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REPORT ON  
THE STELLAR GOLD MINE PROPERTY  
KENORA MINING DIVISION  
MINE CENTER AREA, ONTARIO,

By

G. F. Ennis  
Mining Engineer

October 17, 1975  
Toronto, Ontario

**G. F. ENNIS**  
MINING ENGINEER

### INTRODUCTION

On October 15, 1975, the writer examined the NO. 2 Vein, also called the RAINBOW VEIN, on the Stellar Gold Mine property in the Mine Center Area, Kenora Mining Division, Ontario. The trip was made at the request of Mr. A. Huber and Associates of Ft. Frances, Ontario, to investigate an examination report on the property by Mr. C. H. Miles, Mining Engineer, dated June 1934. A copy of Mr. Miles's report is attached. There was not sufficient time to locate and examine the other veins described by Mr. Miles.

### PROPERTY AND LOCATION (see Sketch NO. 1)

The Stellar Gold Mine property is located approximately 30 miles by road east of the town of Ft. Frances on the northeast shore of Bad Vermillion Lake and one-quarter mile south of Highway 11 which runs from Ft. Frances to Thunder Bay.

The property comprises eight claims, owned jointly by Mr. A. Huber, A. LaFreniere, R. Pitkanen, K. Carlson, and the writer. The claims are shown on Plan NO. M 2474, Grassey Lake, District Of Rainey River, Kenora Mining Division, Ontario Ministry Of Natural Resources. The map dated August 14, 1975, shows the claim numbers to be FF 758 (HP 100), FF 759 (AL 180), FF778 (HP 137 and K 412621), FF 1101 (HP 97), FF 697 and FF 1100 which are included in (P666), and FF 777 and FF 698 which are included in (HP 96). The claims shown in parenthesis are referred to in Mr. Miles's report. The eight claims have recently been staked and are now recorded, but the claim map shows only K 412621. The new numbers will be shown on a later map.

### ACCESS

The property is easily accessible by road from Ft. Frances Ontario, east for 30 miles along Highway 11 and south on a good gravel road across the property to the north shore of Bad Vermillion Lake. Tractor roads and trails to any part of the property can be made with no great difficulty.

POWER, TIMBER AND WATER

Water for all purposes is available from Bad Vermillion Lake and there is sufficient timber on the property for preliminary mining exploration purposes. Hydro-electric power is available within a few miles north of the property.

TOPOGRAPHY

The area within the boundaries of the Stellar Gold Mine property is typical of the general low lying relief of the Keewatin Shield. Elevations above Bad Vermillion Lake are not more than 50 feet with glaciated ridges trending slightly north of east. Some swampy areas are present as a result of flooding by beaver dams.

GEOLOGY (see Sketch No. 1)

The geology of the Stellar Gold Mine property is well covered in Mr. Miles's report. The general geology of the Mine Center Area, including the Stellar Gold Mine claims is also shown on Geological Map NO. 334A, Mine Center Area, Ontario, Canada Department Of Mines, Bureau Of Economic Geology, Geological Survey, 1936, on a scale of one-half mile to the inch.

The predominant rock formations on the property are dated grey quartz-feldspar porphyries, anorthosite, and a younger gabbro. Keewatin lavas are exposed along the shore of Bad Vermillion Lake and north of the north boundary of the claims. An outcrop of sand coloured quartz porphyry outcrops on the west side of the swamp near the NO. 2 Vein. It is intensely fractured with the fractures filled by many fine quartz veinlets.

Evidence from diamond drilling on the Golden Star Mine on the southeast side of Bad Vermillion Lake suggests that the grey quartz porphyries are older than the Algonian age. They are probably Laurentian.

VEINS (see Sketches NO. 2 and NO. 3)

The limited time I had available was spent examining the NO. 2 (Rainbow) Vein. It was described in detail and sampled by Mr. Miles in 1934 when the shaft was dewatered.

The NO. 2 Vein is in a well defined shear zone. A single white milky to sandy textured quartz vein occupies the center of the

shear. The width of the vein varies from 12 to 18 inches with parallel quartz stringers giving a total width of vein material of over five feet. The zone appears to dip vertically but Miles stated that it shows a slight northerly dip in the shaft.

Mineralization in the quartz and shear consists of galena, sphalerite, some chalcopyrite, pyrite, and fine free gold. The arithmetic average of Miles's samples was 1.10 ounces gold per ton. No silver assays were noted but some silver should accompany the galena.

The sheared rocks have been altered to a dark brown carbonate so it is difficult to determine their original composition. There is considerable ankerite in the vein and shear.

What appears to be the same shear zone is exposed in a small pit about 700 east on line of strike (N80E) from the NO. 2 shaft on the east side of a swamp. Very little work was done here.

#### CONCLUSIONS

As stated above, there was not sufficient time to examine the other veins described by Mr. Miles. A few are shown on Map 334A by The Canadian Geological Survey.

The NO. 2 Vein has very encouraging structure, width and gold values. It should be carefully explored by diamond drilling at vertical horizons of 50 and 100 feet along the strike with continued drilling to greater depths if assays of the drill core show economic values.

The other veins on the property as described by Miles should be located, mapped and sampled. As far as I know there has been no very detailed geological mapping done on the Stellar Gold Mine property or on the general area except that shown on Geological Map NO. 334A which is on a scale of one-half mile to the inch.

#### RECOMMENDATIONS

The following exploratory program is recommended for the Stellar Gold Mines Property:

1:- A minimum of 2,000 feet of diamond drilling to be done along the strike of the NO. 2 (Rainbow Vein) with holes located to cut the vein structures at vertical depths of 50 and 100 feet. Additional holes to be <sup>drilled</sup> at greater depths if warranted.

2:- A grid of picket lines, spaced at 200 feet intervals, to be cut in a north-south direction across the property with stations established at fifty foot intervals. These north-south lines to be cut from an east-west base line along the north boundary of claims FF 778, FF 697, and FF 1100.

3:- A geological mapping program to be conducted using the grid lines as control, along with a prospecting program to locate and sample the known veins and any other possible mineralized occurrences.

4:- Since copper values have been reported by Miles and others, an electromagnetic survey should be conducted along the north-south lines with readings at fifty foot intervals and at intermediate points where necessary to delineate structure or mineralization.

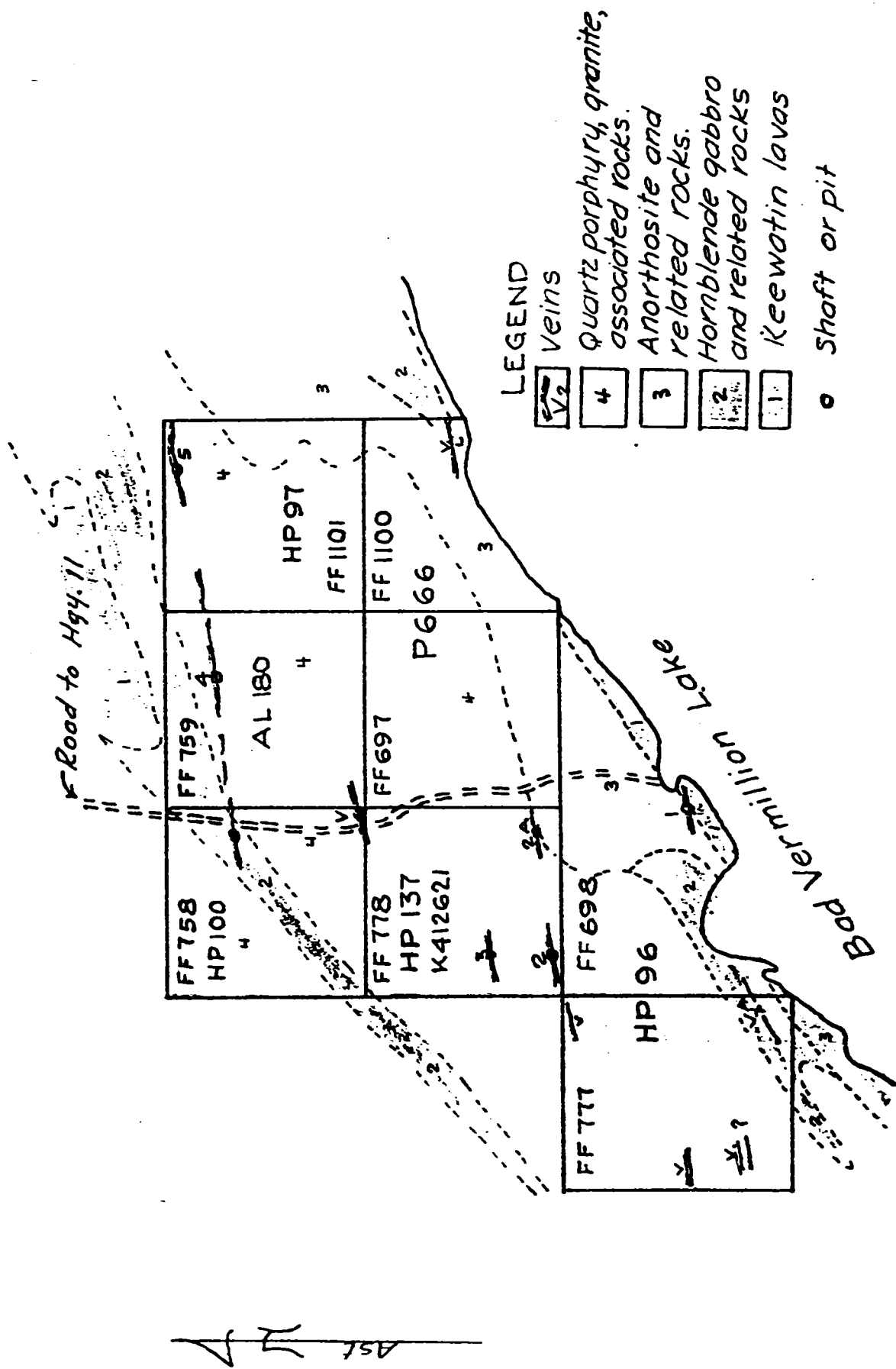
No detail of costs for the above recommended exploration programme is offered at this time. However, a total preliminary cost of \$50,000 should be provided for.

