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## BORDER GROUP NUFORT RESOURCES INC.

MAXMIN II - HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

STOUGHTON TOWNSHIP DISTRICT OF COCHRANE LARDER LAKE MINING DIVISION ONTARIO

12 July 1981

W. G. Wahl Limited

#### GENERAL

The following geophysical report details the results of the ground electromagnetic survey undertaken by W. G. Wahl Limited on behalf of Surveymin Limited and Nufort Resources Inc.

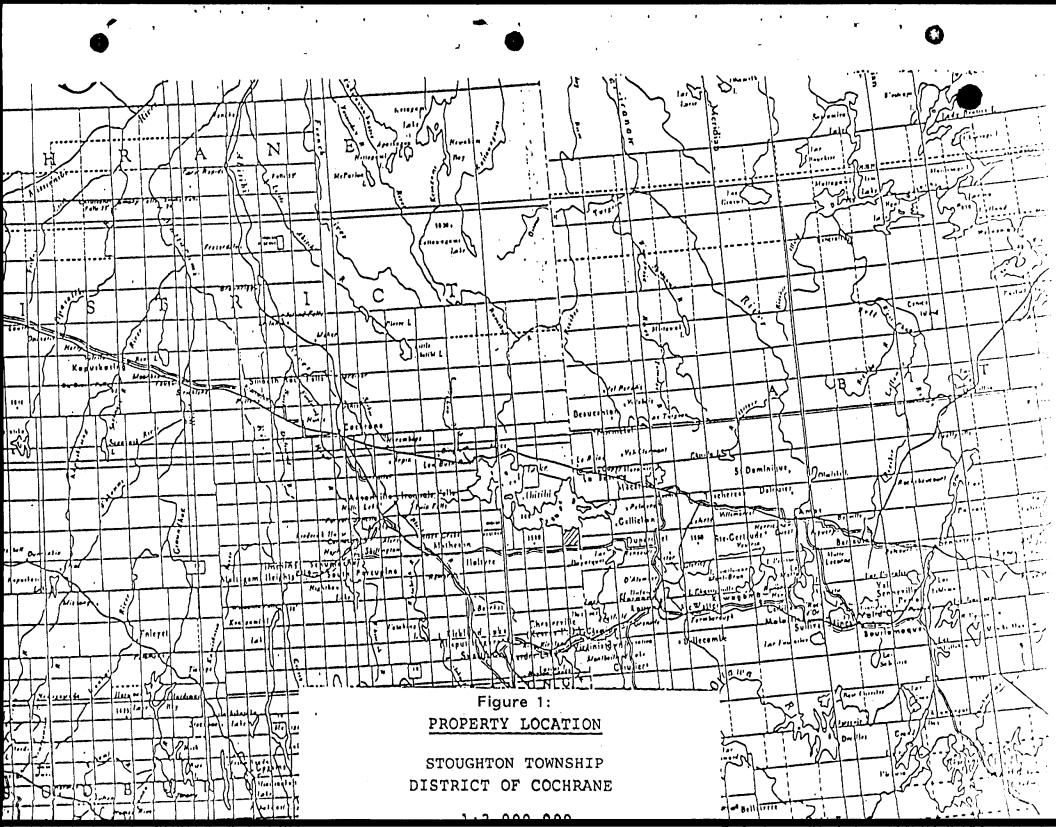
The property lies in the northeast corner of Stoughton Township, District of Cochrane, and is accessible by four-wheel drive vehicle west from the small village of Roquemaure, Quebec, via an all-weather gravel road to Lake Abitibi, at which point an old logging road trends south and westerly across the Ontario border to the property.

