



52J02SE8761 2.17 SQUAW LAKE

010

SELCO EXPLORATION COMPANY LIMITED

GEOPHYSICAL REPORT

CLAIMS 200981 to 200990; 200992 to 201001;
201003 to 201037; 201119 to 201130;
211283; 211271 to 211275; 227333;
227010; 227012 to 227024; 227026
and 227040

PATRICIA MINING DIVISION

August 1970.

2.17

SELCO EXPLORATION COMPANY LIMITED

CLAIMS 200981 to 200990; 200992 to 201001;
201003 to 201037; 201119 to 201130;
211283; 211271 to 211275; 227333;
227010; 227012 to 227024; 227026
and 227040.
PATRICIA MINING DIVISION

This report describes results of a ground electromagnetic survey undertaken during January and February 1970 over ninety-nine claims in the vicinity of Sturgeon Lake, Patricia Mining Division.

IN - SQUAW LAKE AREA

Location and Access

The claims are on a long peninsula between the North Bay of Sturgeon Lake and the Northeast Arm of Sturgeon Lake. Access can be had by the Ignace-Savant Lake highway, thence by canoe, or by float- or ski-equipped aircraft landing on Sturgeon Lake.

Description of Claims

The property consists of ninety-nine contiguous unpatented mining claims as follows :-

- Nos. 200981 to 200990 inclusive; 200992 to 201001 inclusive; 201003 to 201037 inclusive; 201119 to 201130 inclusive; 211283; 211271 to 211275 inclusive; 211634 to 211640 inclusive; 211648, 227328, 227333, 227010, 227012 to 227024 inclusive, 227026 and 227040.

Survey Procedure

The claims have been covered by a grid of control lines comprising northerly trending baselines and easterly trending offsets at intervals of 400 feet, a total of 83.6 miles of lines.

Offsets have been picketed at intervals of 100 feet and ground electromagnetic readings have been taken along these lines

AUTOPOSITIVES FILED SEPERATELY

at intervals of 100 feet.

The surveys were performed by Geosearch Limited under contract to Selco Exploration Company Limited. The party chief was R.H. Lacey and the surveys were performed between January 18 and February 16, 1970.

Electromagnetic Survey

The electromagnetic survey was performed using ABEM Minigun horizontal loop electromagnetic equipment, recording the in-phase and out of phase components of the secondary electromagnetic field. The frequency used was 3520 cycles per second and the separation between coils was 200 feet. Electromagnetic readings and conductor axes are depicted on the accompanying maps, Nos. 70-14 in seven sheets.

Results

The electromagnetic survey has indicated numerous conductors, particularly in the southern portions of the grid system.

The stronger zones are:-

(a) The most striking conductive feature on the property is a long intermittent trend between lines 92 South and 44 North, a distance of 2.5 miles. The conductors along this trend are very strong and wide at the southern end and weaken towards the north. The southern conductors reach peak amplitudes of up to minus 64 percent in-phase, minus 5 percent out of phase and minus 67 percent in-phase, minus 12 percent out of phase. The zones undoubtedly indicate strong bedrock conductivity caused by graphite and/or sulphides.

(b) Line 68 South, 500 East to 72 South, 200 East. This is a

Definite zone with peak amplitudes of up to minus 32 percent in-phase, minus 13 percent out of phase and represents a strong bedrock conductor.

(c) Line 72 South, 1,000 East to 76 South, 900 East. This is a weaker zone but probably of bedrock source. Peak amplitudes are up to minus 12 percent in-phase, minus 7 percent out of phase.

(d) Line 80 South, 2550 East to 84 South, 2500 East. This is a weak zone under the lake, possibly a reflection of conductivity of sediments on the bottom.

(e) Line 72 South, 2900 East. This one line response has peak amplitudes of minus 13 percent in-phase, minus 6 percent out of phase.

(f) Line 56 South, 950 East to 48 South, 1,300 East. This is a distinct zone along 800 feet, becoming weaker to the north. The peak amplitudes on line 56 South are minus 12 percent in-phase, minus 6 percent out of phase.

(g) Line 32 South, 1,700 East. This one line response has peak amplitudes of minus 15 percent in-phase, minus 9 percent out of phase.

(h) Line 4 South, 1,700 East to 8 North, 1,700 East. This is a strong and definite conductor along 1,200 feet with peak amplitudes of up to minus 34 percent in-phase, minus 6 percent out of phase on line 4 North.

(i) Line 24 South, 1,800 West to 20 South, 1,800 West. This is a definite conductor along 400 feet with peak amplitudes of up to minus 32 percent in-phase, minus 7 percent out of phase on line 24 South.

(j) Line 12 South, 950 West. A definite one line response with

Peak amplitudes of up to minus 12 percent in-phase, minus 4 percent out of phase.

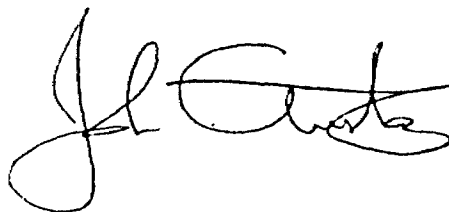
(k) Line 4 South, 700 West to line 0, 500 West. These are two parallel conductor axes of moderate conductivity. Peak amplitudes are up to minus 10 percent in-phase, minus 4 percent out of phase.

(l) Line 4 West, 1,650 West to 8 North, 1,400 West. A distinct zone along 400 feet with peak amplitudes of up to minus 28 percent in-phase, minus 10 percent out of phase.

With the exception of zone D, all the above conductors probably have bedrock sources consisting of graphite and/ or sulphides.

J.S. Auston, P.Eng., Ontario.

Toronto, August 20, 1970.

A handwritten signature in cursive script, appearing to read "J.S. Auston".

AREA CODE — 416
TELEPHONE — 365-6918



900

DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH

February 16th. 1971.

Mr. W.A. Buchan,
Mining Recorder,
Court House,
Sioux Lookout, Ontario.

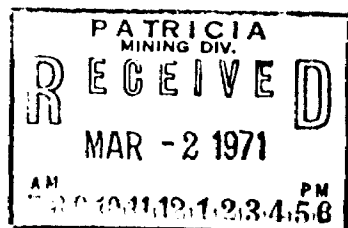
Re: Our File No. 2.17
Mining Claim No. PA.200981 et al,
Squaw Lake Area

Dear Sir:

The Geophysical (Electromagnetic) assessment work credits as listed with my Notice of Intent dated February 1st, 1971, have been approved as of the date above. Please inform the recorded holder and so indicate on your records.

Yours very truly,

Fred W. Matthews,
Supervisor,
Projects Section.



FWM/mr

c.c. Selco Exploration Co., Ltd.,
1201 - 121 Richmond St., West,
Toronto 110, Ontario.

c.c. Mr. H.L. King,
Resident Geologist,
808 Robertson St.,
Kenora, Ontario.

