

KERR ADDISON MINES LIMITED

REPORT ON THE

MAGNETIC, ELECTROMAGNETIC, SELF-POTENTIAL

AND GRAVITY SURVEYS

OF THE

J.B. 1 - 10 M.C.'s

AUGUST 19th - NOVEMBER 19th, 1964.

CLAIM SHEET No. 105-K-2

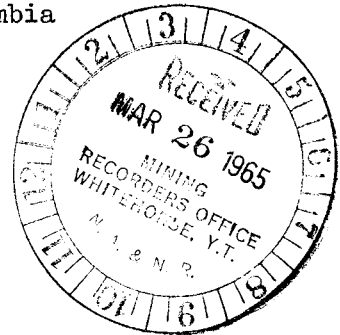
LATITUDE  $62^{\circ} 10'$  N.

LONGITUDE  $132^{\circ} 56'$  W.

YUKON TERRITORY

BY

W.M. SIROLA, P. Eng., British Columbia



*W.M. Sirola*

March 22nd, 1965.

Vancouver, B.C.

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SUMMARY AND RECOMMENDATIONS

Approximately 33,000 feet of line cutting was completed on the J.B. 1 - 10 M.C.'s to facilitate the geophysical surveys. The lines were usually 800 feet apart and were controlled by one central base line running N. 30° W.

Two northwest trending belts of magnetic highs, averaging 800 gammas above background, were located. The cause of these anomalies has not been determined with any degree of certainty.

The electromagnetic method revealed a cluster of weak, discontinuous anomalies on the south-centre of the claim group. These are suggestive of small concentrations of sulphides.

The self-potential method located two very weak anomalies which do not correlate with the E.M. results. The 50 millivolt anomaly, northwest of Lunch Lake, is flanked, in part, by a magnetic high, and perhaps justifies further study. The 30 millivolt anomaly, at the southeast corner of the property, is not considered to be significant.

The limited gravity survey did not disclose any unusual densities in the underlying rocks.

A few soil samples were taken on line 64 S., and these indicated weak concentrations of copper. No other soil sampling was attempted.

The implication to be drawn from the various surveys is that no large bodies of massive sulphides occur on the J.B. group. It is conceded, however, that the survey lines are far apart and that some additional geochemistry may be justified.

#### PROPERTY AND LOCATION

The property consists of ten mineral claims designated J.B. 1 - 10. These are held in the name of Kerr Addison Mines Limited.

The claims are located  $\frac{1}{2}$  mile south of Swim Lake, at  $62^{\circ} 10' N.$ ,  $132^{\circ} 56' W.$ , 25 miles northwest of Ross River and approximately 125 miles northeast of Whitehorse.

#### MAGNETIC SURVEY

A hand-held Sharpe Magcrometer was used for the survey.  $4\frac{1}{2}$  miles of traversing was done on lines 800 feet apart. Readings were taken at 100 ft. intervals. In regions of magnetic highs, intermediate lines, 400 ft. apart, were traversed. The readings obtained are variations in the intensity of the total magnetic field. Magnetic storms necessitated re-traversing some lines.

The magnetic background for the claim group is approximately 8,700 gammas. Two north trending belts of anomalous values were located. Both have highs of 800 gammas above background. The first belt extends from line 0 to line 36 S. and is approximately 200 ft. wide. The second belt extends from line 52 to line 68 S. and is 400 ft. wide. The more northerly anomaly appears to dip

gently to the north and northeast. The south anomaly dips gently southward. The cause of these anomalies is unknown.

#### ELECTROMAGNETIC SURVEY

Six miles of E.M. traversing were completed with the Crone Dual-frequency E.M. Unit. Readings on the lower frequency were only taken when a distinctly anomalous reading was obtained on the higher frequency.

In carrying out the survey, the two operators traversed the same line, the lines having been cut perpendicular to the average strike of the rocks. Both operators used similar units and kept a separation distance of 200 ft. At each station the chief operator first transmitted until the helper operator had oriented his coil and read a dip angle, and then their roles were reversed and the chief operator read the dip angle. The two dip angles read were recorded, and the resultant obtained by adding the two readings was plotted on the station position of the mid-point between the two men.

