

SUMMARY OF REPORT

THE RONKA E.M. 16 SURVEY OF THE ENTIRE CLAIM BLOCK WAS COMPLETED IN MID JANUARY. THE RESULTS WERE REDUCED IN THE NORMAL MANNER AND THEY INDICATED SOME 16 TO 20 POSSIBLE ANOMALOUS CONDITIONS. THESE RESULTS WERE THEN FILTERED BY A MATHEMATICAL TECHNIQUE THAT TENDS TO ELIMINATE EXTRANEOUS ANOMALIES (GEOLOGICAL NOISE) CAUSED BY THE HIGH TRANSMITTED FREQUENCIES.

THE RESULTING CONTOUR MAP SHOWS THREE MAJOR ANOMALOUS CONDITIONS VARYING FROM 1400 TO 2600 FEET IN LENGTH. EVERY ONE OF THE MAJOR ANOMALIES ON THE BROKEN HILL SURVEY HAS AN EXPOSURE OF SULPHIDE MINERALIZATION EITHER ON ITS FLANK OR JUST BEYOND THE ANOMALY ON STRIKE, AND IN AT LEAST ONE INSTANCE THE SULPHIDES CARRY COPPER. HENCE A PROGRAM OF AT LEAST THREE DRILL HOLES IS RECOMMENDED TO PROBE THE BEST ANOMALIES. ABOUT 1000 FEET OF DRILLING IS ENVISAGED AT A TOTAL COST OF \$12,000.

RESPECTFULLY SUBMITTED,

MICHAEL OGDEN, B.A.Sc., P. ENG.

TORONTO, ONTARIO.
MARCH 2ND, 1971.

PROPERTY, LOCATION AND ACCESS

THE PROPERTY CONSISTS OF 12 UNPATENTED CLAIMS NEAR THE NORTHWEST CORNER OF BENNEWEISS TOWNSHIP, ONTARIO. ACCESS IS READILY AFFORDED BY HIGHWAY 144, 75 MILES SOUTH OF TIMMINS, OR 100 MILES NORTH OF SUDBURY, ONTARIO. THE PROPERTY IS LOCATED JUST OFF HIGHWAY 560, A MILE AND A HALF EAST OF WHERE IT JOINS WITH 144. THIS PLACES THE PROPERTY SOME 142 MILES WEST OF NEW LISKEARD.

THE 12 CLAIMS ARE NUMBERED AS FOLLOWS: S-282366 TO S-282377 INCLUSIVE.

GEOLOGY AND TOPOGRAPHY

THE GENERAL GEOLOGICAL STRUCTURE OF THE AREA IS THAT OF A BROAD SYNCLINE EXTENDING FOR 52 MILES TOWARD THE WEST AND 28 MILES TO THE EAST. THE PROPERTY LIES IN A 3 MILE LONG SOUTH BRANCH OF THE MAIN SYNCLINE. THE KEEWATIN LAVAS FORM THE OUTER LIMBS WITH TEMISKAMING SEDIMENTS INSIDE THAT, AND THEY IN TURN ARE MOSTLY REPLACED BY INTRUSIVE AND ALTERED GRANITES AND DIORITES.

THE CLAIM BLOCK IS QUITE FLAT, COVERED WITH SECOND GROWTH CONIFERS, AND HAS FREQUENT LOW OUTCROPS. BERNICE LAKE, ON THE WEST OF THE PROPERTY PROVIDES READY ACCESS BY BOAT TO THAT AREA. IT COVERS ABOUT TWO CLAIMS IN AREA AS DOES A PORTION OF BENNEWEISS LAKE ON THE EAST BOUNDARY OF THE BLOCK.

HISTORY AND MINERALIZATION

THE AREA HAS BEEN PROSPECTED FROM TIME TO TIME SINCE 1900. THE FIRST STAKING, DONE IN 1908, WAS FOR IRON. THEN IN 1909 AND 1910 THERE WAS CONSIDERABLE STAKING FOR GOLD AND ASSOCIATED COPPER MINERALIZATION.

THE OLD LAWRENCE OR ERRINGTON SHOWING IS 2 MILES NORTHWEST OF THE PROPERTY. SOME 60 TONS OF COPPER ORE WAS SHIPPED FROM HERE IN 1916 WITH A GRADE OF 7% COPPER AND 0.17 OUNCES OF GOLD PER TON. THE MINERALIZATION OCCURRED IN A LENSE 200 FEET IN LENGTH BY 3 FEET WIDE IN A WELL DEFINED VERTICAL FRACTURE STRIKING AT 120 DEGREES. A POSSIBLE CONTINUATION OF THIS ZONE WAS DISCOVERED A QUARTER OF A MILE TO THE SOUTHEAST (REFERENCE No. 1).

PROSPECTING OF THE BROKEN HILL PROPERTY HAS DISCLOSED A 15 FOOT WIDE EXPOSURE OF PYRITE AND CHALCOPYRITE MINERALIZATION ON THE NORTHEAST SHORE OF BERNICE LAKE. THE MINERALIZATION WHICH STRIKES SOUTHEAST, OCCURS IN A GREY DIORITE-LIKE, GRANULAR ROCK WHICH IS MAPPED AS PRE-ALGOMAN DIORITE.

RECEIVED
MAR 16 1971
PROJECTS
SECTION

RONKA EM-16 SURVEY

A COMPLETE ELECTROMAGNETIC SURVEY WAS CONDUCTED OVER THE PROPERTY DURING DECEMBER AND JANUARY. READINGS WERE TAKEN WITH THE RONKA EM-16 UNIT ON THE V.L.F. RADIO STATIONS AT CUTLER MAINE, U.S.A. AND BALBOA IN THE CANAL ZONE OF CENTRAL AMERICA. THE STATIONS WERE READ AT 100 FEET INTERVALS ALONG THE NORTH-SOUTH LINES 300 FEET APART.

THE RESULTS WERE REDUCED IN THE NORMAL MANNER AND PLOTTED ON TWO SEPARATE MAPS. ONE RELATES TO THE CUTLER TRANSMITTER AND THE OTHER TO THE BALBOA RADIO.

THE RESULTS HAVE BEEN EXAMINED BY THREE PEOPLE WITH CONSIDERABLE KNOWLEDGE IN THE SIGNIFICANCE OF SUCH RESULTS:

- 1) MR. RUSSELL MILLER, WHO DIRECTED THE WORK ON THE GROUND.
- 2) MR. THOMAS GLEDHILL, A GEOPHYSICIST WITH A LOT OF EXPERIENCE IN THE USE OF THE UNIT.
- 3) THE WRITER.