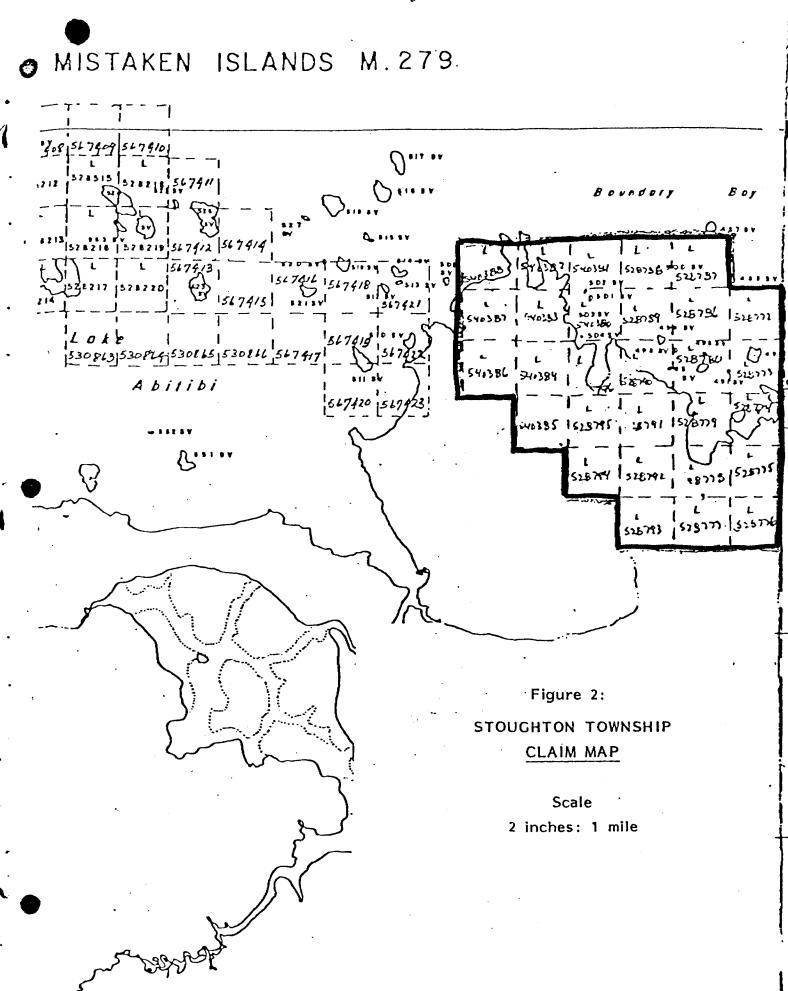
The geophysical survey was carried out over the following 15 unpatented contiguous mining claims, all of which are duly recorded with Mr. G. J. Koleszar, Mining Recorder, Larder Lake Mining Division.

L-528775	L-528778
L-528776	
L-528777	
L-528791	L-528794
L-528792	L-528795
L-528793	L-528796
L-540383	L-540386
L-540384	L-540387
L-540385	

#### LINE CUTTING

The line cutting was conducted under the direct supervision of Mr. Orville Hicks et al. of Schumacher, Ontario, during the period from January 14, 1981, to February 15, 1981. The survey grid consisted of 1.96 miles of baseline trending N45°W and 25.04 miles of grid line trending N45°E, established at 400 foot intervals along the entire baseline. Fifty-foot stations were established on all lines.





Assessment work credits have already been received for the line cutting, filed under special provisions, reference file No. 2.3875.

#### MAXMIN II HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

The horizontal loop electromagnetic survey was carried out by W. G. Wahl Limited during the period from May 10 to May 18, 1981, employing an Apex Parametrics MaxMin 11 horizontal loop survey unit in the maximum coupled mode. The inphase and quadrature response parameters were recorded at 444 Hz and 1777 Hz, utilizing a 200 foot coil separation and a 100 foot station interval. These data are presented in a profile format.

The 200 foot coil separation was established based on depth-totop calculations carried out on the total magnetic field data. Mr. J. H. Ratcliffe, consulting geophysicist, assisted in this work.

#### DISCUSSION

The multi-frequency horizontal loop electromagnetic survey was carried out over selected portions of the land area of the property in an attempt to further define the vIf anomalies identified during an earlier survey. The vIf anomalies, as confirmed by the geological mapping, are poorly conductive shear zones containing a very low percentage of total sulfides. The minor graphite noted during the geological survey is not pervasive enough to affect the overall conductivity measured at the lower frequencies used by the MaxMin II (1777 Hz and 444 Hz). The shear zones were mapped by the vIf because of the much higher frequencies used by the EM-16 system (24,000 Hz [24.0 KHz]) which tends to pick up weaker conductive zones such as weakly disseminated sulfides and shear zones.

#### CONCLUSIONS

It is recommended in light of the favourable assays returned by Miller, 1907, reported taken from a shear zone mapped along the southern shore of Lake Abitibi, that the more favourable vif anomalies be tested by diamond drilling.

All of which is respectfully submitted.