Only small, erratic areas of relatively weak conductors were found. These are located on lines 60 S. to 68 S., on or near the base line. Because the ratio of low frequency : high frequency is in the order of 0.8 - 1.0, the anomalies are thought to be caused by non-persistent mineral conductors.

#### SELF-POTENTIAL SURVEY

Six line miles were covered with S.P. equipment. The

instrument used is a null-balance, transistorized potentiometer equipped with a 10-turn dial. Two porous pot electrodes, connected through 2,000 ft. of wire on a commutator equipped aluminum reel, were used with the potentiometer.

Two slightly anomalous zones were located. The first zone is centred west of the base line on line 14 S. The maximum amplitude is minus 50 millivolts and the direction is E.W.

The second anomaly is located at the east end of lines 52 S. to 68 S. This is a northerly trending zone with a maximum amplitude of minus 38 millivolts.

Neither anomaly is considered to be economically significant in the light of our present knowledge of this particular claim group.

#### GRAVITY SURVEY

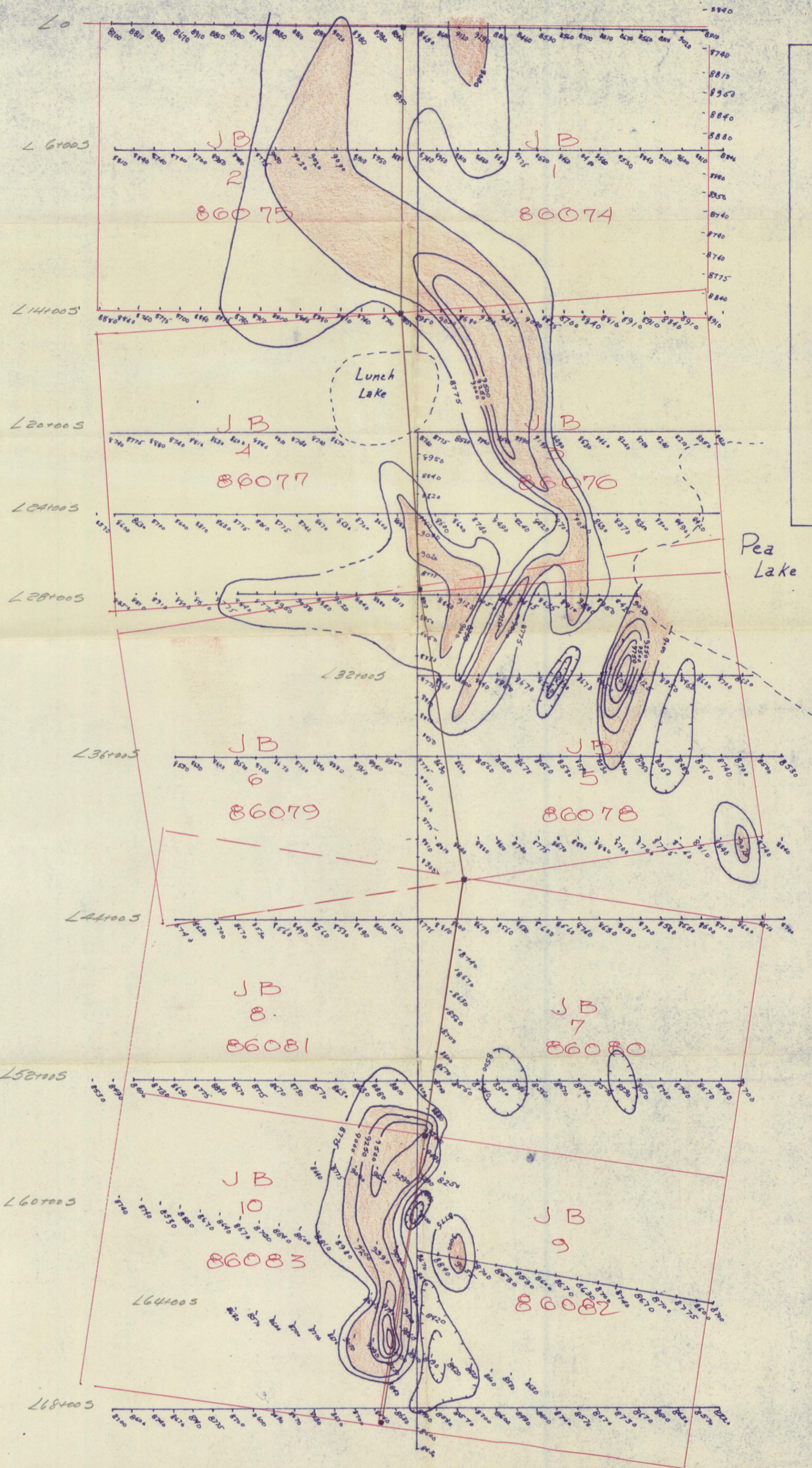
A gravity survey was run over the base line on lines 4 S., 28 S., 32 S., 36 S. and 60 S. The work was done by the United Geophysical Company of Calgary, using a Worden Portable Gravimeter. Before the gravity survey was begun, accurate elevations were established for each station. After the gravity observations were completed, they were corrected for elevation, altitude and terrain. The resulting figure, known as a Bouger gravity value, was plotted on the maps and contoured.