NATURALLY THERE WAS CONSIDERABLE DIFFERENCE OF OPINION AS TO THE RELATIVE MERITS OF THE VARIOUS ANOMALIES.

THE WRITER WAS DISAPPOINTED IN THE RESULTS, IN SO FAR AS NONE OF THE USUAL ANOMALIES SEEMED TO BE ON TOP OF KNOWN SULPHIDE MINERALIZATION, AND THERE WAS SO MANY ANOMALIES. RECOGNIZING THE PROPENSITY OF EM-16 TO DISPLAY SPURIOUS ANOMALIES. OFTEN DUE TO OVERBURDEN EFFECTS,

THE AUTHOR WAS ANXIOUS TO FIND A METHOD OF ELIMINATING A LOT OF THE EXTRANEOUS ANOMALIES. SUCH A TECHNIQUE HAS BEEN DEvised BY D.C. FRASER OF THE KEEVIL ORGANIZATION AND IT PROVED OF GREAT BENEFIT IN THE TEMAGAMI AREA WITH THEIR NUMEROUS OVERLAPPING ANOMALIES RESULTS. (REF. #4) THE TECHNIQUE IN ESSENCE ADDS TWO ADJACENT RESULTS TOGETHER AND SUBTRACTS THAT FROM THE NEXT TWO ADJACENT RESULTS, SO THAT WHAT WAS ORIGINALLY A CROSS-OVER BECOMES A CONTOURABLE ANOMALY CENTERED OVER THE ORIGINAL CROSS-OVER, OR AREA OF STEEPEST GRADIENT. ONLY THE POSITIVE RESULTS ARE PLOTTED.

THE RESULTS OF THIS "FILTERING" PROCESS ARE SHOWN FOR THE CUTLER TRANSMITTER ONLY ON THE MAP BY OGDEN OF THE "FILTERED DIP ANGLE DATA". FIVE ANOMALOUS ZONES ARE INDICATED ON WHICH THREE HAVE ASSOCIATED EXPOSED SULPHIDE MINERALIZATION, SOME WITH COPPER.

ANOMALY No. 1 IS PERHAPS THE MOST INTERESTING BECAUSE NOT ONLY DOES IT HAVE TRENCHING IN SULPHIDES ON STRIKE, BUT IT WAS CONSIDERED THE No. 1 ANOMALY BY BOTH MILLER AND GLEDHILL ALSO.

ANOMALY No. 2 LIES INLAND FROM A NUMBER OF MINOR SULPHIDE SHOWERS ON THE SHORES OF BERNICE LAKE AND THUS QUALIFIES FOR FURTHER INVESTIGATION.

ANOMALY No. 3 IS A SINUOUS INTERPRETATION OF A GENERAL ANOMALOUS AREA WHICH WAS IN FACT THE SECOND CHOICE OF BOTH GLEDHILL AND MILLER. IT ALSO HAS AN EXPOSURE OF SULPHIDES ON IT.

ANOMALY No. 4 CHECKS AS THE CONTINUATION OF MILLER'S SECOND CHOICE
ANOMALY No. 5 IS A FEW HUNDRED FEET NORTHEAST OF MILLERS No. 3
AND PARALLEL TO IT.

ANOMALY No. 1A IS CONSIDERED TO BE THE CONTINUATION OF No. 1 OR
PERHAPS THE SHORELINE EFFECT OF THE SOUTH SHORE OF BENNEWISS LAKE.

CONCLUSIONS

EACH OF THE THREE BEST ANOMALIES (1,2, & 3) SHOULD BE DRILLED BY AT
LEAST ONE HOLE DESIGNED TO PROBE THE ZONE AT IT'S STRONGEST OR MOST
CONDUCTIVE SECTION. EACH HOLE WOULD BE 300 TO 400 FEET IN LENGTH
FOR A TOTAL MINIMUM FOOTAGE OF 1000. THE ESTIMATED OVERALL COST,
INCLUDING DRILLING, MOVING, CASING OF HOLES, WATER LINES, SUPER-
VISION, ASSAYING AND ENGINEERING IS \$12 PER FOOT OR \$12,000 IN TOTAL.
THE THREE HOLES ARE RECOMMENDED TO BE LOCATED AS FOLLOWS:

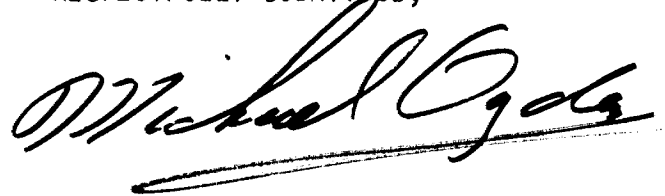
HOLE No. 1 TO BE COLLARED 1450 FEET SOUTH OF THE BASE LINE, HALF
WAY BETWEEN LINES 27W AND 30W., (I.E. AT 2850 WEST). THE HOLE TO BE
DRILLED TO THE SOUTHWEST AT A DIP OF 40° FOR 300 FEET. THIS WILL
PROBE THE STRONGEST CONDUCTOR AT IT'S NARROWEST SECTION (MOST CONCEN-
TRATED). THIS 2000 FEET LONG ZONE HAS A SULPHIDE SHOWING ON STRIKE
OF THE ZONE, SOME 300 FEET BEYOND THE END OF IT.

HOLE No. 2 IS RECOMMENDED TO BE STARTED FROM A POINT 550 FEET NORTH
OF THE BASE LINE ON LINE 36 WEST. IT SHOULD BE DRILLED TO THE SOUTH,
UNDER THE LINE, WITH A DIP OF 40° TO A DEPTH OF 350 FEET. THIS HOLE
WILL TEST A 1500 FOOT LONG ANOMALY WITH COPPER MINERALIZATION EXPOSED
ALONG THE SOUTH FLANK OF THE CONDUCTOR WHERE ROCK IS EXPOSED AT THE
SHORE OF A SMALL LAKE.

HOLE NO. 3 SHOULD BE COLLARED ON LINE 15 WEST AT 300 FEET NORTH OF THE BASE LINE. IT SHOULD BE DRILLED TO THE SOUTH AT 40° FOR 350 FEET. THE HOLE WILL PROBE INTO A STRONG ANOMALY, SOME HALF A MILE IN LENGTH, WITH A TRENCH AND EXPOSED SULPHIDE MINERALIZATION ON THE NORTH FLANK OF THE ZONE NEAR LINE 6 WEST.

IF ANY SIGNIFICANT MINERALIZATION IS ENCOUNTERED IN ANY OF THE ABOVE HOLES, THEN A NEW CONTRACT SHOULD BE OBTAINED FOR AN EXPANDED DRILLING PROGRAM.

