

GEOPHYSICAL INVESTIGATION

of the

ANN CLAIMS

Located at Latitude $61^{\circ} 22' 2''$

Longitude $128^{\circ} 25'$

On Claim Sheet #105-H-8

YUKON TERRITORY

September 6 to 8, 1965

Albert F. Reeve, F.Eng.
Geological Engineer

November 18, 1965

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
WORK DONE	2
PROPERTY	3
GEOLOGY	3
GEOPHYSICS	4
Method	4
Results	5
Conclusions	5
Recommendation	6
APPENDIX	
Statement of Expenditures	A
Affidavit in Support of Expenditures	B
Writer's Certificate	C

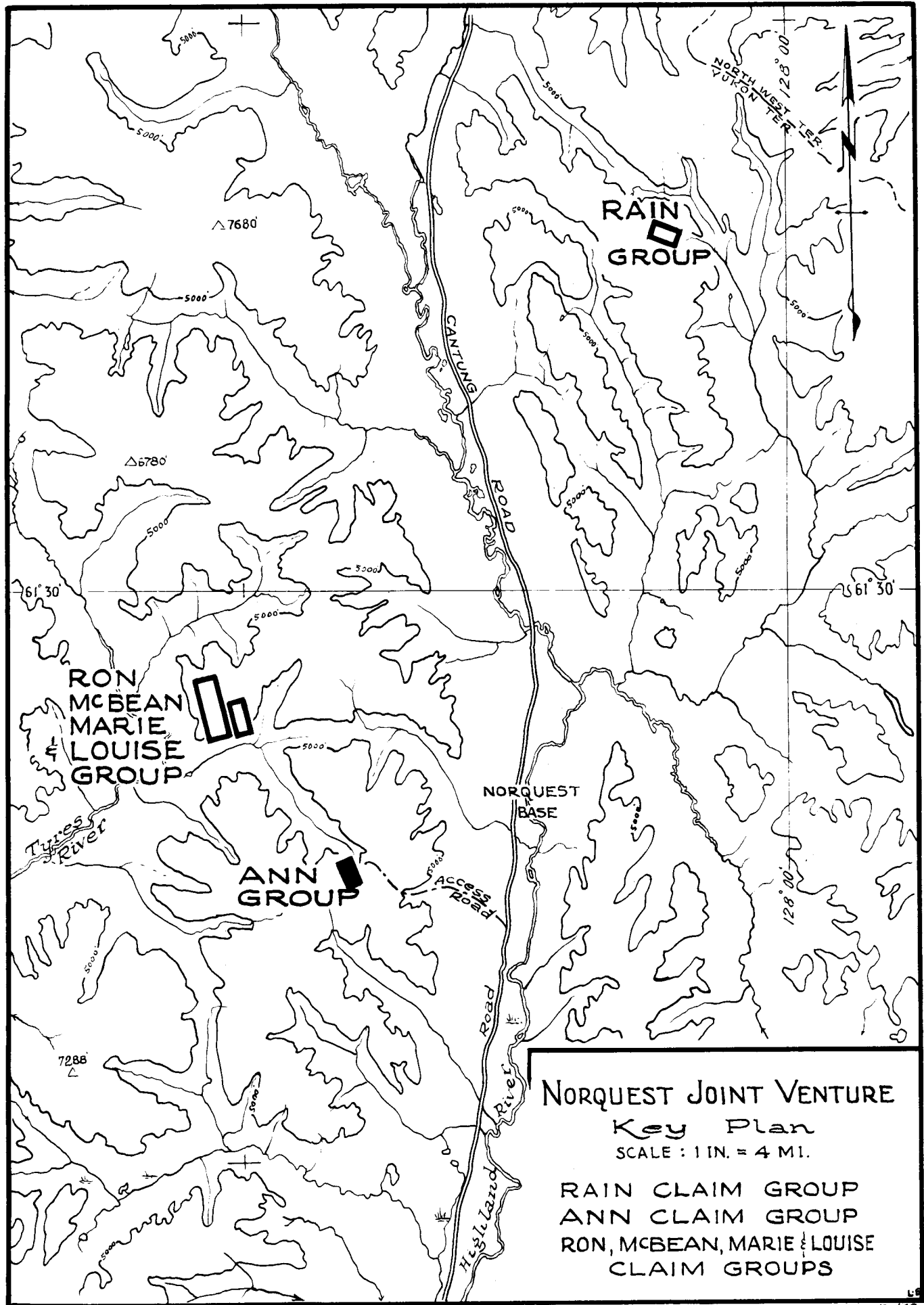
M A P S

Key Map 1" - 4 miles front

Key Plan - Magnetic Survey 1" = 400' back flap

Magnetic Profiles . . . 1" = 100'

Lines	115 NW & 110 NW
"	105 NW & 100 NW
"	95 NW & 90 NW
"	85 NW & 80 NW
"	75 NW & 70 NW
"	65 NW & 60 NW
Line	55 NW
"	10 SW



NORQUEST JOINT VENTURE
Key Plan
 SCALE : 1 IN. = 4 MI.
 RAIN CLAIM GROUP
 ANN CLAIM GROUP
 RON, McBEAN, MARIE & LOUISE
 CLAIM GROUPS

INTRODUCTION

A geophysical investigation of the Ann claim group was carried out during the period of September 6 to September 8 by the following employees of Norquest Joint Venture, 320, 355 Burrard Street, Vancouver, B.C.

J.M. Dawson, Geologist (instrument operator)
1066 Harwood Street,
Vancouver, B.C.

J.H. Heal, Field Assistant,
P.O. Box 329,
Oliver, B.C.

J.C. Turner, Prospector, (chain, axe and compass)
1997 West 1st Ave.,
Vancouver, B.C.

L.P. Duqueth, Prospector, (chain, axe and compass)
2794 Trinity Street,
Vancouver, B.C.

The work was supervised by the writer.
(certificate enclosed)

WORK DONE

1. Geophysics 34,500 line feet of magnetic observations were taken at 25' intervals on lines 500' apart.

 2. Control
 - (a) 6,000 feet of base line was cut and surveyed by compass and tape, with stations at 100' intervals.

 - (b) 31,500 feet of traverse lines were laid out by compass and pacing, across the base line 500 feet apart, with stations at 50' intervals.