Respectfully submitted



G. F. Ennis

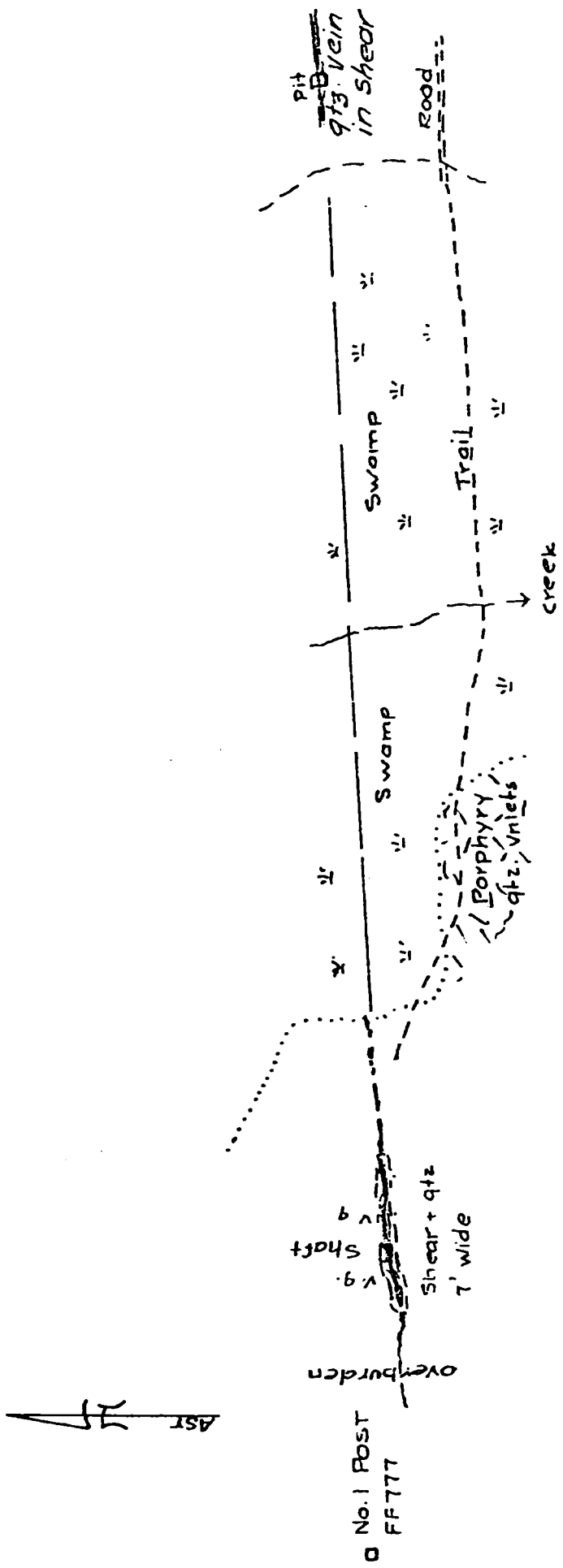
October 17, 1975,  
Toronto, Ontario,



LEGEND

- Veins
- Quartz porphyry, granite, associated rocks.
- Anorthosite and related rocks.
- Hornblende gabbro and related rocks
- Keewatin lavas
- Shaft or pit

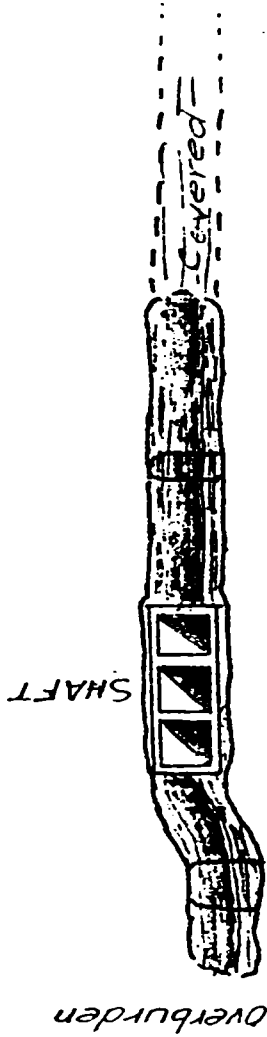
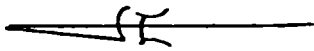
SKETCH NO. 1  
 STELLAR GOLD MINE  
 MINE CENTER AREA, ONT.  
 SURFACE GEOLOGY  
 Scale: 1" = 1000' Oct. 17, 1975



CLAIM FF 778 (K412621) - (HP 137)

SKETCH No. 2  
STELLAR GOLD MINE  
SKETCH OF No. 2 (RAINBOW VEIN)  
MINE CENTER AREA ONT.  
 Scale: - 1" = 100' Oct. 17, 1975

G. F. Ennis M. E.



No. 3 SKETCH  
STELLAR GOLD MINE  
SHAFT AREA  
No. 2 (RAINBOW) VEIN  
Scale:- 1" = 20'    Oct. 17, 1975

G. FENNIS M.E.



COPY OF  
REPORT ON  
STELLAR GOLD MINES  
BY: G. H. MILES, June 1934

Mr. G. Miles, a Mining Engineer, reported on the Stellar Gold Mine in 1934. His report follows:

LOCATION: The Stellar Mining claims are located in the Bad Vermillion Lake Gold Area in the Rainey River District, Ontario.

TO REACH PROPERTIES:- From Olive Siding on the Canadian National R.R. to the claims is a distance of about 3½ miles. The old mining road between Olive Siding and Bad Vermillion Lake is in good condition except for the culverts and one small bridge over a narrow creek. If these are repaired the road would stand a two ton truck load. The road may be used to within half a mile of the Lake shore where a small creek crosses the road. From this point a trail has been cut in southwesterly direction over flat lying land for nearly half a mile and comes out on mining location H.P. 97, at a place where a pit was sunk on a contact vein. Road must be built from here to NO.2 Shaft. The claims may also be reached by way of Mine Center on the CN. R.R. From the station south to Bad Vermillion Lake is one mile, good road; from here 4½ miles by water to Mining Claim H.P. 96.

PROPERTY-

THE STELLAR SYNDICATE own eight claims which contain 320 acres. The numbers of the claims are: HP 97, HP 96, east half and west half of P666, east half and west half of AL. 180, HP. 100, and HP. 137, all recorded in the Mining Records Office at Fort Frances, Rainey River District, Ontario.

GEOLOGY:- Keweenawan, Quartz Porphyry, Granite. Along the north shore of Bad Vermillion Lake the formation is anorthosite (or gabbro) very much altered and schistic. This rock, which forms the north shore line of the Lake extends northward a few hundred feet to one quarter mile.

VEINS: The veins found in the anorthosite are mostly copper bearing with low gold contents. Deposits of magnetite have also been discovered in the anorthosite .

STELLAR GOLD MINES REPORT (cont'd)  
C. H. Miles, M.E.

The quartz porphyry is a massive greyish colored rock that contains distinct phenocrysts of quartz in a finely grained greyish ground mass. Some of the phenocrysts show a diameter of one third of an inch and nearly one inch in length. ( Note by G.F.E.: - this is Laurentian age and in contrast to the pink and buff colored Algoman porphyry). Quartz veins are associated with this formation as a stockwork of small irregular veins. Gold values can be obtained in most of these veins and at a number of places native gold has been found in them. To the north and west the formation is granite. Granite - To the east and the south the granite contacts with the quartz porphyry and along this contact has been subjected to a shearing movement of sufficient magnitude to produce a shatter zone with a number of veins. The granite extends northward beyond the claims where it becomes increasingly massive. Diabase - A diabase dike extends N30E from the southwest corner of mining claim HP 100 and across this claim. It has a width of 150 feet. Where it crosses the boundary of the claim it cannot be seen on account of overburden.

VEINS:- There are seven veins on which work has been done. There are a number of other veins on which work should be done, the veins showing well mineralized quartz. Three of them pan gold. Vein NO. 1 is on the shore of Bad Vermillion Lake near the north part of the east half of HP.96 in anorthosite formation. The vein is of the fissure type. It strikes E20N and dips vertically, can be traced for 400 feet on the surface. A shaft has been sunk to a depth of 15 feet. The quartz shows a width of 40 inches in the bottom of the shaft. The vein filling consists of quartz, copper, iron pyrite, zinc blende and low gold values. Sample one, taken across 30 inches of quartz vein 2 feet below the collar of the shaft gave 36.00 in gold per ton at \$20.00 per ounce.

Vein NO. 2 is also called the RAINBOW VEIN. This vein is in a shear zone 75 feet wide or more as the north boundary cannot be seen. The vein lies in a highly altered quartz porphyry and appears on the

STELLAR GOLD MINES REPORT (cont'd)  
 C. H. Miles, M.E.

surface of irregular form varying from a few inches to 16 inches in width. It strikes E20W and dips slightly to the north. The vein increases in width from 16 inches on the surface to 46 inches in the bottom of the shaft, 24 feet from the surface. At the bottom of the shaft, on the east side, quartz has replaced the rock for the width of the shaft, or, the vein shows five feet of quartz at this point. The vein consists of quartz, ankerite, copper, galena, zinc blende, pyrite and native gold. Spectacular samples of gold have been taken from this shaft. The gold is fine and difficult to discern without a magnifying glass. Assays from this vein and shaft:- (at \$20.00/Oz.)