RESPECTFULLY SUBMITTED,



MICHAEL OGDEN, B.A.Sc., P. ENG.

REFERENCES

- 1) ONTARIO DEPARTMENT OF MINES 41ST ANNUAL REPORT BEING PART 3 OF VOLUME 41, 1932. "GEOLOGY OF THE THREE DUCK LAKES AREA, BY H. C. LIARD".
- 2) REPORT ON BROKEN HILL PROPERTY BY MICHAEL OGDEN, SEPTEMBER 1970.
- 3) GEONICS LIMITED.
- 4) CONTOURING OF V.L.F. - E.M. DATA BY D.C. FRASER, APRIL 1969.

APPENDIX

EXTRACTS FROM THE OPERATING MANUAL OF THE RONKA EM 16 ELECTROMAGNETIC DETECTOR (REF. NO. 3)

PRINCIPLE OF OPERATION

THE VLF-RADIO STATIONS OPERATING FOR COMMUNICATIONS WITH SUBMARINES HAVE A VERTICAL ANTENNA. THE ANTENNA CURRENT IS THUS VERTICAL, CREATING A CONCENTRIC HORIZONTAL MAGNETIC FIELD AROUND THEM. WHEN THESE MAGNETIC FIELDS MEET CONDUCTIVE BODIES IN THE GROUND, THERE WILL BE SECONDARY FIELDS RADIATING FROM THESE BODIES. THE EQUIPMENT MEASURES THE VERTICAL COMPONENTS OF THESE SECONDARY FIELDS.

THE EM-16 IS SIMPLY A SENSITIVE RECEIVER COVERING THE FREQUENCY OF THE VLF-TRANSMITTING STATIONS, WITH MEANS OF MEASURING THE VERTICAL FIELD COMPONENTS.

THE RECEIVER HAS TWO INPUTS WITH TWO RECEIVING COILS BUILT INTO THE INSTRUMENTS. ONE COIL HAS NORMALLY VERTICAL AXIS AND THE OTHER IS HORIZONTAL.

THE SIGNAL FROM ONE OF THE COILS (VERTICAL AXIS) IS FIRST MINIMIZED BY TILTING THE COIL. THE TILT-ANGLE IS CALIBRATED IN PERCENTAGES. THE REMAINING SIGNAL IN THIS COIL IS FINALLY BALANCED OUT BY A MEASURED PERCENTAGE OF A SIGNAL FROM THE OTHER COIL, AFTER BEING SHIFTED BY 90° . THIS COIL IS KEPT NORMALLY PARALLEL TO THE PRIMARY FIELD. THUS, IF THE SECONDARY SIGNALS ARE SMALL COMPARED TO THE PRIMARY HORIZONTAL FIELD, THE MECHANICAL TILT-ANGLE IS AN ACCURATE MEASURE OF THE VERTICAL REAL-COMPONENT, AND THE COMPENSATION FROM THE

HORIZONTAL COIL IS A MEASURE OF THE QUADRATURE VERTICAL SIGNAL. THE PROPER TRANSMITTING STATION IS SELECTED BY A PLUG-IN UNIT INSIDE THE RECEIVER. THE EQUIPMENT TAKES TWO SELECTOR UNITS SIMULTANEOUSLY. A SWITCH IS PROVIDED FOR QUICK SWITCHING BETWEEN THESE TWO STATIONS.

HERE IS THE LIST AND LOCATIONS OF SOME OF THE STATIONS - USEFUL IN CANADA AND UNITED STATES.

STATION	NAA:	LOCATION,	CUTLER, MAINE	FREQ.	17.8 KHZ
"	NSS	"	ANNAPOLIS, MARYLAND	"	21.4 "
"	NPG	"	SEATTLE, WASHINGTON	"	18.6 "
"	WWVL	"	FORT COLLINS, COLORADO	"	20 "
"	GBR	"	RUGBY, ENGLAND	"	16 "
"	NBA	"	BALBOA, CANAL ZONE	"	24.0 "

THE MAGNETIC FIELD LINES FROM THE STATION ARE ALWAYS AT RIGHT ANGLES TO THE DIRECTION OF THE STATION. A STATION IS SELECTED WHICH GIVES THE FIELD APPROXIMATELY AT RIGHT ANGLES TO THE MAIN STRIKE OF THE ORE BODIES OR GEOLOGICAL STRUCTURE OF THE AREA. THUS THE DIRECTION OF THE SURVEY LINES IS SELECTED APPROXIMATELY ALONG THE LINES OF THE PRIMARY MAGNETIC FIELD, I.E., AT RIGHT ANGLES TO THE DIRECTION OF THE STATION TO BE USED. BEFORE STARTING THE SURVEY, THE INSTRUMENT CAN BE USED TO ORIENT ONESELF IN THAT RESPECT. BY TURNING THE INSTRUMENT SIDEWAYS, THE SIGNAL IS MINIMUM WHEN THE INSTRUMENT IS POINTING TOWARDS THE STATION THUS INDICATING THAT THE MAGNETIC FIELD IS AT RIGHT ANGLES TO THE RECEIVING COIL INSIDE THE HANDLE.

TAKING A READING

TO TAKE A READING, FIRST ORIENT THE REFERENCE COIL ON THE LOWER END OF THE HANDLE ALONG THE MAGNETIC LINES. ROCK THE INSTRUMENT BACK AND FORTH FOR MINIMUM SOUND INTENSITY IN THE HEADPHONE. USE THE VOLUME CONTROL TO SET THE SOUND LEVEL FOR COMFORTABLE LISTENING. THEN ADJUST THE QUADRATURE COMPONENT DIAL TO FURTHER MINIMIZE THE SOUND. AFTER FINDING THE MINIMUM SIGNAL STRENGTH ON BOTH ADJUSTMENTS, READ THE INCLINOMETER BY LOOKING INTO THE SMALL LENS. ALSO MARK DOWN THE QUADRATURE READING.

THE DIALS INSIDE THE INCLINOMETER ARE CALIBRATED PLUS AND MINUS PERCENTAGES, AND IN DEGREES. EITHER ONES CAN BE USED. IF THE INSTRUMENT IS FACING 180° FROM THE ORIGINAL DIRECTION OF TRAVEL, THE POLARITIES OF THE READINGS WILL BE REVERSED. WHEN PLOTTING THE READINGS, CARE SHOULD BE TAKEN TO CORRECT THE POLARITIES. THE IMPORTANT THING IS TO KNOW THE ACTUAL PHYSICAL TILT-ANGLE OF THE INSTRUMENT. THE LOWER END OF THE HANDLE WILL, AS A RULE, POINT TOWARDS THE CONDUCTOR. THE INSTRUMENT IS SO CALIBRATED THAT WHEN APPROACHING THE CONDUCTOR, THE ANGLES ARE POSITIVE IN THE IN-PHASE COMPONENT.

