



42A12SE0428 63.1628 GODFREY

## INTRODUCTION

During the period from July 3, 1964 to August 20, 1964, a combined Crone method electromagnetic and vertical magnetic geophysical survey was conducted by Mespi Mines Limited of 1705-80 Richmond Street, West, Toronto, for Cu-Kam Forcupine Mines Limited of the same address.

## LOCATION OF CLAIMS AND ACCESS

Forty-three claims located in the north west quarter of Godfrey Township, Forcupine Mining Division, Ontario are numbered as follows: F. 51462-70 incl., F. 51864, F. 51928, F. 52448-49 incl., F. 53569 - 70 incl., F. 53614-16 incl., F. 53634-43 incl., F. 53671 to F. 53680 incl., F. 53803 - 04 incl., F. 53955-57 incl.

The property is located approximately 15 miles north west of Timmins, Ontario just to the south of Canadian Jamieson Mines Limited property.

Highway 576 crosses the north east corner of the group and the Genex road traverses the eastern portion of the claims from north to south.

## PREVIOUS WORK

The complete area has been covered by four different combined magnetic-electromagnetic surveys.

Hunting Survey Corporation flew the area in a N-S direction for Mr. B.W. Lang in 1957 and in an E-W direction for Mespi Mines Limited in May 1964.

In March 1963 the area was flown twice in a N-E - S-W direction by Canadian Aero Mineral Surveys for Mr. B.W. Lang of Toronto.

All surveys showed only a few very weak electromagnetic responses.

The geology of the area is shown on Map No. 1954-4 published by the Ontario Department of Mines.

#### GEOPHYSICAL INSTRUMENTS USED

For the electromagnetic survey, a Crone Dual Frequency unit was used. The survey was carried out using an in-line method, a coil separation of 300 feet and readings taken at 100 foot intervals. The dip angles shown on the plan are the resultant angles.

A total of 1578 stations were established with the E.M. survey.

For the magnetic work, a Sharpe MF-1 fluxgate magnetometer was used to measure changes in the vertical component of the earth's magnetic field. The sensitivity was 20 gammas per scale division on the most sensitive scale. All readings have been tied into a base system on the grid and drifts have been corrected.

A total of 2211 stations were established with the magnetometer survey.

There were 46.5 miles of line cut.

#### ANALY RESULTS

##### Electromagnetic

No positive or strong electromagnetic responses were obtained. There were a few weak single line indications that further check work has proven to be of no economic interest.

##### Magnetics

As there was good rock exposure and a detailed geological map available it was attempted to correlate the magnetic data with the geology but with very poor results. The numerous diabase dikes and

gabbroic intrusive bodies completely obscured the chances of following the rhyolite-andesite contacts beneath the overburden.

CONCLUSIONS AND RECOMMENDATIONS

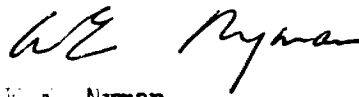
No strong or positive conductive responses were detected. Mineralization may not be massive or continuous enough to constitute a conductor.

As this property is located between two properties that are going into production, consideration should be given to doing further geophysical work.

Both the Canadian Jamieson and Genex orebodies are non-conductive but show up as very strong anomalies using I.F. techniques. Mineralization of both zones is chiefly disseminated but massive in places. Both occurrences lie in similar host rocks. An effective geophysical program must take into account the geophysical responses of these two mineral zones.