Sincerely yours, W. G. WAHL LIMITED

D. G. Wahl, P.Eng. Consulting Engineer

DGW/pl

2.4013

#### W. G. WAHL LIMITED

350 BAY ST. - 10TH FLR. - TORONTO, CANADA M5H 256 TEL. (416) 363-8761 - CABLE: WAHLCO - TORONTO

14 July 1981

Mr. J. A. Harquail President Nufort Resources Inc. Suite 1107 330 Bay Street Toronto, Ontario M5H 2S8

CONSULTANTS: GEOLOGY - GEOPHYSICS

# RECEIVED

### JUL 2 2 1981

MINING LANDS SECTION

Dear Mr. Harquail:

Submitted herewith is our report entitled:

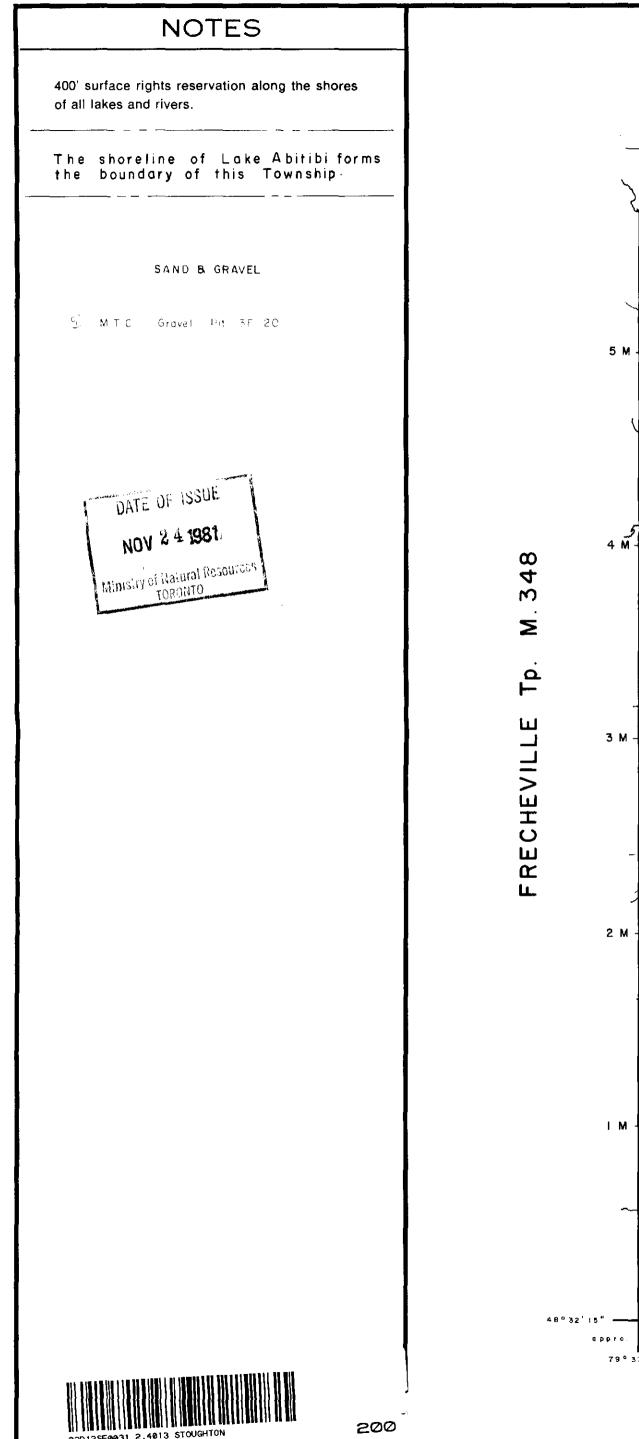
#### BORDER GROUP NUFORT RESOURCES INC.