PA-200981



TECHNICAL ASSESSMENT WORK CREDITS

Recorder Holder Selco Exploration Company Limited
 Township or Area Squaw Lake Area

Type of Survey and number of
Assessment Days Credits per claim

GEOPHYSICAL Airborne Ground
 Magnetometerdays
 Electromagnetic38.....days
 Radiometric.....days

 GEOLOGICAL.....days
 GEOCHEMICAL.....days
 SECTION 84 (14).....days
 Special Provision Man days

NOTICE OF INTENT TO BE ISSUED

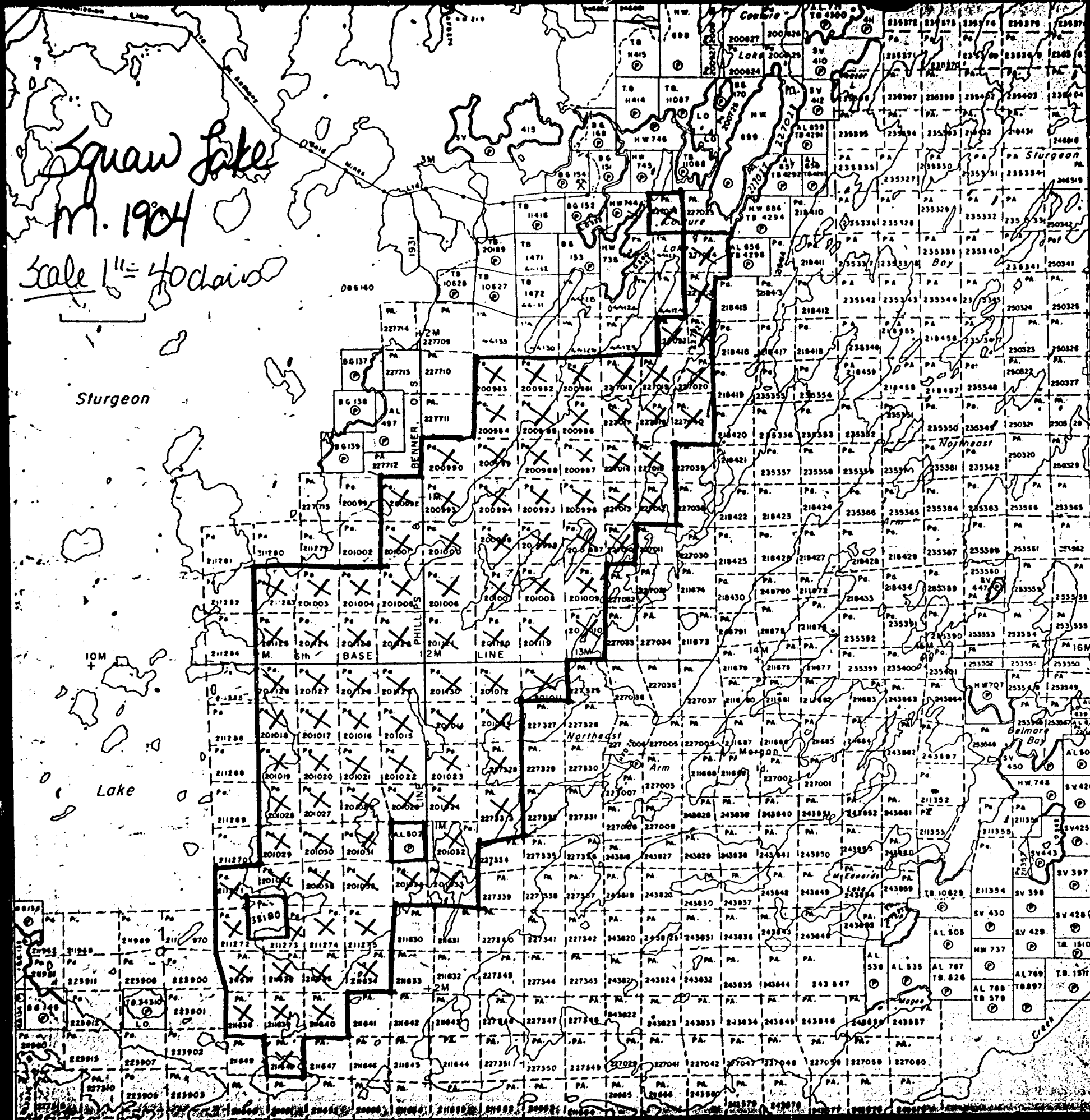
- Credits have been reduced because of partial coverage of claims.
- Credits have been reduced because of corrections to work dates and figures of applicant.
- NO CREDITS have been allowed for the following mining claims as they were not sufficiently covered by the survey:

PA. 201033

Mining Claims	
PA. 200981 to 200990 Inclusive	
200992 to 201001 Inclusive	
201003 to 201032 Inclusive	
201034 to 201037 Inclusive	
201119 to 201121 Inclusive	
201123 to 201130 Inclusive	
211283	
211271 to 211275 Inclusive	
211634 to 211640 Inclusive	
211648	
227328	
227333	
227010	
227012 to 227024 Inclusive	
227026	
227040	
201122	

PATRICIA
MINING DIV.
R E C E I V E D
 FEB - 8 1971
 AM 7 00 10 11 12 1 2 3 4 5 8 PM

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40;



