



42A11SW0097 2.2986 JAMIESON

2.2986

010

TECK EXPLORATIONS LIMITED

NORTH BAY, ONTARIO

REPORT ON THE

GEOPHYSICAL SURVEYS

ON

THE KAM GROUPS

ROBB AND JAMIESON TOWNSHIPS, ONTARIO

FOR

THE SULPHIDE SYNDICATE

RECEIVED

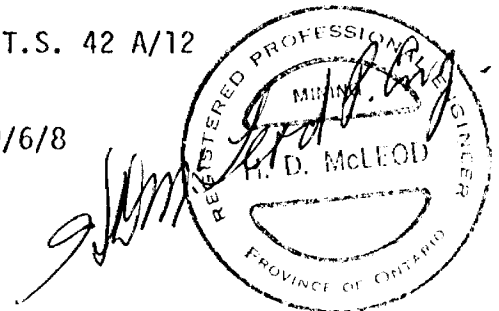
JUN 12 1979

MINING LANDS SECTION

REPORT NO. 642NB

N.T.S. 42 A/12

79/6/8



SUMMARY

Geophysical surveys of the KAM Groups located two excellent conductors, one of which was thoroughly tested by diamond drilling in the past. The second apparently has never been drilled. One drill hole is recommended.

## INTRODUCTION

The KAM Groups - KS and KT - comprise two groups of claims in Robb and Jamieson Townships sixteen miles to the northwest of Timmins, Ontario.

The south group, all in Robb Township, consists of twelve contiguous claims numbered P515871, P515899, P515996, P516100, P516117, P516127, P516122, P516137, P516138, P516139, P516140 and P516141. All, except P515996 are registered in the name of Teck Explorations Limited (formerly Geophysical Engineering Limited) address Suite 4900, Toronto Dominion Centre, Toronto, Ontario. P515996 is owned by Texasgulf Limited of Timmins.

The North Group, in Robb and Jamieson Townships, consist of twenty-two contiguous claims numbered P515630, P515642, P516101-02, P516142-43, P516206-09, P521958-69. All, except P515630 and P515642, are registered in the name of Teck Explorations Limited. The two exceptions are owned by Texasgulf.

Line cutting and geophysical surveys were completed during the period 78/12/1 to 79/4/20. Drafting and the report were done during the period 79/5/25 to 79/6/8. The work was done by Teck Explorations Limited personnel under the direct supervision of the writer.

Access is by Highway 576 to Kamiskotia Lake and, from there, by readily accessible bush roads.

## GEOPHYSICAL SURVEYS

### METHOD

Picket lines over both groups were cut at 100-meter intervals from base lines oriented at 120° on both groups. All lines were chained at 25 meter intervals. A total of 36.6 kilometers of line were cut.

Magnetometer surveys were done with a Sharpe Fluxgate MF1 magnetometer over the south group and a Sharpe Fluxgate MF 2 magnetometer over the north group. All readings were corrected to permanent base stations at hourly intervals to allow for diurnal variations. A total of 2515 stations were read. The specifications of the instrument are in the appendix.

Electromagnetic surveys were done with a Crone PEM unit, readings taken at 25 meter intervals at a transmitter-receiver interval of 300 meters. The specifications of the unit are in the appendix. Approximately 2000 stations were read.

Limited surveys with the PEM unit at 50 meter separation and one profile with a MaxMinIII unit at 100 meter coil separation were completed to test probable overburden conductors.

### RESULTS

South Group- The magnetometer survey has outlined a number of linear north-south anomalies attributable to diabase dikes. One short northwest trending high in the north-east section of the group has no known geological explanation.

The PEM results are unusual however all the anomalous readings are interpreted as due to overburden or more likely the Kamiskotia Mines slimes. No valid conductors are evident.

North Group-The magnetometer survey located north-south trending diabase dikes only. A few small anomalies trending north-west may reflect structure in the underlying formations but most are insignificant.

The PEM survey located two definite conductors. The strongest is located in the southwest corner of claim P516142 and extends west towards the Kamiskotia Mine open pit. A number of drill holes have tested this anomaly.

The second conductor is located in the southeast corner of claim P516208 at the Robb-Jamieson Township boundary.

#### GEOLOGY

The south group is believed to be underlain mainly by mafic volcanics, the north group by interlayered mafic and felsic flows.



Ministry of Natural Resources

File \_\_\_\_\_

GEO



42A11SW0097 2.2986 JAMIESON

900

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

Type of Survey(s) Geophysical  
Township or Area Robb and Jamieson  
Claim Holder(s) Geophysical Engineering Limited  
Survey Company Geophysical Engineering Limited  
Author of Report H.D. McLeod  
Address of Author 673 Norman Avenue, North Bay, Ontario  
Covering Dates of Survey 78/12/1 to 79/4/20  
(linecutting to office)  
Total Miles of Line Cut 36.9km

SPECIAL PROVISIONS CREDITS REQUESTED	DAYS per claim
Geophysical	
--Electromagnetic	<u>40</u>
--Magnetometer	<u>20</u>
--Radiometric	_____
--Other	_____
Geological	_____
Geochemical	_____

ENTER 40 days (includes line cutting) for first survey.  
ENTER 20 days for each additional survey using same grid.

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: 79/4/20 SIGNATURE: H.D. McLeod  
Author of Report or Agent

Res. Geol. 1.2. Qualifications 63.1050

Previous Surveys

File No.	Type	Date	Claim Holder

**MINING CLAIMS TRAVERSED**  
List numerically

- P515630 ✓ (prefix) (number)
- P515642 ✓
- P516101
- P516102
- P516142
- P516143 1/1 not covered
- P516206 ✓
- P516207
- P516208
- P516209
- P521958
- P521959
- P521960
- P521961
- P521962
- P521963
- P521964
- P521965
- P521966
- P521967
- P521968
- P521969 ✓

TOTAL CLAIMS 22

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_

Station interval \_\_\_\_\_ Line spacing \_\_\_\_\_

Profile scale \_\_\_\_\_

Contour interval \_\_\_\_\_

MAGNETIC

Instrument Scintrex MF2 Fluxgate Magnetometer

Accuracy - Scale constant 5 gammas per scale division

Diurnal correction method permanent base stations

Base Station check-in interval (hours) hourly

Base Station location and value See map

ELECTROMAGNETIC

Instrument Crone PEM unit

Coil configuration horizontal

Coil separation 100m

Accuracy ± 0.5%

Method:  Fixed transmitter  Shoot back  In line  Parallel line

Frequency Top channel - 2000 Hz Bottom channel 16 Hz  
(specify V.L.F. station)

Parameters measured Secondary field of a conductor

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 \_\_\_\_\_



**GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL  
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(s) Geophysical  
Township or Area Robb  
Claim Holder(s) Geophysical Engineering Limited  
Survey Company Geophysical Engineering Limited  
Author of Report H.D. McLeod  
Address of Author 673 Norman Avenue, North Bay, Ont.  
Covering Dates of Survey 78/12/1 to 79/4/20  
(linecutting to office)  
Total Miles of Line Cut 18.42 km

MINING CLAIMS TRAVERSED	
List numerically <u>EM</u>	
P515871	
(prefix) (number)	
P515899	
P515996	
P516100	
P516117	
P516127	<u>1/3</u>
P516122	
P516137	<u>2</u>
P516138	<u>12</u>
P516139	<u>1</u>
P516140	<u>4/2</u>
P516141	<u>1/3</u>
<u>Area of claim, not covered: 2 2/3</u>	
<u>40 x 12 = 480 ÷ (1242) =</u>	
<u>34 days</u>	
<b>TOTAL CLAIMS</b> <u>12</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS CREDITS REQUESTED</u>	Geophysical	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	-Electromagnetic	<u>40</u>
ENTER 20 days for each additional survey using same grid.	-Magnetometer	<u>20</u>
	-Radiometric	
	-Other	
	Geological	
	Geochemical	

