

41P03SW0001 2.10938 FRECHETTE

010

REPORT

ON

GEOPHYSICAL SURVEYS

ON

THE PROPERTY OF

MIDAS CREEK MINERALS INC.

IN

FRECHETTE TOWNSHIP

DISTRICT OF SUDBURY

ONTARIO

RECEIVED

MAR 18 1988

MINING LANDS SECTION

March 14, 1988
Oakville, Ontario

H. Z. Tittley, P.Eng.



C O N T E N T S

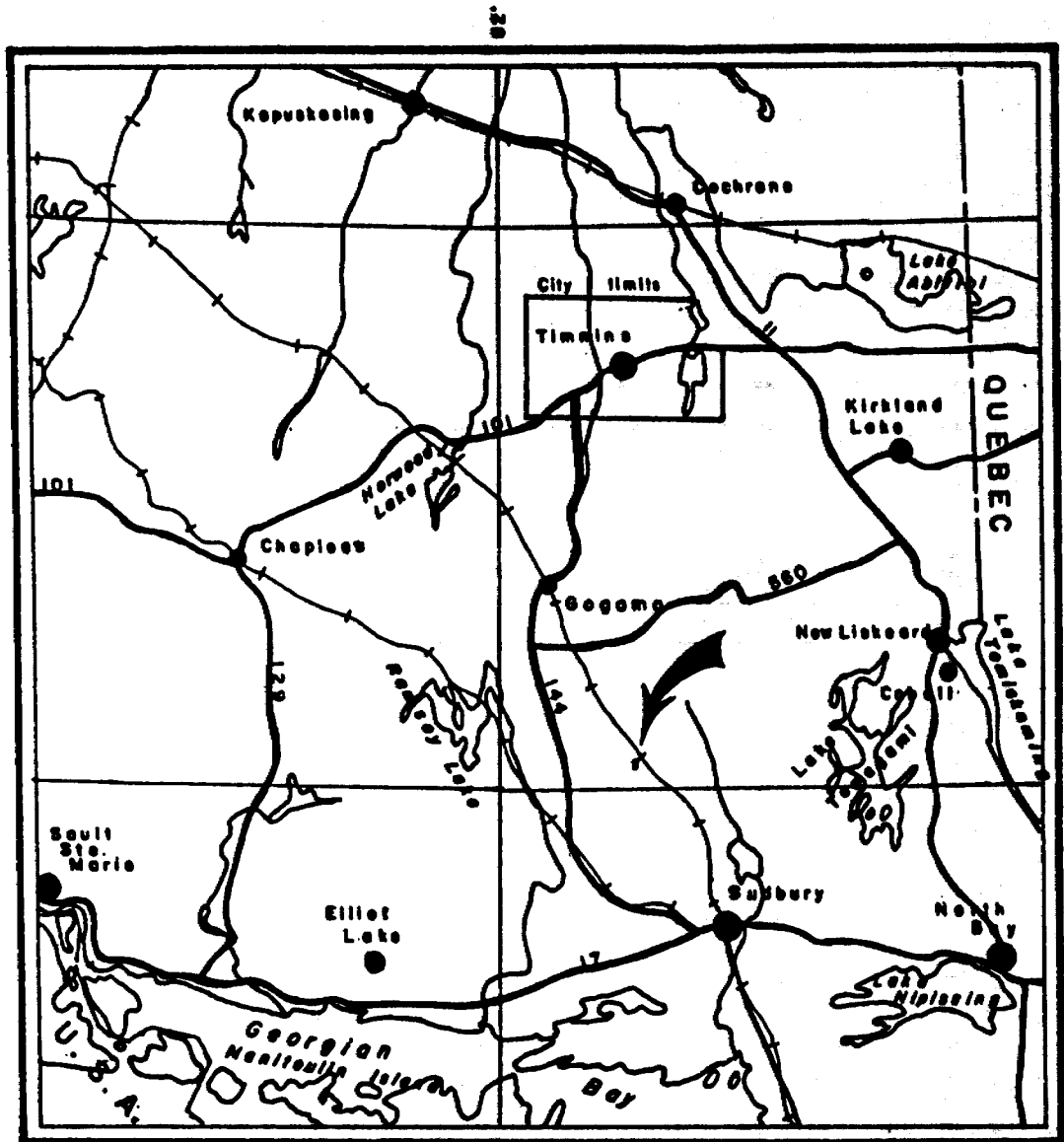
	Page
SUMMARY	1
KEY MAP	
CLAIM MAP	
INTRODUCTION	1
PROPERTY, LOCATION & ACCESS	2
TOPOGRAPHY	3
HISTORY	4
GEOLOGY	5
SURVEY METHOD	6
a. Linecutting	
b. Magnetics	
c. VLF Electromagnetics	
RESULTS	7
a. Magnetics	
b. VLF Electromagnetics	
CONCLUSIONS AND RECOMMENDATIONS	8
MAPS	
Magnetic Survey	In back pocket
VLF Survey	In back pocket

SUMMARY

The Frechette Township property of Midas Creek Minerals Inc. contains a previously examined high grade copper deposit which occurs near a fault structure that brings Huronian sedimentary rocks into contact with Archean formations. Although the fault extends for several kilometres, previous investigators tended to confine their search to a few claims surrounding the mineralized surface showing.