The results of this work suggest that no areas of unusual density, or mass, occur on the claim group.

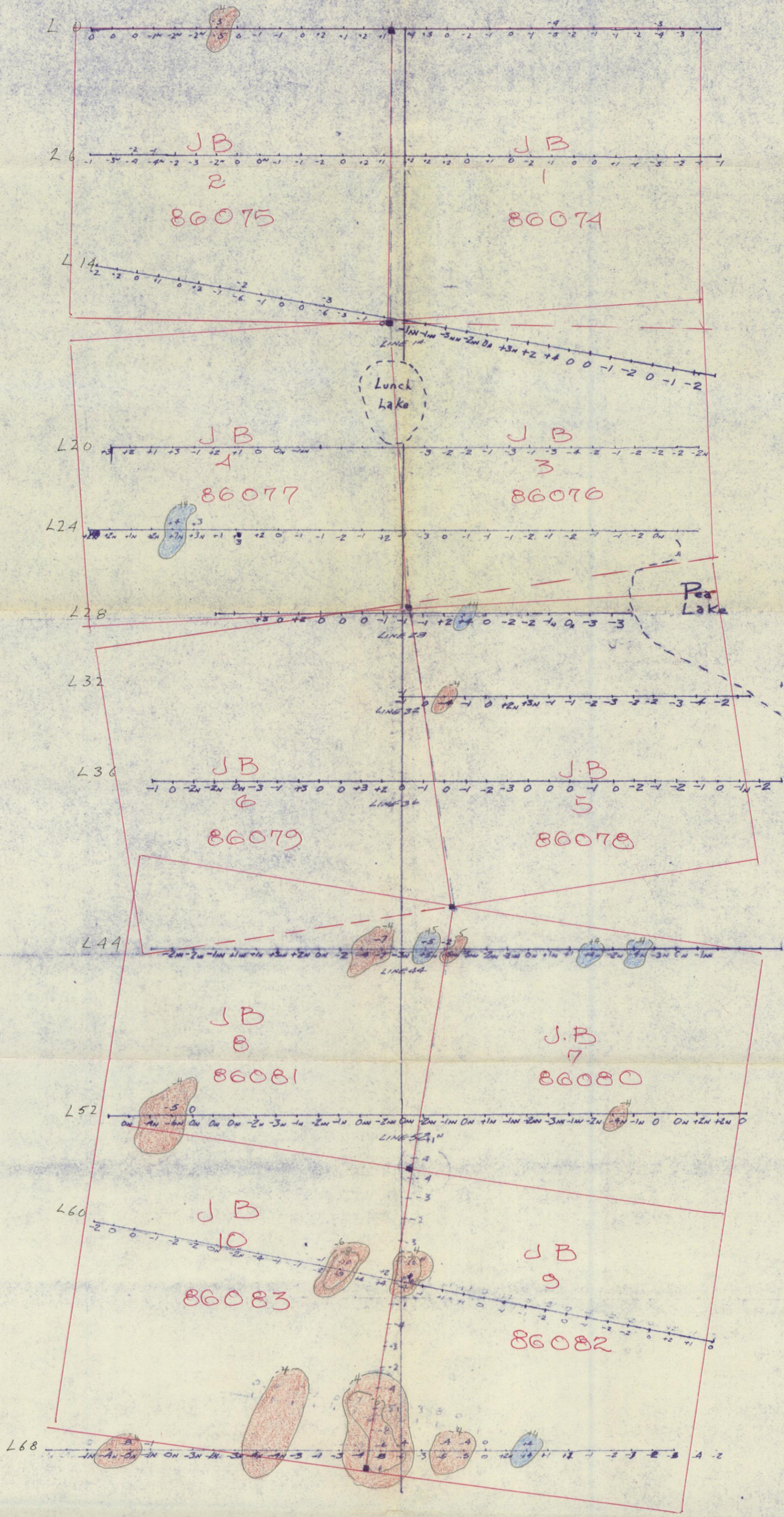
SCHEDULE OF ACCOMPANYING MAPS

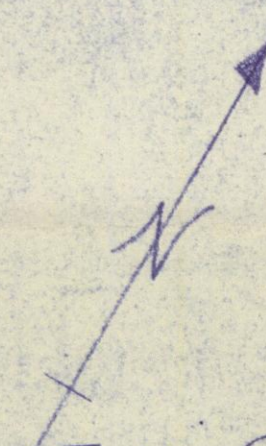
	<u>Scale</u>
MAGNETIC SURVEY MAP	1" = 400'
ELECTROMAGNETIC SURVEY MAP	1" = 400'
SELF-POTENTIAL SURVEY MAP	1" = 400'
GRAVITY SURVEY MAP	1" = 400'
KEY MAP	