**AIRBORNE CREDITS** (Special provision credits do not apply to airborne surveys)  
Magnetometer Electromagnetic Radiometric  
(enter days per claim)  
DATE: 79/4/20 SIGNATURE: H.D. McLeod  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 69-1050

<u>Previous Surveys</u>			
File No.	Type	Date	Claim Holder

OFFICE USE ONLY



GEOPHYSICAL TECHNICAL DATA

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

Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_

Station interval \_\_\_\_\_ Line spacing \_\_\_\_\_

Profile scale \_\_\_\_\_

Contour interval \_\_\_\_\_

MAGNETIC

Instrument \_\_\_\_\_ Scintrex MF2 Fluxgate Magnetometer

Accuracy - Scale constant \_\_\_\_\_ 5 gammas per scale division

Diurnal correction method \_\_\_\_\_ permanent base stations

Base Station check-in interval (hours) \_\_\_\_\_ hourly

Base Station location and value \_\_\_\_\_ see map

ELECTROMAGNETIC

Instrument \_\_\_\_\_ Crone PEM unit

Coil configuration \_\_\_\_\_ Horizontal

Coil separation \_\_\_\_\_ 100m

Accuracy \_\_\_\_\_ ± 0.5%

Method:  Fixed transmitter  Shoot back  In line  Parallel line

Frequency \_\_\_\_\_ Top channel 2000 Hz Bottom channel 16 Hz  
(specify V.L.F. station)

Parameters measured \_\_\_\_\_ Secondary field of a conductor

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 \_\_\_\_\_

LOVELAND TP. M.293

THE TOWNSHIP  
2.2986 OF  
**ROBB**

DISTRICT OF  
COCHRANE

PORCUPINE  
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
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	X
CANCELLED	⊙
PATENTED for S.R.O.	⊙

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

Areas withdrawn from staking under Section 42 of the Mining Act (R.S.O. 1990, Sec. 43(1)(3)).

File	Date	Disposition

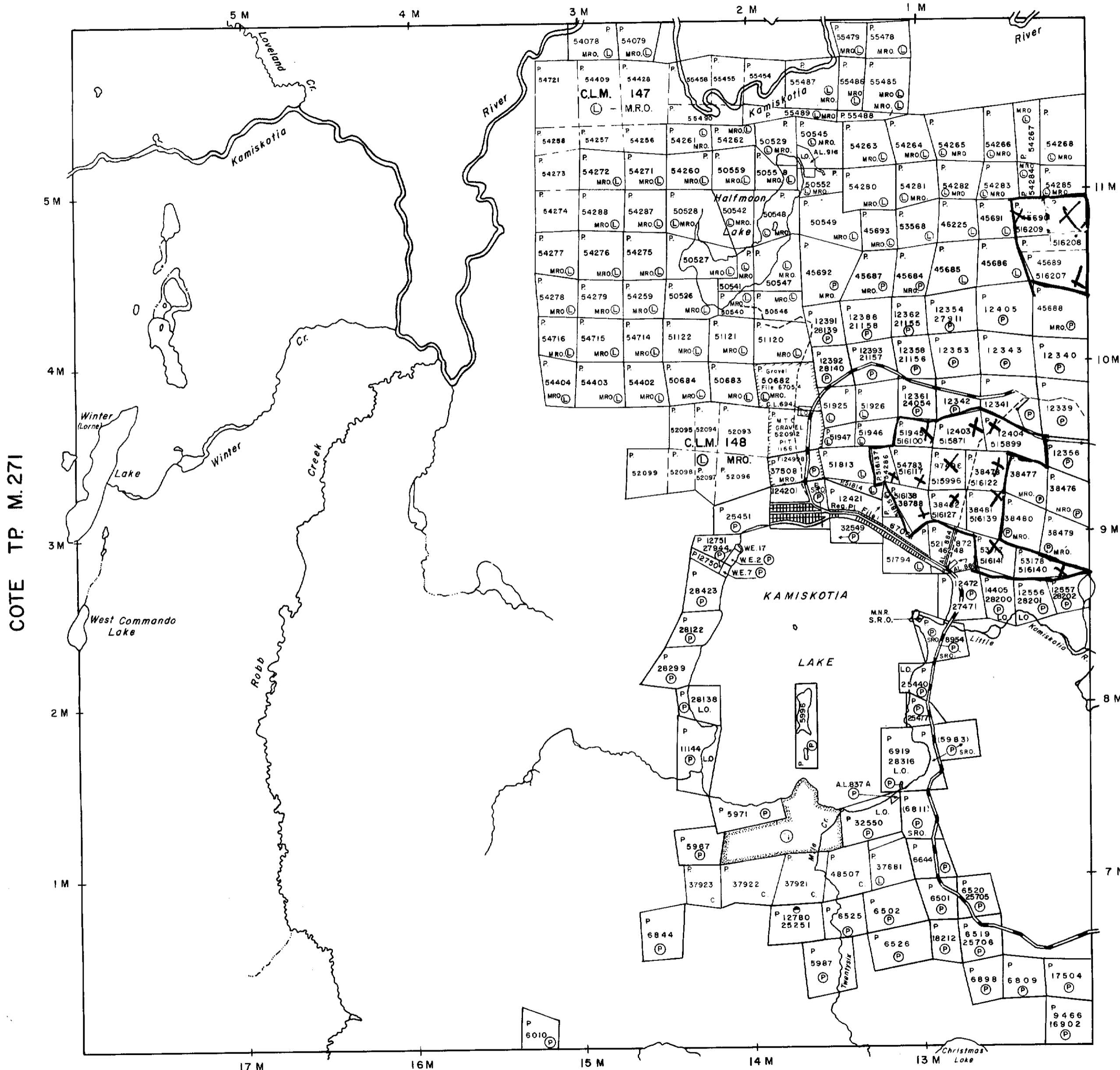
This township lies within the Municipality of CITY of TIMMINS.

RESERVATIONS:  
Ⓟ - Reserved for recreational purposes under Sec. 3 P.L.A. File 188543.

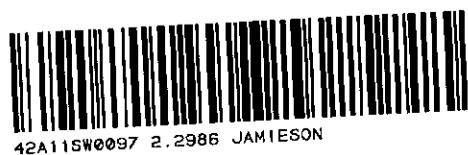
DATE OF ISSUE  
JUN 19 1979  
SURVEYS AND MAPPING  
BRANCH

PLAN NO.-M.309

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH



TURNBULL TP. M. 316



Macdiarmid Twp.- M. 294

THE TOWNSHIP OF 2-2986

# JAMIESON

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

## LEGEND

- PATENTED LAND Ⓟ
- CROWN LAND SALE C.S.
- LEASES Ⓛ
- LOCATED LAND Loc.
- 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 X

## NOTES

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

Flooding rights to areas along Mattagami River to H.E.P.C. - L.O. 7085

This township lies within the Municipality of City of Timmins.

