins, Ontario P4N 7H9

| Date Certified | Certified by (Signature) |
|---|---|
| FEB 25/88 | Milan Hlava |

1362 (85/12)

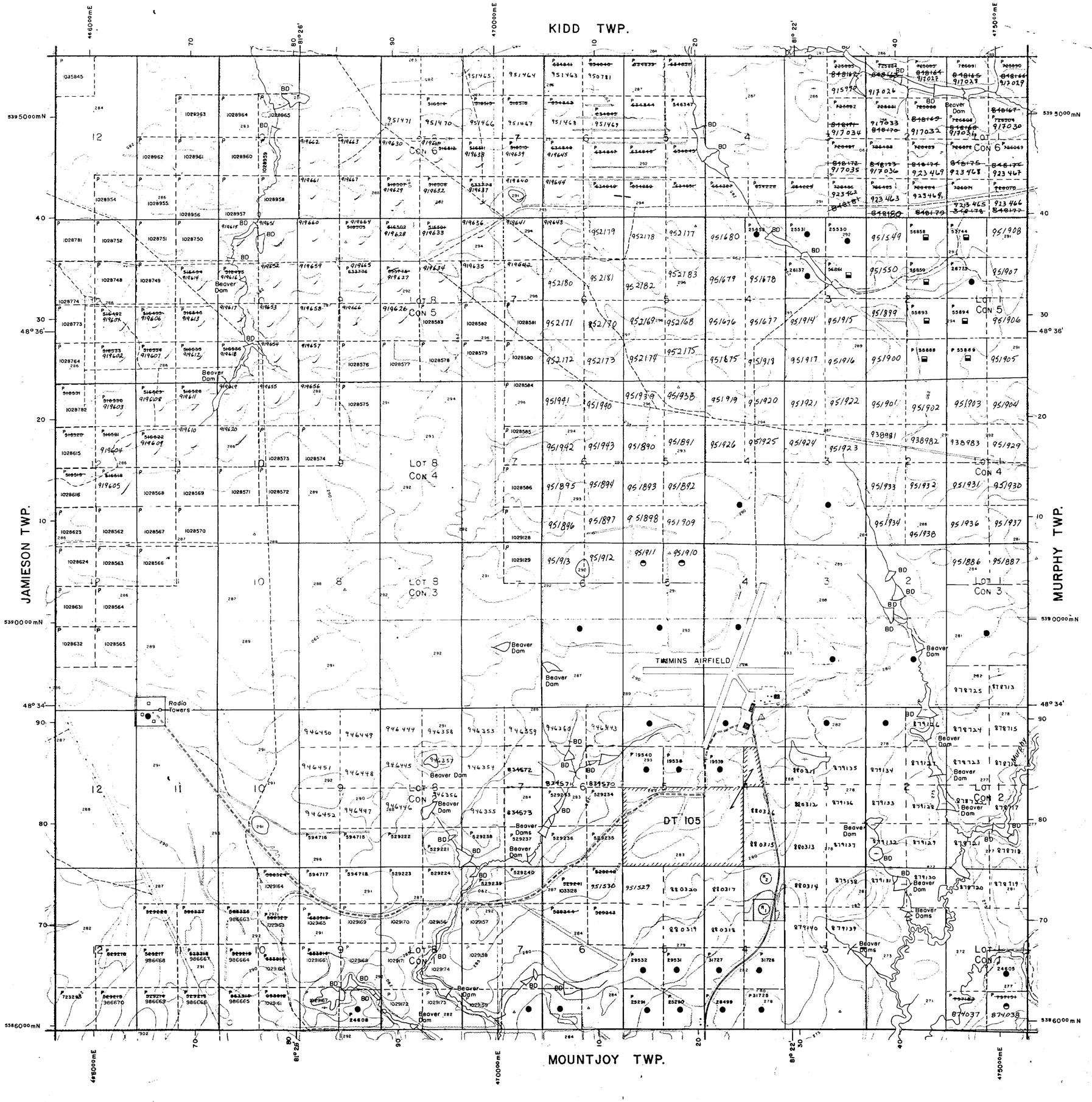
## MAP SYMBOLOGY

- Aerial Cableway
- Boundary
  - International
  - Interprovincial
  - District, Township Indian Reserve
  - Approximate
  - Lot, Concession
  - Approximate
  - Park Boundary
- Bridge
- Road, Railroad
- Building
- Chimney
- Cliff, Pit, Pile
- Contours (Interpolated, Approximate, Depression)
- Control Points
  - Horizontal
  - Vertical
- Culvert
- Falls (Double line river)
- Fence, Hedge, Wall
- Feature Outline (Construction features, etc.)
- Flooded Land
- Lock
- Marsh or Swamp
- Mast
- Mine Head Frame
- Outcrop
- Pipeline (above ground)
- Railroad
  - Single Track
  - Double Track
  - Abandoned
  - Turntable
- Road
  - Highway, County, Township
  - Access (road of doubtful maintenance or significant driveway)
  - Trail, Bush Road (Portage only)
- Rapids
  - Double line river with multiple rapids
  - Double line river with multiple rapids
- Reservoir
- River, Stream, Canal
  - Approximate seasonal
  - Direction of flow
- Rock
  - Significant
  - Shoal
- Spot Elevation (Trees elevations) 300.0
- Tower
- Transmission Line
  - Poles
  - Pylons
- Tunnel
- Utility Poles
- Wharf, Dock, Pier
- Wooded Area

## AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|
| (R1) | WITHDRAWN FROM STAKING N.R.W 10/82 | | | |
| (R2) | WITHDRAWN FROM STAKING N.R.W 69/83 | | | |
| DT 105 | WITHDRAWN FROM STAKING W 79/81 | | | |




## LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | ◓ |
| " , MINING RIGHTS ONLY | ◒ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| " , SURFACE RIGHTS ONLY | ▬ |
| " , MINING RIGHTS ONLY | ▬ |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | Ⓡ |
| CANCELLED | ⊗ |
| SAND & GRAVEL | Ⓢ |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 5, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

500 Metres 0 1000 Metres
10 Chains 0 10 20 30 40 50 60 70 Chains
500 Feet 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000
GRID ZONE 17