Squaw Lake
M. 1904
Scale 1" = 40 chains

Sturgeon

Lake

Sturgeon

Northeast

Belmore

Belmore

Belmore

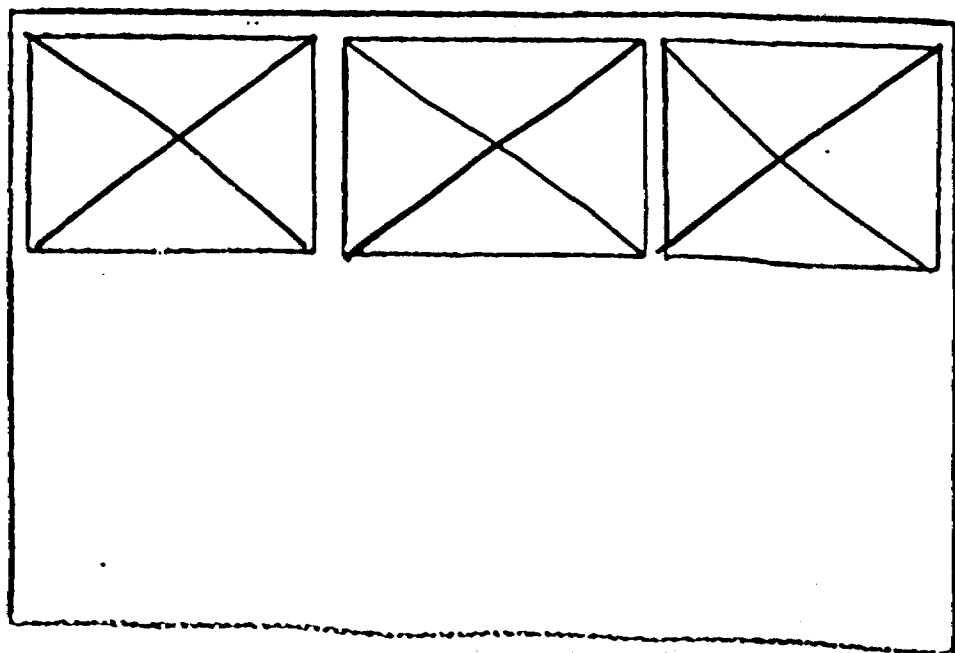
Belmore

Belmore

Belmore

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52 J/02 SE - 0031, #1-3

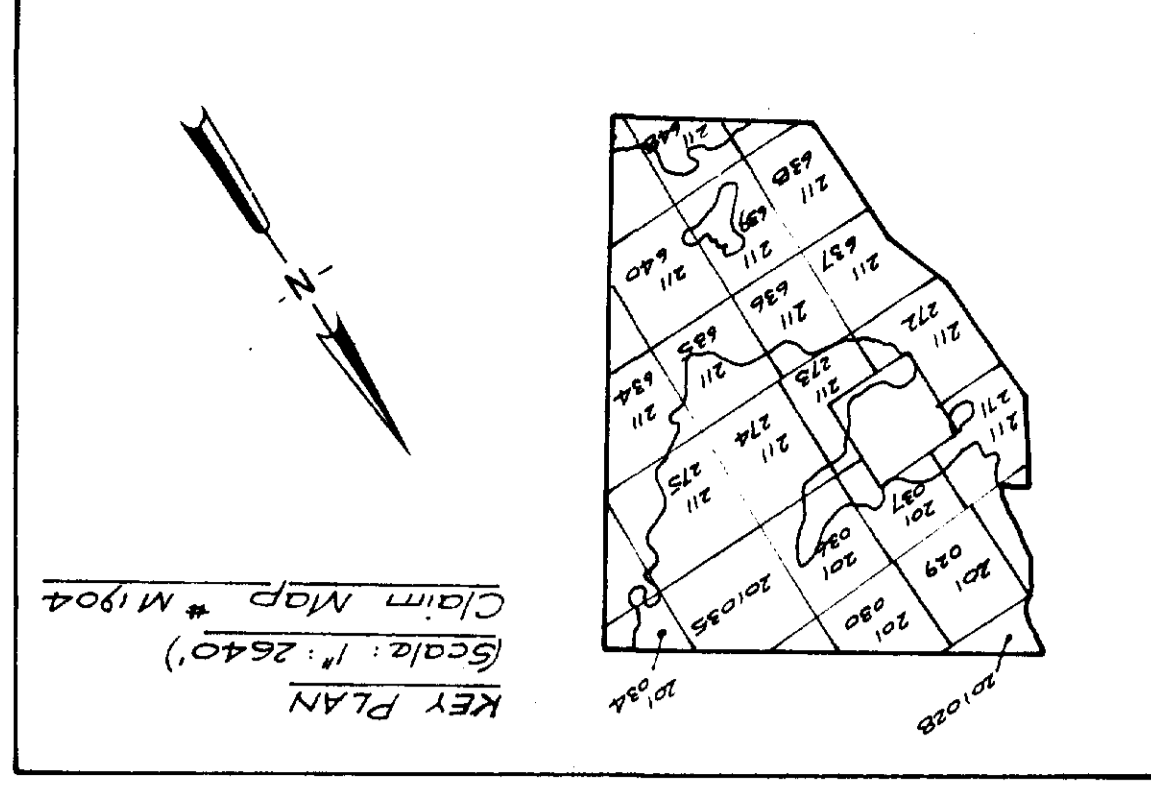
LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)



FOR ADDITIONAL
INFORMATION

SEE MAPS:

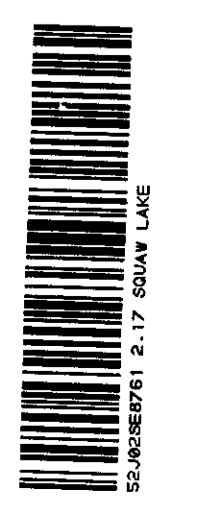
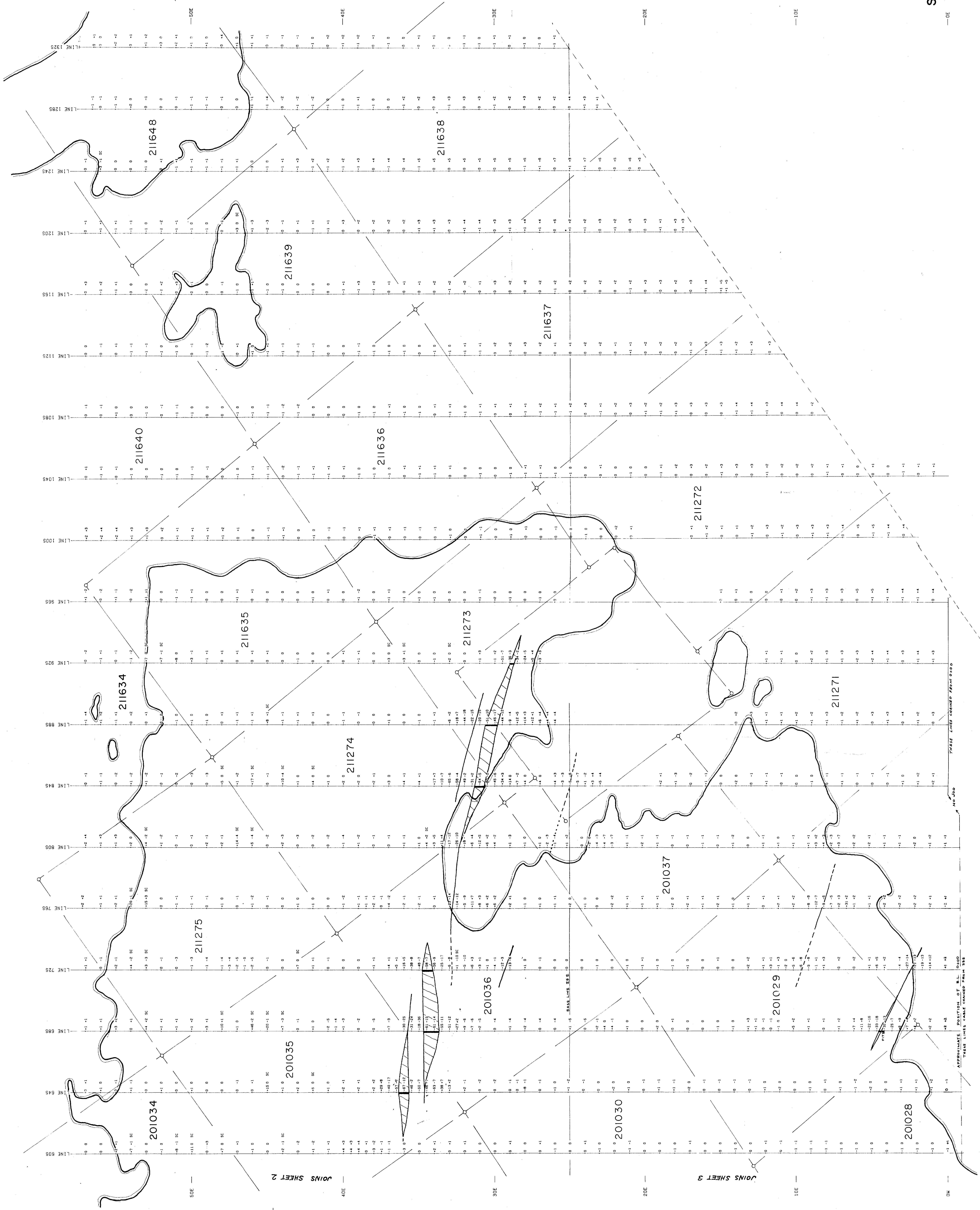
52 J/02 SE-0031 #4,5,6,7