 - (c) All claim posts were tied in by compass and tape survey.

 - (d) Topographic control was obtained from air photo interpretation maps prepared for Norquest by V. Zay Smith Associates, of Calgary, Alberta.
-

PROPERTY

<u>Claim Name</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Owner</u>
Ann 17	88543	October 4, 1963	H. Buczko
" 18	88544	" " "	"
" 20	88546	" " "	"
" 21	88627	October 18, 1963	Bralorne
" 22	88628	" " "	Pioneer M.L.
" 23	88629	" " "	"
" 24	88630	" " "	"

GEOLOGY

No published geology is available for this area.

The Ann Claims are largely covered by overburden. However, work done in this general area by Norquest in previous years, indicates that the underlying rocks consist of siliceous and calcareous meta-sediments. These rocks consist of quartz-feldspar biotite gneiss, quartzite, limestone and skarn. The targets sought by the magnetic survey were inclined skarn beds mineralized with sphalerite galena and pyrrhotite. This type of occurrence is known to exist in portions of a larger area in which the Ann claims lie.

GEOPHYSICS

Note: This work was done in conjunction with a magnetic survey in a larger area called the "South Copter".

Method: Magnetic observations were taken with a "Sharpe MF-1" flux gate magnetometer to the nearest 10 gammas. Magnetic traverses were looped in pairs and corrected internally for diurnal variation, by tying into a pre selected "quiet" base at average time intervals of 1-1/2 hours. Individual traverse loops were not tied together. It is estimated that a relative reliability of about 30 gammas was maintained on each traverse loop.

The results are plotted on 1" = 100' profiles which are keyed to a 1" = 400' plan.

Sample Calculation for a Single Traverse Loop

<u>Station</u>	<u>Reading</u>	<u>Diurnal Correction</u>	<u>Result</u>	<u>Time</u>
Base	340	0	340	1 pm.
1	350	0	350	
2	360	+ 10	370	
3	370	+ 10	380	
4	390	+ 20	410	
5	380	+ 20	400	
6	340	+ 30	370	
base	310	+ 30	340	2:30 p.m.