<u>SHAFT</u>			<u>Per ton</u>	<u>Ounces</u>
	<u>Depth</u>	<u>Width</u>	<u>Value</u>	
East side	9'	across vein	\$ 8.60	0.43
	12'	" "	22.40	1.22
	15'	" "	43.87	2.19
	17'	across 36"	15.40	0.78
	9'	across vein	10.00	0.50
West Side	15'	" "	65.00	3.25
	19'	across 54"	20.70	1.03
	24'	" 54"	12.65	0.63

SURFACE EAST OF SHAFT:-

3 feet east from shaft	42 in. width	7.20	0.34
4 " " " "	40 " Qtz. & rock	3.00	0.15
10 " " " "	42 " " "	2.40	0.12
14 " " " "	42 " " "	2.40	0.12
16 " " " "	40 " " "	panned fine gold	
17 " " " "	26 " " "	49.80	2.49
22 " " " "	28 " " "	trace	
27 " " " "	panned gold in coarse colors, not assayed.		
34 " " " "	panned few colors, not assayed.		

SURFACE WEST OF SHAFT:-

50 feet west of shaft samples show free gold, not assayed.  
 15 feet west of shaft across 30 inch width 23.50 1.17

A large sample was cut on the west side in the shaft below the timbers to the floor of the shaft.

The vein can be traced on the surface for 150 feet east of

STELLAR GOLD MINES REPORT (cont'd)  
C. H. Miles, M.E.

the shaft; then it is covered by overburden of muskeg. West of the shaft it can be traced for 50 feet. A vein was found on the east side of the swamp in direct line with the strike of the NO. 2 Vein. This vein has all the characteristics of Vein NO. 2. It will take considerable work to establish the connection between the two veins.

VEIN NO. 3 is 400 feet north of Vein NO. 2, on mining claim HP. 137. The vein is irregular and lense formed from a few inches to 2 to 3 feet in width, strikes E10N, dipping slightly to the north. A pit was sunk on one of the lenses, 30 inches wide. The quartz pans. 100 feet east of the pit the vein is 14 inches wide and specks of gold can be seen in the quartz. The vein can be traced for 400 feet.

VEIN NO. 4 is five chains from the north boundary of AL. 180 and about 3 chains west of the east boundary of the claim. The vein varies in width from a few inches to five feet. It can be traced all across AL. 180 and over part of HP. 137, across the north part of HP. 107, and into G. 124. On HP. 100 a shaft was sunk for 12 feet. The vein has a width of 14 to 20 inches, and although not heavily mineralized, shows small amounts of galena and pyrite. On panning it showed a few colours of gold. A quarter mile east of this shaft on location AL. 180 the quartz is of rosy colour and carries good values in copper, galena, zinc blende and gold. Assays on surface gave \$16.50 per ton at \$20.00 made by Mr. L. Williams, Houghton School Of Mines, Michigan.

VEIN NO. 5 is along the northern boundary of the group of claims and follows a contact between a later gabbro and the granite porphyry. The vein itself is in granite porphyry. Trenching was done on it from the east boundary of HP. 97 to the west for a distance of 600 feet. The vein varies in width from a few inches to eight feet, can be traced on locations AL. 180 and part of HP. 100 and keeps the same distance from the contact as on HP. 97. The vein is well mineralized with copper, iron pyrite and zinc. Samples taken from the surface panned. No samples were taken for assay as the vein had not been broken into. The strike of the vein is east-west, dipping towards the

STELLAR GOLD MINE REPORT (cont'd)  
C. H. Miles, M.E.

north contact.

VEIN NO. 6 is on the shore of Bad Vermillion Lake on the east half of P. 666. Massive outcropping of quartz is showing in the anorthosite formation. This quartz contains copper and iron pyrite. The quartz is folded and cannot be traced for more than 200 feet because of overburden. It has a width of 5 to 15 feet. I did not get any gold in panning but was told that free gold had been found in this quartz.

VEIN NO. 7:- Is a shear zone in the anorthosite with a width of ten feet. This shearing might have a greater width as its boundary has not been found. A ten foot width of it has been stripped and a five foot pit sunk. Samples from the pit gave 3 percent copper and \$3.00 in gold per ton. This vein is 200 feet west of Vein NO. 6. A good deal more work is necessary to establish the value of this interesting outcropping.

OTHER VEINS

On the south half of the west half of HP. 96 are two narrow veins carrying galena and gold. No work has been done on them. Near a spruce swamp on or near the west boundary of the west half of HP. 96 is a 24 inch wide vein showing free gold. No work has been done here. Trenching was done on a vein west of NO. 2 Vein. This vein is three feet wide. No mineralization was found and the quartz did not pan and the work was discontinued. This work should be taken up again and may prove to be NO. 2 (Rainbow Vein).

- REMARKS -

The Atikokan - Ft. Frances power line is two miles north of the claims and can be obtained for \$25.00 per horsepower year.

With more work, both trenching and sinking of shaft, I am convinced that this property will become known for its rich veins. Whereas the veins have no great width on the surface Vein NO. 2 has

STELLAR GOLD MINES REPORT (cont'd)  
C. H. Miles M.E.

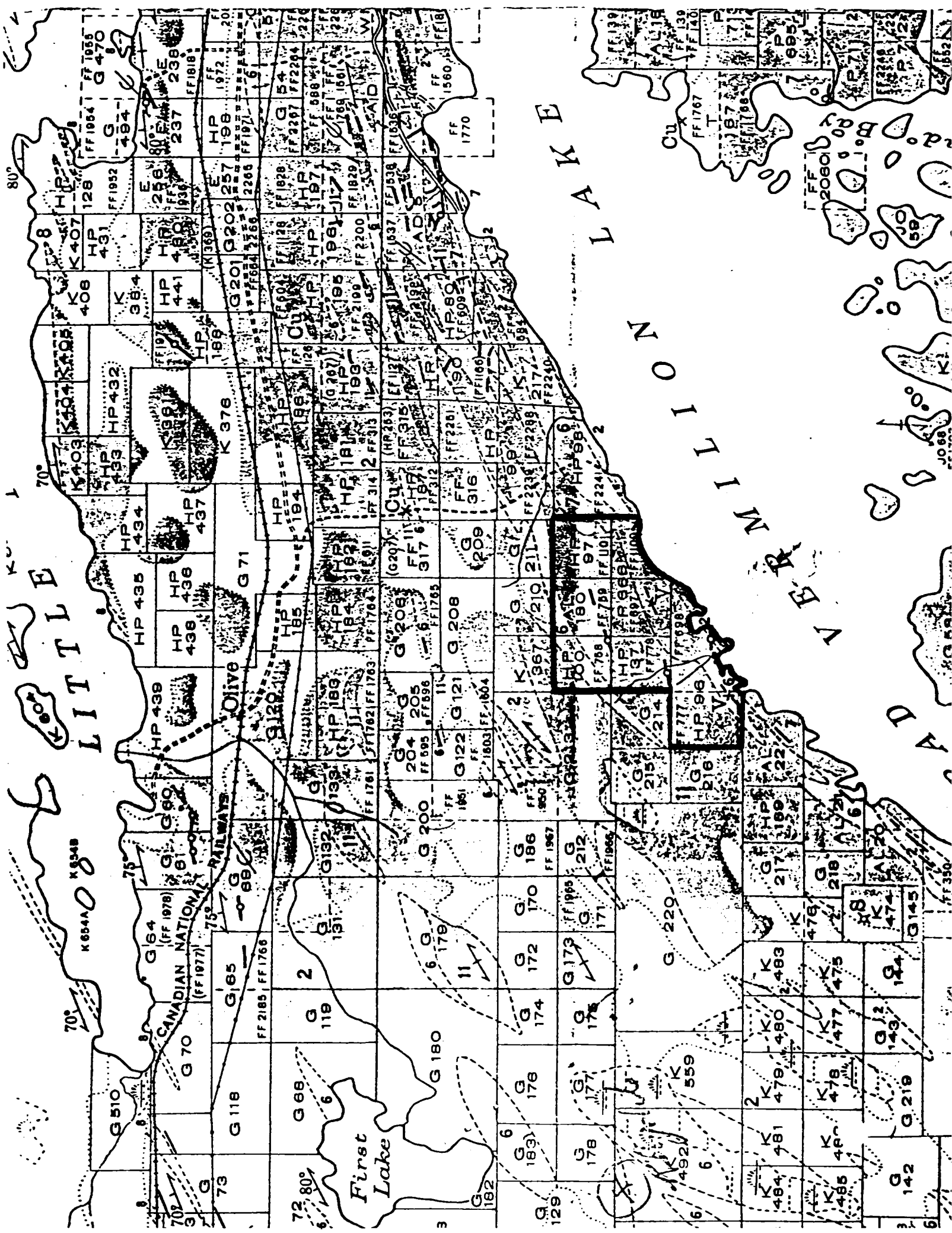
proved good mining width with sheared rocks on both walls which carry values.

Nobody can tell with certainty by looking at a prospect if it will make a mine, but the indications on this property are such that I do not hesitate to recommend it for a mining venture.

Sincerely yours

(sgd) C. H. Miles M.E.