DATE OF ISSUE

JUN 19 1979

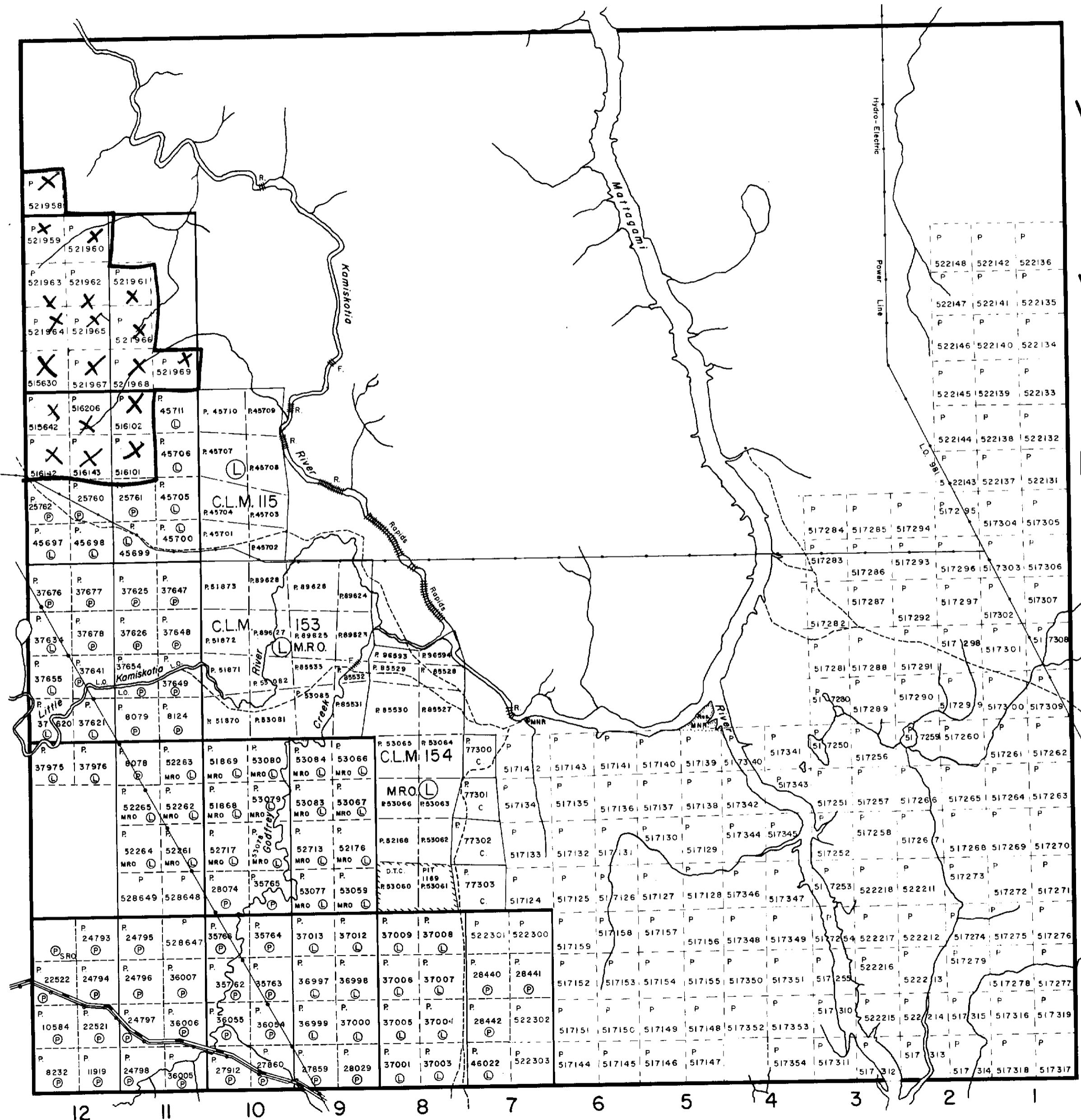
SURVEYS AND MAPPING BRANCH

PLAN NO.- **M.288**

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

Robb Twp.- M.309

Jessop Twp.- M.289

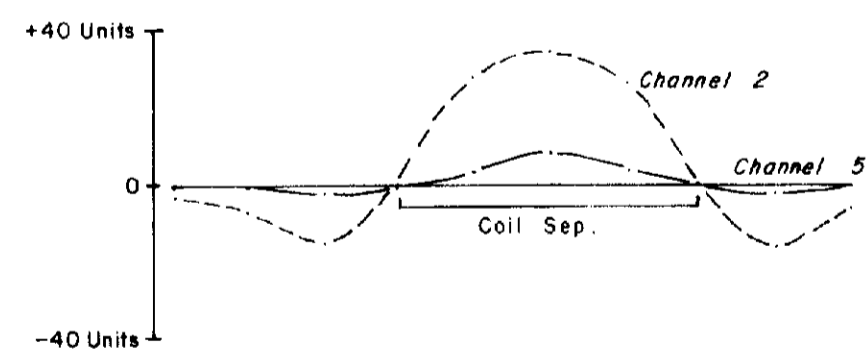
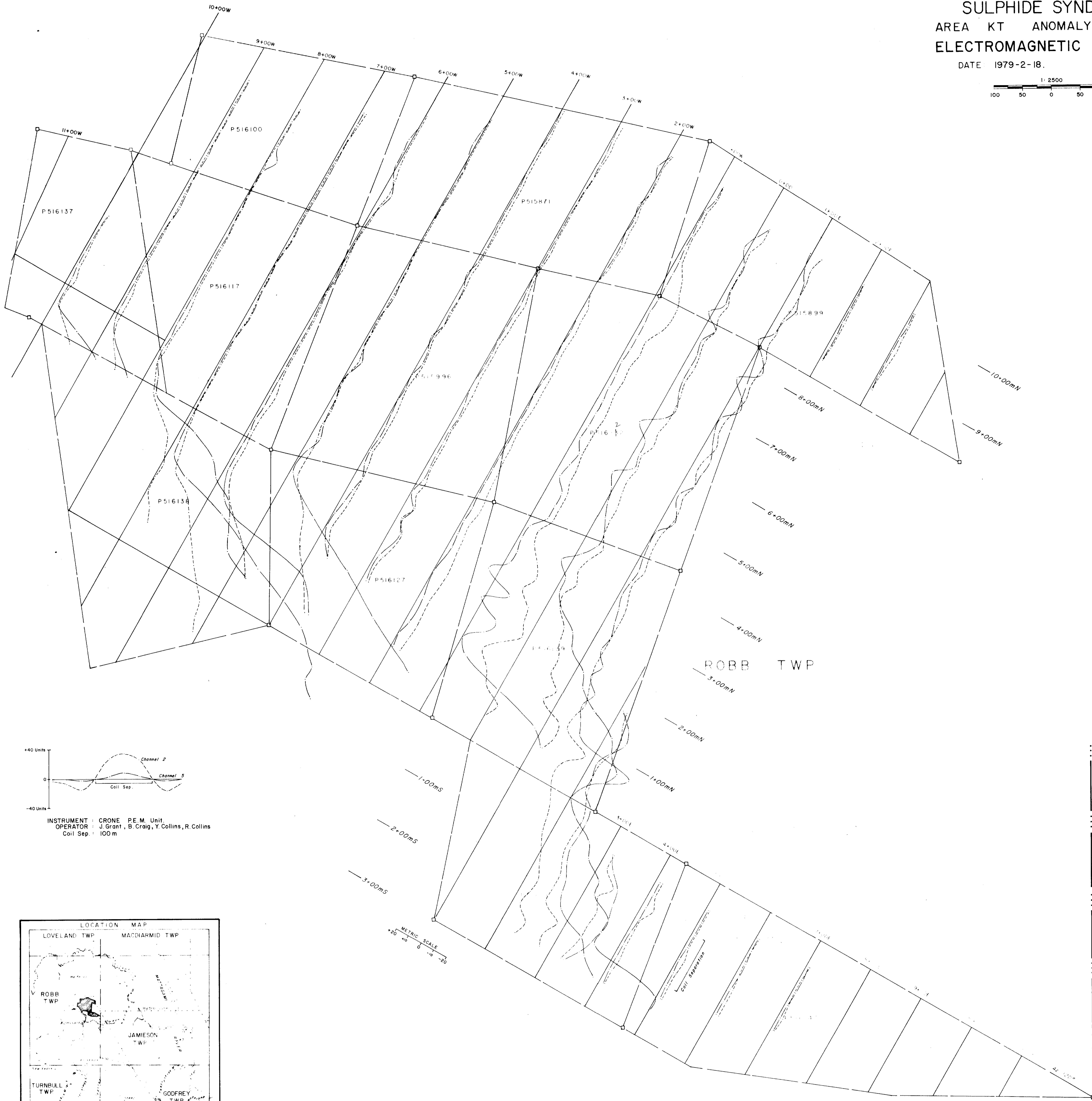
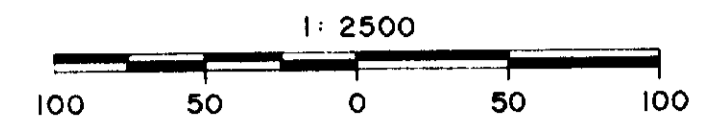