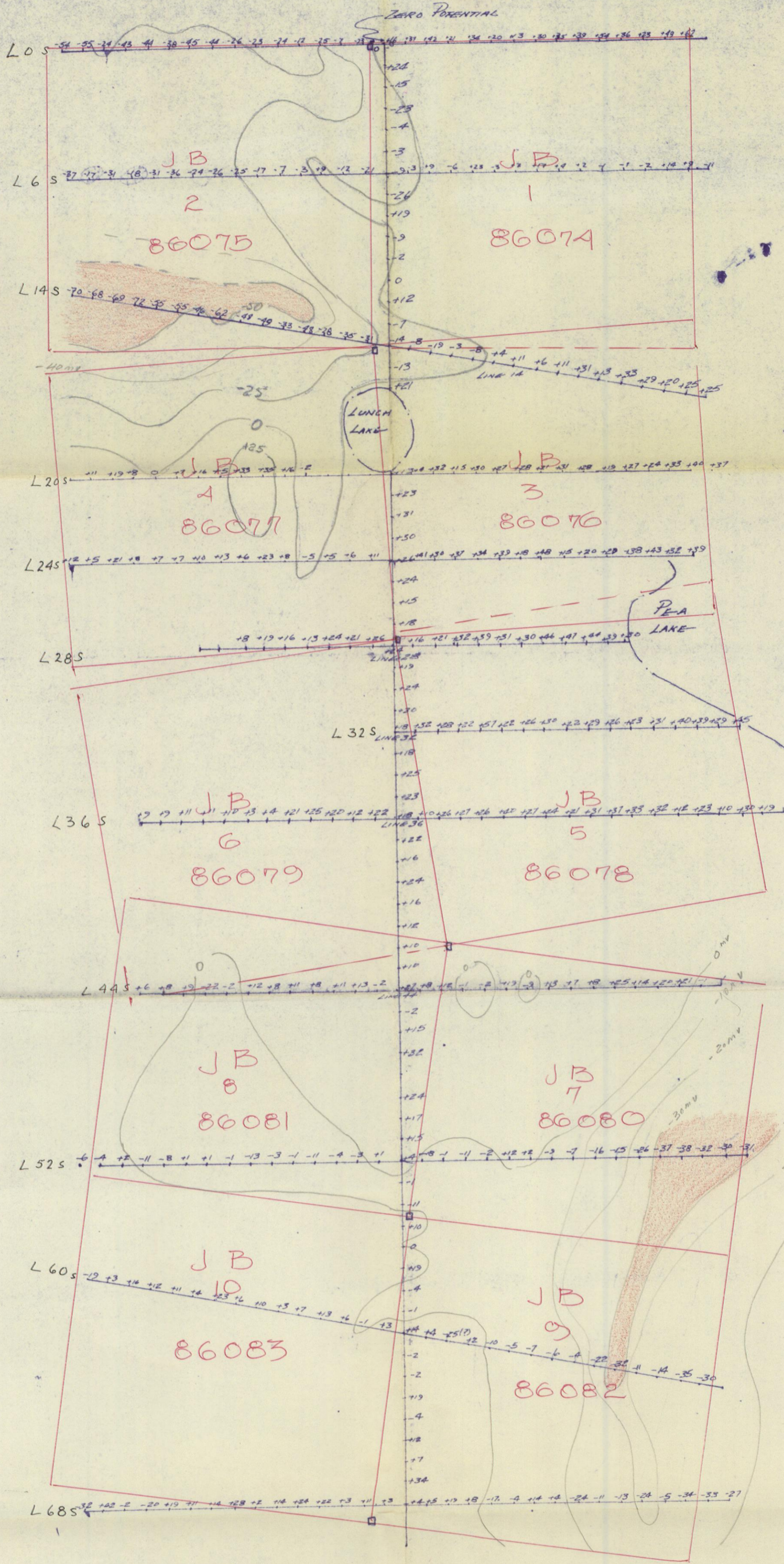
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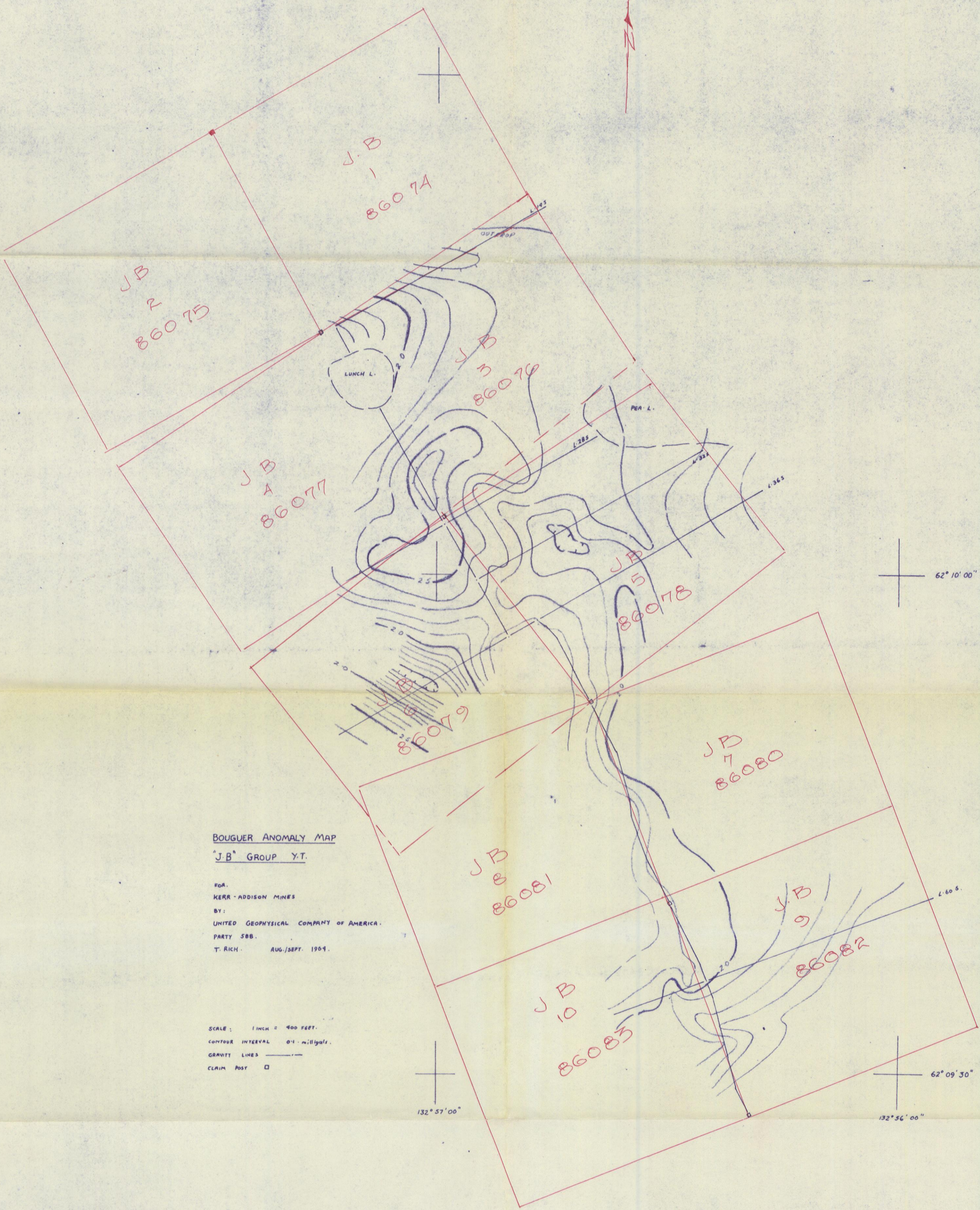
**KERR ADDISON MINES**  
 D. GROUP, J.B. CLAIMS, Y.T.  
**MAGNETIC SURVEY**  
 Scale: 1"=400'  
 Contour Interval: 250'  
 Sept., 1964. DM.