During the fall of 1987, the geology of the property was mapped along a new grid of lines and covered by two geophysical surveys consisting of magnetic and VLF electromagnetic.

The results of the geophysical surveys form the scope of this report which is prepared for Minroc Management Limited.



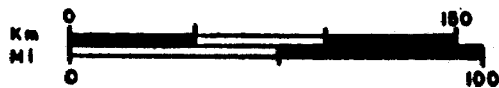
KEY MAP

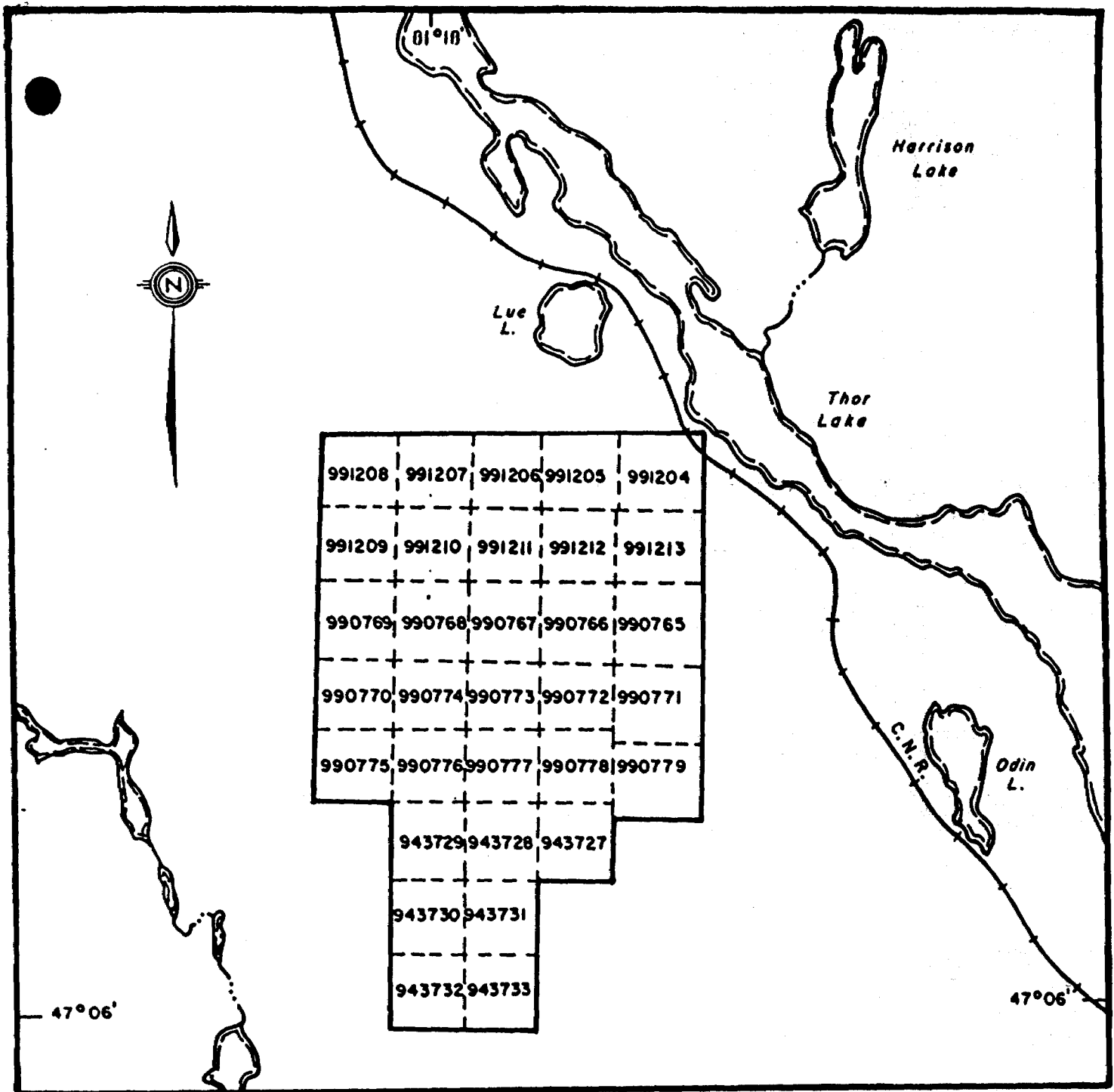
MIDAS CREEK MINERALS INC.