LEGEND
 LOW FREQ. HIGH FREQ.
 IN-PHASE RESISTANCE
 OUT-OF-PHASE RESISTANCE
 FREQUENCY 3620 HZ AND 880 HZ
 CELL INTERVAL: 200 FT. (EXCEPT AS NOTED)
 CONDUCTIVITY STRONG WEAK INDICATIVE

2.17
 ELECTROMAGNETIC SURVEY
 FOR
GEOSEARCH CONSULTANTS LTD.
SELCO EXPLORATION CO. LTD.
 SHEET 1
 STURGEON LAKE PROPERTY
 GRID 'A'

SCALE: 1 INCH = 200 FT.
525/02 SE-0031 #1
 PROJECT 70-14
 DRAWN: MAR. 1978 M.J.M.
 SE 374(A) 18



2.17

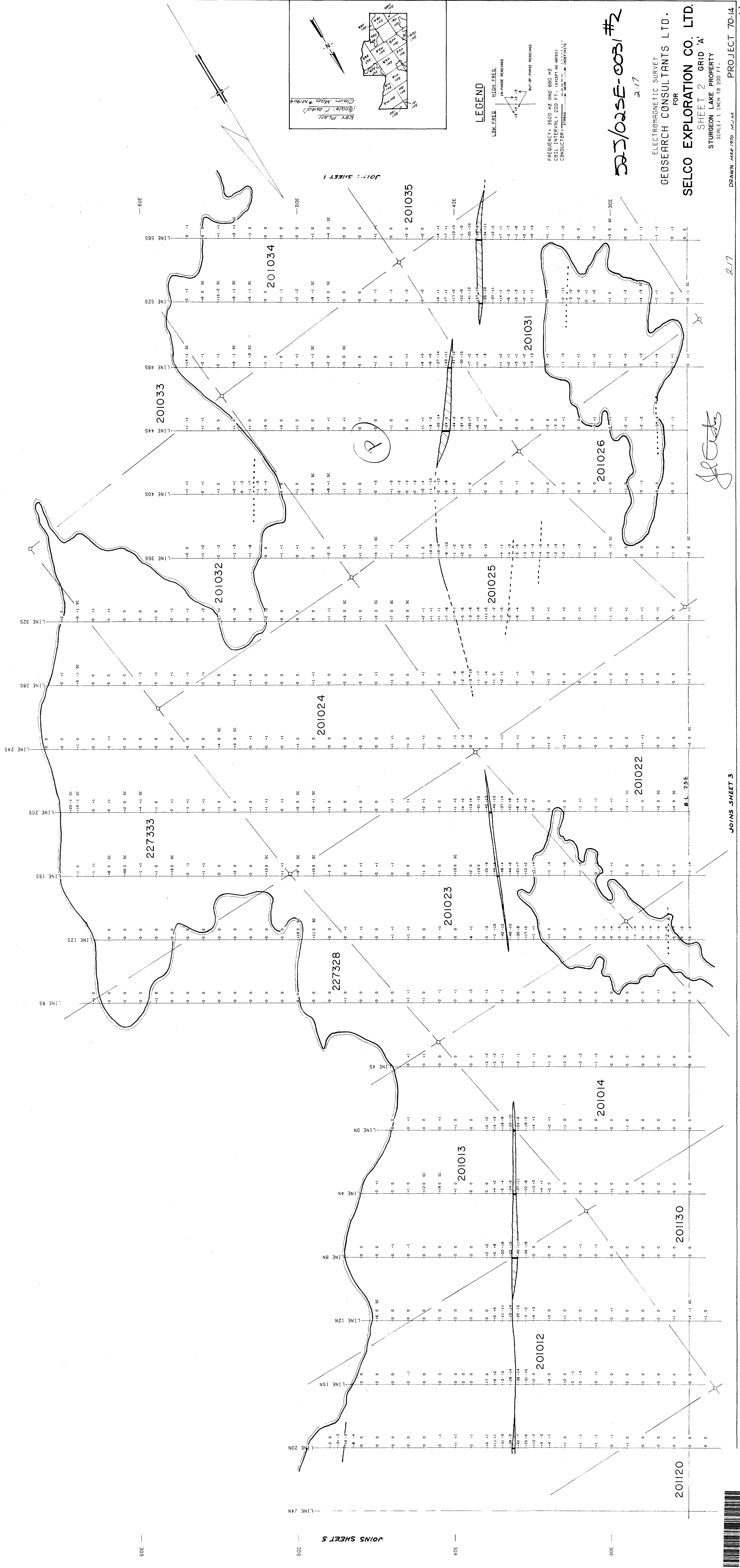
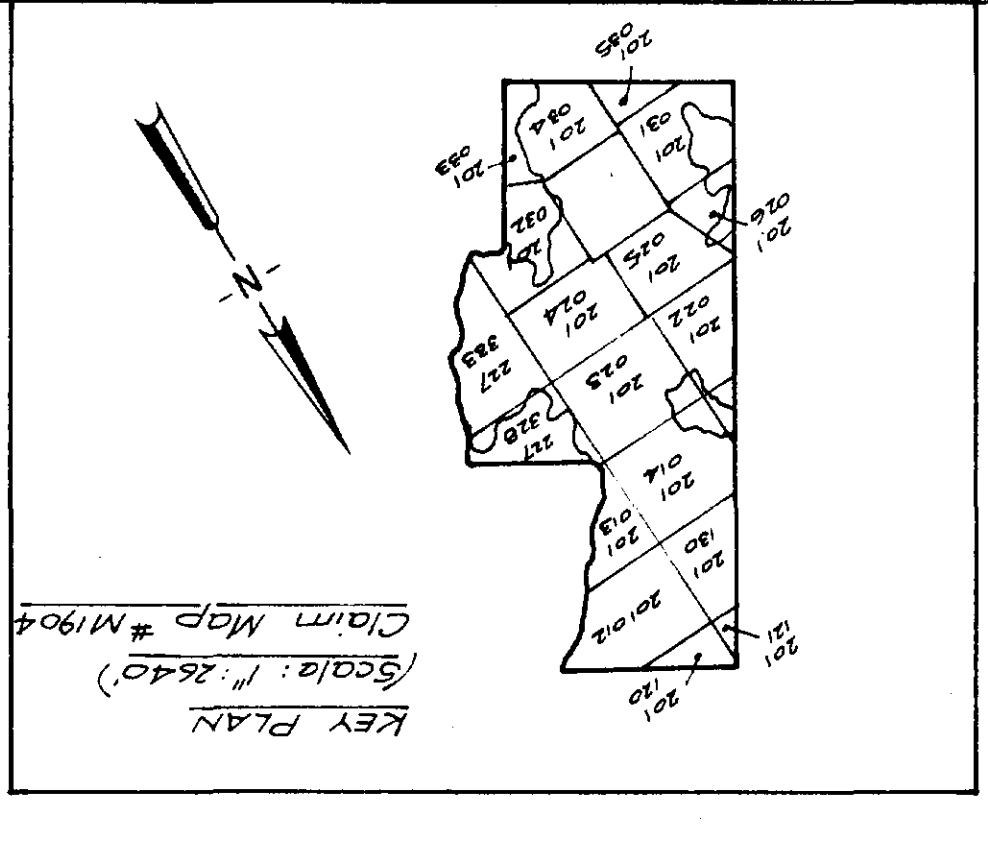
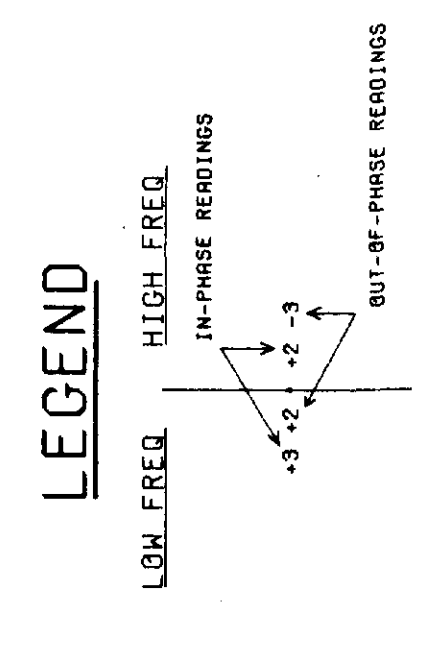
JOINS SHEET 3