#### MAXMIN II - HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

#### STOUGHTON TOWNSHIP DISTRICT OF COCHRANE LARDER LAKE MINING DIVISION ONTARIO

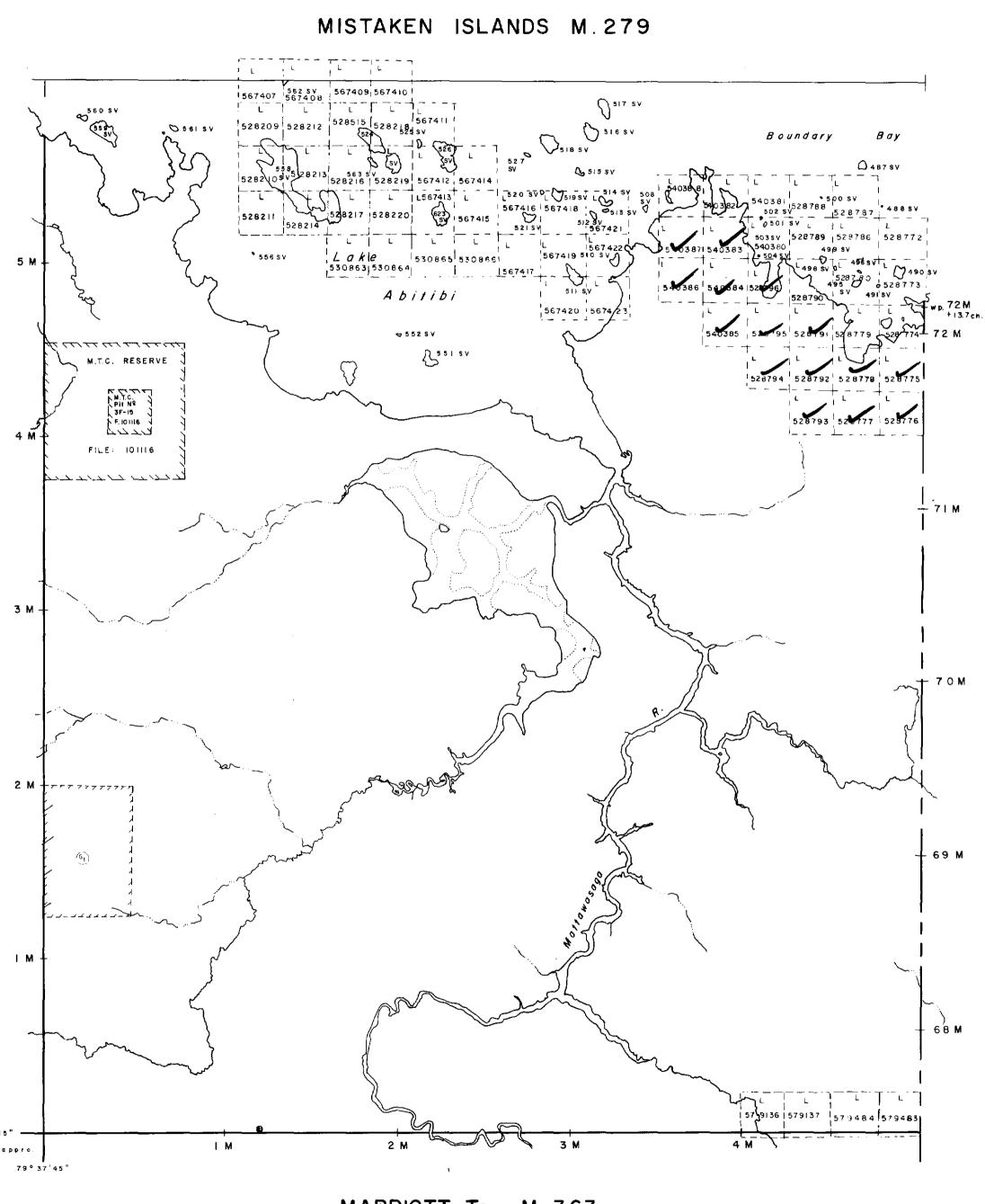
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It is recommended, in light of the favourable assays returned by Miller, 1907, reported taken from a shear zone mapped along the southern shore of Lake Abitibi, that the more favourable vif anomalies be tested by diamond drilling.



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MARRIOTT Tp. M. 363

LEGEND HIGHWAY AND ROUTE No. OTHER ROADS TRAILS SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC. LOTS, MINING CLAIMS, PARCELS, ETC UNSURVEYED LINES: LOT LINES PARCEL BOUNDARY MINING CLAIMS ETC. RAILWAY AND RIGHT OF WAY UTILITY LINES NON-PERENNIAL STREAM FLOODING OR FLOODING RIGHTS SUBDIVISION ORIGINAL SHORELINE MARSH OR MUSKEG MINES DISPOSITION OF CROWN LANDS TYPE OF DOCUMENT SYMBOL PATENT, SURFACE & MINING RIGHTS SURFACE RIGHTS ONLY MINING RIGHTS ONLY LEASE, SURFACE & MINING RIGHTS SURFACE RIGHTS ONLY MINING RIGHTS ONLY LICENCE OF OCCUPATION CROWN LAND SALE .C.S. OC ORDER-IN-COUNCIL  $\odot$ RESERVATION  $\otimes$ CANCELLED 6 SAND & GRAVEL SCALE : 1 INCH 40 CHAINS FEET METRES 0 200 400 600 800 ACRES HECTARES 16 40 TOWNSHIP STOUGHTON DISTRICT COCHRANE J.4013 LARDER LAKE Ministry of Natural **(V)** Resources Surveys and Mapping Branch Ontario Plan No. Date 12 - 7 4 M.389 Whitney Block Queen's Park, Toronto