Frechette Township Property

ONTARIO

SCALE





CLAIM MAP

MIDAS CREEK MINERALS INC.

FRECHETTE TOWNSHIP PROPERTY

ONTARIO

Scale, 1:31,680

REPORT
ON
GEOPHYSICAL SURVEYS
ON
THE PROPERTY OF
MIDAS CREEK MINERALS INC.
IN
FRECHETTE TOWNSHIP
DISTRICT OF SUDBURY
ONTARIO

INTRODUCTION

This report submitted for assessment credits is based on the results of a magnetic and a VLF electromagnetic survey that were conducted on the property of Midas Creek Minerals Inc. located in Frechette Township, Ontario.

The surveys were carried out during the fall of 1987 over a new grid of east-west lines.

The purpose of the surveys is to obtain additional information on the nature and extent of an auriferous high grade copper deposit located near the juncture of a fault and a major unconformity.

PROPERTY, LOCATION & ACCESS

The property of Midas Creek Minerals is an irregular block of 32 contiguous unpatented mining claims located in the west-central part of Frechette Township, District of Sudbury, Sudbury Mining Division, Ontario.

The claims are: L-943727 to L-943733
S-990765 to S-990779
and S-991204 to S-991213 all inclusive.

Frechette Township is situated 72km north of the City of Sudbury. The nearest community is Capreol, situated 48km to the southeast.

The property can be accessed by land via the Canadian National Railway to Thor Lake and a bush road that leads southwesterly across the property. The northeast corner of the property is within 100 metres of the railway line.

From the north end of Dua Lake where aircrafts can alight, the previous tote or bush road connects, over a distance of 2km, with the main showing in the southwest part of the claims.

TOPOGRAPHY

Terrain on the Midas Creek property is relatively flat and typical of the southern part of the heavily glaciated Precambrian Shield. Relief is moderate with low rocky hills and gravel ridges rising 20 to 100 metres above the local drainage.

The area which is near the height of land drains southwardly into Lake Huron via the Vermilion and Wanapitei rivers.

Bedrock exposures and sub outcrops account for approximately 20% of the area. Everywhere the land is well forested with second growth timber.

HISTORY

The discovery of high grade copper mineralization on the Frechette Township property of Midas Creek Minerals was reportedly around 1929. Since, several operators have acquired the mining rights and investigated the showing as well as a 700m section along the fault. Between 1954 and 1971, more than 2,500m of diamond drilling were carried out. Geophysics were applied to the property in 1971 and again during the present programme.

The geology of Frechette Township was first systematically mapped in 1967 when the provincial government compiled the geology over a much broader area. In 1972 a preliminary map of the geology of Frechette Township was published by the Ontario government. A coloured version of this same map, at a reduced scale along with adjacent townships to the east, was published in 1975 followed by the accompanying report in 1976.

In the fall of 1987, during the early stages of the present programme, a geological survey of the Midas Creek property was carried out by the Toronto Office of Minroc Management Limited. This work has been submitted for assessment credits.

GEOLOGY

The western half of Frechette Township straddles the contact between the Superior Structural Province to the west and rocks of the Huronian Supergroup to the east.

On the Midas Creek property, this unconformity trends northerly across the western part of the group. The bedrock consists primarily of Archean granites to the west and younger sediments of the Lorrain and Gowganda Formations to the east. Nipissing diabase intrude the Archean rocks in the form of dykes and the sedimentary series as large sills.

The high grade copper mineralization occurs near a northeast-trending fault at a point where it seems to offset the major contact. The heavier mineralization containing up to 10% copper is usually associated with a 30cm to 130cm quartz vein which parallels the fault. Disseminated chalcopyrite is also found in the sedimentary series lying east of the main fault structure. Gold values ranging up to 1350 parts per billion were obtained from samples of the main sulphide zone. Some sources report much higher gold values from samples taken in Frechette Township.

SURVEY METHOD

Linecutting

From a point situated approximately midway between Camp Lake and Solo Lake near the centre of the property, a north-south base line was established and extended 1100m north to the north boundary and 1900m south to the south boundary of the claim group. From this point, designated 900N, lines were established between 1000S and 2000N at 100m intervals along the base line. These were then extended towards the east and west boundaries with stations placed at 25m intervals. Grid control is provided by a series of tie lines established at 1025E, 1250E, 1325E and 1375E near the east boundary and at 675W and 800W near the west boundary. Thusly, including base lines and tie lines, a total of 57.7km (35.9mi) of lines were cut and chained.