PLOTTING RESULTS

FOR EASY INTERPRETATION OF THE RESULTS, IT IS GOOD PRACTICE TO PLOT THE ACTUAL CURVES ON THE PAPER, USING SUITABLE SCALES FOR THE PERCENTAGE READINGS AS WELL AS HORIZONTAL DISTANCES OVER THE GROUND.

INTERPRETATION

THE DETERMINATION OF DEPTH CAN BE DONE WITH FAIR ACCURACY WITH THIS INSTRUMENT BY NOTICING THE HORIZONTAL DISTANCE BETWEEN THE MAXIMUM

POSITIVE AND NEGATIVE READINGS. THIS SHOULD BE THE SAME AS THE ACTUAL DEPTH FROM THE GROUND SURFACE TO THE CENTER OF THE EFFECTIVE AREA OF THE CONDUCTIVE BODY. THIS POINT IS NOT THE CENTER OF THE ACTUAL BODY, BUT SOMEWHAT CLOSER TO THE UPPER EDGE.

A VERTICAL SHEET TYPE OF CONDUCTOR, IF IT COMES CLOSE TO THE SURFACE, GIVES A SHARP CROSS-OVER ON BOTH SIDES.

WHEN LOOKING AT THE PLOTTED CURVES, ONE NOTICES THAT TWO ADJACENT CONDUCTORS MAY MODIFY THE SHAPE OF THE ANOMALIES FOR EACH ONE.

IN CASES LIKE THIS, ONE HAS TO LOOK FOR THE STEEPEST GRADIENTS OF THE VERTICAL (PLOTTED) FIELD, RATHER THAN THE ACTUAL ZERO-CROSSINGS.

SOMETIMES THE QUADRATURE-COMPONENT SHOWS A REVERSED POLARITY COMPARED TO THE IN-PHASE READINGS. THIS CAN BE DUE TO THE CONDUCTIVE OVERBURDEN ON TOP OF THE AREA OF DEEPER (BETTER) CONDUCTOR. THE VERTICAL SECONDARY FIELD PENETRATING THROUGH THE OVERBURDEN HAS NEGATIVE QUADRATURE COMPONENT.

AREA CODE -- 705
TELEPHONE -- 675-1231



ONTARIO



41P12SW0024 2.333 BENNEWEIS

900

DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH
OFFICE OF THE MINING RECORDER

Fred W. Matthews,
Supervisor, Projects Section,
Ontario Department of Mines,
Whitney Block,
Parliament Buildings, Toronto.

NOTIFICATION OF RECORDING
OF ASSESSMENT WORK CREDITS

Date of Recording of Work March 15/71
Recorded Holder Mr. H. Cravit Penthouse Suite
..... 121 Richmond Street West Toronto Ontario
..... (address)
Township or Area Benneweis Township

Type of Survey and number of Assessment Days Credits per claim
GEOPHYSICAL Airborne <input type="checkbox"/> Ground <input checked="" type="checkbox"/>
Magnetometer days
Electromagnetic days
Radiometric days
..... 40 days
GEOLOGICAL days
GEOCHEMICAL days
SECTION 84 (14) days

Mining Claims
S.282366-77 inclusive
REC'D MAR 17 1971 PROJECTS SECTION

NOTICE TO RECORDED HOLDER

- Survey reports and maps in duplicate must be submitted to the Projects Section, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to Projects Section with this letter.

[Handwritten Signature]
.....
Mining Recorder.

c.c. Mr. H. Cravit
Penthouse Suite 121 Richmond
Street West Toronto Ontario

May 5.

PERFORMANCE & COVERAGE CREDITS

ASSESSMENT WORK DETAILS

Township or Area BENIVEISS TWP.
Type of Survey RONKA EM-16
Chief Line Cutter or Contractor BERT HORSICK
Party Chief W. R. MILLER
Consultant MICHAEL OSZDEN B.A.Sc. P.ENG

MINING CLAIMS TRAVERSED

List numerically

- List of mining claim numbers: 5-282366, 5-282367, 5-282368, 5-282369, 5-282370, 5-282371, 5-282372, 5-282373, 5-282374, 5-282375, 5-282376, 5-282377

COVERING DATES

Line Cutting NOV. 1ST TO 30, 1970
Field DEC 1ST/70 TO JAN 30/71
Office FEB 6TH TO MAR 3 / 71

INSTRUMENT DATA

Make, Model and Type RONKA EM-16
Scale Constant or Sensitivity SEE APPENDIX
Radiometric Background Count N/A
Number of Stations Within Claim Group 573
Number of Readings Within Claim Group 2292
Number of Miles of Line cut Within Claim Group 10.8
Number of Samples Collected Within Claim Group N/A

CREDITS REQUESTED: 20 DAYS per claim, 40 DAYS per claim, Includes (Line cutting).
Geological Survey, Geophysical Survey, Geochemical Survey checkboxes.

DATE MARCH 8/71
SIGNED Michael Oszden

Send in duplicate to: FRED W. MATTHEWS, SUPERVISOR-PROJECTS SECTION, DEPARTMENT OF MINES & NORTHERN AFFAIRS, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTARIO

If space insufficient, attach list

SUBMISSION OF GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL SURVEYS

AS ASSESSMENT WORK

In order to simplify the filing of geological, geochemical and ground geophysical surveys for assessment work, the Minister has approved the following procedure under Section 84 (8a) of the Ontario Mining Act. This special provision does not apply to airborne geophysical surveys.

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) substantial and systematic coverage of each claim
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

Each additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

A geological survey using the same grid system, and meeting the requirements for submission of geological surveys for maximum credits will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geological survey a credit of 40 days per claim will be allowed for the survey.

Similarly, a geochemical survey using the same grid system with the average number of collected samples per claim being not less than 40 samples, and meeting the requirements for the submission of geochemical surveys for maximum credits, will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geochemical survey a credit of 40 days per claim will be allowed for the survey.