RECEIVED
APR 08 1988

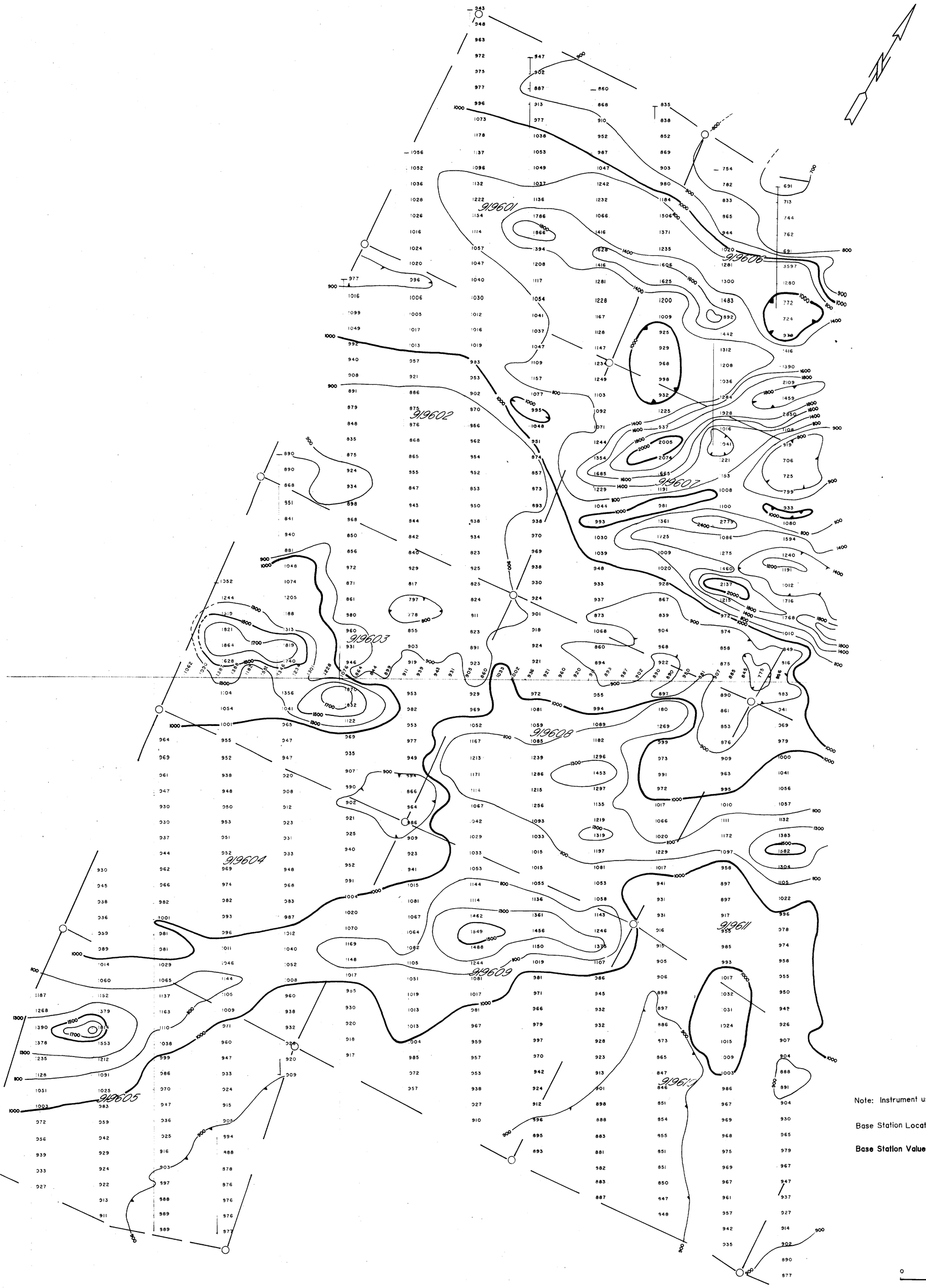
TOWNSHIP

# JESSOP

M.N.R. ADMINISTRATIVE DISTRICT
**TIMMINS**
MINING DIVISION
**PORCUPINE**
LAND TITLES / REGISTRY DIVISION
**COCHRANE**

Ministry of Natural Resources — Land Management Branch
Ontario

| | | |
|---|---|---|
| ORIGINAL COMPILATION | JULY 1984 | Number G-3984 |
| REVISED | | |




Note: Instrument used: GEOMETRICS G 816

Base Station Location: BL-0+00

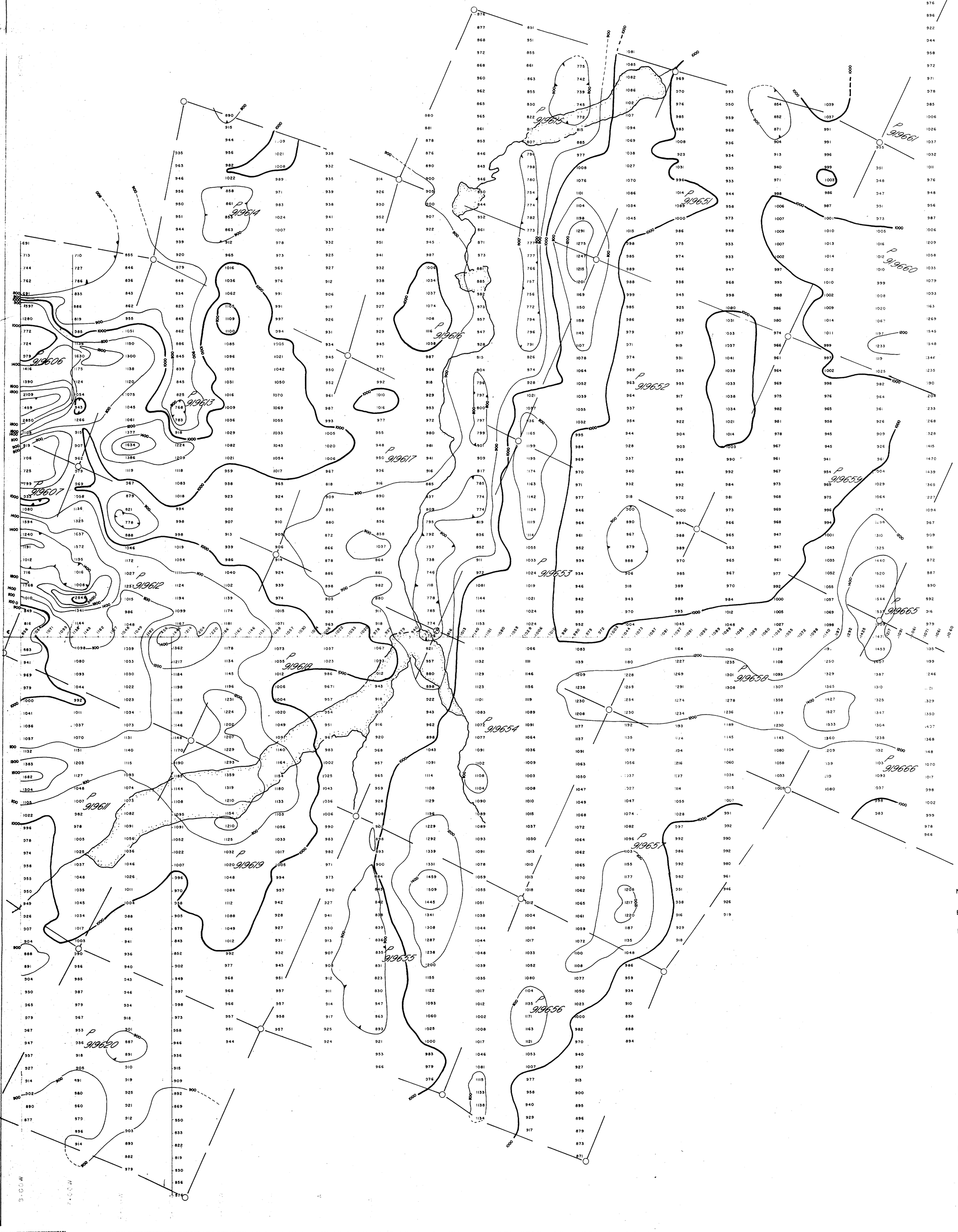
**Base Station Value 58,796 Gammas**

0 50m 100m

# MAP I A

| |
|---|
| CANHORN MINING CORPORATION |
| MAGNETOMETER SURVEY<br>JESSOP TOWNSHIP |
| LAFOREST-HLAVA<br>EXPLORATION SERVICES LTD |

2.11093




Note: Instrument used: GEOMETRICS G 816

Base Station Location: BL-0+00

**Base Station Value 58,796 Gammas**

0 50m 100m

# MAP I B

MAGNETOMETER SURVEY

JESSOP TOWNSHIP

**2.11093**

10+00E
12+00E
17+00E
19+00E
22+00E
500N
BASE LINE
300S
P 919662
P 919667
P 919663
P 919630
P 919660
P 919629
P 919664
P 919632
P 919659
P 919628
P 919665
P 919633
P 919631
P 919638
P 919637
P 919636
P 919627
P 919634
P 919666
P 919635
P 919626
P 919642