June 1934,



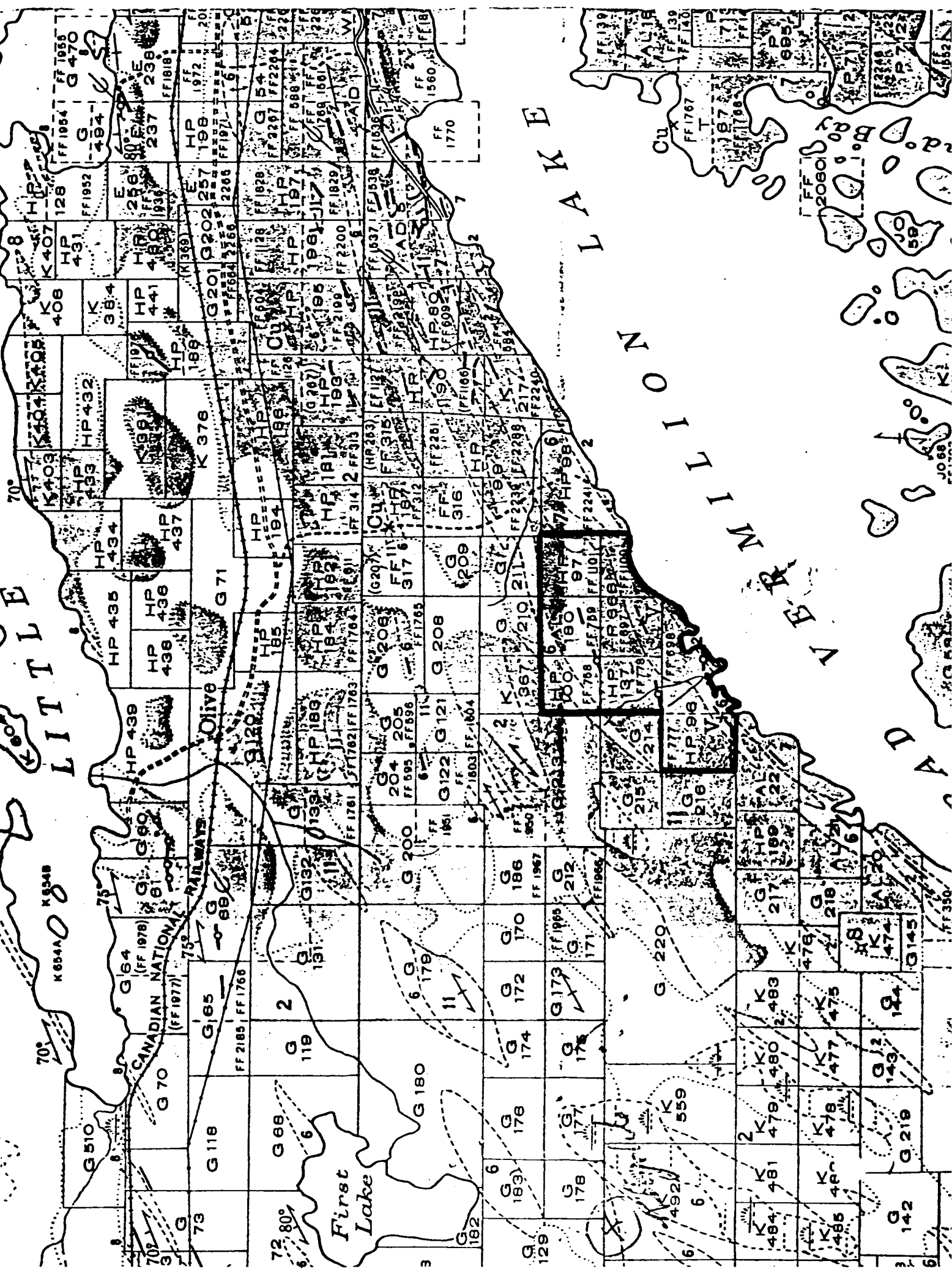
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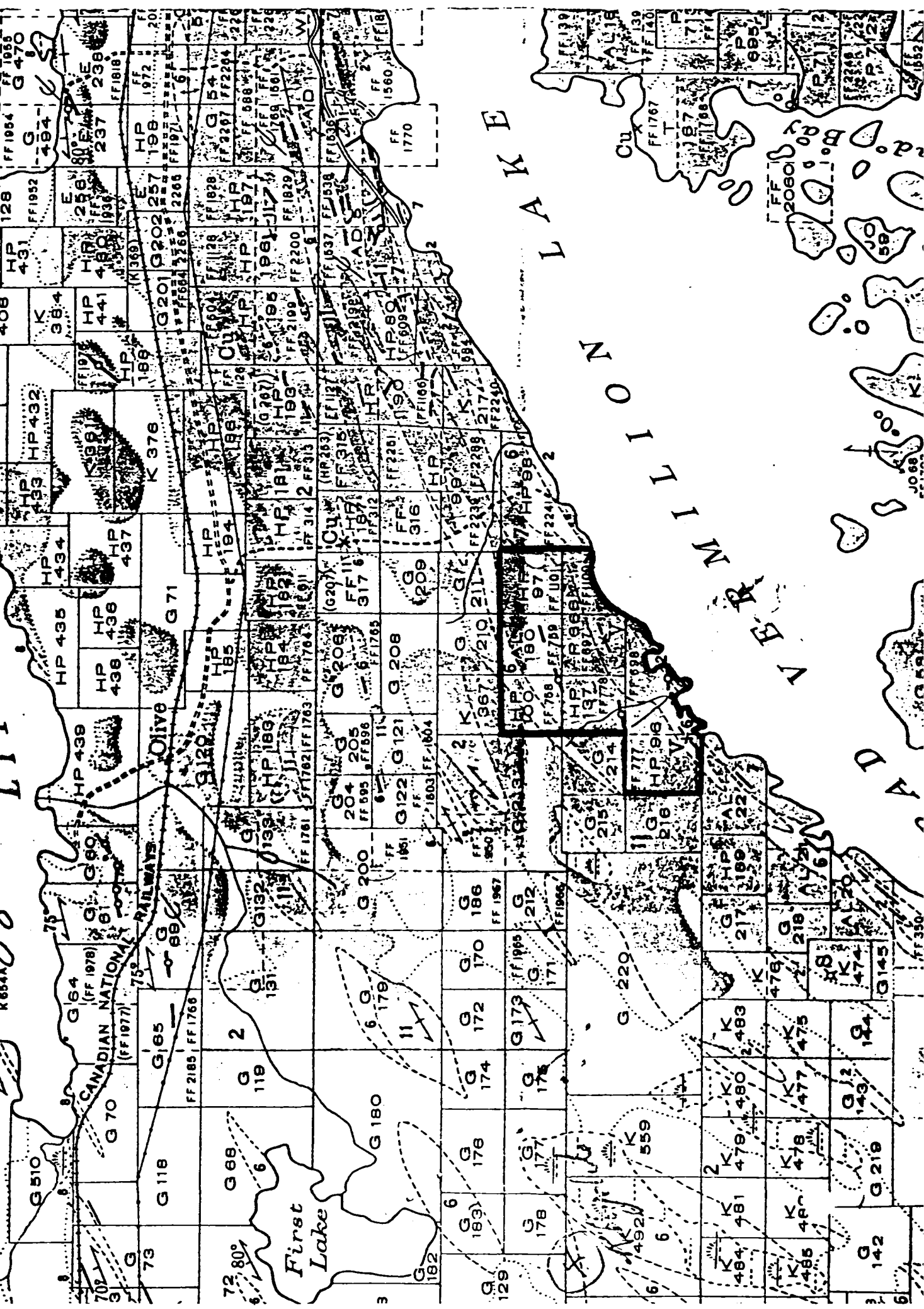
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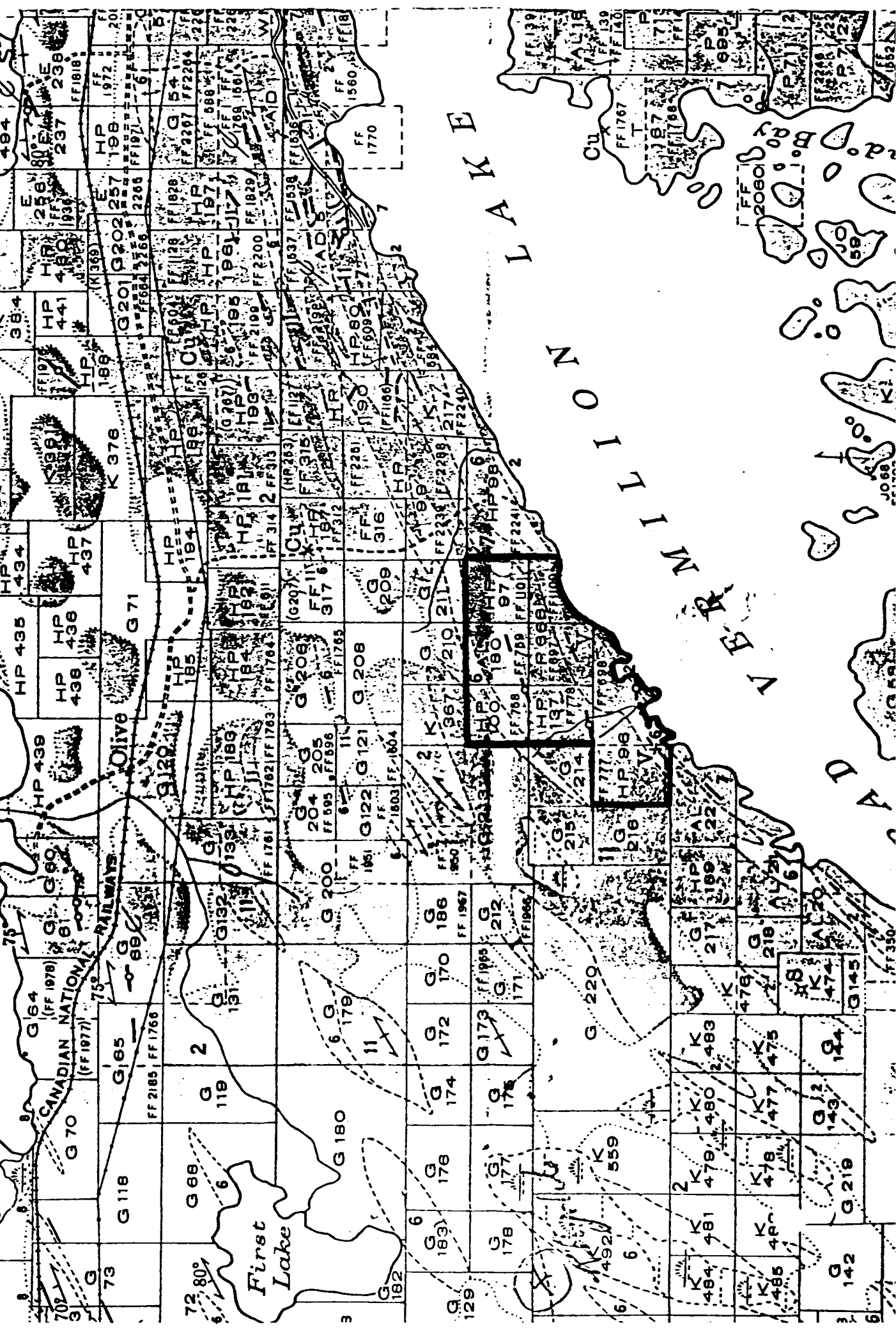