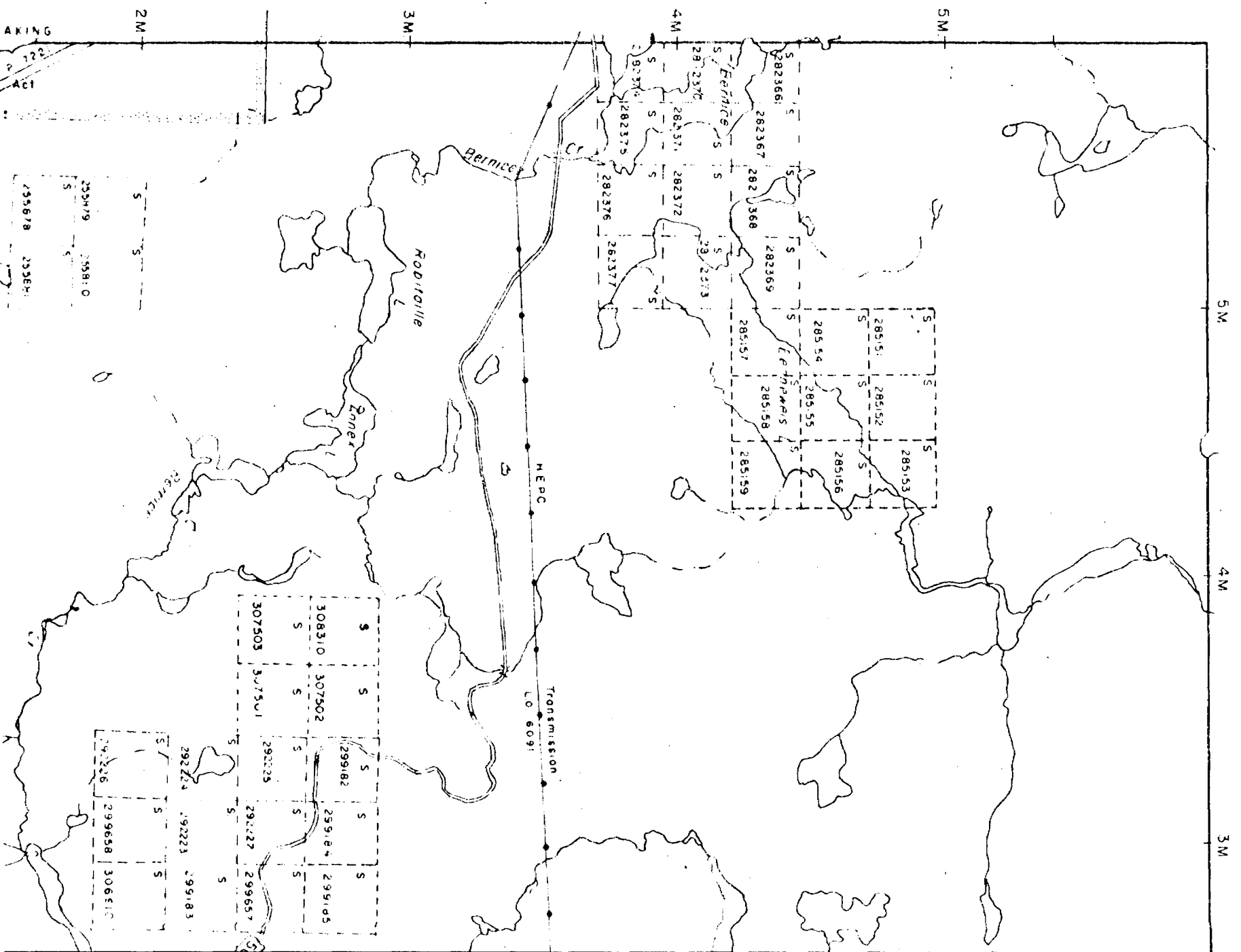
Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.

If the credits are reduced for any reason, a fifteen day Notice of Intent will be issued. During this period, the applicant may apply to the Mining Commissioner for relief if his claims are jeopardized for lack of work or, if he wishes, may file with the Department, normal assessment work breakdowns listing the names of the employees and the dates of work. The survey would then be re-assessed to determine if higher credits may be allowed under the provisions of subsections 8 and 9 of section 84 of the Mining Act.

If new breakdowns are not submitted, the Performance and Coverage credits are confirmed to the Mining Recorder at the end of the fifteen days.

CHESTER TWP. (M.717)

337



ST LOUIS TWP

Ogden
360 Bay
Toronto.

Projects Section
Dept. of Mines & Northern Affairs
Whitney Block
Queen's Park
Toronto.

RECEIVED
MAY 12 1960
DEPT. OF MINES & NORTHERN AFFAIRS
OTTAWA

Attention Mr Fred W Mathews

ST. LOUIS TWP. (M.1127)

400' Surface Rights Reservation
Around Minisnakwa Lake To The
Dept. Of Lands & Forests
File-160708

THE TOWNSHIP
OF
"Claim Map"
BENNEWEIS

DISTRICT OF
SUDBURY

SUDBURY
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	Ⓞ

NOTES

400' Surface rights Reservation around all Lakes and Rivers.