Note: Instrument used: GEOMETRICS G 816

Base Station Location: BL-0+00

Base Station Value 58,796 Gammas

0 50m 100m

# MAP I C

CANHORN MINING CORPORATION

MAGNETOMETER SURVEY

JESSOP TOWNSHIP

LAFOREST-HLAVA EXPLORATION SERVICES LTD

Scale: 1:2500

Date: FEB. 1988

10+00E 11+00E 12+00E 13+00E 14+00E 15+00E 16+00E 17+00E 18+00E 19+00E 20+00E 21+00E 22+00E 23+00E 24+00E 26+00E 27+00E





2.11093

Note: Instrument used: GEOMETRICS G 816

Base Station Location: BL-0+00

**Base Station Value 58,796 Gammas**

0 50m 100m

# MAP I D

CANHORN MINING CORPORATION

MAGNETOMETER SURVEY

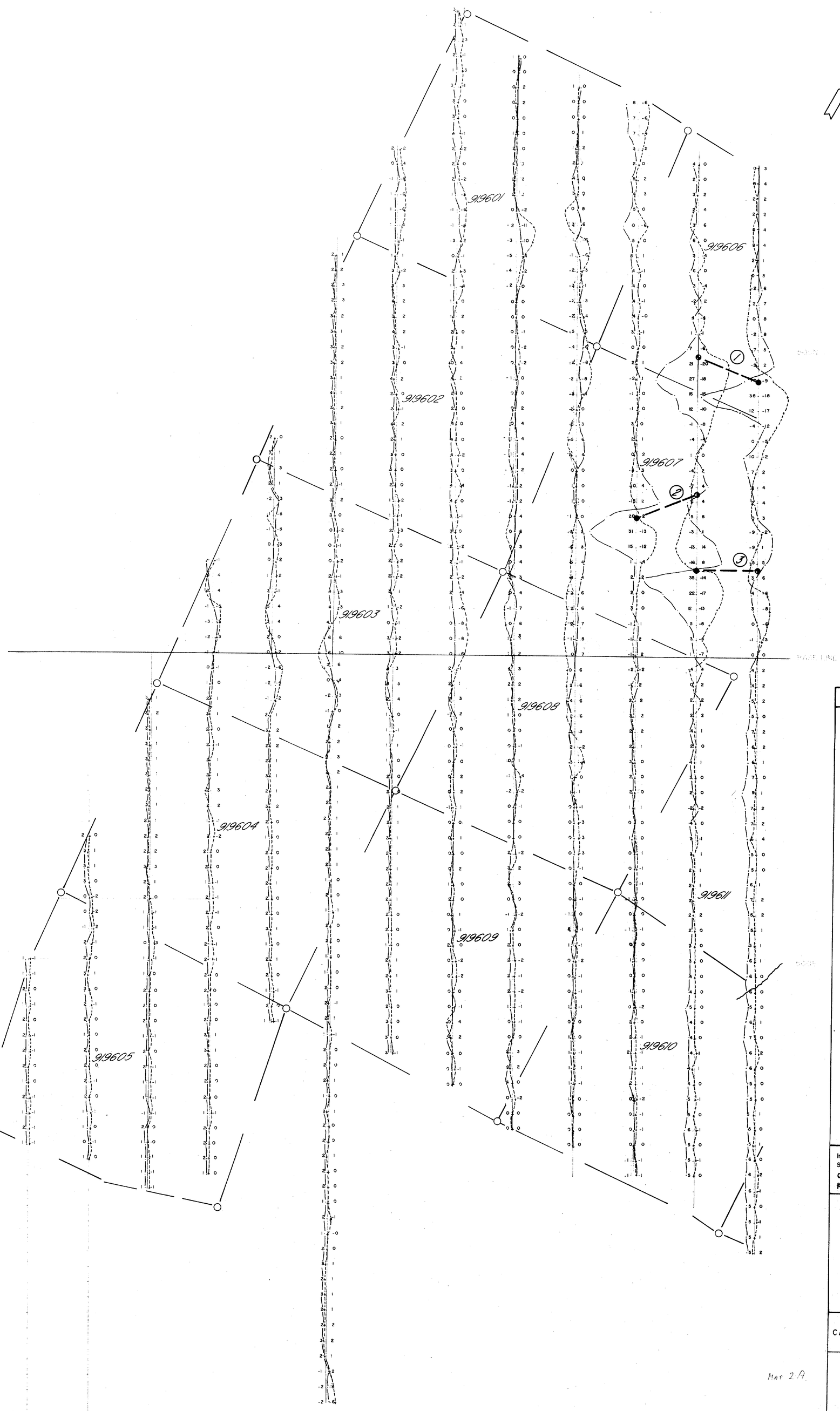
JESSOP TOWNSHIP

LAFOREST-HLAVA
EXPLORATION SERVICES LTD

Scale: 1:2500

Date: MARCH 1988

2.11093




## SURVEY LEGEND

0 - 9% ○
10 - 20% ◐
21 - 30% ◕
≤ 31% ●

0 50m 100m

Direction Reading

Station

NAA CUTLER

Instruments: GEONICS EM 16
Serial No:
Coil Separation:
Profile Scale: 10% = 1 cm

In Phase Quadrature

10% 0 10%