Godfrey Twp.- M. 284

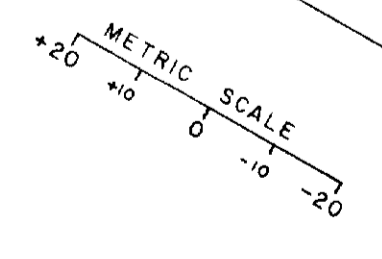
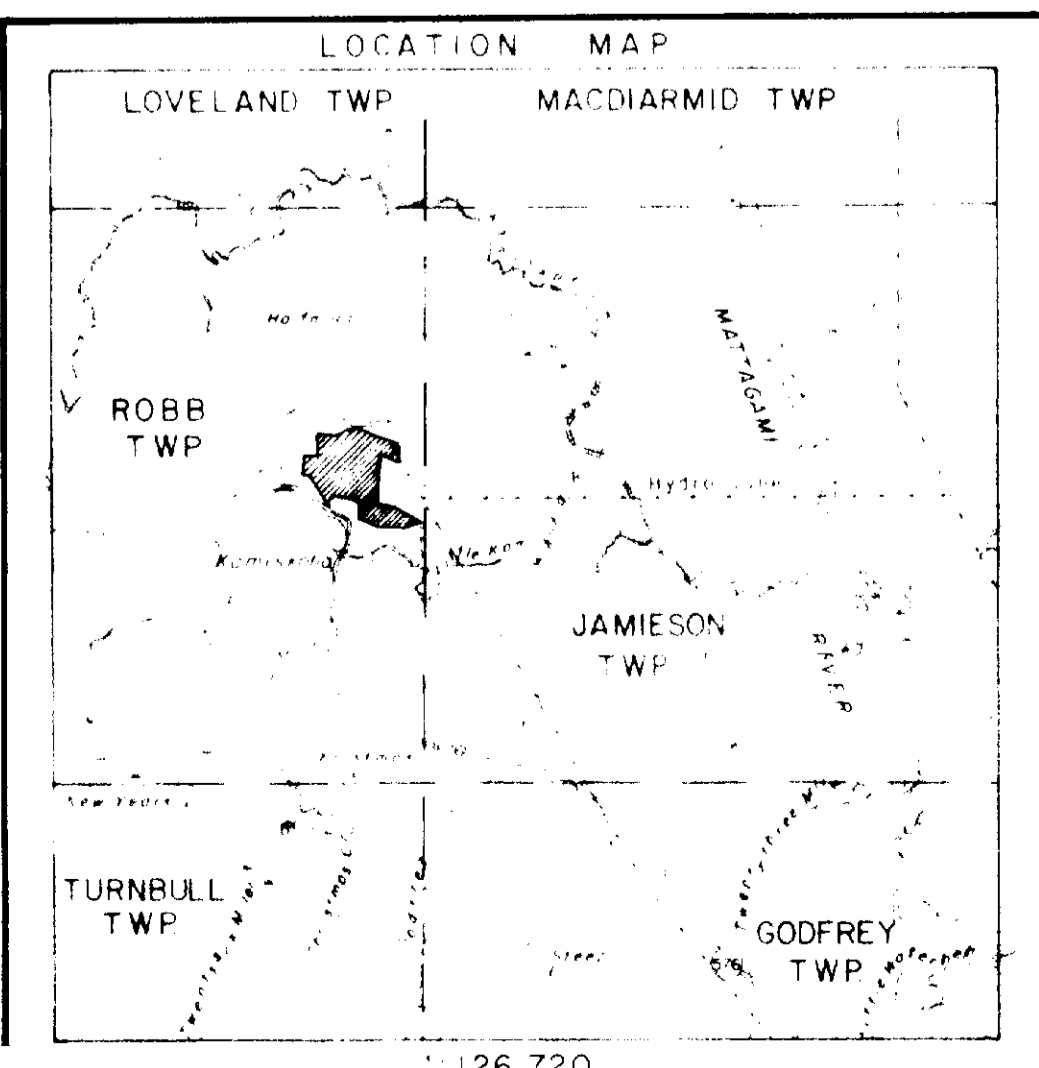


SULPHIDE SYNDICATE  
 AREA KT ANOMALY GROUP #1  
 ELECTROMAGNETIC SURVEY

DATE 1979-2-18. JOB 1167



INSTRUMENT : CRONE P.E.M. Unit.  
 OPERATOR : J. Grant, B. Craig, Y. Collins, R. Collins  
 Coil Sep. : 100 m