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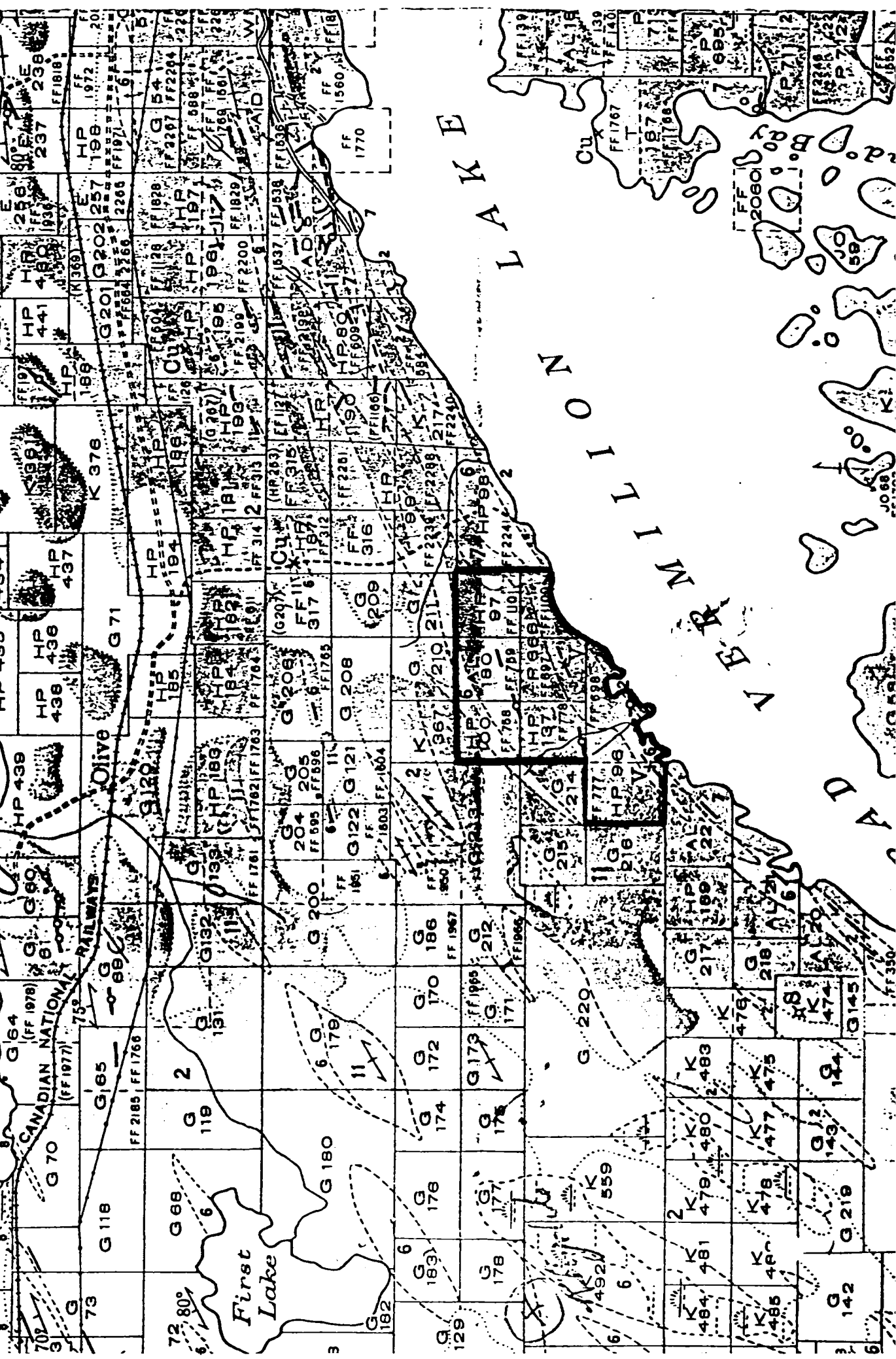
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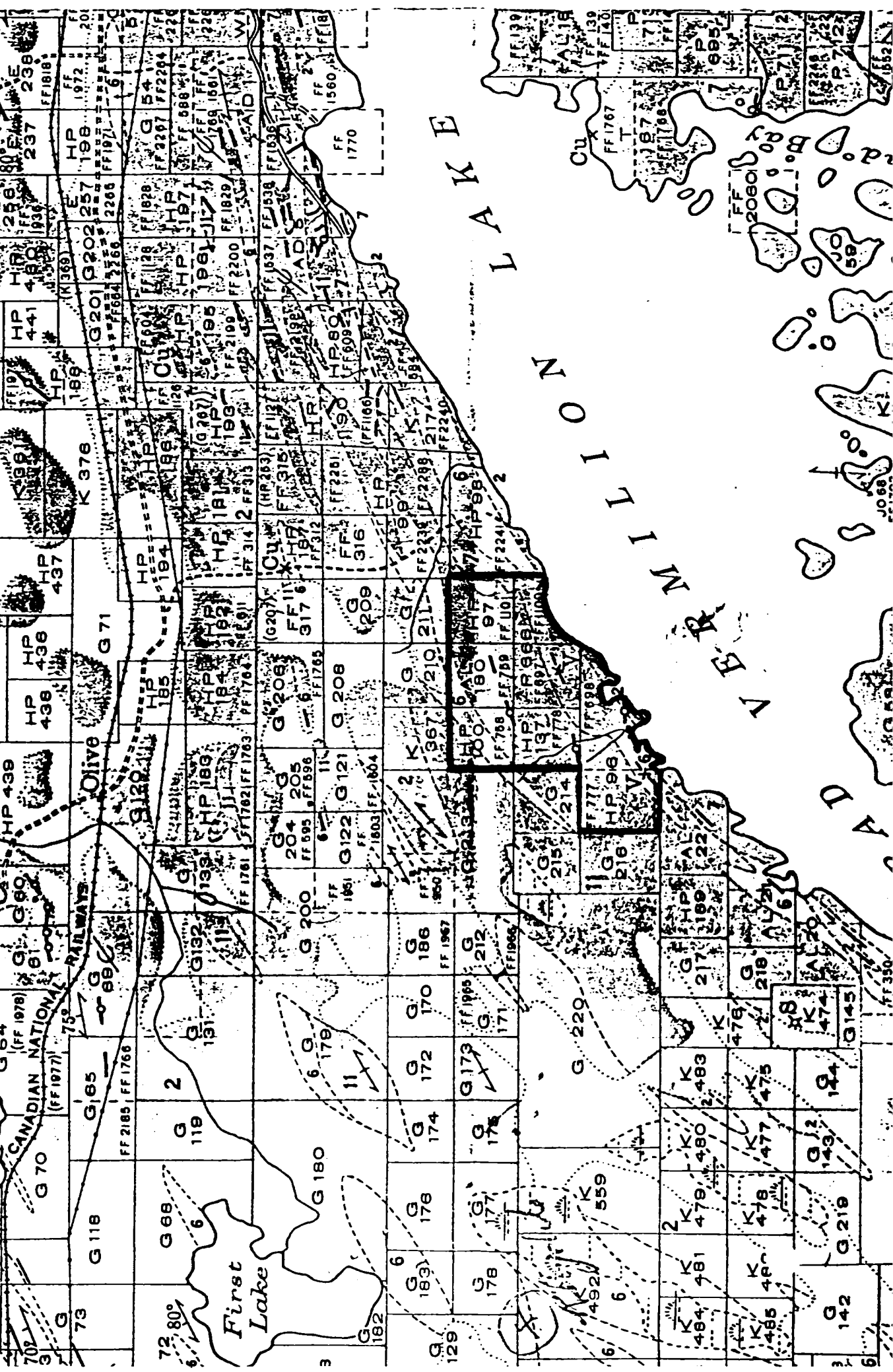
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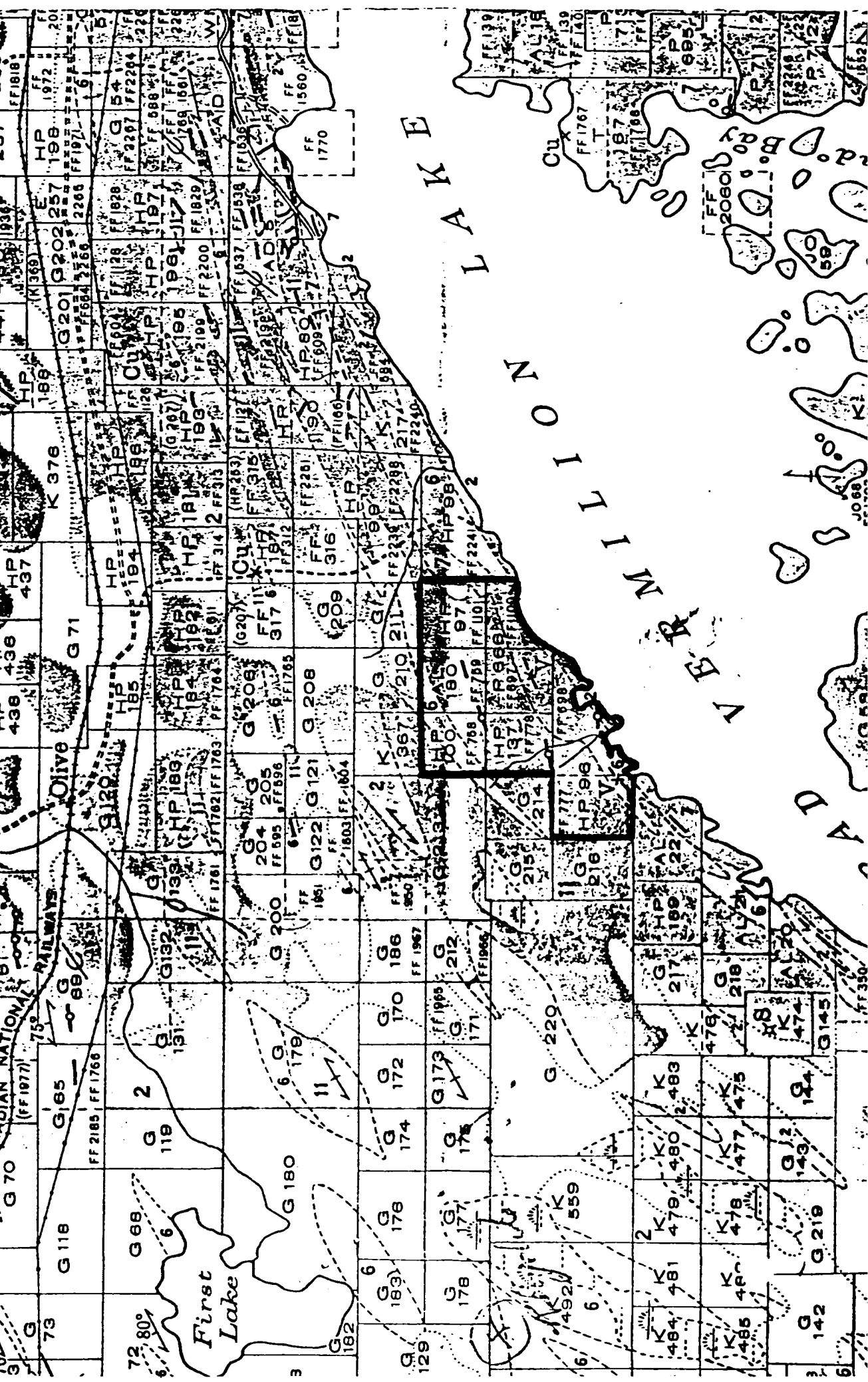