Magnetic Survey

The total field ground magnetic survey was conducted over the existing grid of lines with a GP 17 proton magnetometer. Readings were taken at regular 25m station intervals or closer and corrected for diurnal variations. The base line and tie lines were also read, bringing to 2350 the total number of stations occupied during the survey.

Electromagnetic Survey

The VLF electromagnetic survey was conducted along the same grid of lines using a model EM-16 electromagnetic receiver manufactured by Geonics Limited of Toronto, Ontario. Recordings of the dip or "in-phase" and the quadrature or "out-of-phase" components were taken at regular 25m station intervals from a primary field source located near Cutler in the state of Maine. In Frechette township the transmitter orientation of 155 degrees provides suitable coupling for the north-south grid but much less so for the northeast trending features.

SURVEY RESULTS

Magnetic Survey

The results of the magnetic survey are plotted and contoured on the accompanying plan entitled "Magnetic Survey" at a scale of 1 inch to 100 metres (1:3937).

Inclusions of the Nipissing diabase display the strongest magnetic features within the Huronian sediments. Within the Archean rocks, the stronger magnetic anomalies are associated with a band of diabase and metadiabase. The Solo Lake fault can readily be inferred from the magnetic data.

VLF Survey

The VLF survey results are plotted on the accompanying plan entitled "VLF SURVEY" at a map scale of 1 inch to 100 metres and a profile scale of 1 inch = 20%.

Those anomalies which do not appear to be related to a bedrock source are labelled 'A' to 'S' on the plan.

Anomaly 'C' could represent the faulted extension of anomaly 'A'.

The unlabelled anomalies located near the road on lines 1600N to 2000N are very closely associated with the fault.

CONCLUSIONS AND RECOMMENDATIONS

The possibility of the main mineralized zone trending northwesterly, the good characteristics of anomaly 'A', and the possibility of a conductive zone associated with the northern part of the Solo Lake fault attest to the success of the surveys.

Detailed investigations should be conducted at these three sites as well as other areas near selected anomalies.

Respectfully submitted;


H.Z. Tittley P. Eng.


* * * * *



41P03SW0001 2.10938 FRECHETTE

900

2.10938

Mining Act

Type of Survey(s) **VLF-EM** 88/193 Township **FRECHETTE**

Claim Holder(s) **MIDAS MINERALS INC** Prospector's Licence No. **T4856**

Address **1503-330 BAY STREET, TORONTO, ONTARIO, M5H 2S8**

Survey Company **MINROC MANAGEMENT LIMITED** Date of Survey (from & to) **30 10 87 15 01 88** Total Miles of line Cut **36.7**

Name and Address of Author (of Geo-Technical report) **MIKE KILBOURNE, STE 606, 199 BAY ST., TORONTO, ONTARIO, M5J 1L4**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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

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

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

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
L	94 37 27	/	S	99 12 04	/
	94 37 28	/		99 12 05	/
	94 37 29	/		99 12 06	/
	94 37 30	/		99 12 07	/
	94 37 31	/		99 12 08	/
	94 37 32	/		99 12 09	/
	94 37 33	/		99 12 10	/
S	99 07 65	/		99 12 11	/
	99 07 66	/		99 12 12	/
	99 07 67	/		99 12 13	/
	99 07 68	/			
	99 07 69	/			
	99 07 70	/			
	99 07 71	/			
	99 07 72	/			
	99 07 73	/			
	99 07 74	/			
	99 07 75	/			
	99 07 76	/			
	99 07 77	/			
	99 07 78	/			
	99 07 79	/			

SUBURBY MINING DIV.
RECEIVED
SEP 22 1988
A.N.
7:00 10:11 12:11 12:31 1:11

RECEIVED
SEP 30 1988
MINING LANDS SECTION

Total number of mining claims covered by this report of work. **32**

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures ÷ 15 = Total Days Credits

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.