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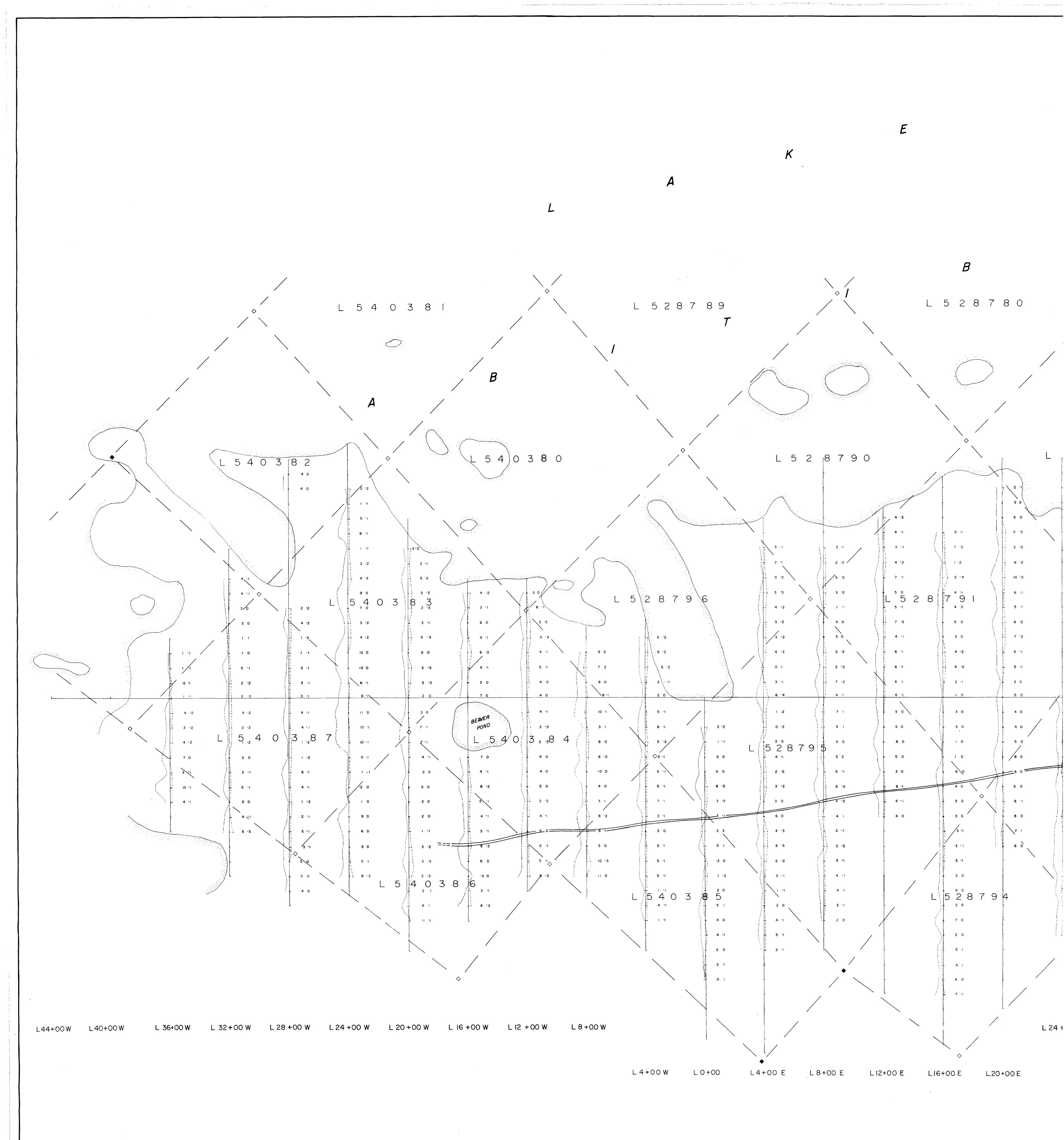
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