RESULTS

Characteristic responses of the anticipated target (i.e. mineralized skarn beds, Pb-Zn) were obtained previously by testing the magnetometer over known mineralized zones. This test work indicated that sharply irregular, narrow magnetic disturbances are caused by pyrrhotite which is usually present in the mineralized zones. Also, the relief of these disturbances or anomalies rapidly becomes smoother and broader with increasing depth of burial of the source. ~~for~~ General, background relief was found to be exceptionally flat, which greatly enhances the ability to detect very weak responses.

In the area on and adjacent to the Ann claims, 14 scattered anomalous disturbances were detected on the traverse lines. These are shown symbolically on the magnetic key plan as weak and well defined.

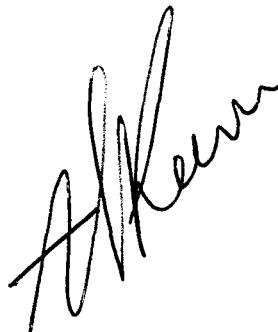
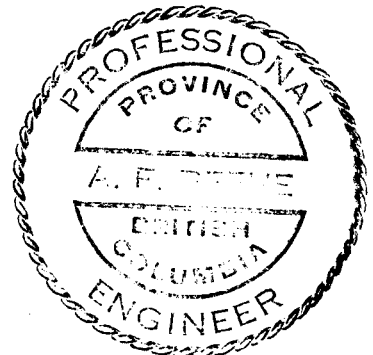
CONCLUSIONS

No significant magnetic trends or patterns were established. Since this area is covered by overburden it was not possible to analyze the anomalies in terms of local geology.

RECOMMENDATION

It is suggested that a detailed magnetic survey be carried out on the Ann claims to determine whether any significant geophysical trends can be established and related to bed-like sources of the type sought.

This work should be done by taking magnetic observations at 25' intervals on lines 100' apart.

A handwritten signature in black ink, appearing to read "A. F. Deane".

A P P E N D I X

MCROQUEST JOINT VENTURE

STATEMENT OF EXPENDITURES

ANN CLARK GROUP

November, 1965

Wages

Geologist	3/30 x 600	= \$	60.00
2 Prospectors	2 x 2/30 x 500	=	66.65
1 Field Assistant	1/30 x 350	=	11.65

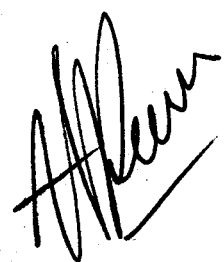
Services

Field supervision report writing and drafting	4/30 x 1000	=	133.30
Helicopter	2-1/2 hours @ \$106.50	=	266.25
Stenographic work and printing		=	21.00
Magnetometer rental	3/30 x 220.00	=	22.00
Preparation of topographic base map from air photos		=	80.00

Supplies

Food - 8 mandays	@ \$4.25	=	34.00
Office supplies and miscellaneous		=	<u>10.50</u>