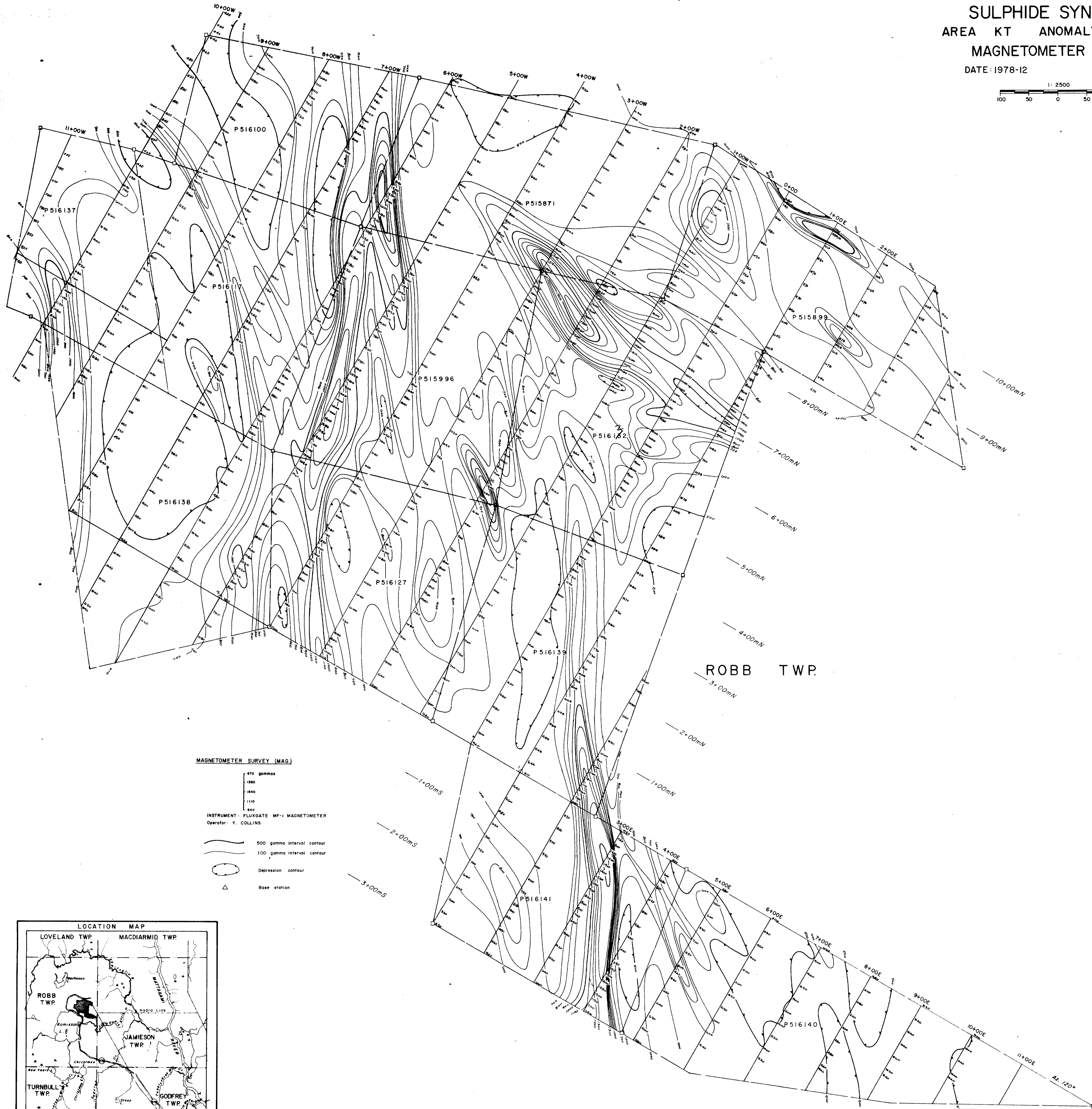
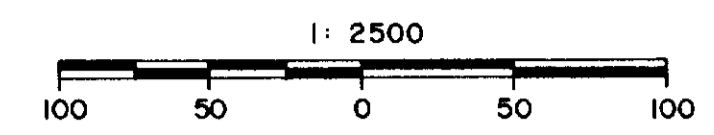
JAMIESON  
 TWP.



SULPHIDE SYNDICATE  
AREA KT ANOMALY GROUP #1  
MAGNETOMETER SURVEY

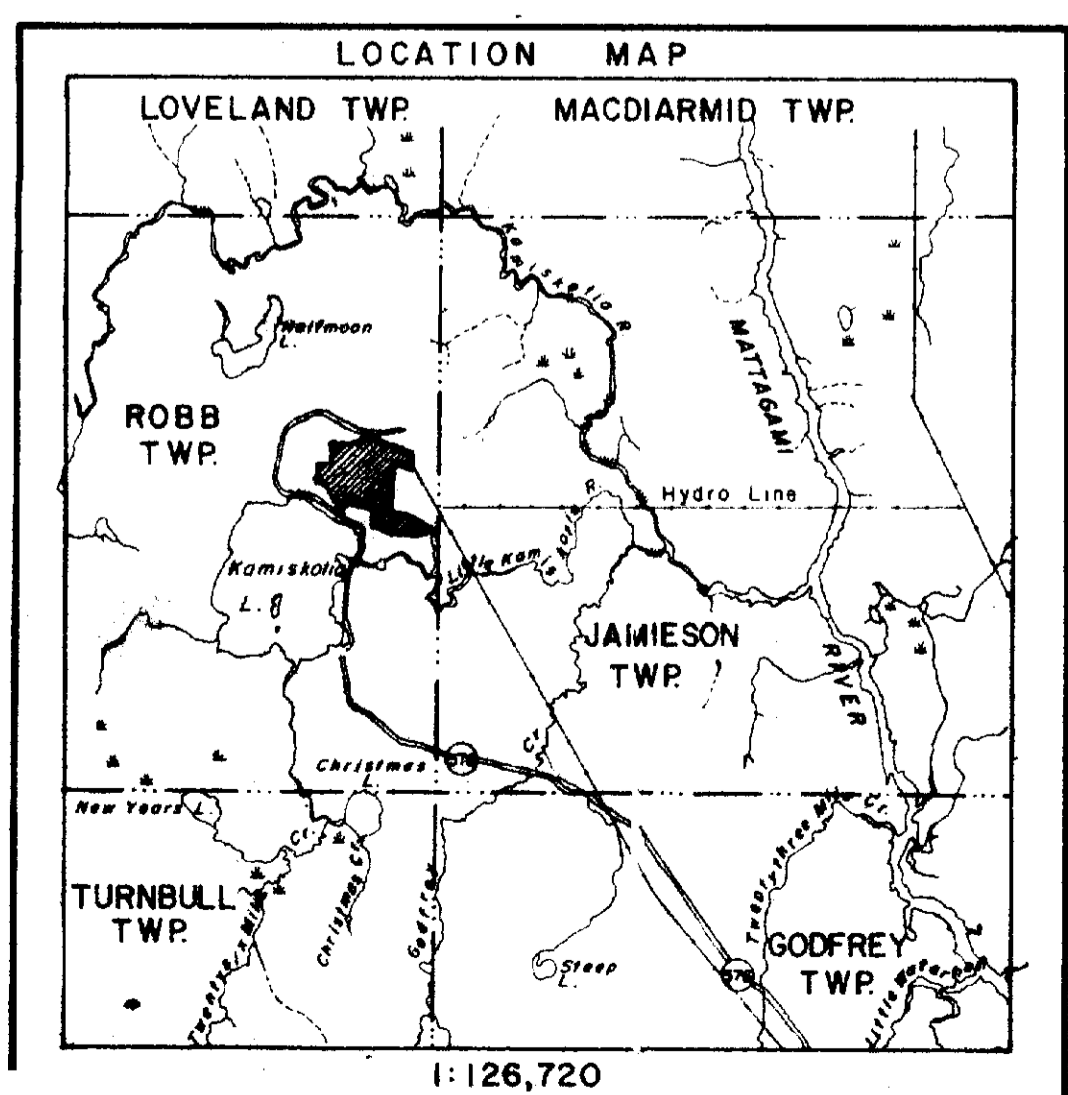
DATE: 1978-12

JOB 1167



MAGNETOMETER SURVEY (MAG)