  
 E.M. SURVEY  
 Kerr Addison Mines Ltd  
 JB Claims, Y.T.  
 D Group  
 LEGEND:  $\frac{45}{N.P.}$   
 SCALE 1"=400' SEPT. 1964



SELF POTENTIAL SURVEY  
 KERR ADDISON MINE-LTD  
 J. B. CLAIMS  
 Y.T.  
 D GROUP  
 SCALE 1"=400' SEPT 1964



BOUGUER ANOMALY MAP

"J.B." GROUP Y.T.

FOR:  
 KERR-ADDISON MINES  
 BY:  
 UNITED GEOPHYSICAL COMPANY OF AMERICA  
 PARTY 588.  
 T. RICH. AUG./SEPT. 1959.

SCALE: 1 INCH = 400 FEET.  
 CONTOUR INTERVAL 0.1 milligals.  
 GRAVITY LINES ————  
 CLAIM POST □

132° 57' 00"

132° 56' 00"

62° 10' 00"

62° 09' 30"

JB  
 2  
 86075

J.B.  
 1  
 86074

J.B.  
 3  
 86076

J.B.  
 A  
 86077

J.B.  
 5  
 86078

J.B.  
 6  
 86079

J.B.  
 7  
 86080

J.B.  
 8  
 86081

J.B.  
 10  
 86083

J.B.  
 9  
 86082

LUNCH L.

PER L.

OUTCROP

L-145

L-285

L-321

L-365

L-605

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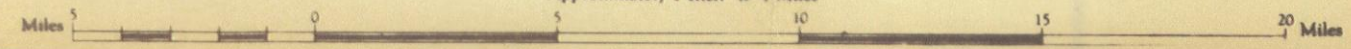
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J.B. 1 - 10 M.C.'s KEY MAP  
 to accompany  
 MAGNETIC, ELECTROMAGNETIC, SELF-POTENTIAL  
 AND GRAVITY SURVEYS 105-K-2  
 KERR ADDISON MINES LIMITED.



RMY SURVEY ESTABLISHMENT R.C.E., 1949-51

Scale 1 : 250,000  
 Approximately 1 Inch to 4 Miles



Contour Interval 500 Feet.  
 All Elevations in Feet above Mean Sea Level  
 Universal Transverse Mercator Projection