SELCO EXPLORATION CO. LTD.
FOR
GEOSURCH CONSULTANTS LTD.
ELECTROMAGNETIC SURVEY
SHEET 2 GRID 'A'
STURGEON LAKE PROPERTY
SCALE: 1 INCH TO 200 FT.

223/025E-0031 #2
2.17

FREQUENCY: 3520 HZ AND 880 HZ
COIL INTERVAL: 200 FT. (EXCEPT AS NOTED)
CONDUCTOR: STRONG → WEAK → INDEFINITE



J. G. G.

JOINS SHEET 5

60E

50E

40E

30E

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30E

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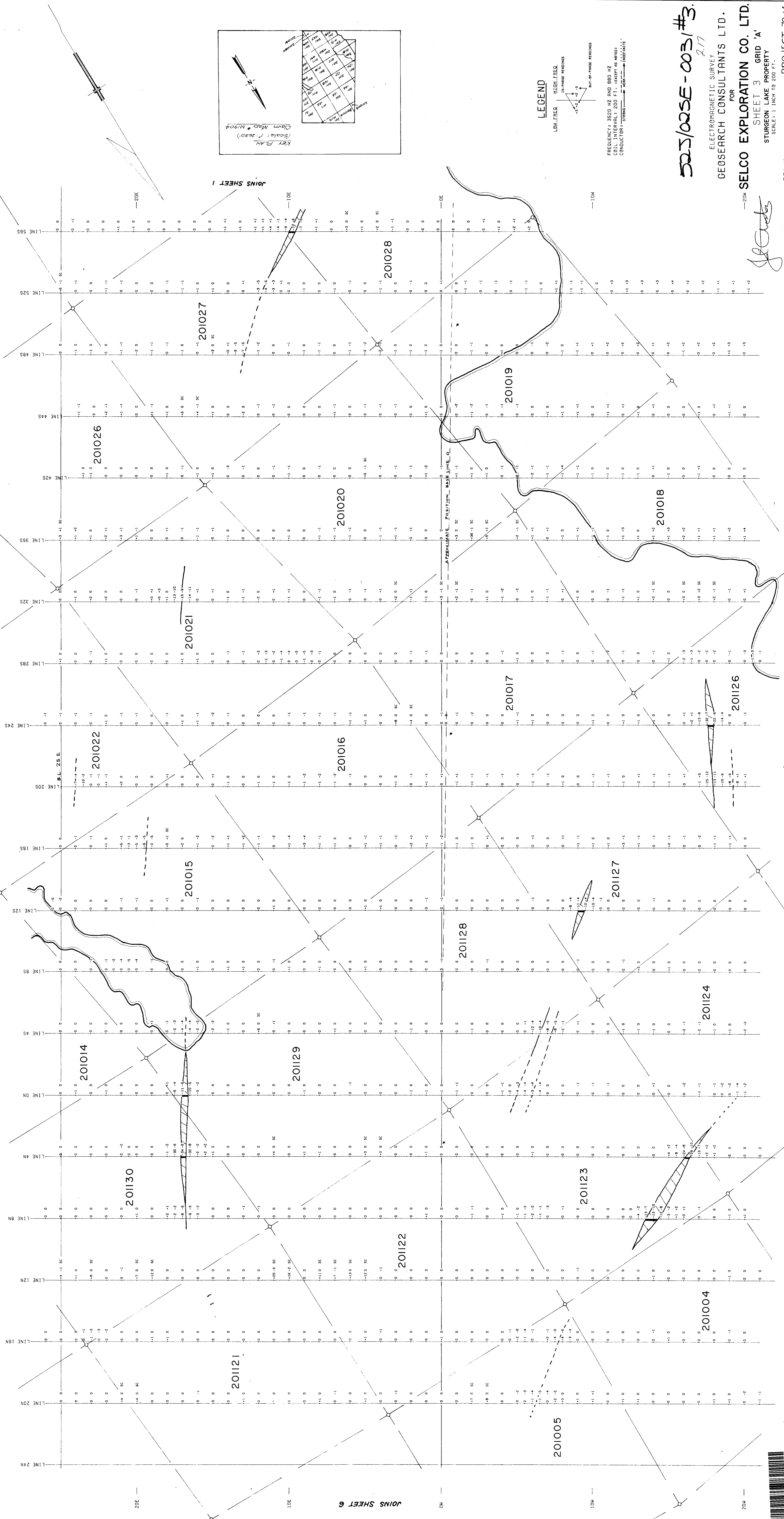
30E