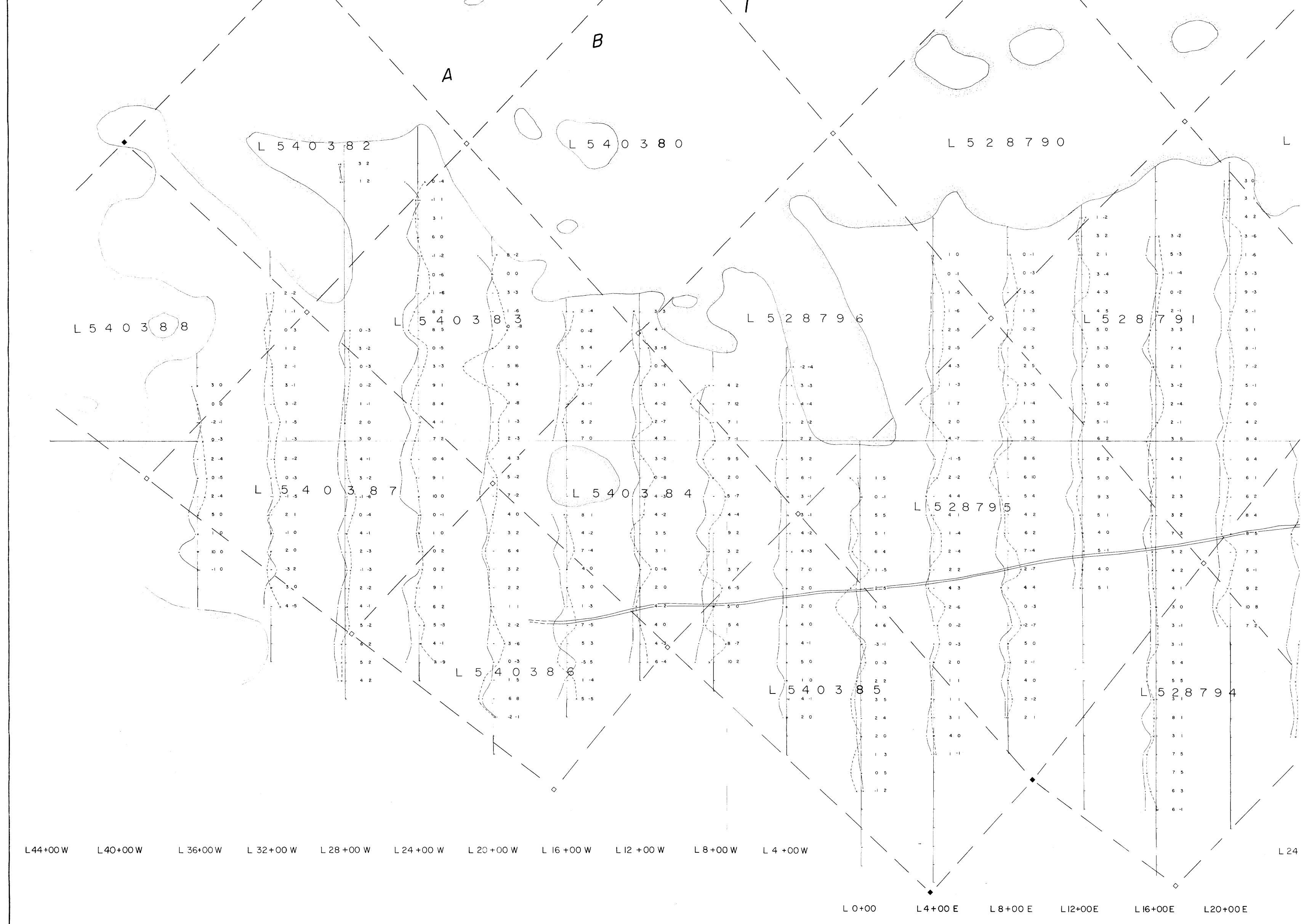
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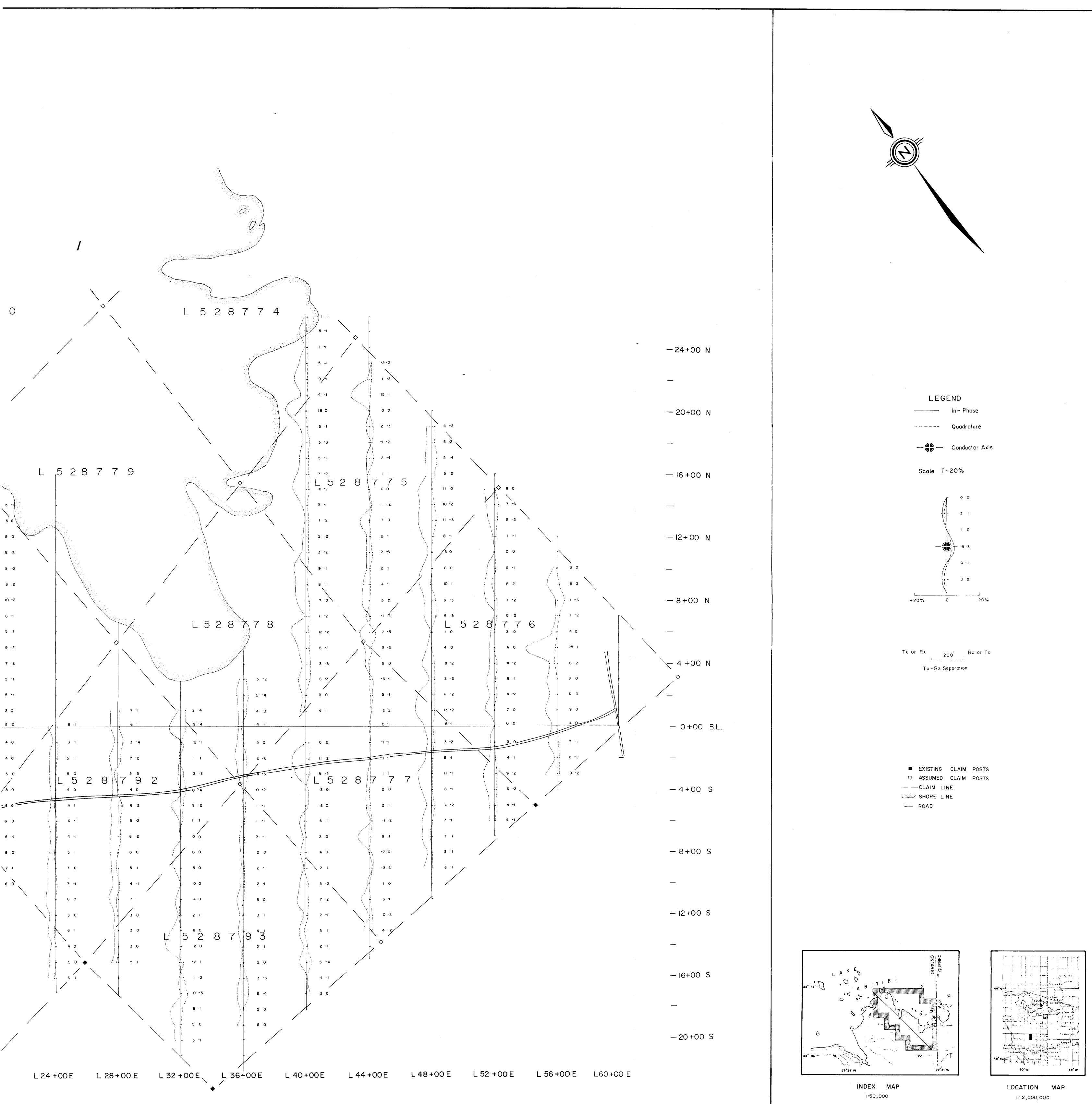