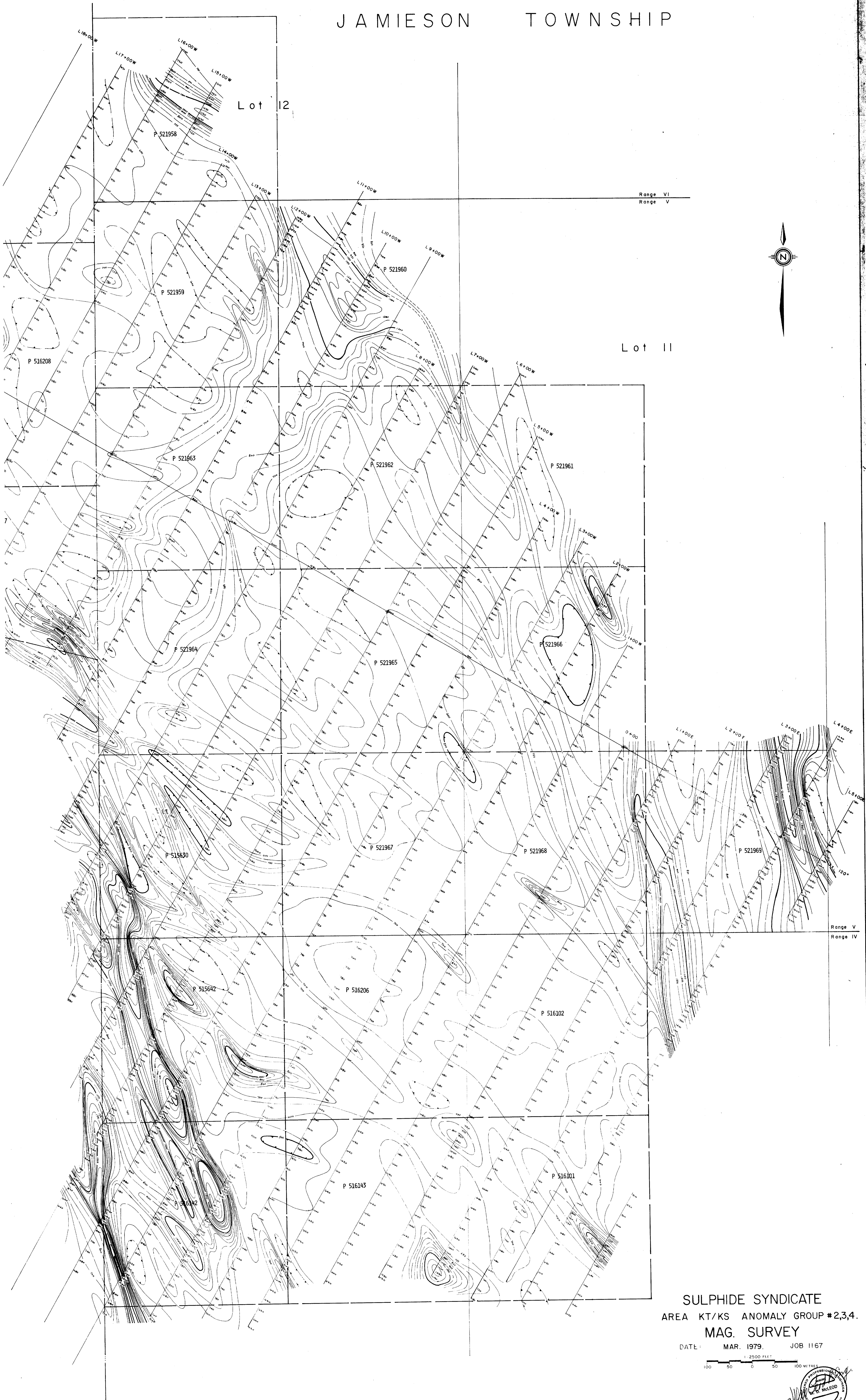
- 870 gammas
- 1300
- 1400
- 1500
- 1600
- 1700
- 1800
- INSTRUMENT: FLUXGATE MF-1 MAGNETOMETER
- Operator: Y. COLLINS
- 500 gamma interval contour
- 100 gamma interval contour
- Depression contour
- Base station



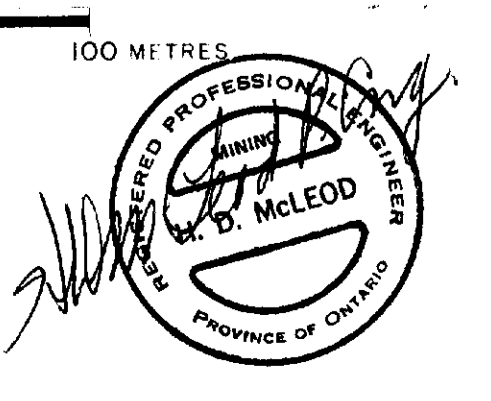
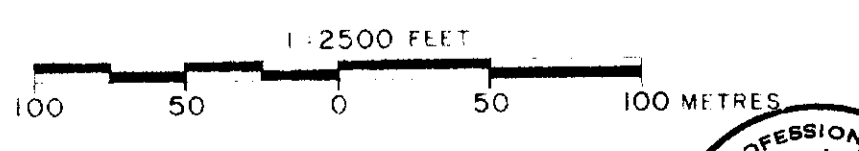
JAMIESON  
TWP.



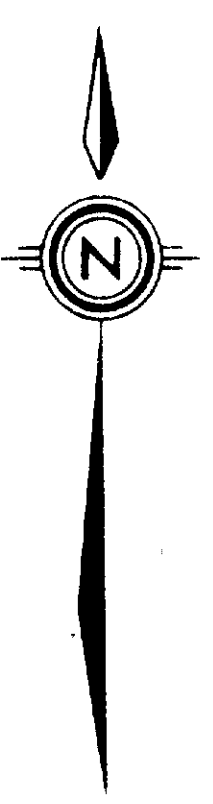
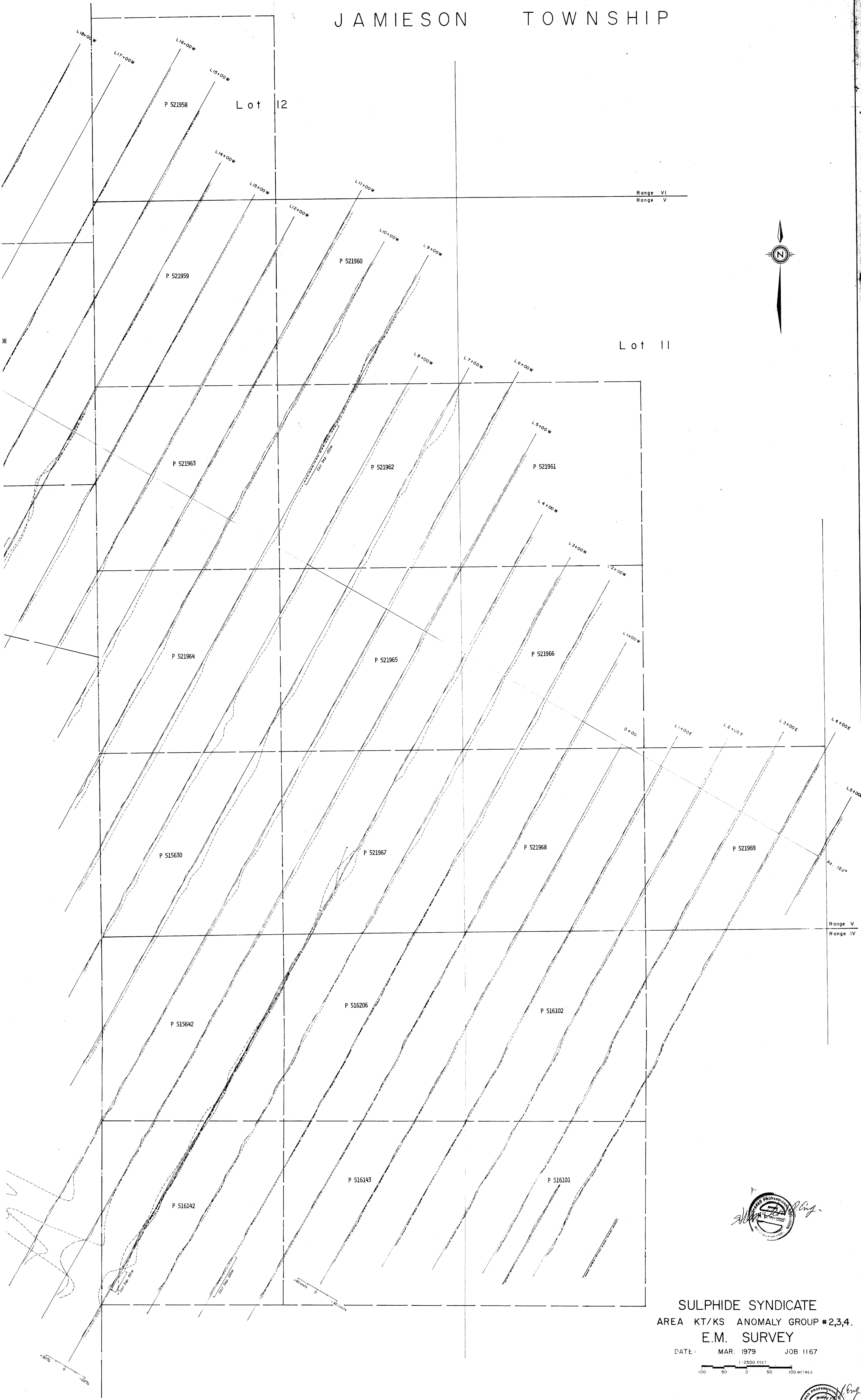
# JAMIESON TOWNSHIP