JOINS SHEET 2

JOINS SHEET 6

JOINS SHEET 4

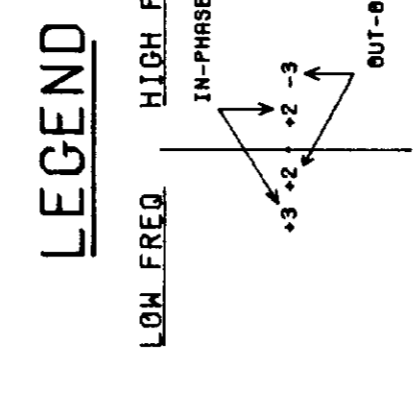
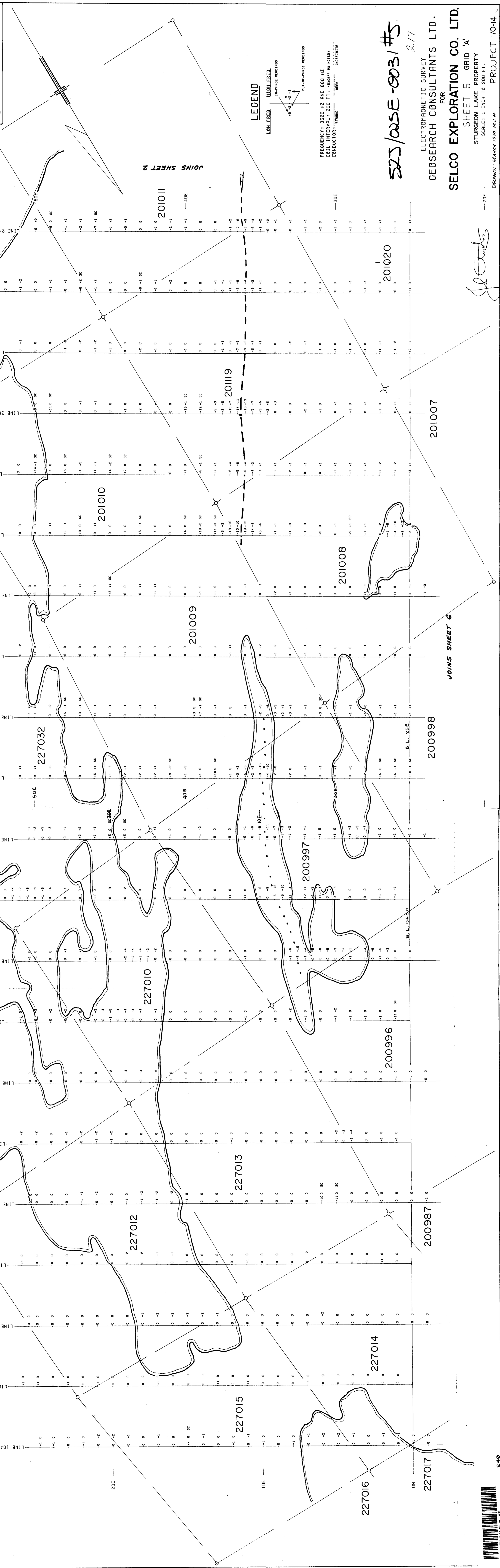
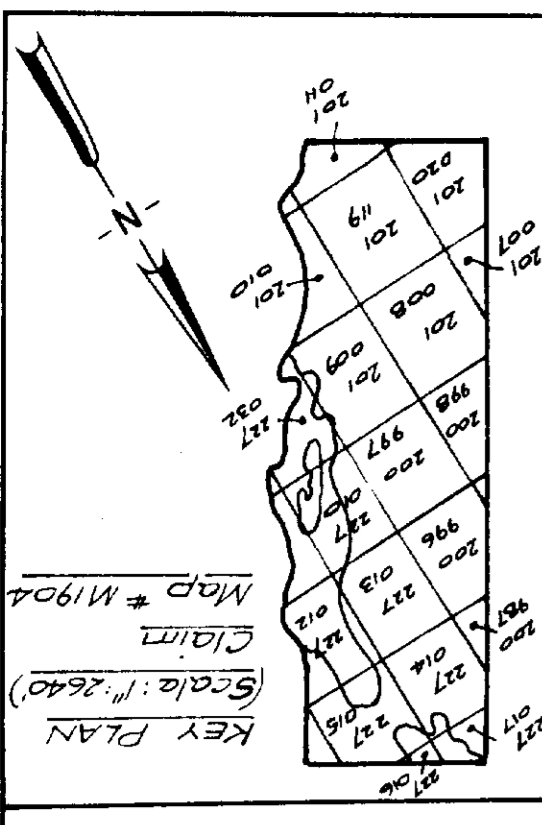
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525/02SE-0031#3.
 217
 ELECTROMAGNETIC SURVEY
 GEOSERCH CONSULTANTS LTD.
 FOR
 SELCO EXPLORATION CO. LTD.
 SHEET 3 GRID 'A'
 STURGEON LAKE PROPERTY
 SCALE: 1 INCH TO 200 FT.
 DRAWN: MAR 1970 M.J.M.
 PROJECT 70-14
 SE 366(A) 181







FREQUENCY: 3520 HZ AND 880 HZ
COIL INTERVAL: 200 FT. (EXCEPT AS NOTED)
CONDUCTOR: STRAND MARK INDEFINITE

525/025E-003/#5
2.17

ELECTROMAGNETIC SURVEY
GEOSARCH CONSULTANTS LTD.
FOR
SELCO EXPLORATION CO. LTD.
SHEET 5 GRID 'A'
STURGEON LAKE PROPERTY
SCALE: 1 INCH TO 200 FT.
DRAWN: MARCH 1970 M.J.M.
PROJECT 70-14
SE 388(A) (1)

JOINS SHEET 6

201007

201008

201009

201010

201011

201019

201020

227010

227013

227015

227016

227014

227017

227012

227011

227009

227008

227007

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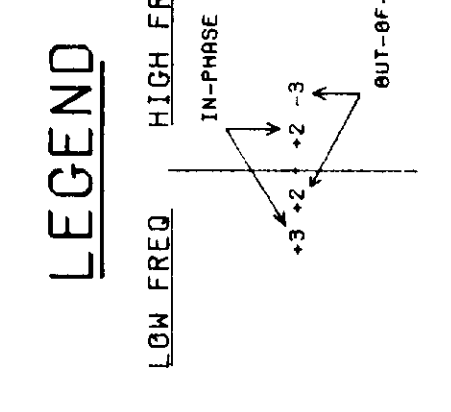
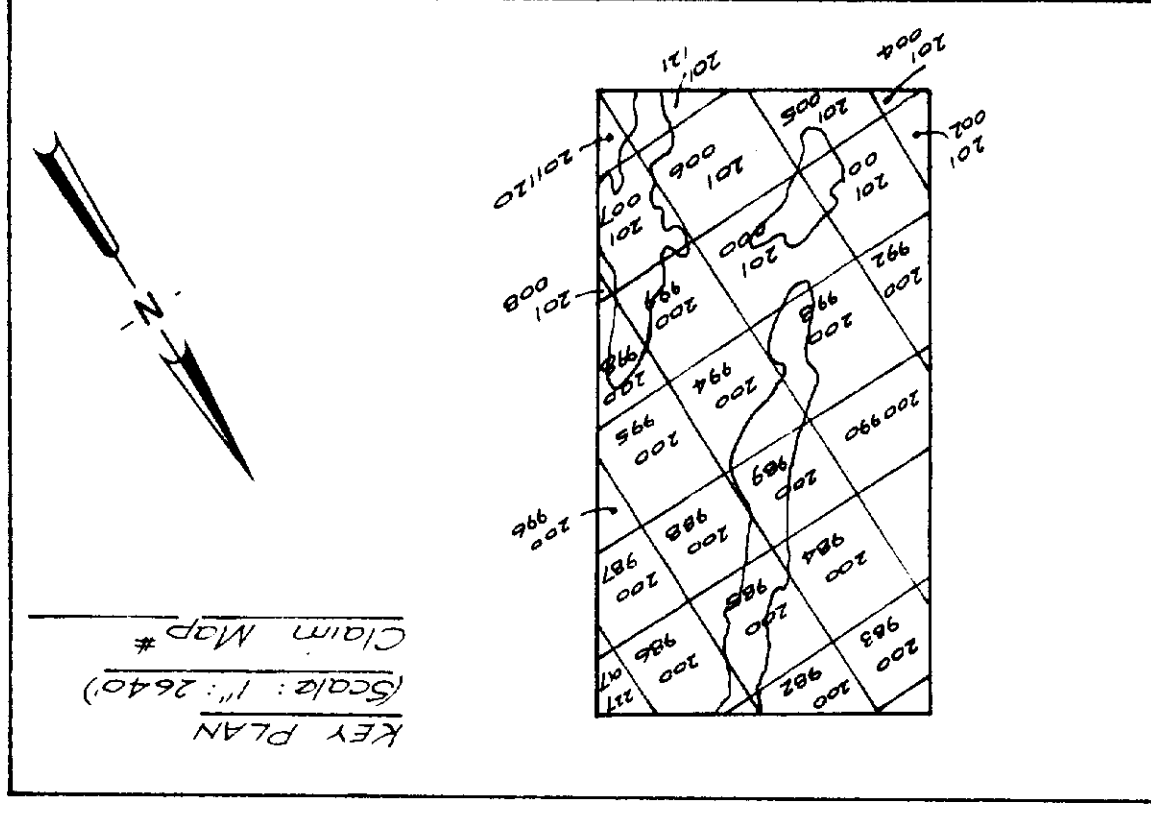
227000