\$ 705.35



ALBERT F. REEVE, P.ENG.
GEOLOGICAL ENGINEER

ASSOCIATE
RONALD A. GRANGER

TELEPHONE: RE 6-7073

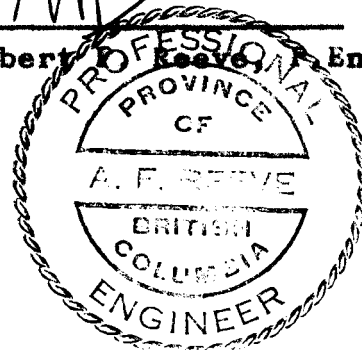
CERTIFICATE

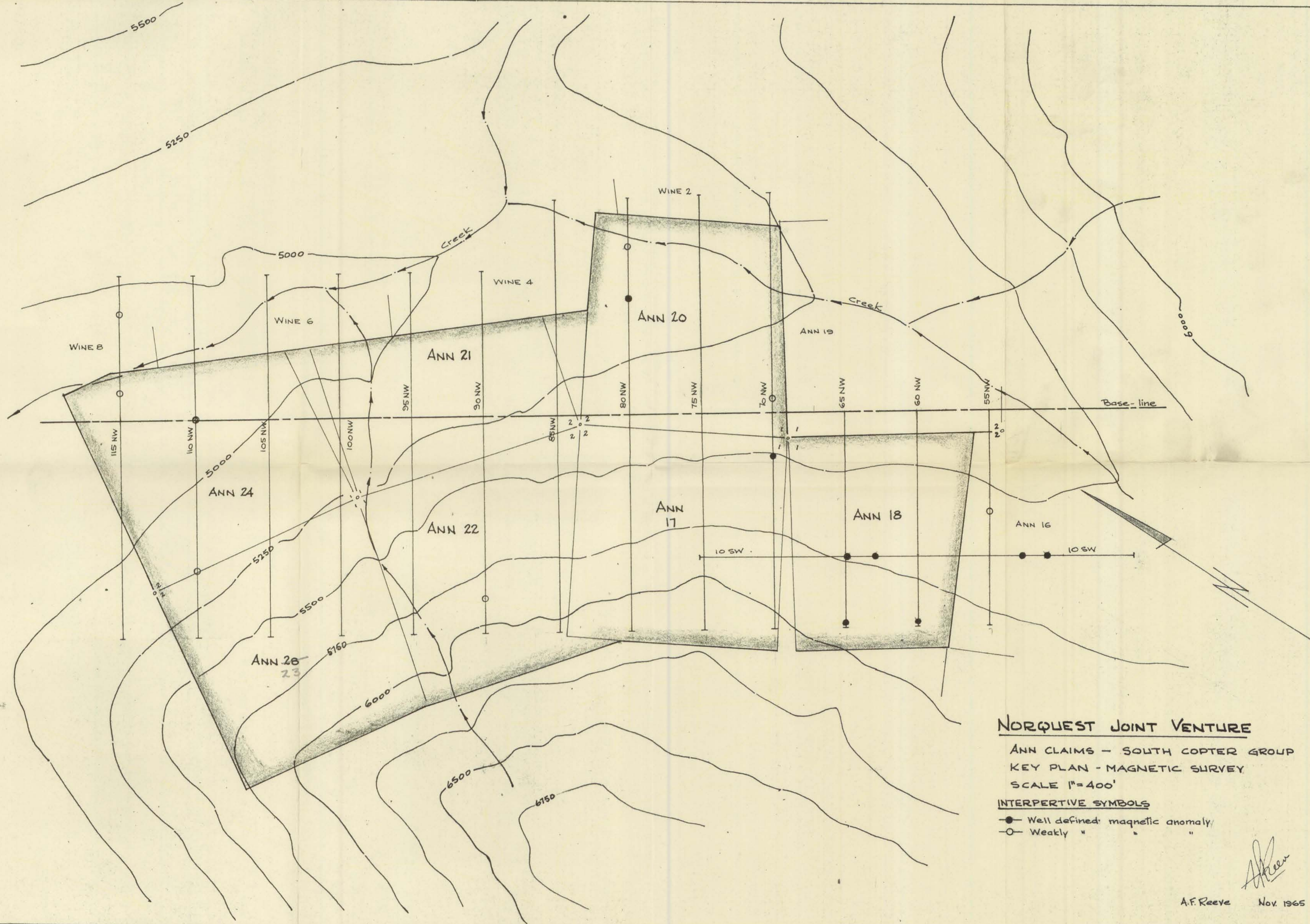
I, Albert F. Reeve, of Vancouver, B.C.,
hereby certify that:

1. I am a geological engineer residing at 2267 West 2nd Ave., with an office at 400, 837 West Hastings Street.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario (1958) and of Michigan College of Mining and Technology, Houghton, Mich. (B.Sc. 1961).
3. I am a certified member of the Association of Professional Engineers of British Columbia and Ontario.
4. I am retained by Norquest Joint Venture of 320, 355 Burrard Street, Vancouver, as Project Manager.
5. This report is based on an exploration program carried out by Norquest Joint Venture, in the Yukon Territory, under my supervision during the period of June 7 to September 23, 1965.