SULPHIDE SYNDICATE  
AREA KT/KS ANOMALY GROUP #2,3,4.  
MAG. SURVEY  
DATE: MAR. 1979. JOB 1167



JAMIESON TOWNSHIP



Range VI  
Range V

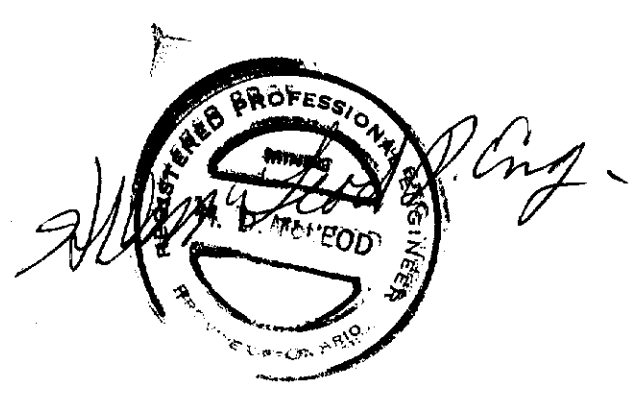
Lot 11

Range V  
Range IV

SULPHIDE SYNDICATE  
AREA KT/KS ANOMALY GROUP #2,3,4.  
E.M. SURVEY

DATE: MAR. 1979 JOB 1167

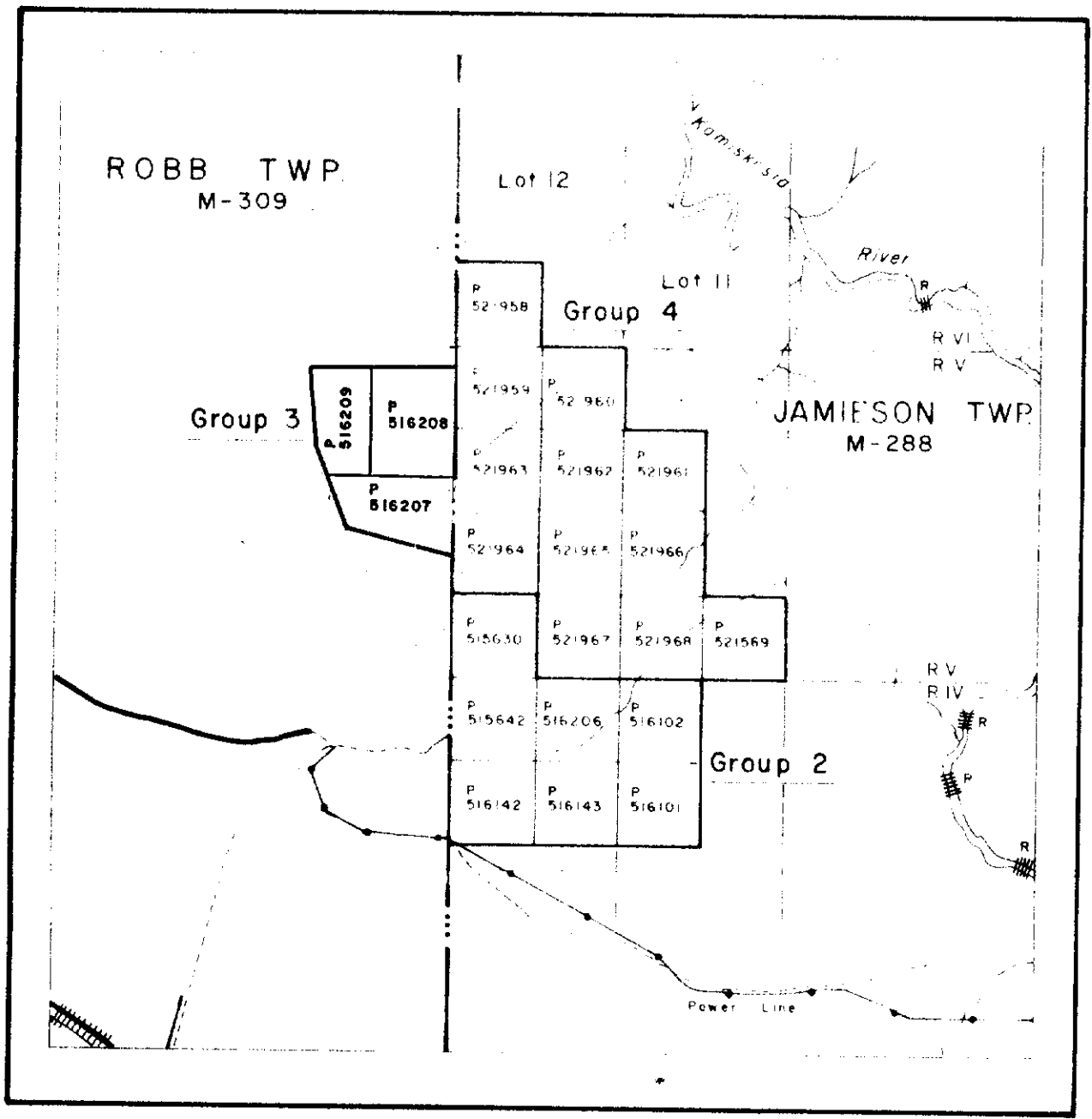
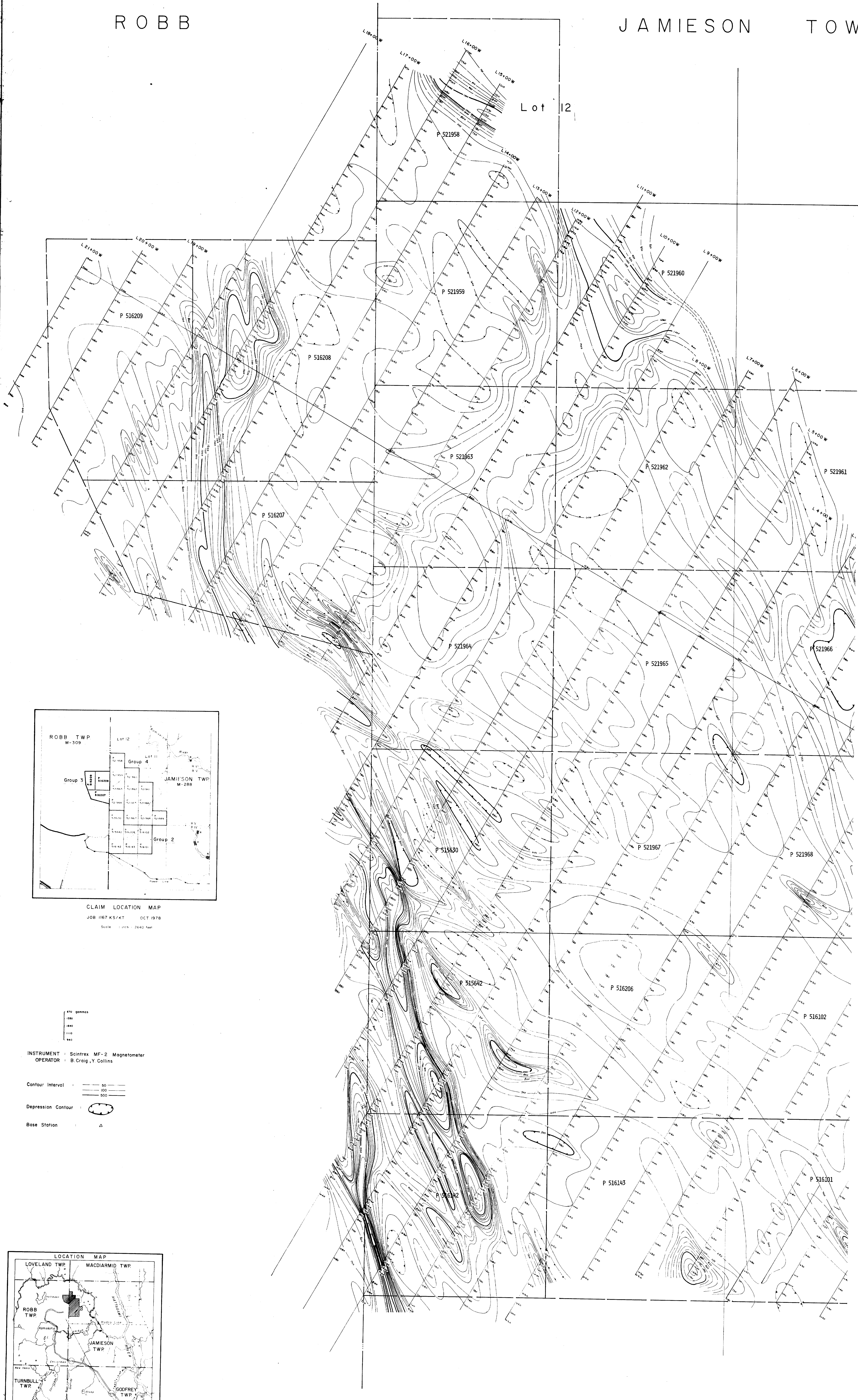
1:2500 FEET  
100 50 0 50 100 METRES