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227000

227000





FREQUENCY: 3520 HZ AND 880 HZ
 CELL INTERVAL: 200 FT. (EXCEPT AS NOTED)
 CONDUCTOR: STRUNG --- WIRE --- INDICATED

525/025E-0031 #6

2.17

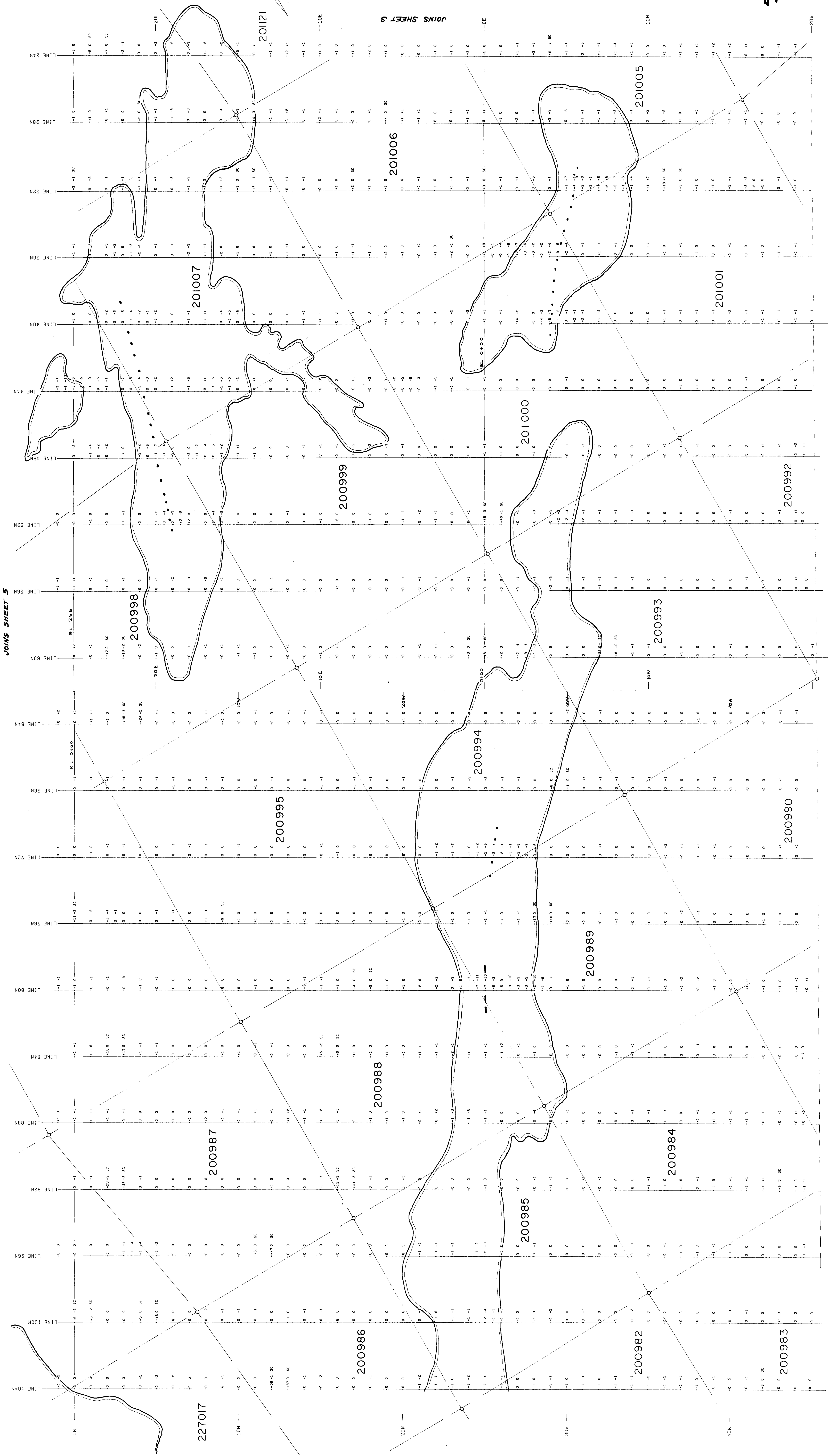
ELECTROMAGNETIC SURVEY
 FOR
 GEOSURCH CONSULTANTS LTD.

SELCO EXPLORATION CO. LTD.

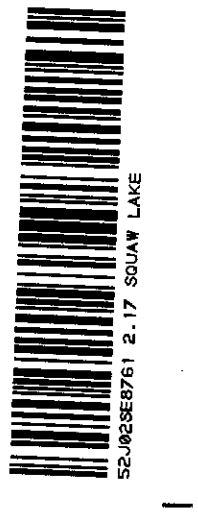
SHEET 6 GRID 'A'
 STURGEON LAKE PROPERTY
 SCALE: 1 INCH TO 200 FT.

DRAWN: March 1970 M.J.M.