For Office Use Only

Total Days Cr. Recorded **640** Date Recorded **Sept. 28/88** Mining Recorder **J.C. Miller**

Date Approved as Recorded **11 Dec 88** Branch Director **[Signature]**

Date **16 SEPT 1988** Recorded Holder or Agent (Signature) **[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 Postal Address of Person Certifying **J.W. CANT, 272 WOLVERLEIGH BLVD, TORONTO, ONTARIO, M4C 1S4**

Date Certified **16 SEPT 1988** Certified by (Signature) **[Signature]**

2-10938

Mining Act

Type of Survey(s) **MAGNETOMETER** Township or Area **FRECHETTE TOWNSHIP**
 Claim Holder(s) **MIDAS CREEK MINERALS INC.** Prospector's Licence No.
 Address **330 BAY ST., STE. 1107, TORONTO, ONT. M5H 2S8**
 Survey Company **MINROC MANAGEMENT LIMITED** Date of Survey (from & to) **30 10 87 15 01 88** Total Miles of line Cut **36.7**
 Name and Address of Author (of Geo-Technical report) **MIKE KILBOURNE, 199 BAY ST., STE. 606, TORONTO, ONT. M5J 1L4**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	Other	
	Geological	
	Geochemical	
Airborne Credits MINING LANDS SECTION Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
SB	943727		SB	991204	
	943728			991205	
	943729			991206	
	943730			991207	
	943731			991208	
	943732			991209	
	943733			991210	
	990765			991211	
	990766			911212	
	990767			911213	
	990768				
	990769				
	990770				
	990771				
	990772				
	990773				
	990774				
	990775				
	990776				
	990777				
	990778				
	990779				

RECEIVED
APR 5 1988

RECEIVED
MARBURY MINING DIV.
MAR 20 1988
P.M.
71819001111211213141516

Expenditures (excludes power stripping)
Type of Work Performed
Performed on Claim(s)
Calculation of Expenditure Days Credits
Total Expenditures \$ + 15 = Total Days Credits

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 **March 28/88** Recorded Holder or Agent (Signature) *[Signature]*

For Office Use Only
Total Days Cr. Recorded **640** Date Recorded **March 29, 1988** Mining Record *[Signature]*
Date Approved as Recorded **6 April 88** 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 Postal Address of Person Certifying **MIKE KILBOURNE, 199 BAY ST., STE. 606, TORONTO, ONT. M5J 1L4**
Date Certified **March 28/88** Certified by (Signature) *[Signature]*

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 2346 Number of Readings Meg 2346, VLF 2078
Station interval 25 metres Line spacing 100 metres
Profile scale -----
Contour interval -----

MAGNETIC

Instrument G.P.-17 PROTONMAG
Accuracy - Scale constant ± 1 gamma
Diurnal correction method Closed loops
Base Station check-in interval (hours) Variable
Base Station location and value 00 base line 900N = 58,491 - 58,000 = 491

ELECTROMAGNETIC

Instrument Model EM-16 Elecromagnetic receiver
Coil configuration Vertical
Coil separation Infinity
Accuracy + 2%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 24.0 KHz, NAA, Cutler, Naine
(specify V.L.F. station)
Parameters measured In-phase or dip and quad- phase or out-of-phase

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____
Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____
Method Time Domain Frequency Domain
Parameters - On time _____ Frequency _____
- Off time _____ Range _____
- Delay time _____
- Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

Lampman Twp.(M 977)

THE TOWNSHIP OF
FRECHETTE

DISTRICT OF SUDBURY

SUDBURY
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	● or ⊕
CROWN LAND SALE	C.S.
LEASES	⊙
LOCATED LAND	L.C.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	⊙
CANCELLED	⊙
PATENTED S.R.O.	⊙