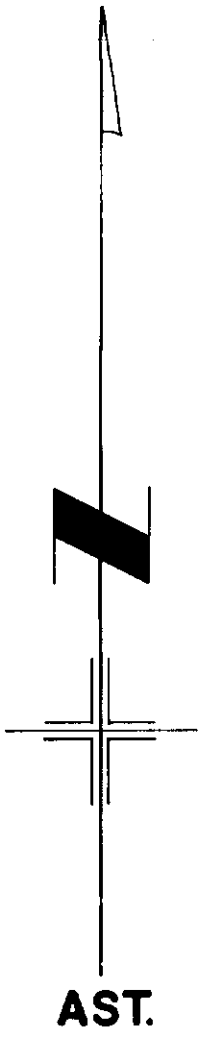
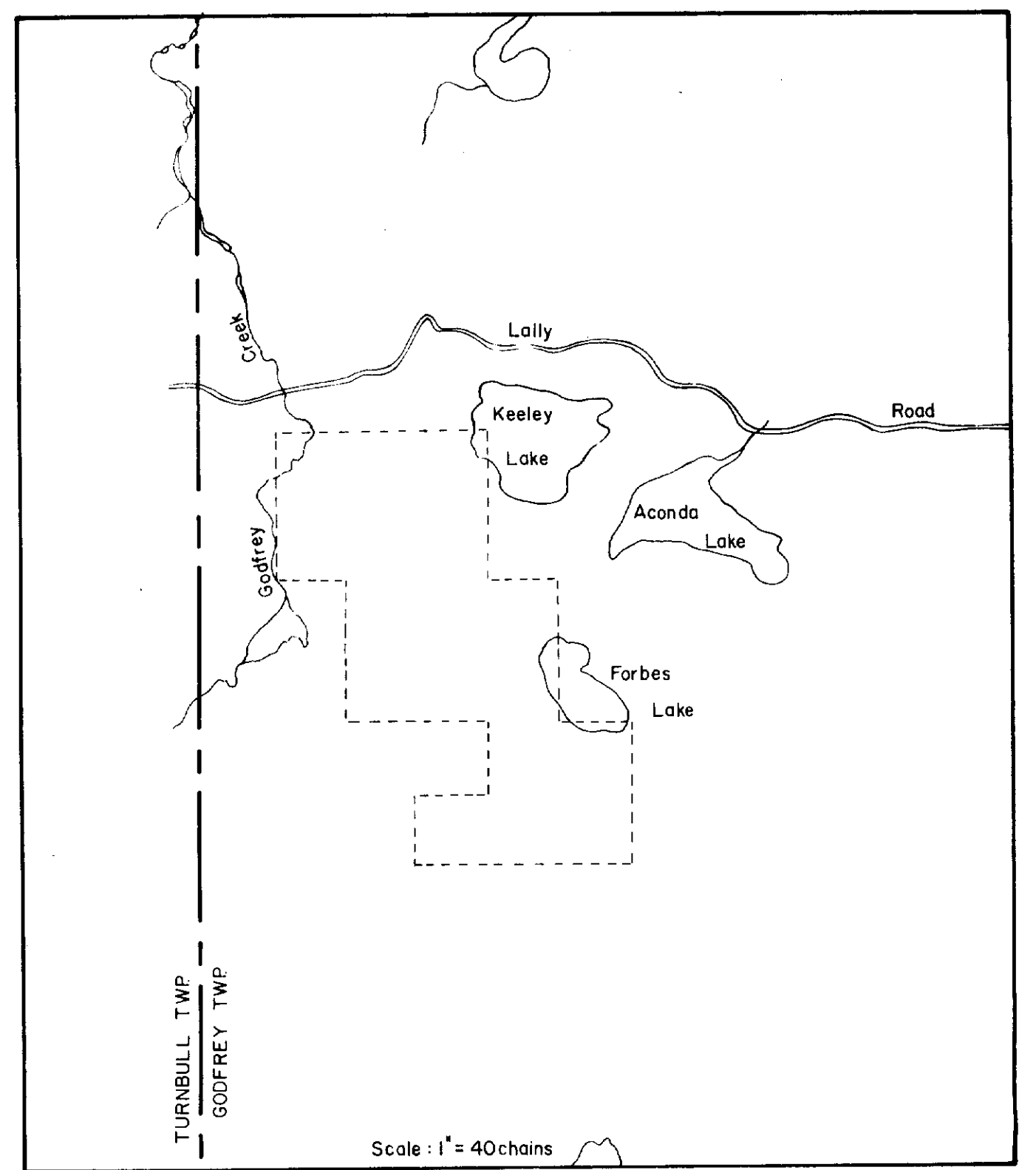
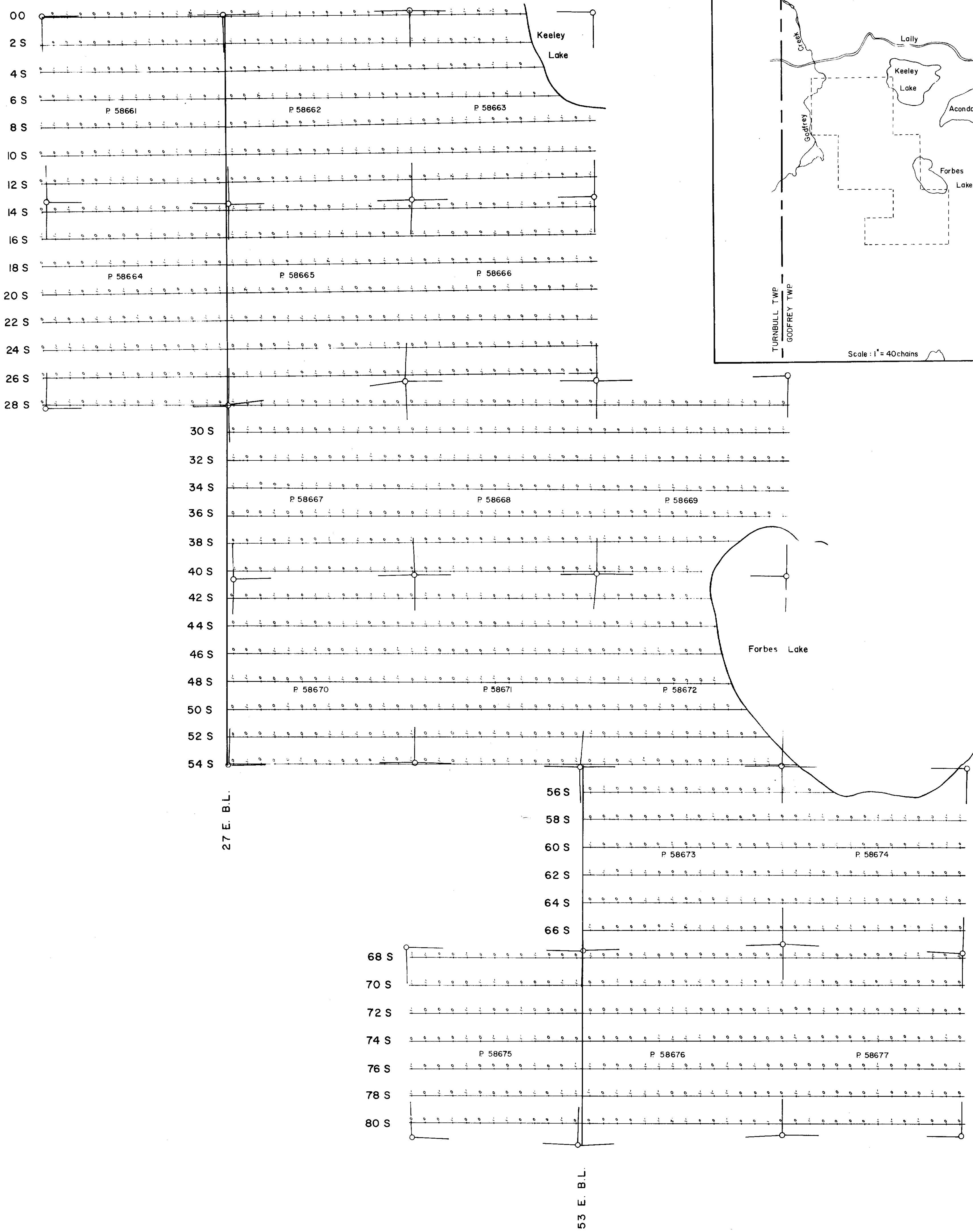
Respectfully submitted

MESHI MINES LIMITED



W.S. Nyman  
Exploration Manager

WEN/jf



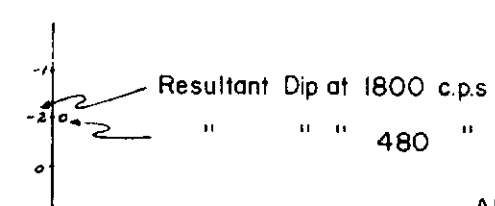
MESPI MINES LTD.  
 GODFREY TWP  
 ELECTRO-MAGNETIC SURVEY

INSTRUMENT: CRONE J.E.M.  
 DUAL FREQUENCY: IN-LINE METHOD

COILS 300' APART

MAP SCALE: 1"=200'