SE 359 (A)



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20E

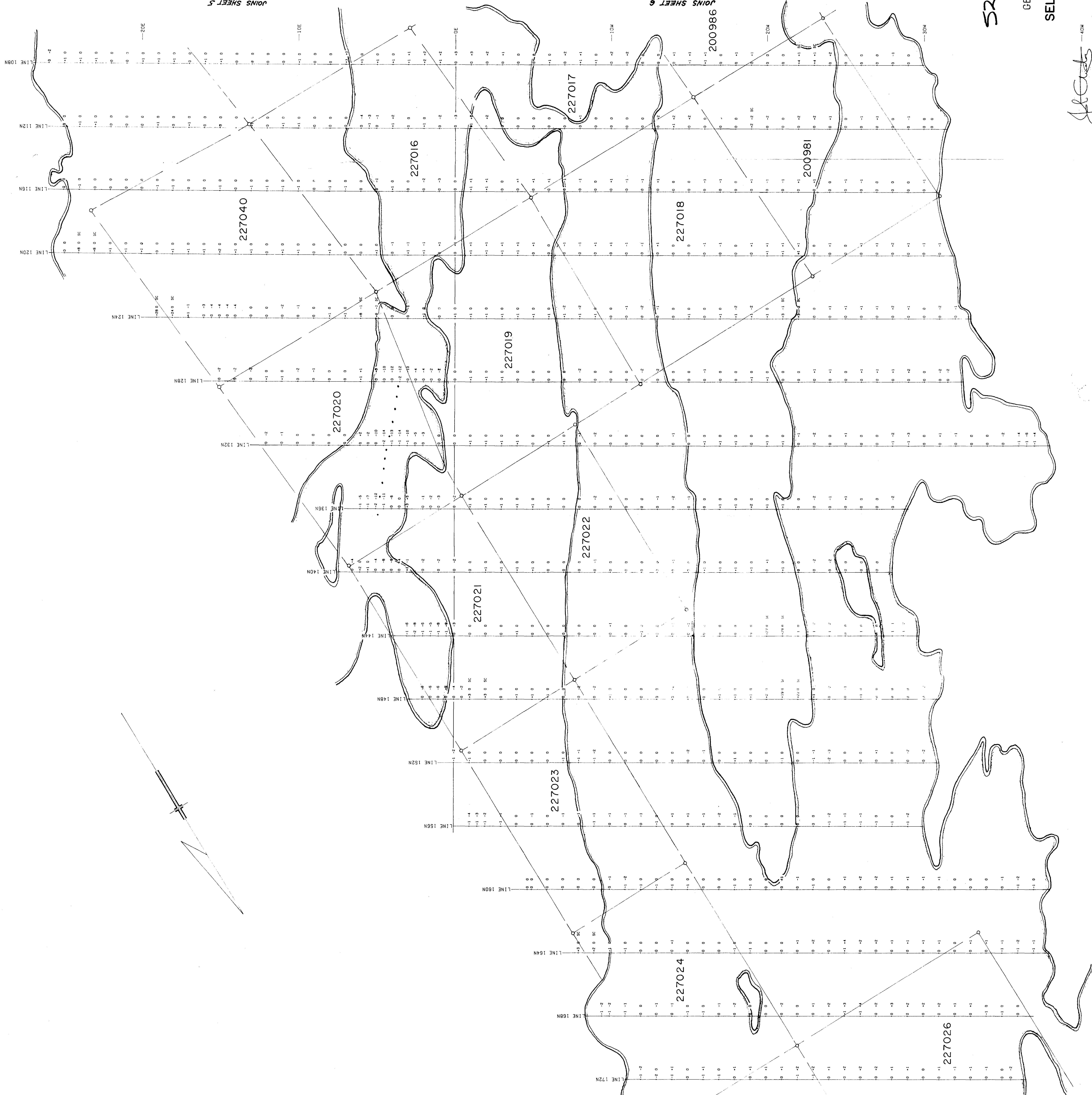
10E

04

10M

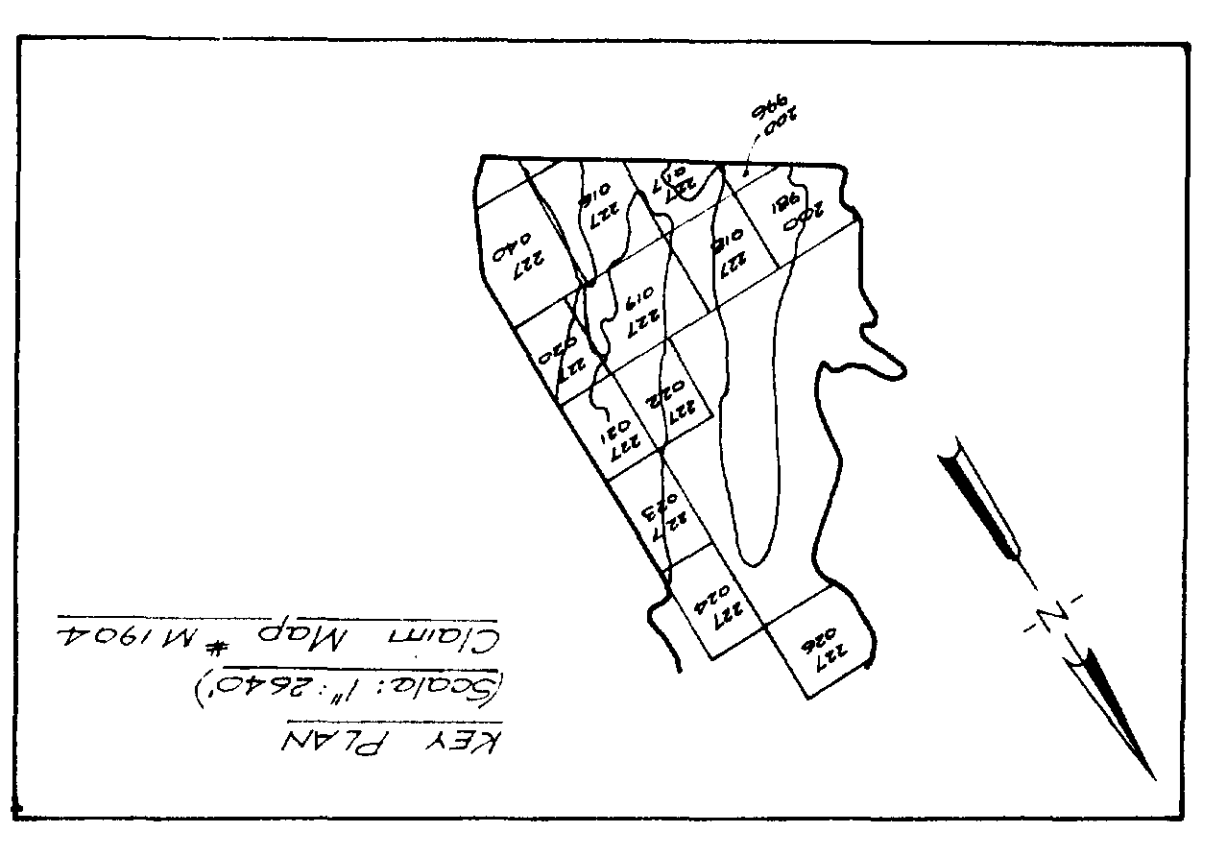
20M

30M



JOINS SHEET 5

JOINS SHEET 6



LEGEND

LOW FREQ. HIGH FREQ.
IN-PHASE READINGS
OUT-OF-PHASE READINGS

FREQUENCY: 3620 HZ AND 680 HZ
COIL INTERVAL: 200 FT. - ACCEPT AS NOTED.
CONDUCTIVITY: σ - NUMERICAL
RESISTIVITY: ρ - NUMERICAL

525/025E-003/#7
2.17

ELECTROMAGNETIC SURVEY
GEOSURCH CONSULTANTS LTD.
FOR
SELCO EXPLORATION CO. LTD.
STURGEON LAKE PROPERTY
GRID 'A'
SCALE: 1 INCH TO 200 FT.
PROJECT 70-14
DRAWN: M.S. 1970 M.J.M.
4-DM

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