CANHORN MINING CORPORATION

# MAP 2 A

## VLF EM SURVEY

JESSOP TOWNSHIP

LAFOREST-HLAVA EXPLORATION SERVICES LTD

Scale: 1:2500 Date: FEB 1988

2.11093

P 9/19606

P 9/19607

P 9/19611

P 9/19612

P 9/19613

P 9/19614

P 9/19615

P 9/19616

P 9/19617

P 9/19618

P 9/19619

P 9/19620

P 9/19651

P 9/19652

P 9/19653

P 9/19654

P 9/19655

P 9/19656

P 9/19657

P 9/19658

P 9/19659

P 9/19660

P 9/19665

P 9/19666

SURVEY LEGEND

0 - 9% ○
10 - 20% ◐
21 - 30% ◕
≧ 31% ●

0 50m 100m

Direction Reading

Station NAA CUTLER

Instrument: GEONICS EM 16
Serial No:
Coil Separation:
Profile Scale: 10% =1cm

In Phase Quadrature

10% 0 10%

CANHORN MINING CORPORATION

# MAP 2 B

## VLF EM SURVEY

JESSOP TOWNSHIP

LAFOREST-HLAVA EXPLORATION SERVICES LTD

2.11093

P 919662
P 919661
P 919660
P 919659
P 919665
P 919666
P 919626
P 919627
P 919634
P 919635
P 919636
P 919637
P 919638
P 919631
P 919632
P 919633
P 919630
P 919629
P 919628
P 919664
P 919667