LEGEND



APPROVED BY: *J. Steers*

63.1628

SURVEY DATE: AUG 18/64 to AUG 29/64



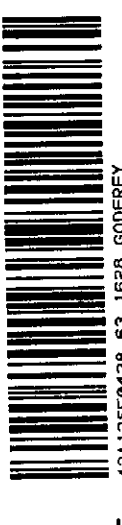
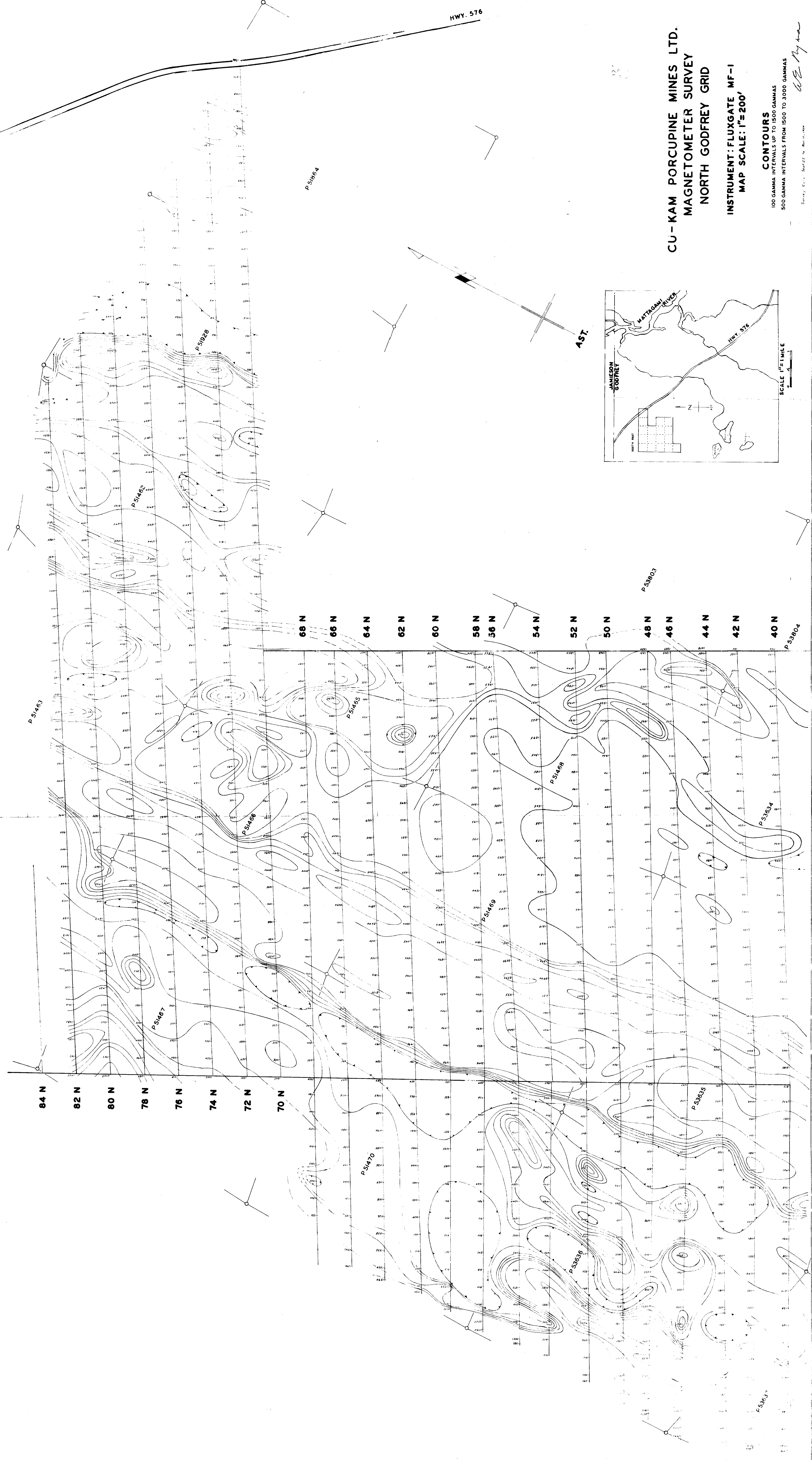
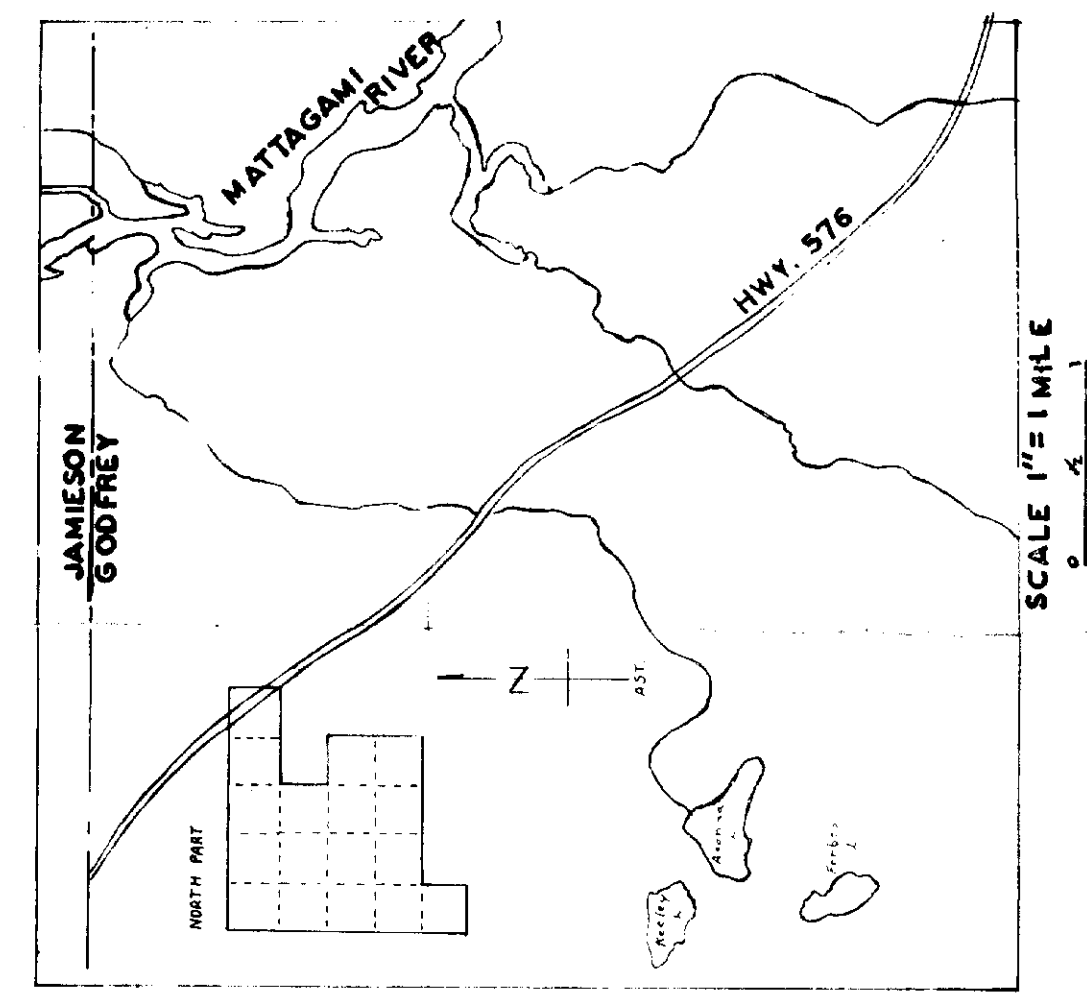
42A125E428 63.1628 GODFREY