Albert F. Reeve, Eng.

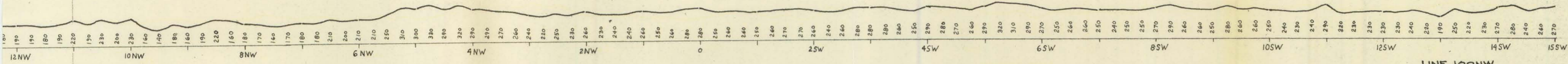
November 10, 1965.



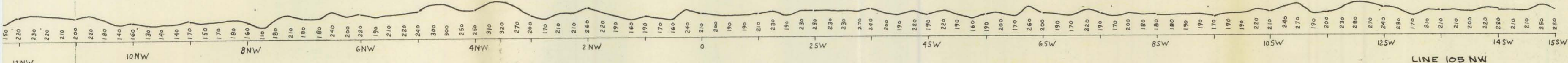


NORQUEST JOINT VENTURE
 ANN CLAIMS - SOUTH COPTER GROUP
 KEY PLAN - MAGNETIC SURVEY
 SCALE 1"=400'
INTERPERTIVE SYMBOLS
 ● Well defined magnetic anomaly
 ○ Weakly " " "

A.F. Reeve



LINE 100N

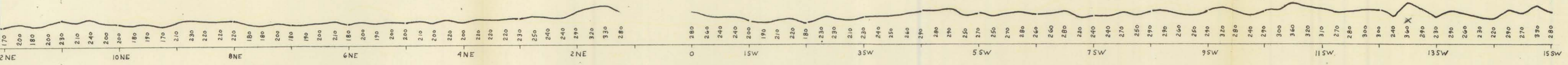


LINE 105N

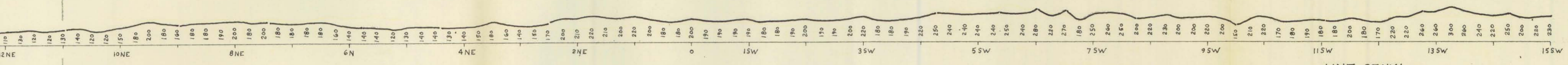
NORQUEST
 SOUTH COPTER
 MAG. PROFILES
 Scale Hor 1"=100'
 Vert 1"=500'

JMD

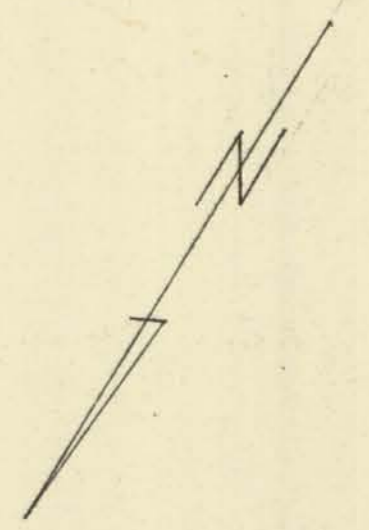
JMDawson Sept 65



LINE 90 NW

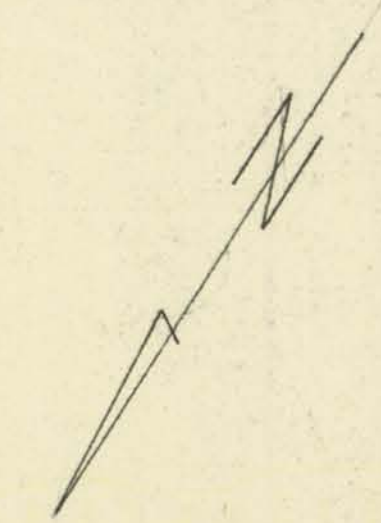
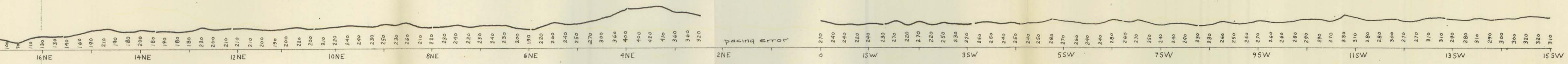
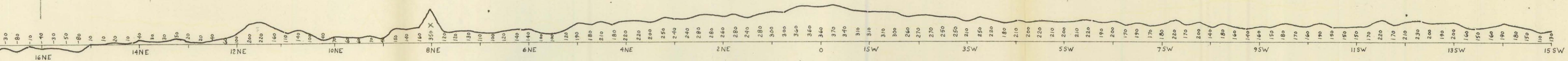