SURVEY LEGEND

0 - 9% ○
10 - 20% ◑
21 - 30% ◕
≤ 31% ●

0 50m 100m

Direction Reading
Station N.A.A. CUTLER

Instrument: GEONICS EM 16
Serial No:
Coil Separation:
Profile Scale: 10%=1cm

In Phase Quadrature

10% 0 10%

CANNON MINES CORPORATION

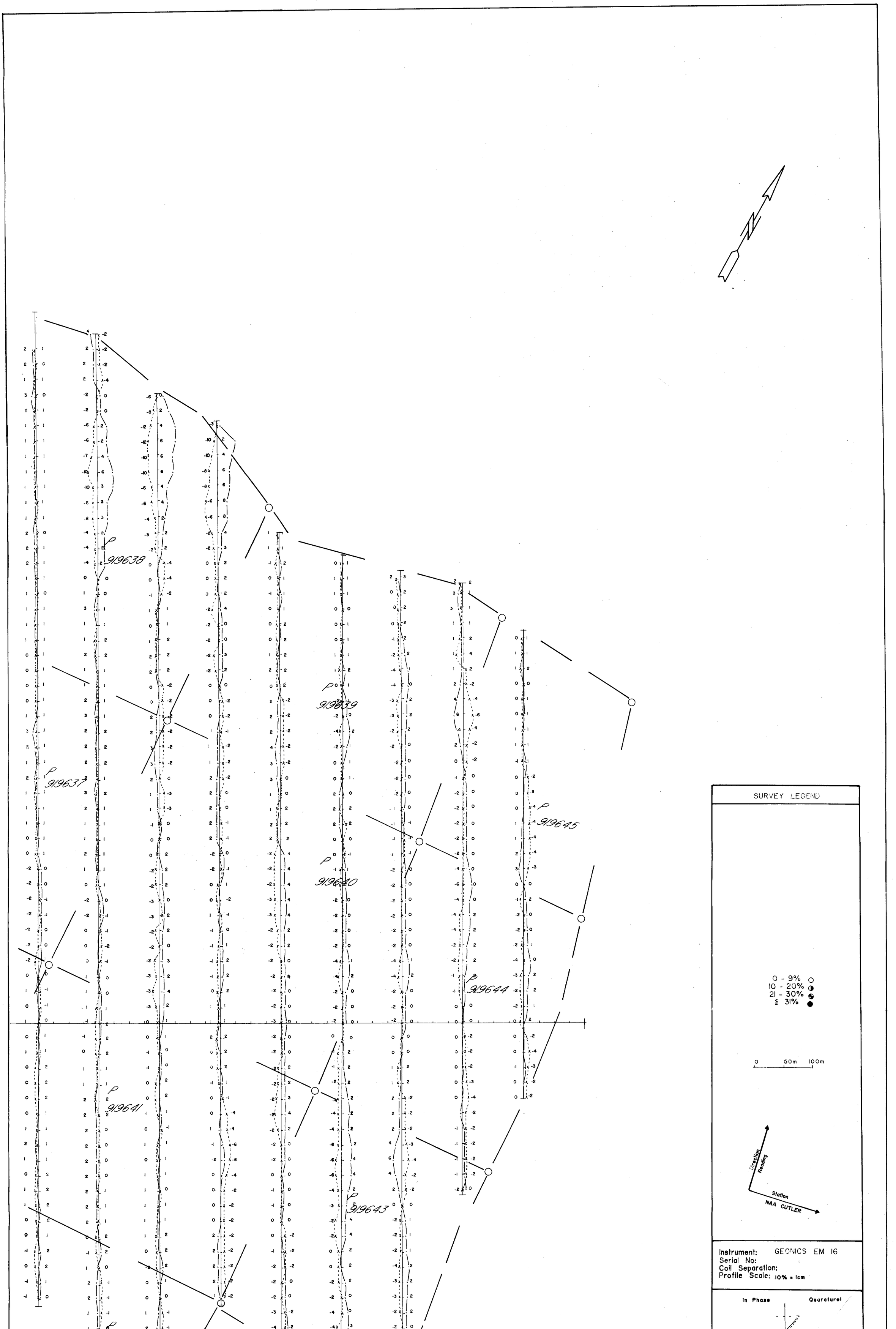
# MAP 2 C

VLF EM SURVEY

JESSOP TOWNSHIP

EXPLORATION SERVICES LTD.

2.11093




SURVEY LEGEND

0 - 9% ○
10 - 20% ◑
21 - 30% ◕
≤ 31% ●

0 50m 100m

Direction Reading

Station

NAA CUTLER

Instrument: GEONICS EM 16
Serial No:
Coil Separation:
Profile Scale: 10% = 1cm

In Phase Quaratural

10% 0 10%

CANHORN MINING CORPORATION

# MAP 2 D

## VLF EM SURVEY

JESSOP TOWNSHIP

LAFOREST-HLAVA
EXPLORATION SERVICES LTD

Scale: 1:2500

Date: MARCH 1988

2.11093