HWY. 576

**CU-KAM PORCUPINE MINES LTD.**  
**MAGNETOMETER SURVEY**  
**NORTH GODFREY GRID**

INSTRUMENT: FLUXGATE MF-1  
 MAP SCALE: 1"=200'  
 CONTOURS  
 100 GAMMA INTERVALS UP TO 1500 GAMMAS  
 500 GAMMA INTERVALS FROM 1500 TO 3000 GAMMAS

W.E. Myer  
 63.1628









62 N  
 60 N  
 58 N  
 56 N  
 54 N  
 52 N  
 50 N  
 48 N  
 46 N  
 44 N  
 42 N

P. 51470

P. 51469

P. 53636

P. 53635

P. 53634

P. 53637

P. 53638

P. 53639

P. 53671

P. 28005

P. 28006

P. 53640

P. 53570

P. 53672

P. 53673

P. 28008

P. 53643

P. 53569

P. 53678

P. 53677

P. 53675

P. 53674

P. 53679

P. 53680

P. 53676

KEELEY LAKE

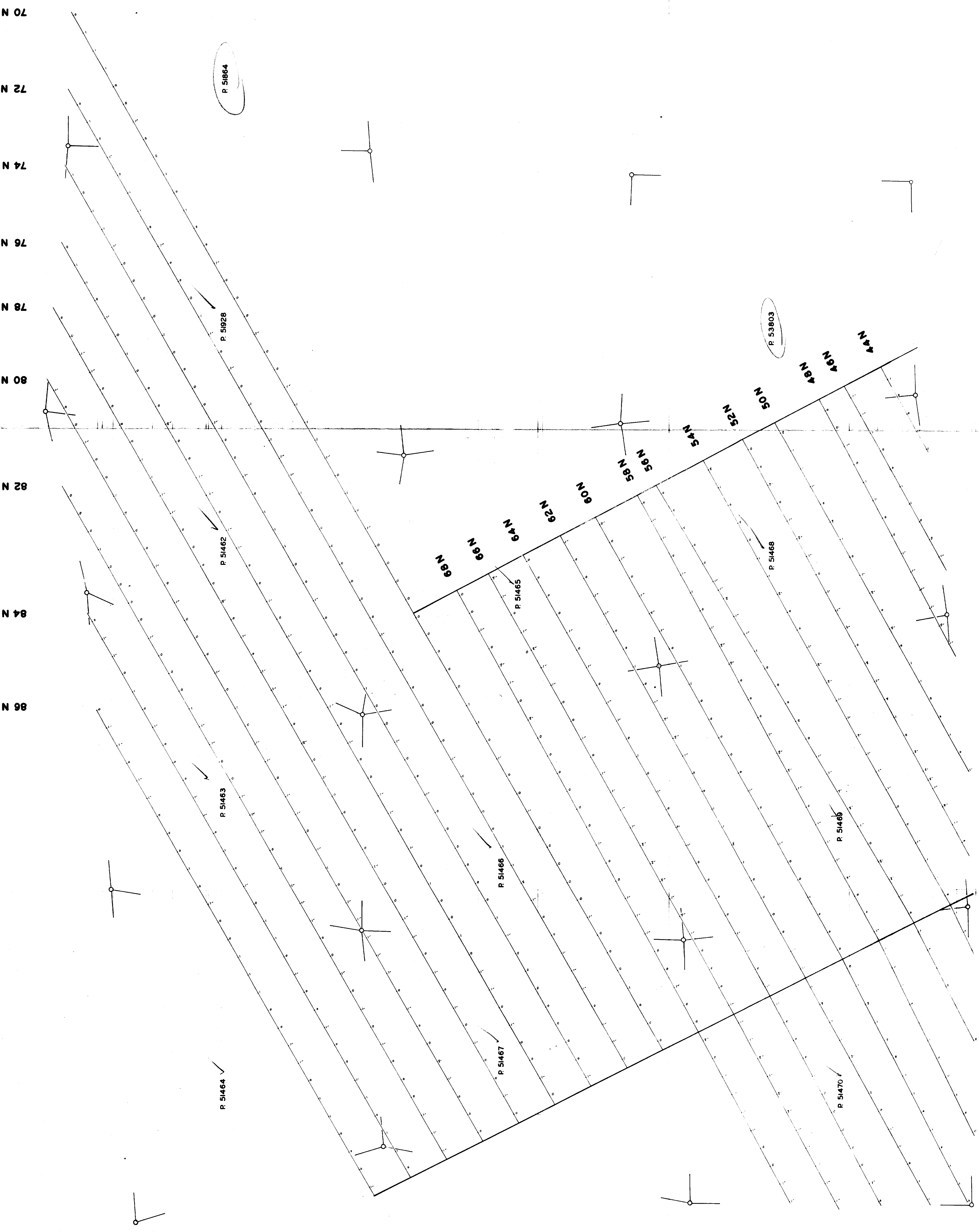
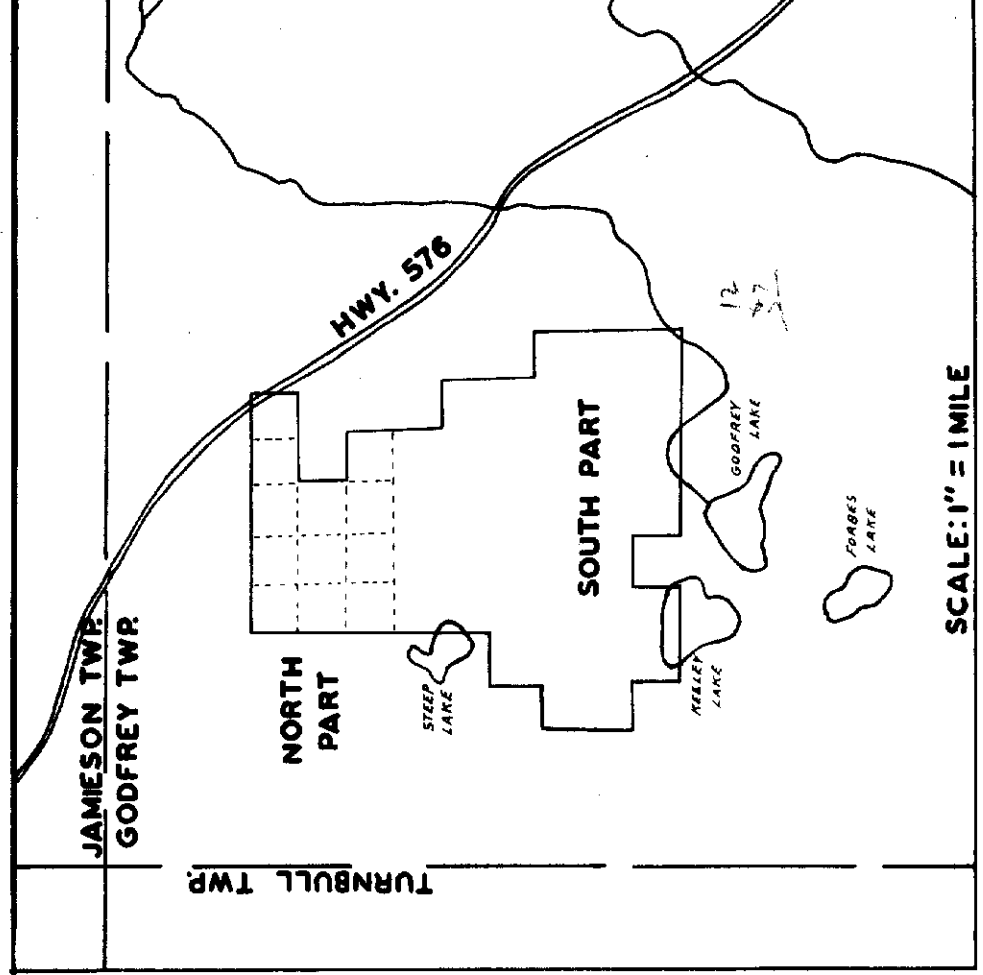
CU-KAM PORCUPINE MINES LTD.  
 ELECTRO-MAGNETIC SURVEY  
 NORTH GODFREY GRID  
 INSTRUMENT: CRONE J.E.M.  
 DUAL FREQUENCY: IN-LINE METHOD  
 COILS 300' APART  
 MAP SCALE: 1"=200'  
 LEGEND

RESULTANT DIP AT 1800 C.P.S.  
 " " " 480 C.P.S.

63.1628

SURVEY DATE: JULY 3 TO AUG. 20, 1964





CU-KAM PORCUPINE MINES LTD.  
 ELECTRO-MAGNETIC SURVEY  
 NORTH GODFREY GRID  
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 DUAL FREQUENCY: IN-LINE METHOD  
 COILS 300' APART  
 MAP SCALE: 1"=200'  
 LEGEND