LINE 95 NW



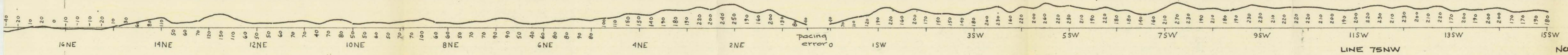
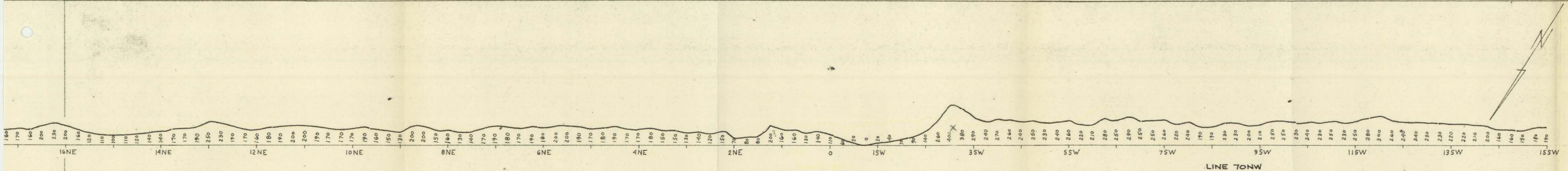
NORQUEST
 SOUTH COPTER
 MAG. PROFILES
 Scales Hor 1"=100'
 Vert 1"=500'
 J.M. Dawson Sept '65

AK

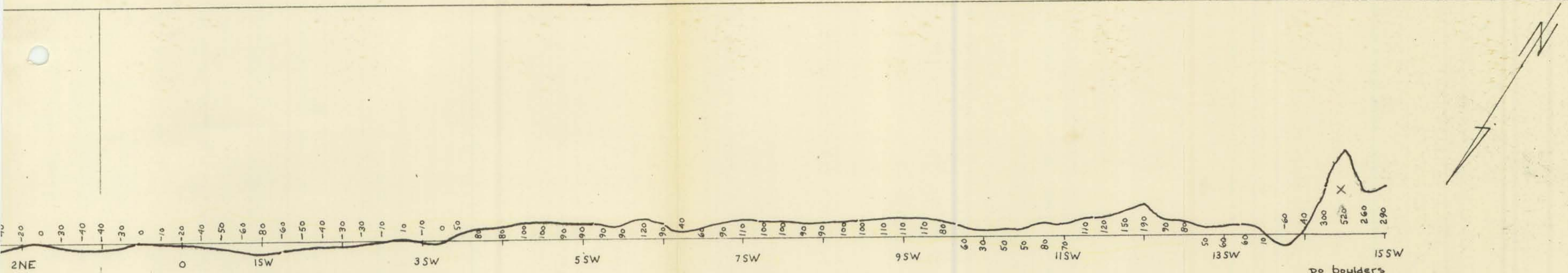


NORQUEST
 SOUTH COPTER
 MAG. TRAVERSES
 Scales Hor 1"=100'
 Vert 1"=500'

J.M. Dawson Sept '65
A. Reeve

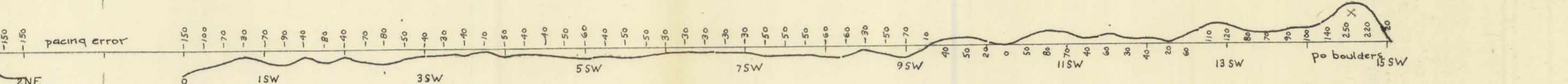


NORQUEST
 SOUTH COPTER
 MAG. PROFILES
 Scales Hor 1"=100'
 Vert 1"=500'
 JM. Dawson Sept 85