PLAN NO. **M.658**

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

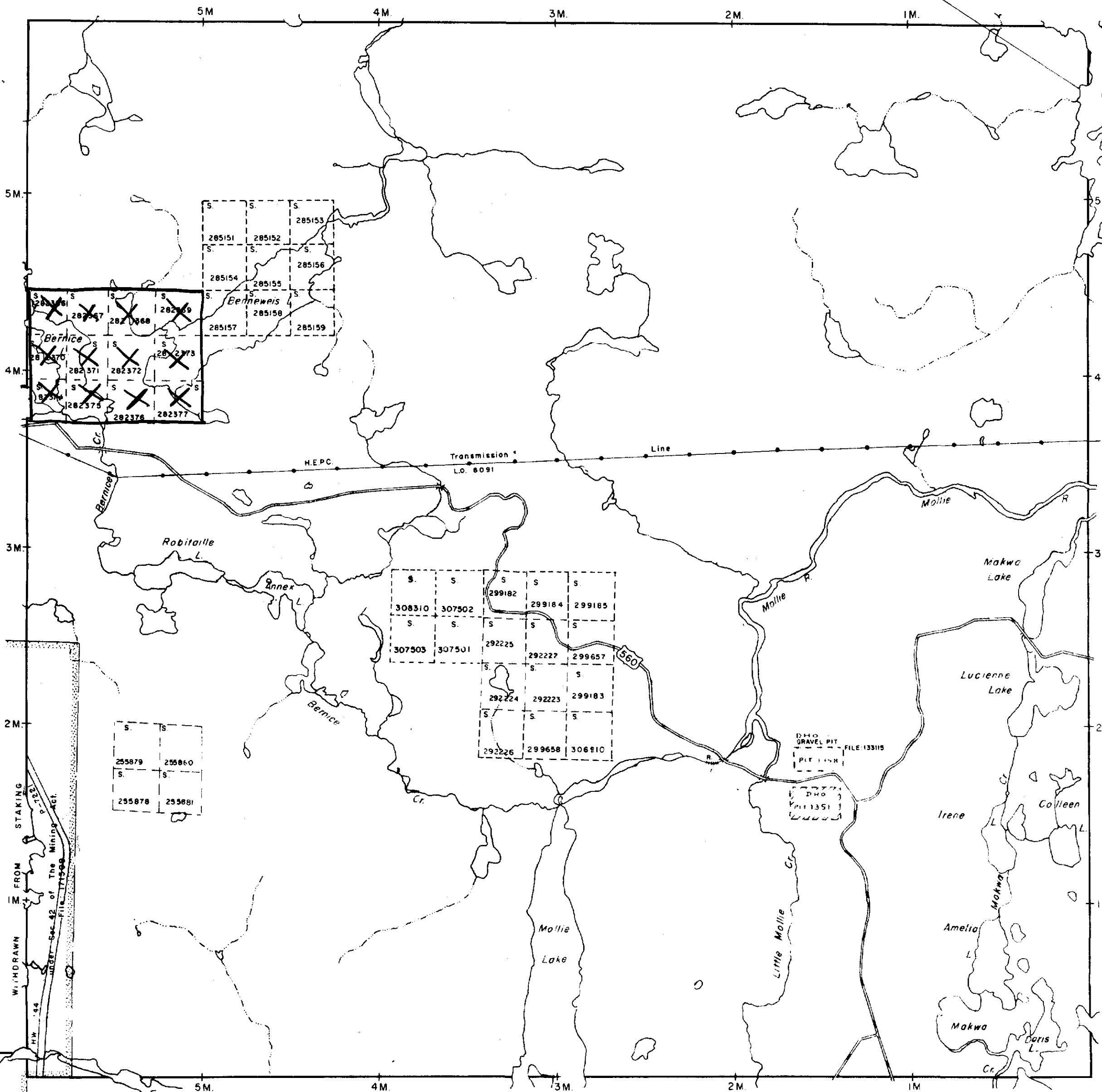
CHESTER TWP. (M.717)

CHAMPAGNE TWP. (M.712)

VROOMAN TWP. (M.1173)