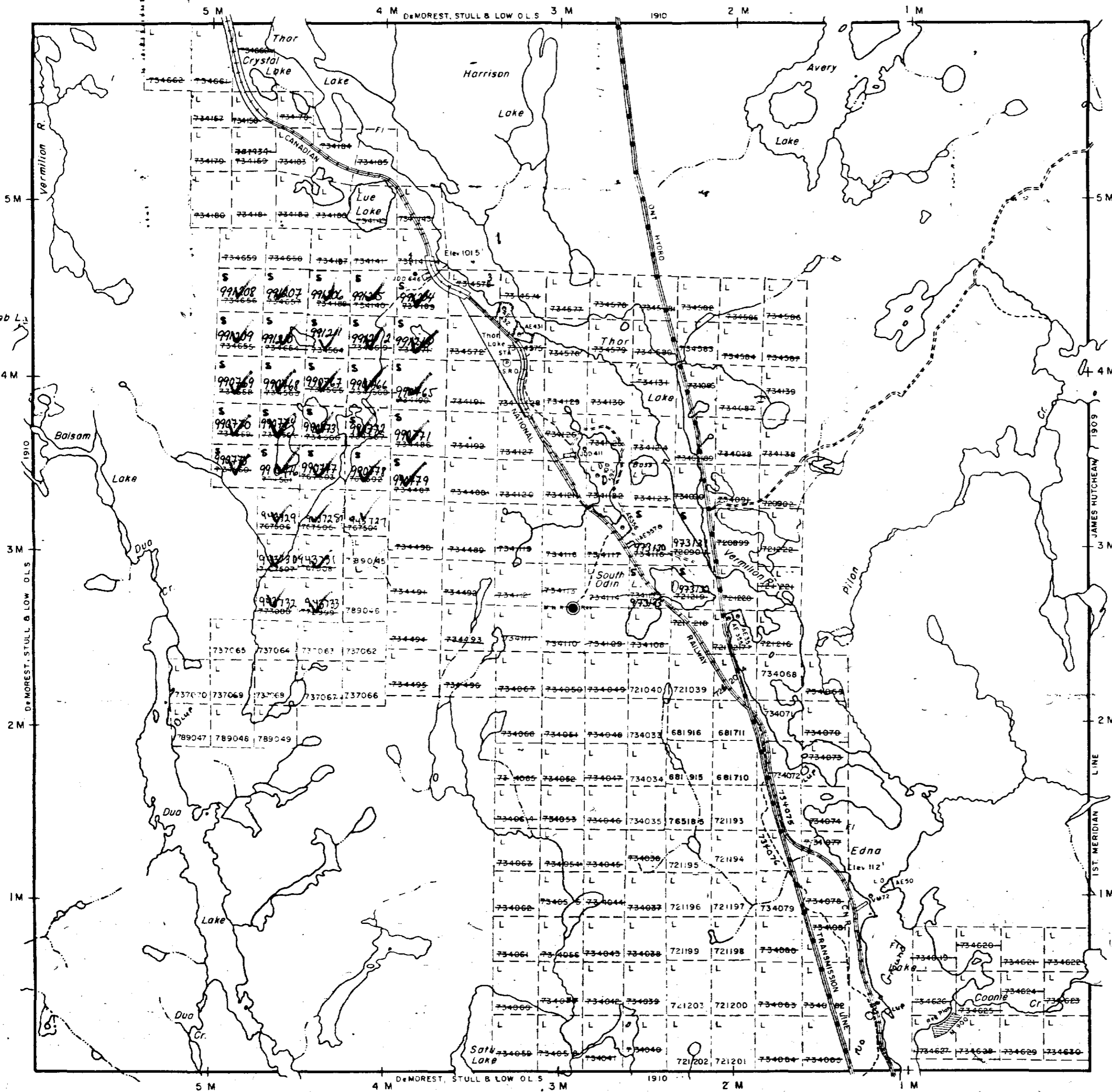
NOTES

400' surface rights reservation along the shores of all lakes and rivers.

FLOODING RIGHTS ON THOR LAKE AND EDNA LAKE TO SPANISH RIVER PULP & PAPER CO.

Scotia Twp.(M.1094)

McNamara Twp.(M.1018)