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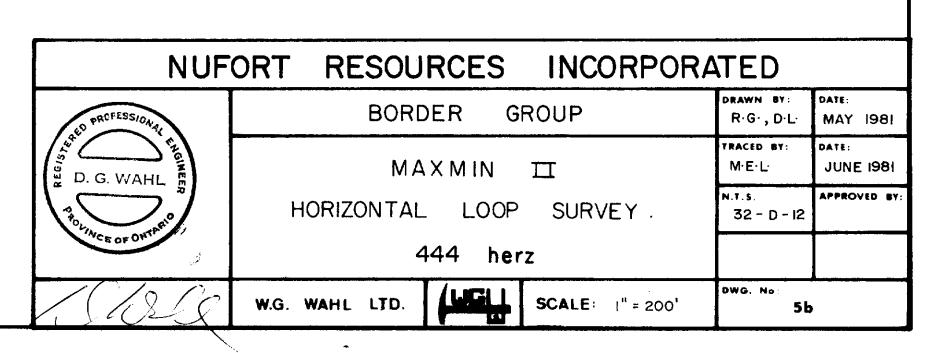
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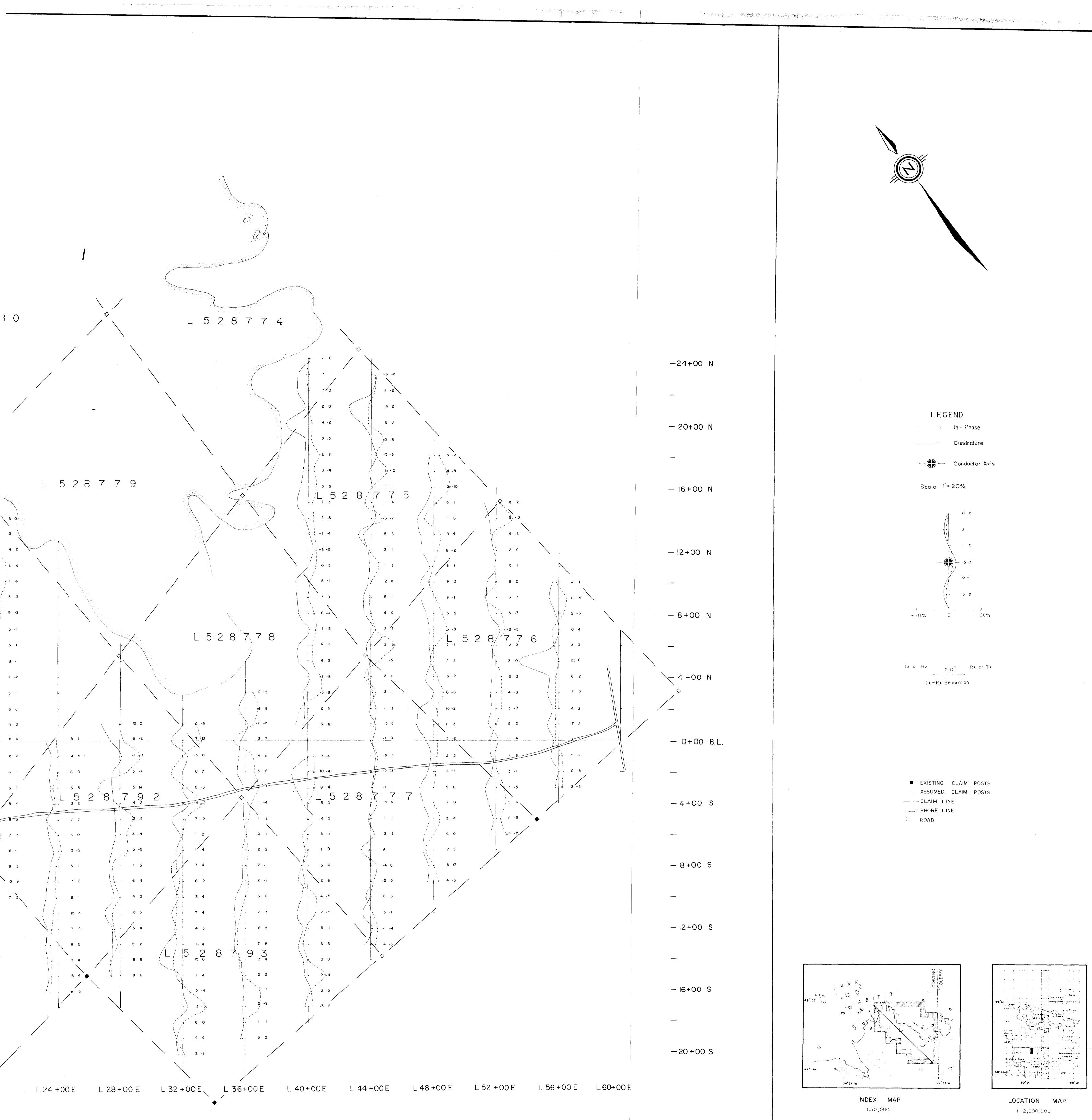
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