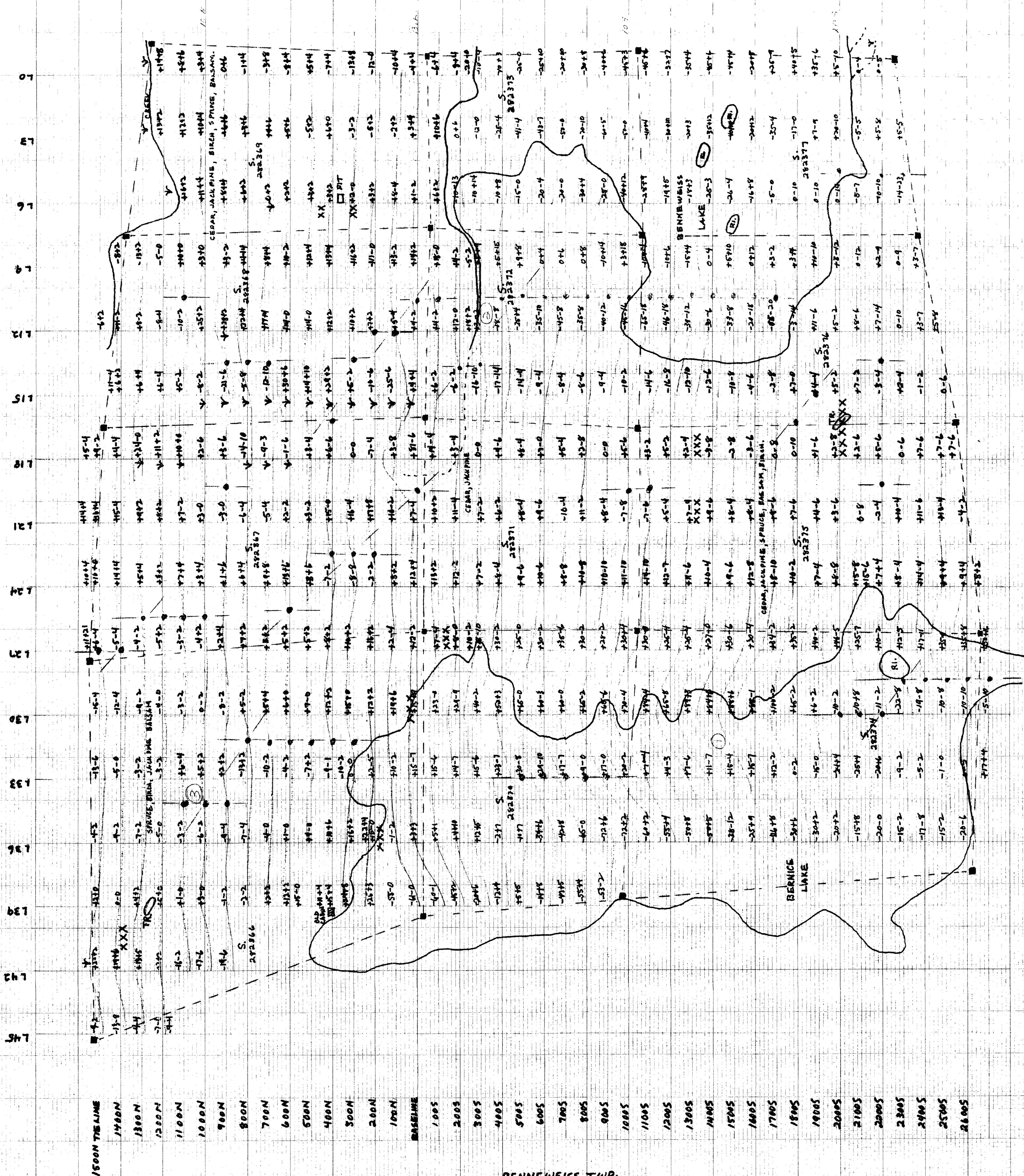


41P125W0024 2.333 BENNEWEIS





1600N
1400N
1300N
1200N
1100N
1000N
900N
800N
700N
600N
500N
400N
300N
200N
100N
BASELINE

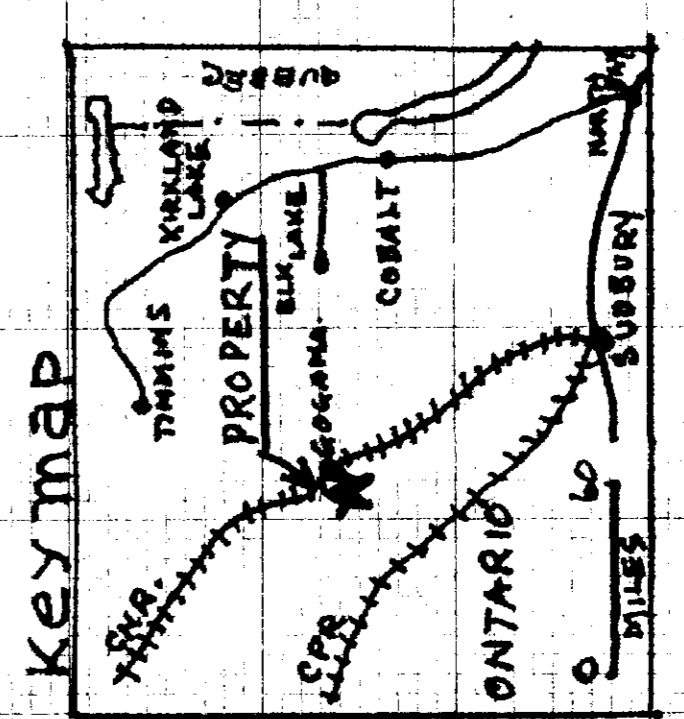


LEGEND
 EAST-WEST READINGS ON
 STATION N.B.A. GALBOA C.Z.
 09° 04' N, 79° 39' W.
 K.W. - 24.00
 K.W. - 150
 IN PHASE READING
 QUADRATURE READING
 READING WEST
 NO. OF STATIONS THIS MAP 573
 SHEET 1 OF 2

XXX - MINERAL SHOWING
 TR. - TRENCH
 □ - PIT
 Y - SWAMP
 ■ - CLAIM POST
 RI. - ROCK ISLAND OUTCROP
 - - - - - CROSS OVER

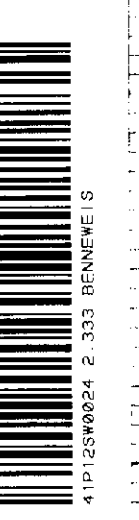
BROKEN HILL EXPLORATIONS LTD.
 BENNEWEISS TWP. ONTARIO.

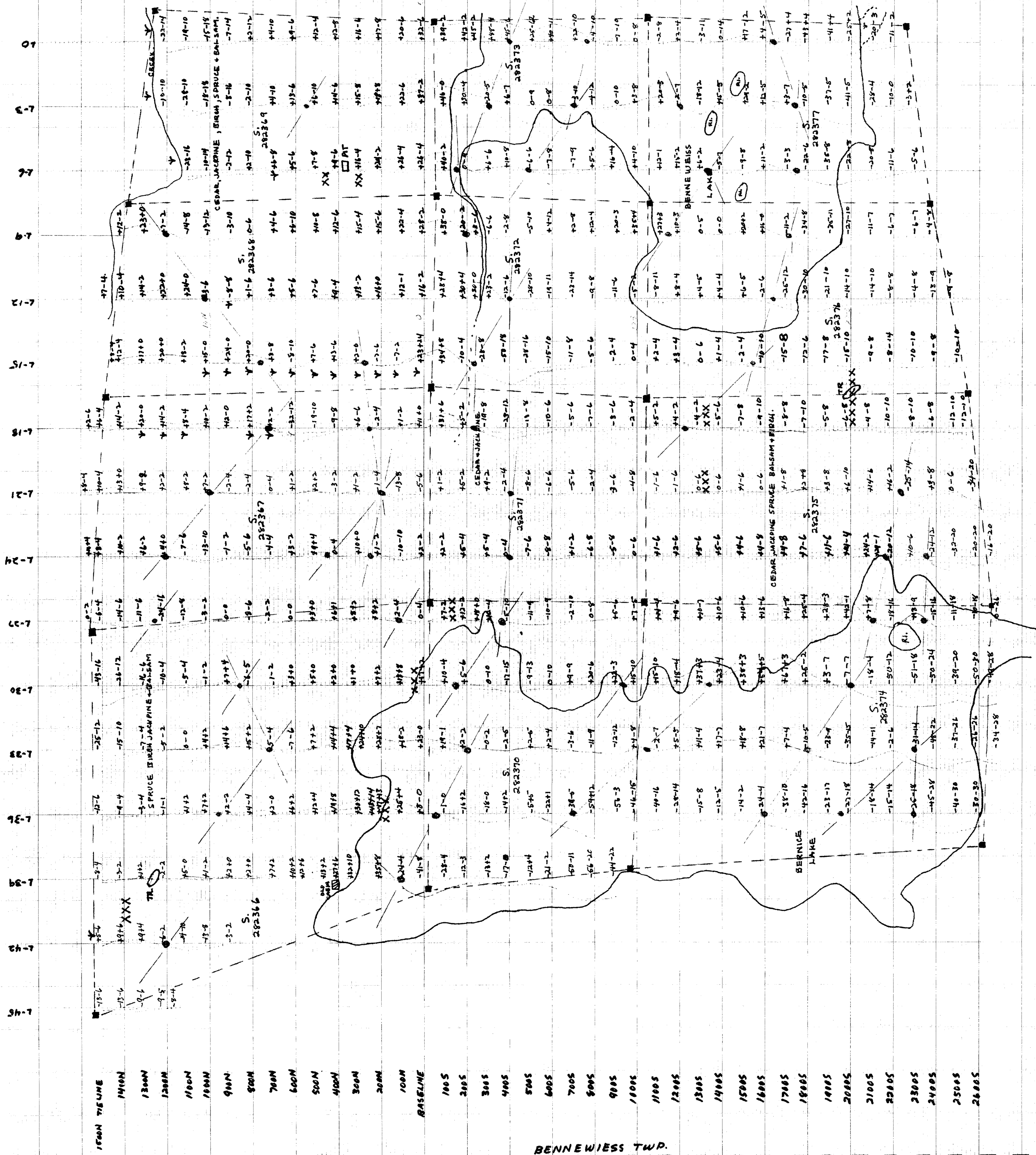
RONKA E.M. 16 SURVEY
 SCALE: 1"=200'
 12 LINE MILES