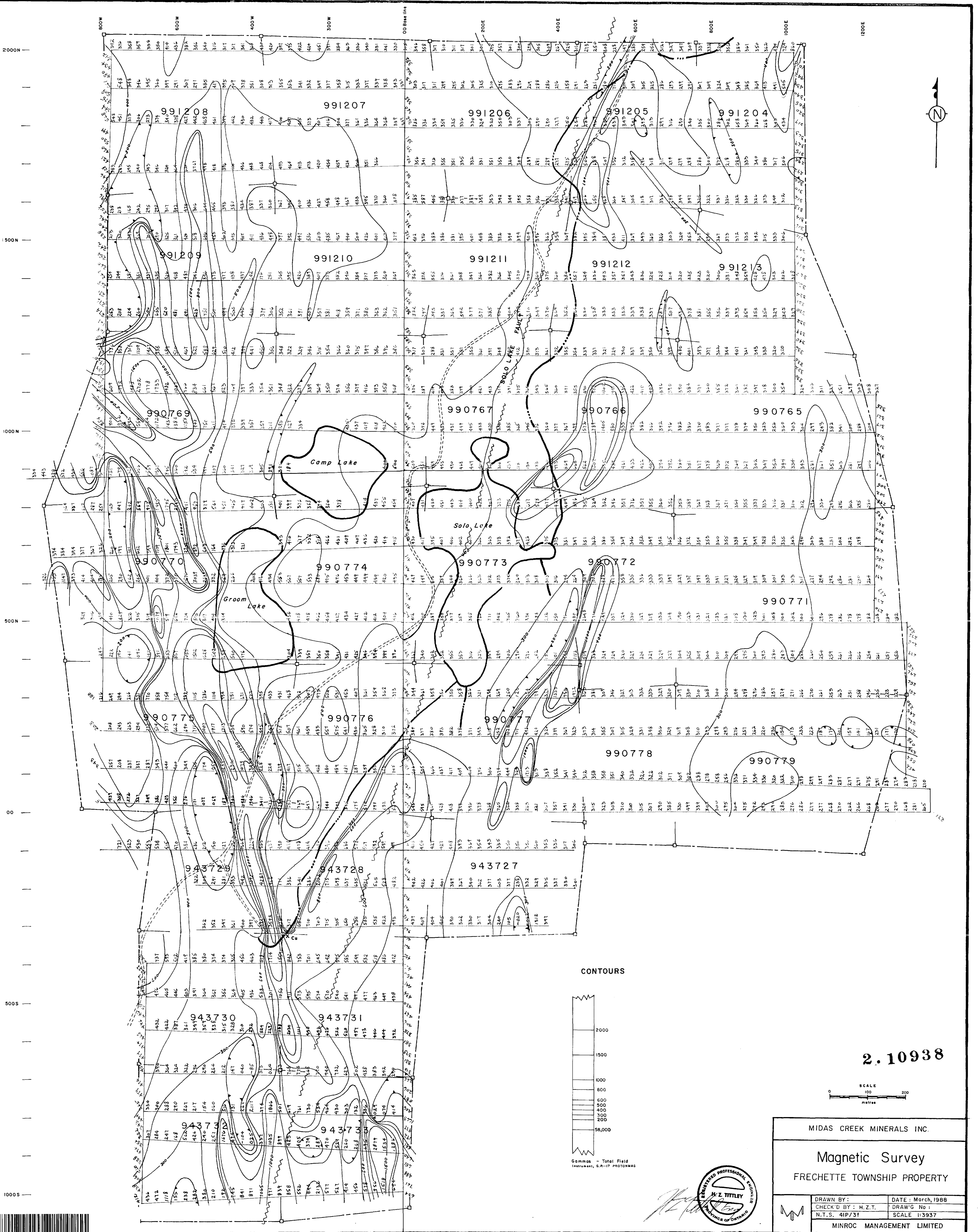


Sweeny Twp.(M.1151)

PLAN NO. **M. 817 #5**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH





2.10938

SCALE
0 100 200
metres

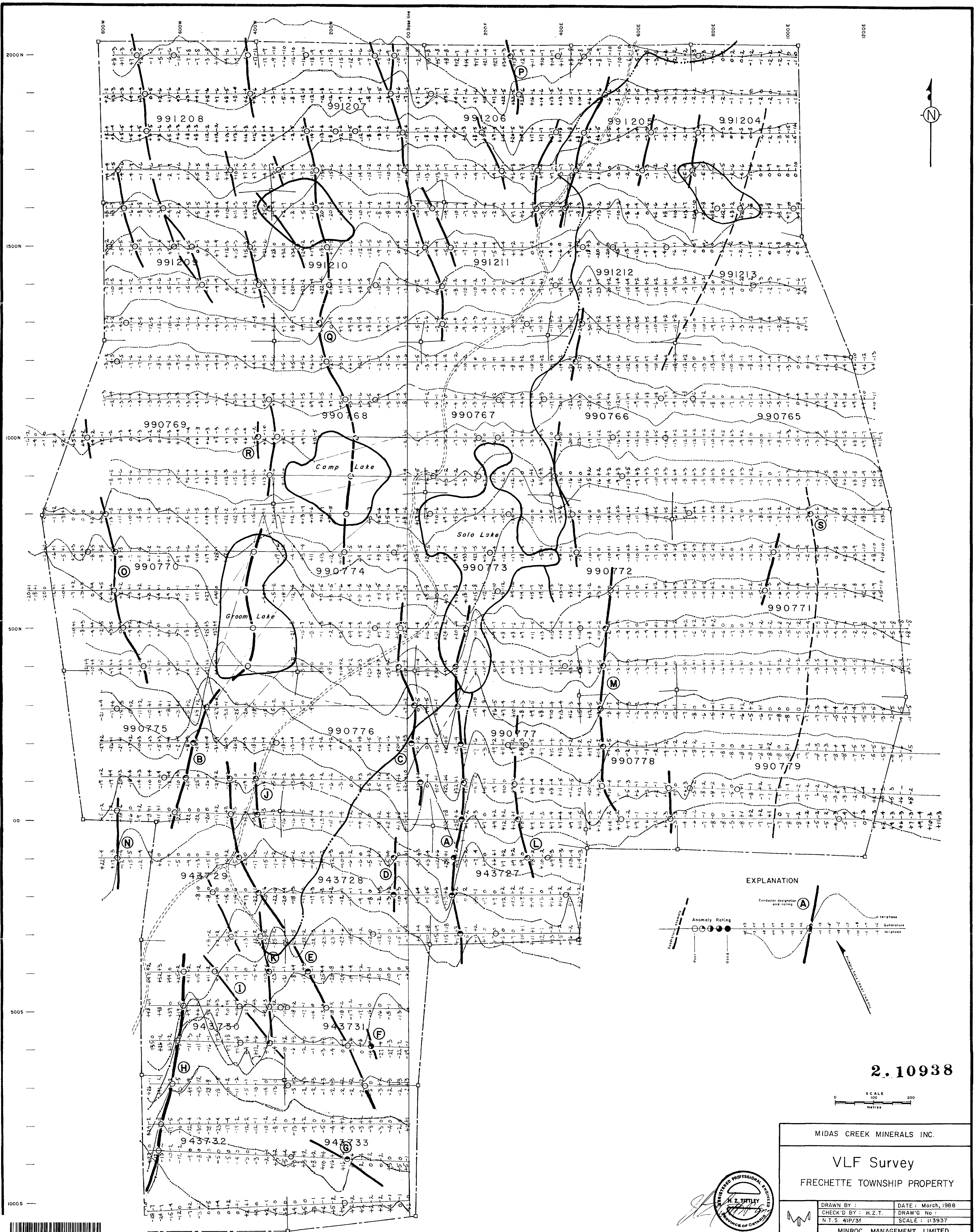
MIDAS CREEK MINERALS INC.