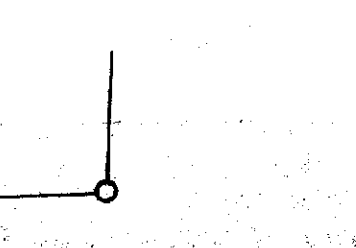
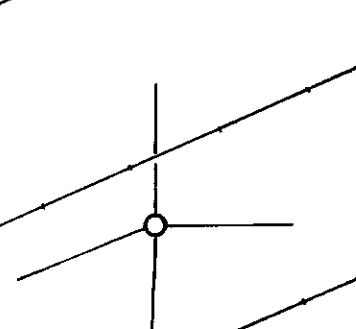
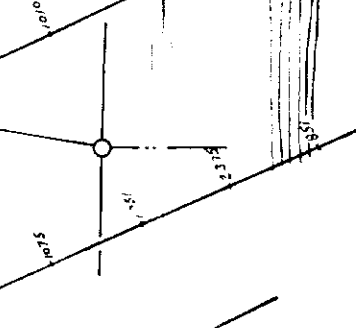
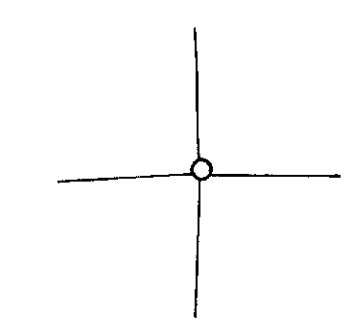