LINE 60NW

po boulders

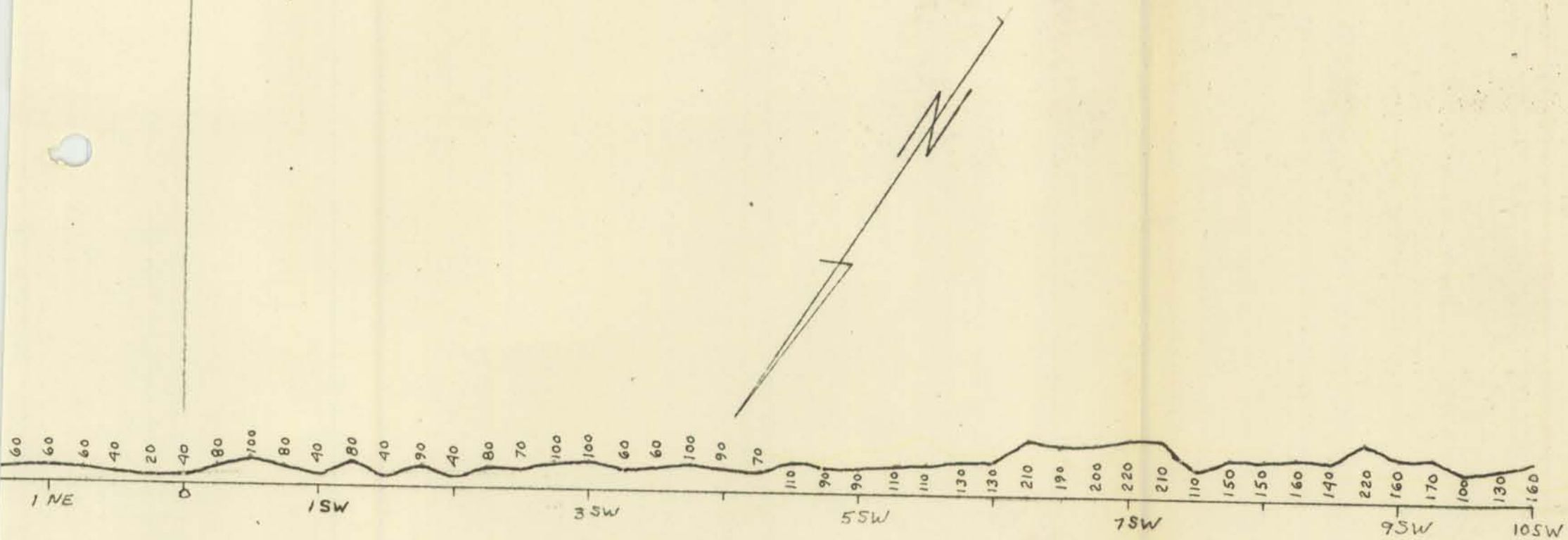


LINE 65NW

po boulders

AP

NORQUEST
 SOUTH COPTER
 MAG. PROFILES
 Scales Hor 1"=100'
 Vert 1"=500'
 JM-Dawson Sept '65



LINE 55 NW

NORQUEST

SOUTH COPTER
MAG PROFILES

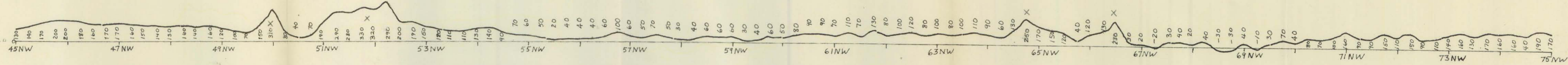
Scales Hor 1" = 100'
Vert 1" = 500X

J.M. Dawson

J.M. Dawson Sept '65

+500'

-500'



LINE 10 SW

Note this traverse is parallel to Base lines

NORQUEST
 MAG. PROFILES
 SOUTH COPTER
 Scales Hor 1"=100'
 1"=500'

J.M. Dawson Sept '65

A. Revere