Magnetic Survey
FRETCHETTE TOWNSHIP PROPERTY

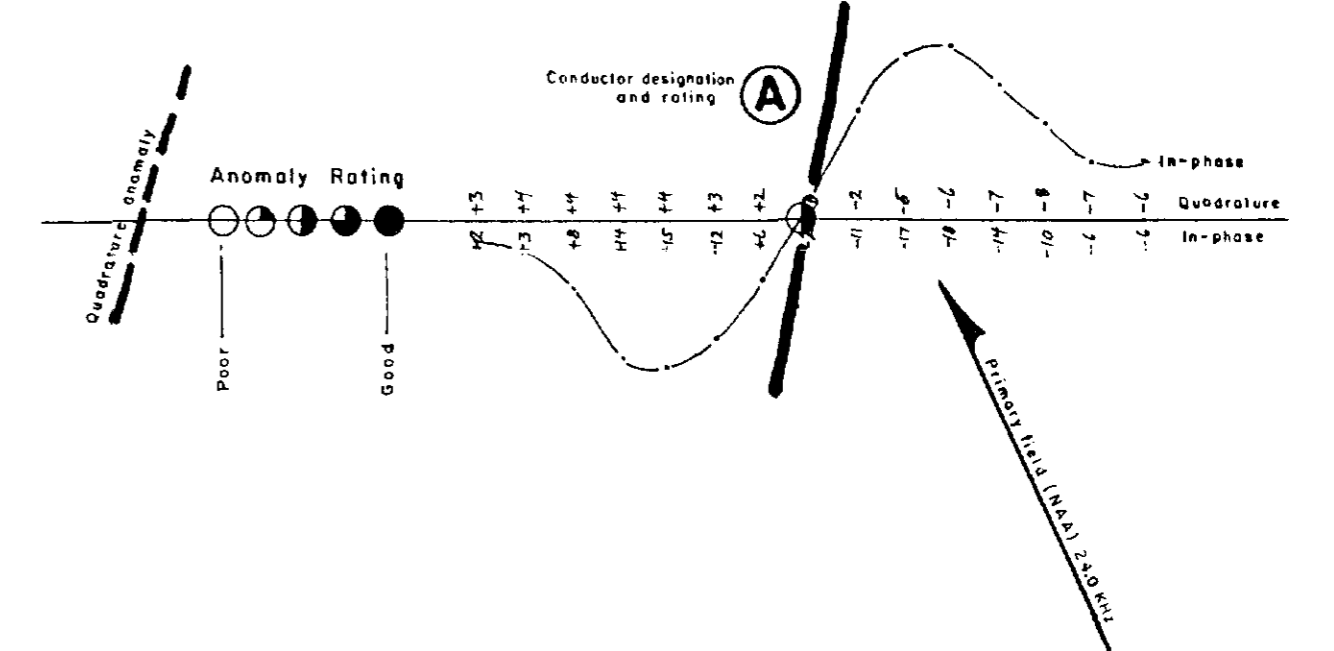
DRAWN BY:	DATE: March, 1988
CHECK'D BY: H.Z.T.	DRAW'G No.:
N.T.S. 4IP/31	SCALE 1:3937

MINROC MANAGEMENT LIMITED





EXPLANATION



2.10938

MIDAS CREEK MINERALS INC.

VLF Survey

FRECHETTE TOWNSHIP PROPERTY

DRAWN BY : N.T.S. 41P/31	DATE : March, 1988 DRAW'G No : SCALE : 1:3937
MINROC MANAGEMENT LIMITED	