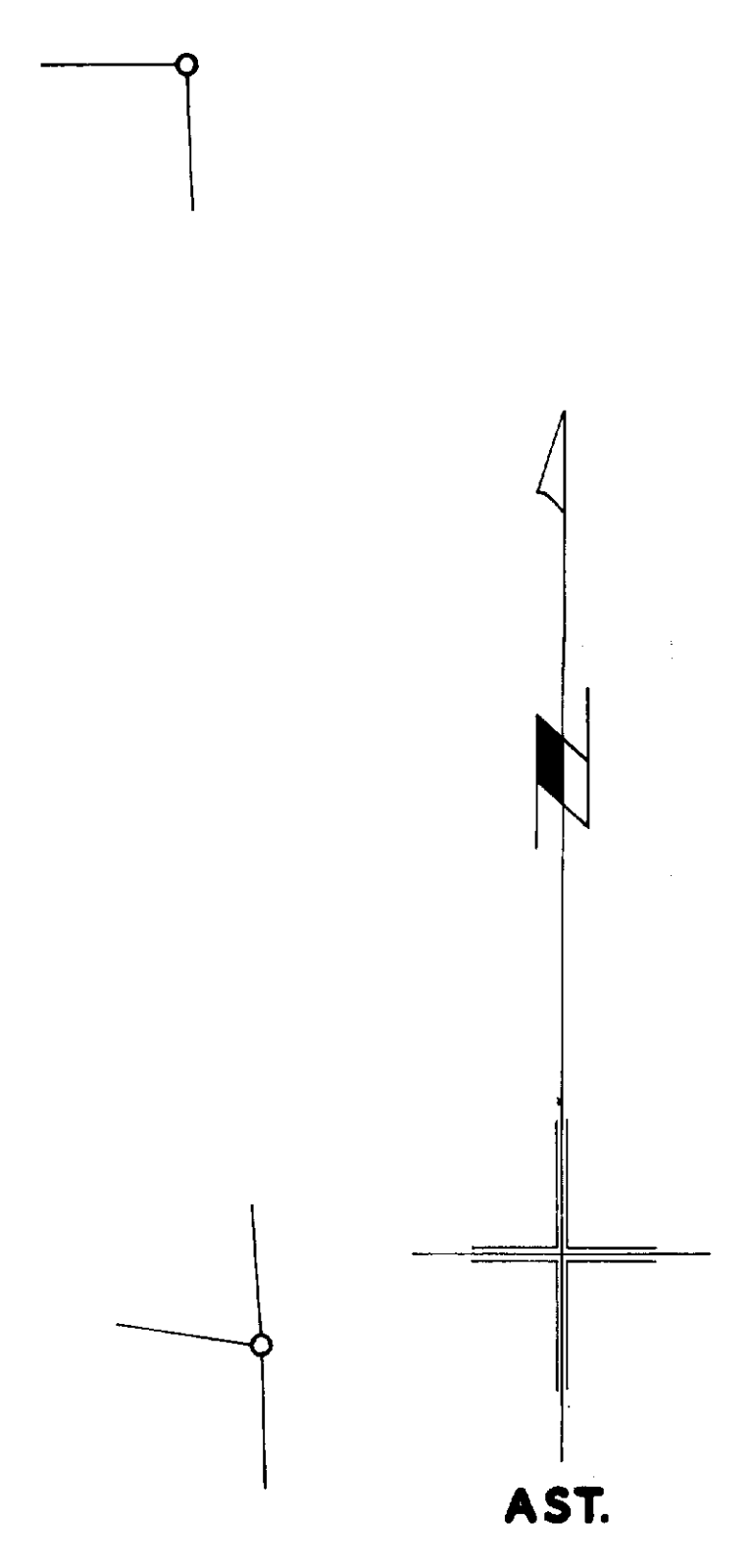
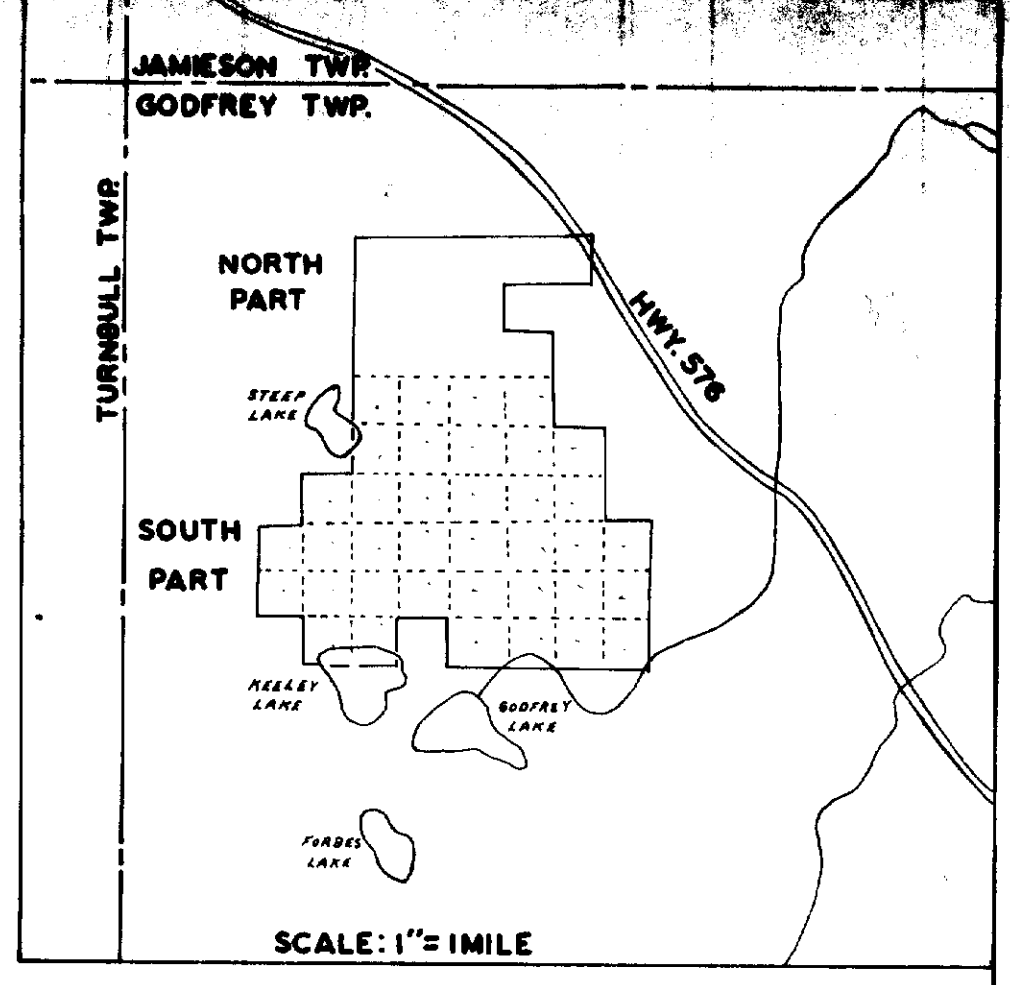
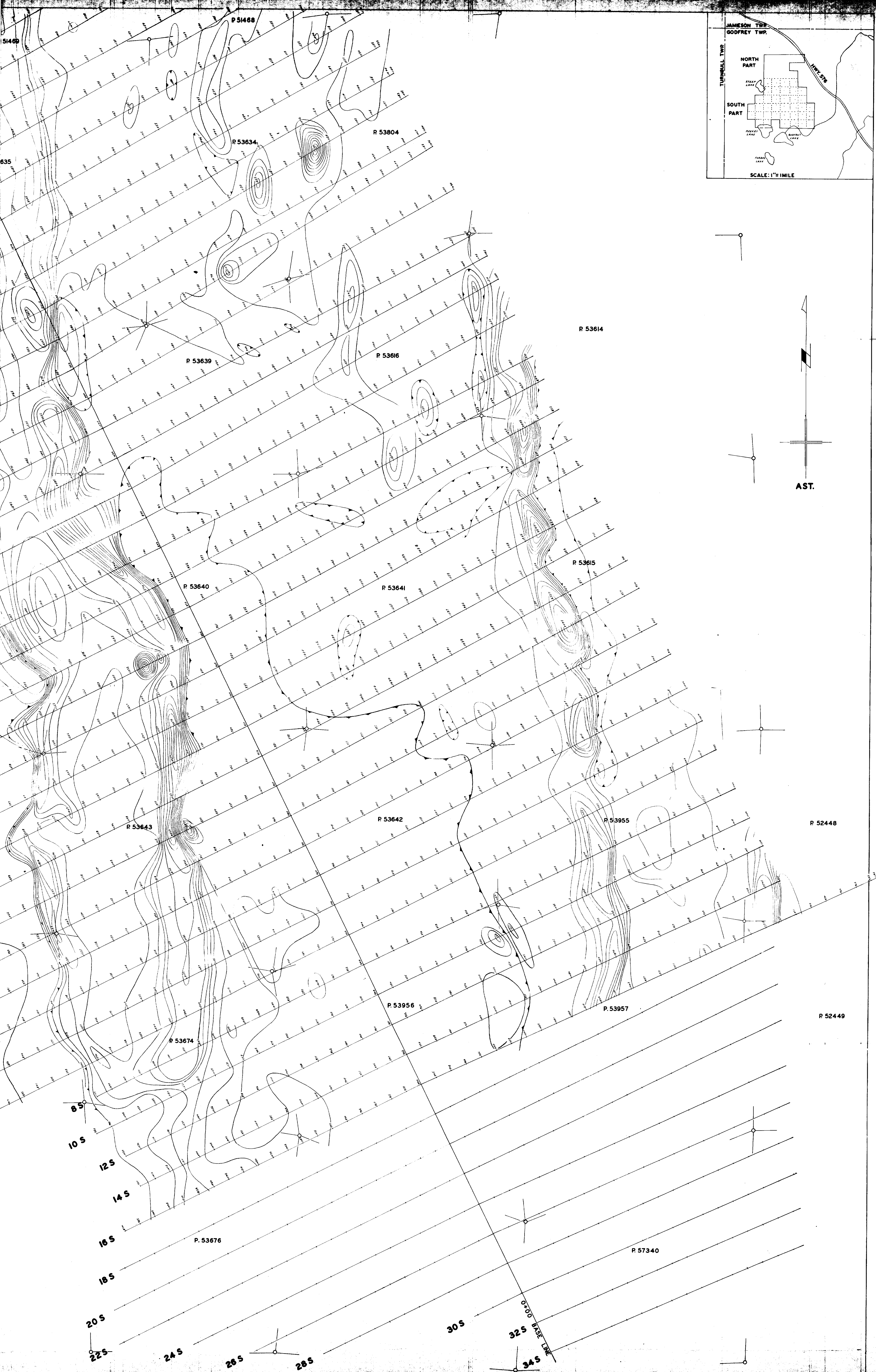
RESISTANT DWP AT 1800 C.P.S.  
 " " " " 480 C.P.S.