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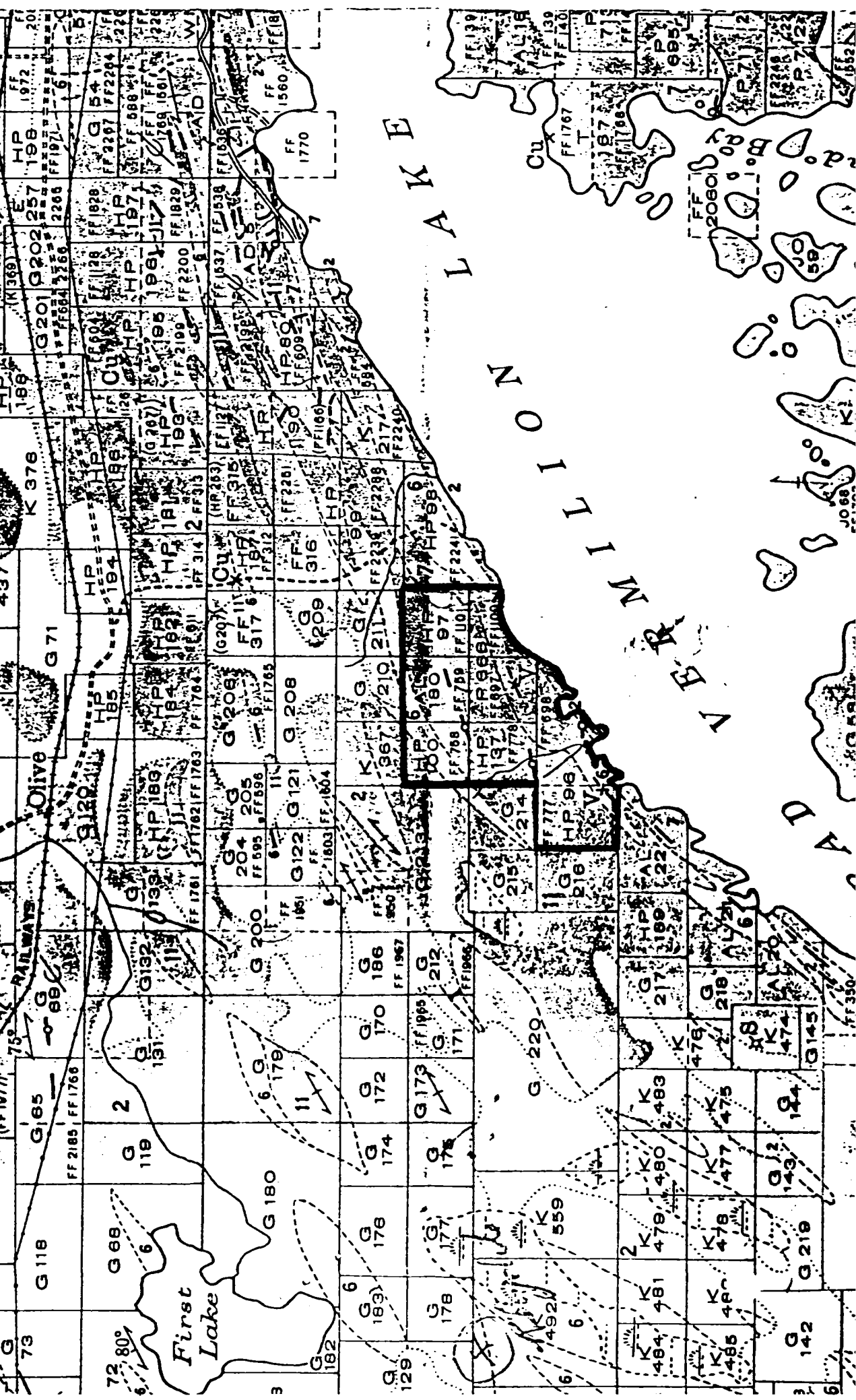
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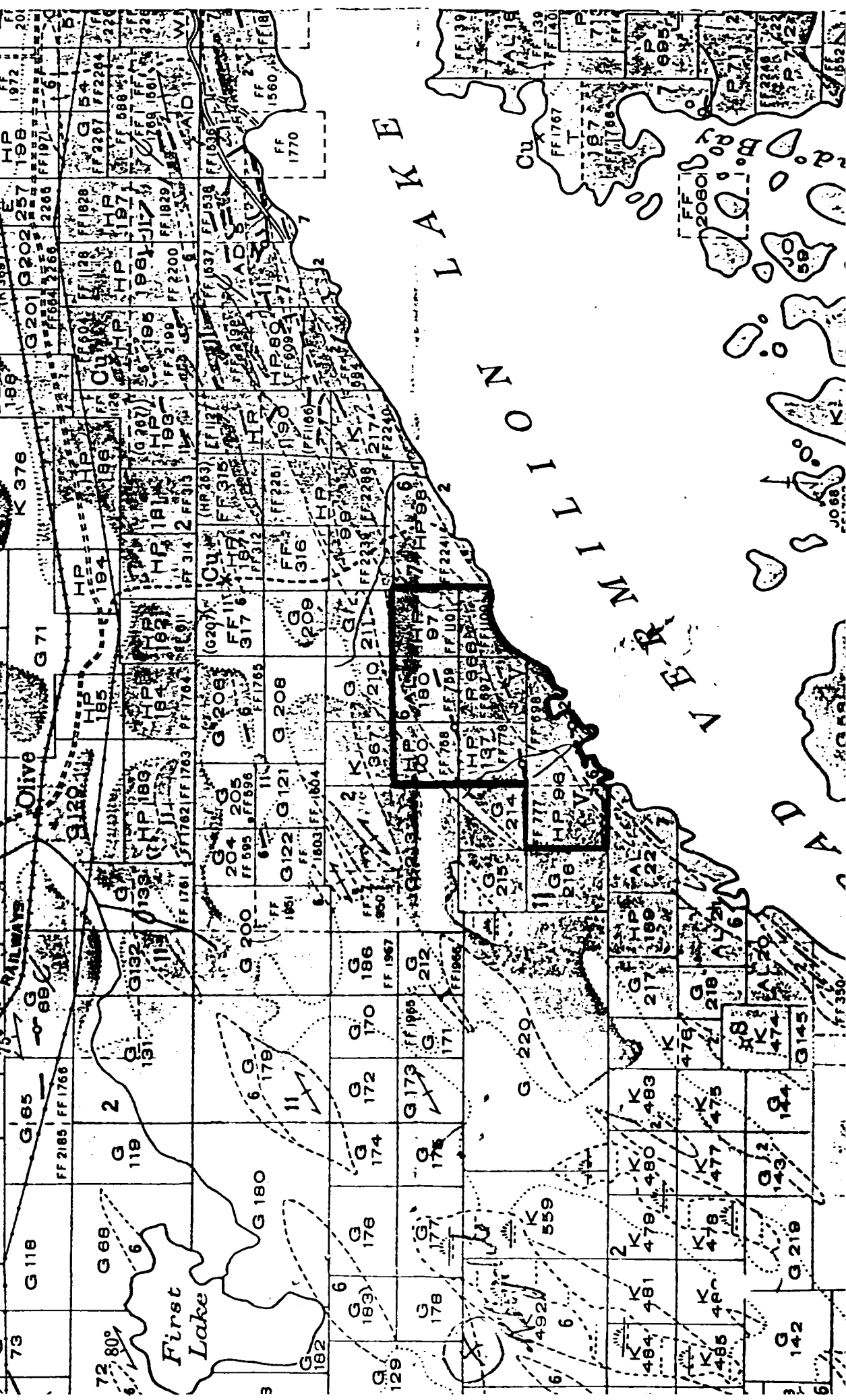