#10

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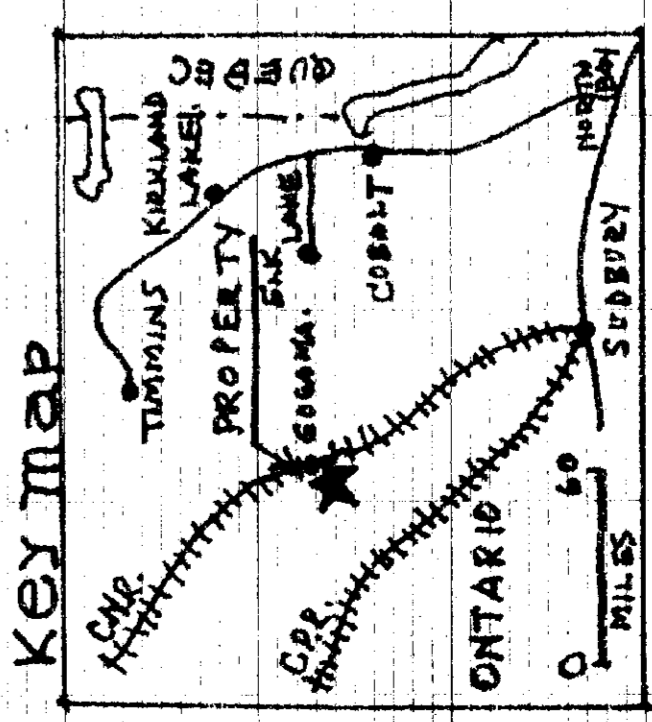
LEGEND
 NORTH - SOUTH READINGS ON
 STATION NAA, CUTLER, MAINE
 44° 36' N, 67° 17' W
 MAG - 17.80
 K W - 1000
 IN PHASE READING
 READING SOUTH
 NO. OF READING THIS MAP 573
 SHEET 2 OF 2

XXX - MINERAL SHOWING.
 TR. - TARBACH.
 □ - PIT
 Y - SWAMP.
 ■ - CLAIM PAST.
 ■ - ROCK ISLAND OUTCROP
 ○ - CROSS OVER

BROKEN HILL EXPLORATIONS LTD.
BENNEWEISS TWP. ONTARIO.

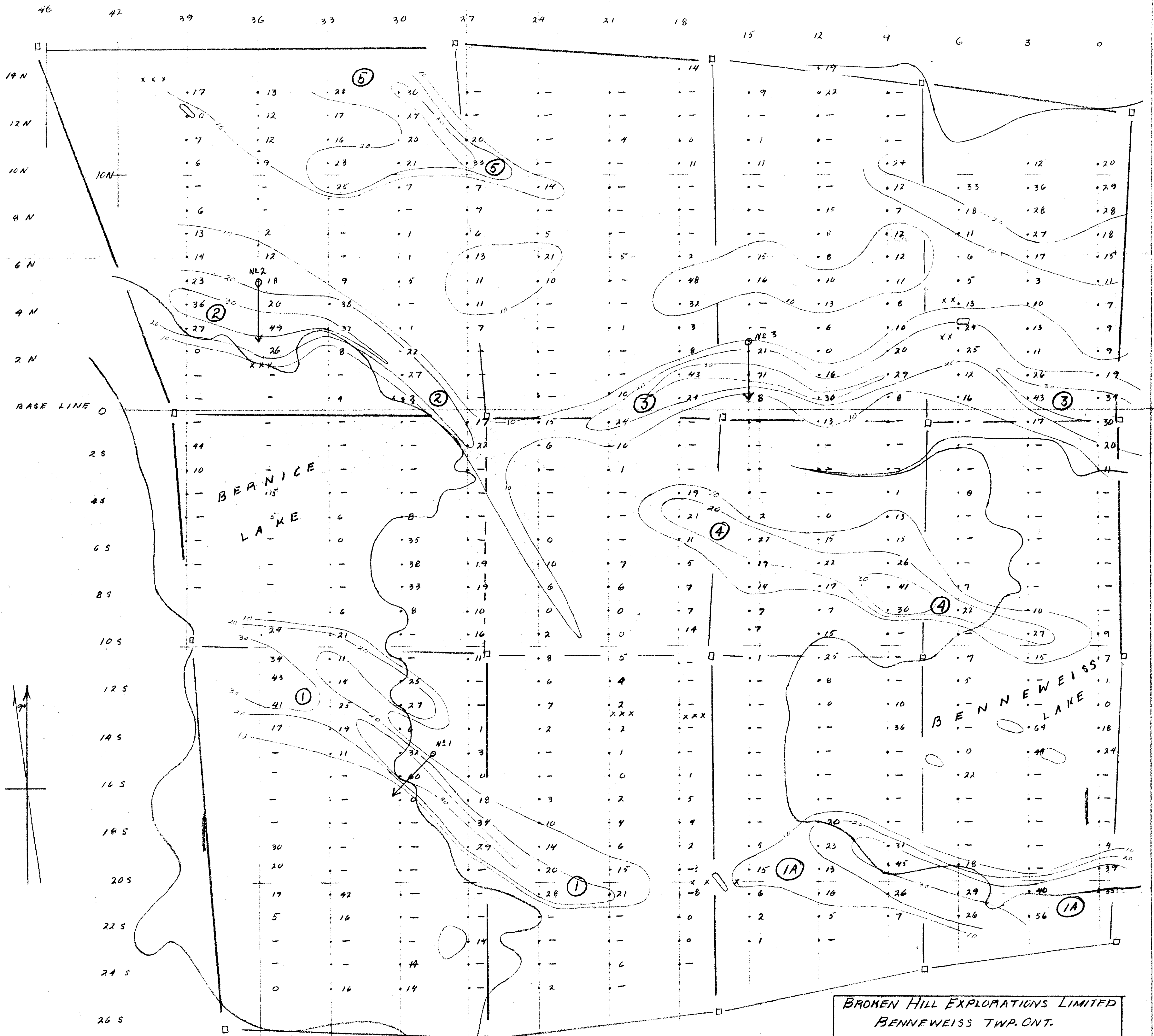
RONKA E.M.16 SURVEY
 SCALE: 1" = 200'
 12 LINE MILES

BENNEWEISS TWP.
 CHESTER TWP.



250

206
R. R. Miller



x x MINERAL SHOWING ○ → PROPOSED DRILL HOLE
 — TRENCH OR PIT ⊙ ANOMALY NO. 2
 □ CLAIM POST

BROKEN HILL EXPLORATIONS LIMITED
 BENNEWEISS TWP. ONT.
 FILTERED DIP ANGLE DATA OF
 RONKA EM-16 SURVEY
 BY W.R. MILLER
 DATA REDUCTION MAP BY MICHAEL ORDEAN
 FEB. 11, 1971 SCALE: 1 IN = 200 FT.