SURVEY DATE: JULY 3 TO AUG. 20, 1984  
 63.1628  
 J.E. M.

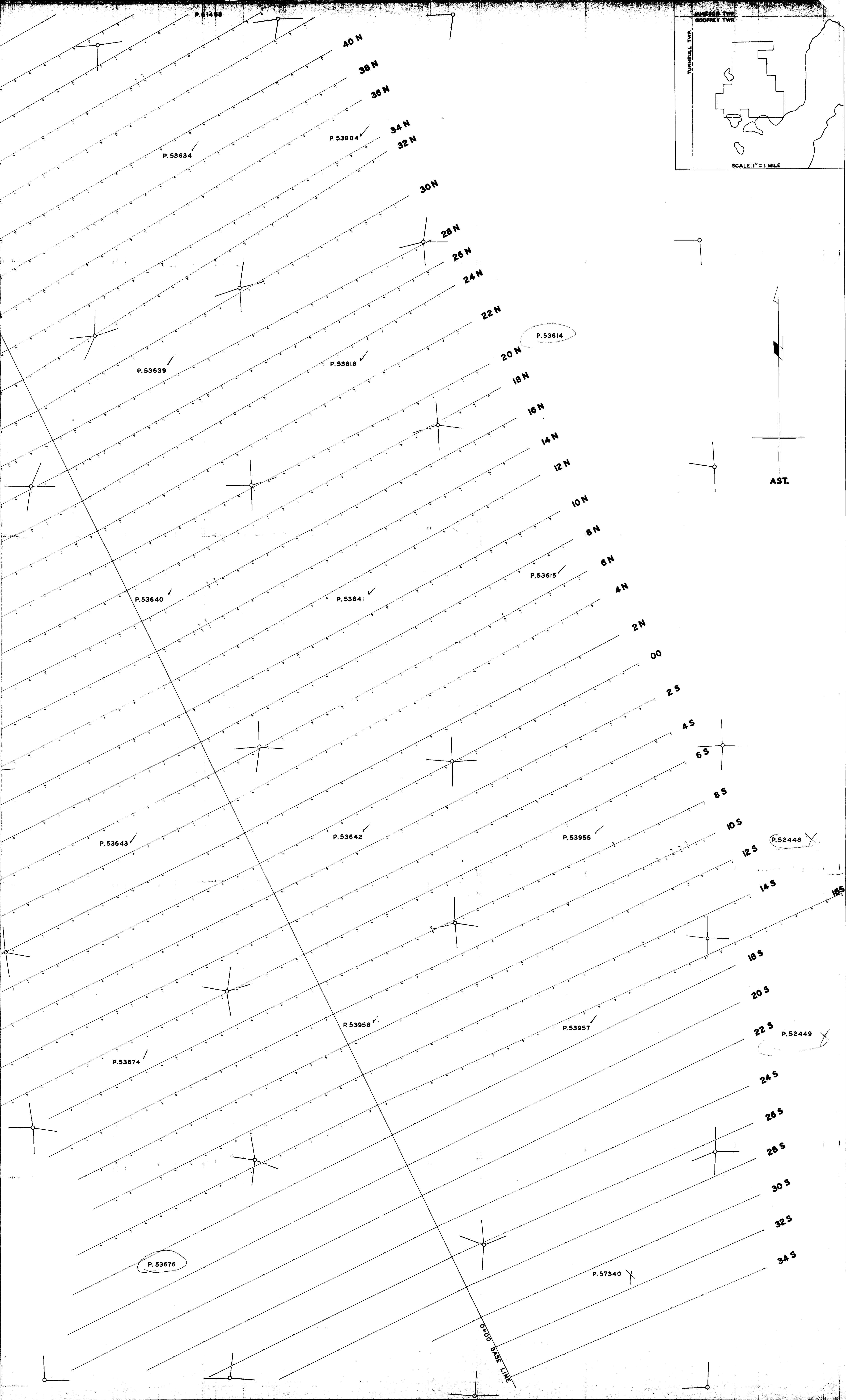
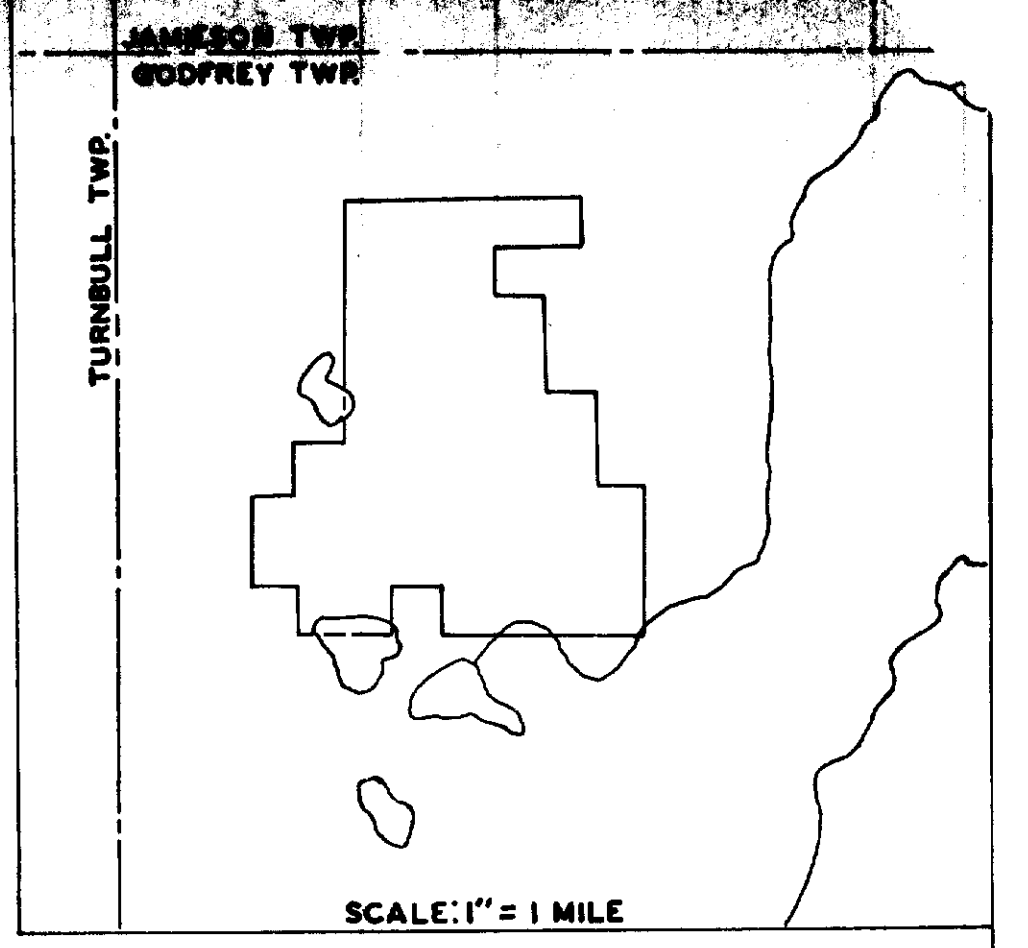
NORTH PART











P. 1448

40 N

38 N

36 N

34 N

32 N

P.53634

P.53804

30 N

28 N

26 N

24 N

P.53639

P.53616

22 N

20 N

18 N

16 N

14 N

12 N

10 N

8 N

6 N

4 N

2 N

00

2 S

4 S

6 S

8 S

10 S

12 S

14 S

18 S

20 S

22 S

24 S

26 S

28 S

30 S

32 S

34 S

P.53614

P.53640

P.53641

P.53615

P.53643

P.53642

P.53955

P.52448

P.53674

P.53956

P.53957

P.52449

P.53676

P.57340

0-70 BASE LINE

AST.