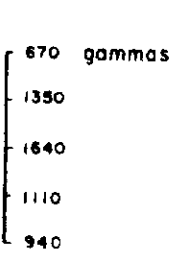
ROBB

JAMIESON TOW

Lot 12



CLAIM LOCATION MAP  
 JOB 1167 KS/KT OCT 1978  
 Scale 1 inch = 2640 feet

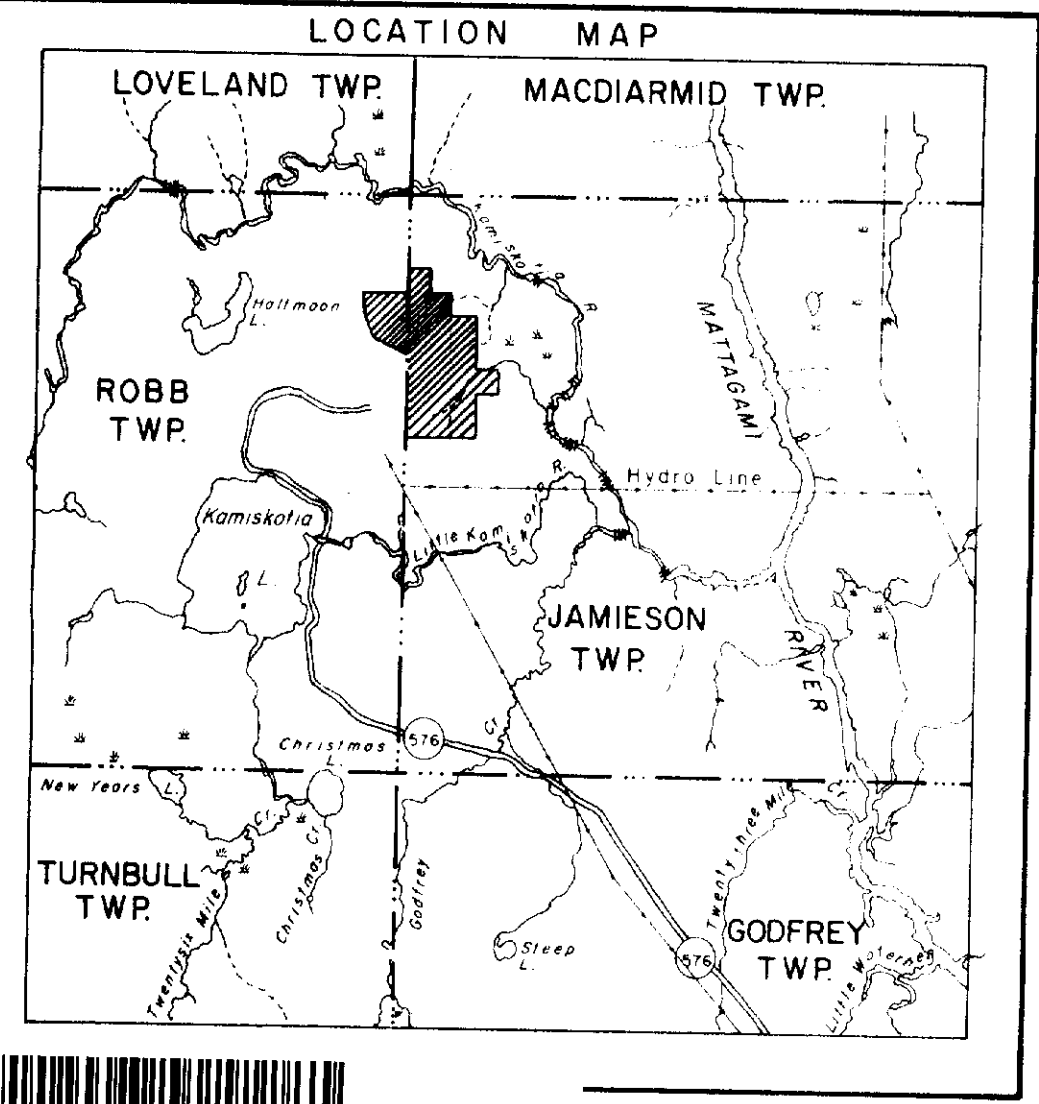


INSTRUMENT : Scintrex MF-2 Magnetometer  
 OPERATOR : B. Craig, Y. Collins

Contour Interval : 50, 100, 200

Depression Contour : (Symbol)

Base Station : (Symbol)





ROBB

JAMIESON TOW

Lot 12