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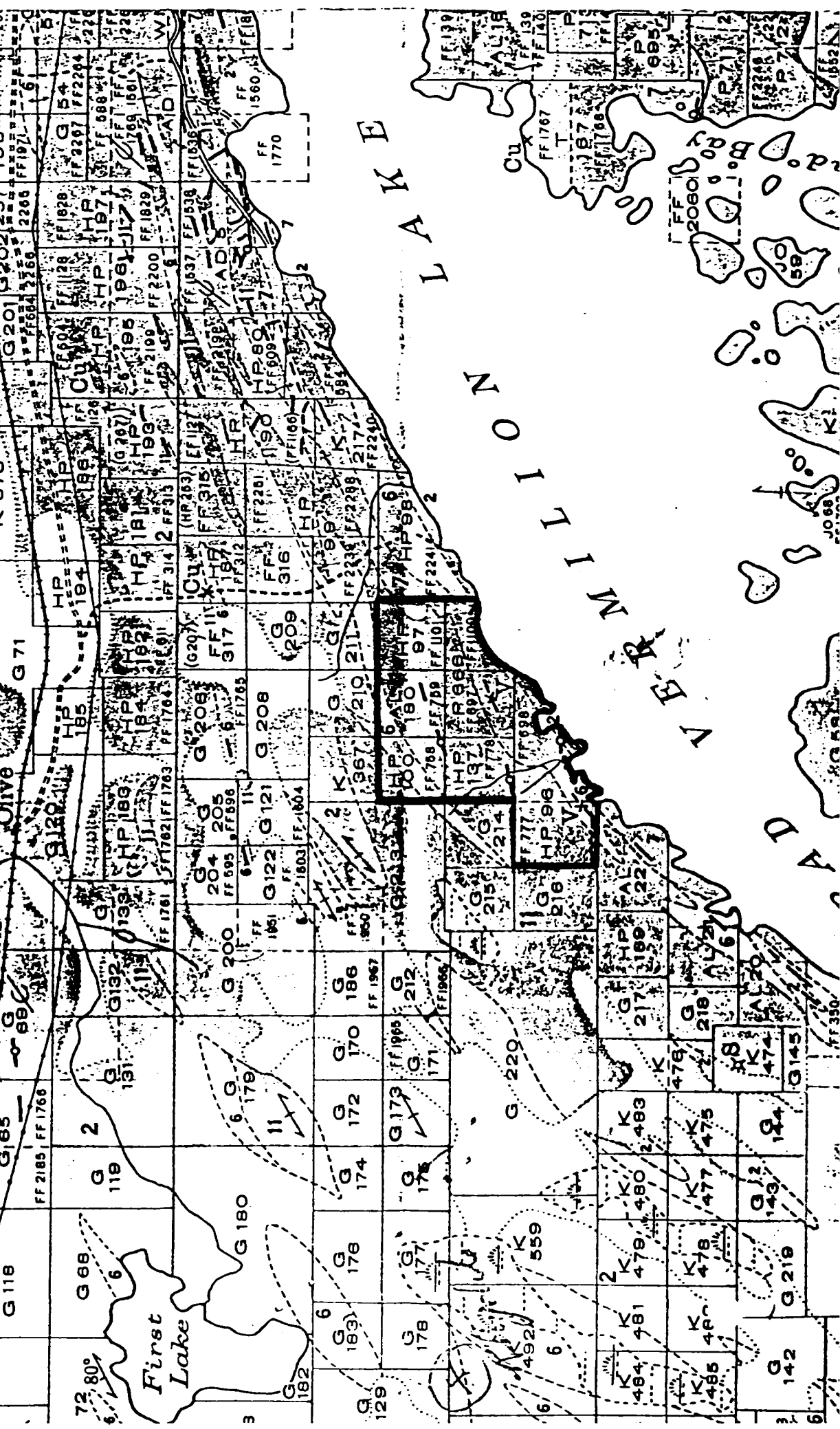
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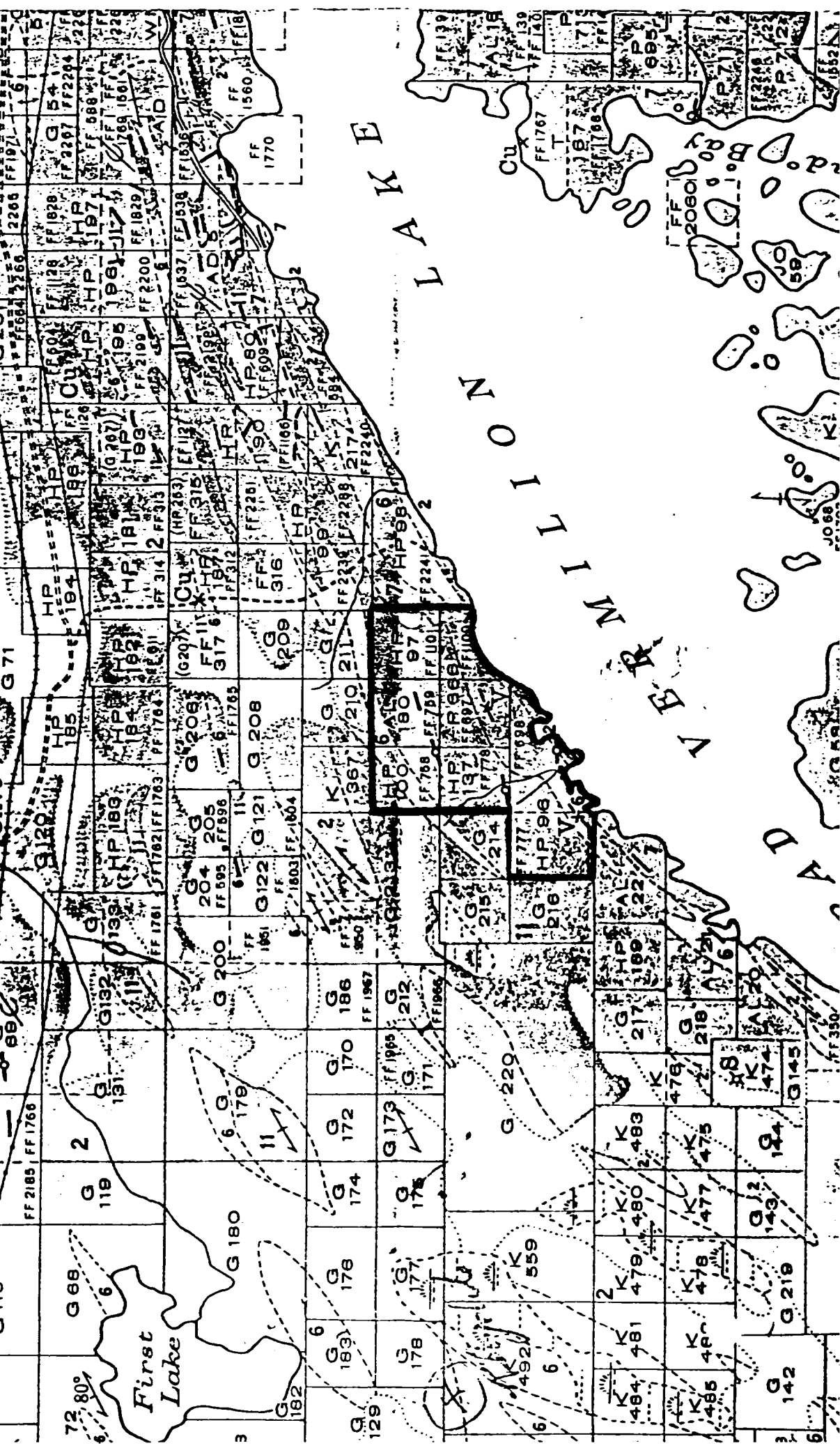
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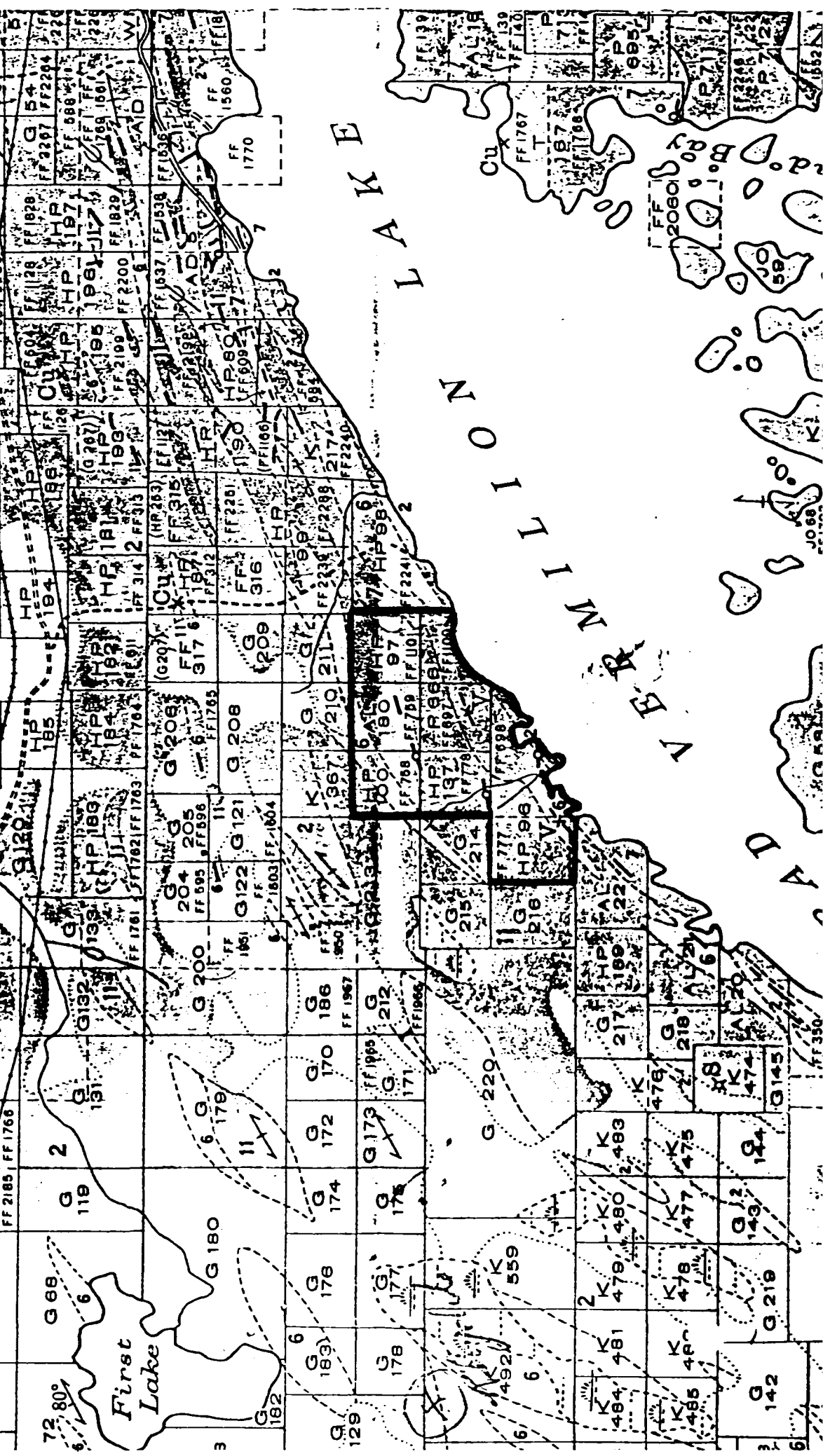
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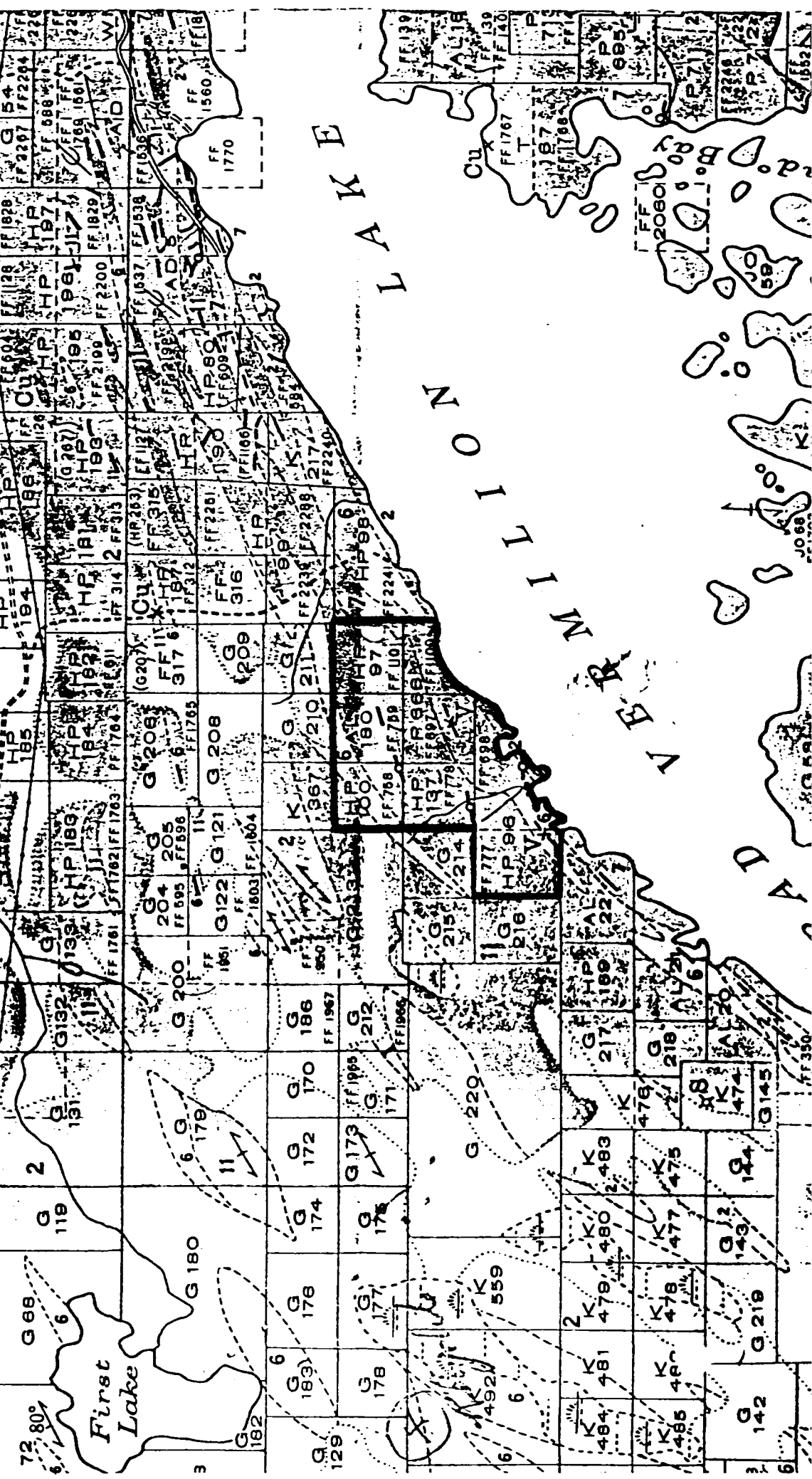
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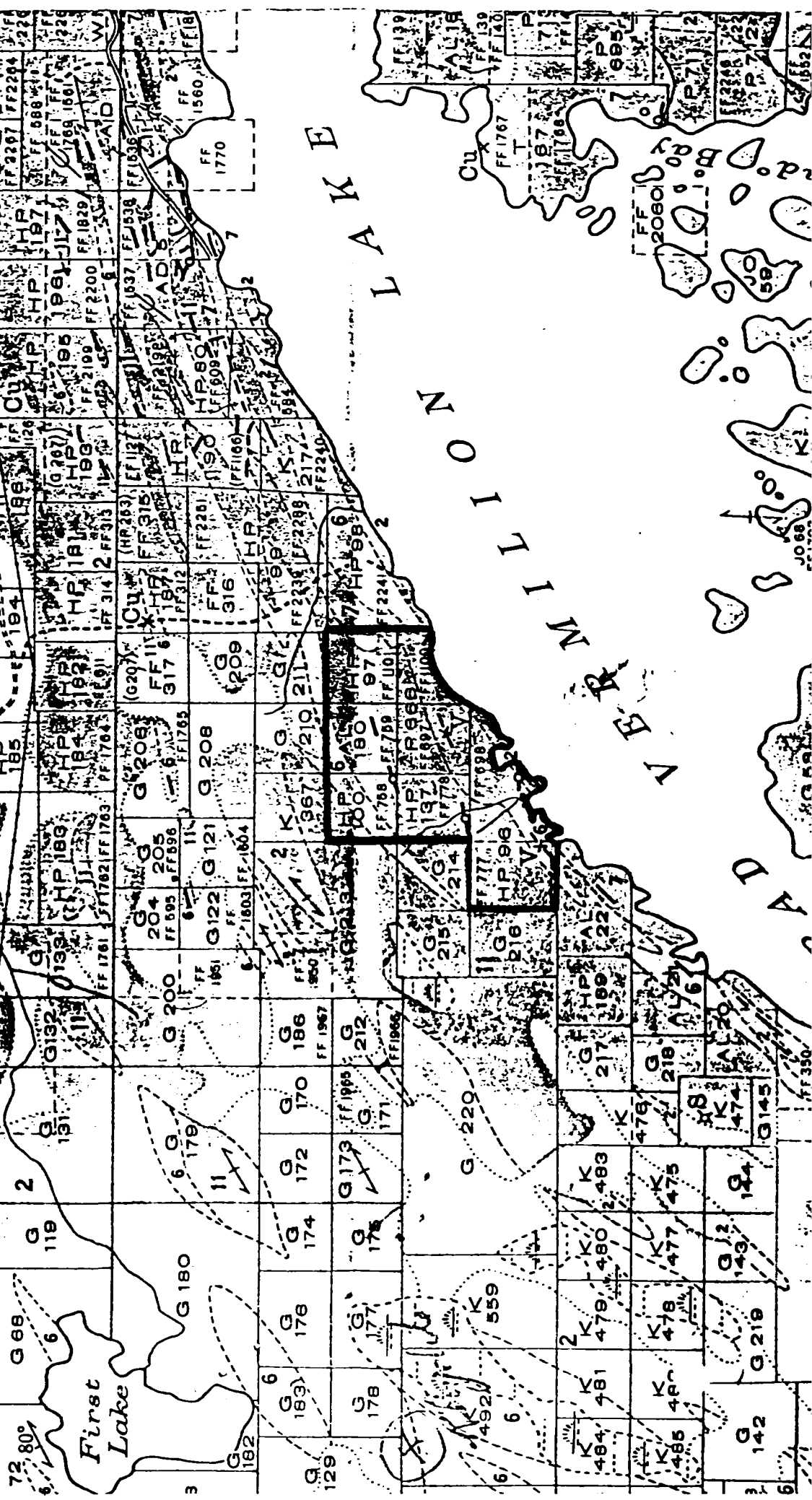
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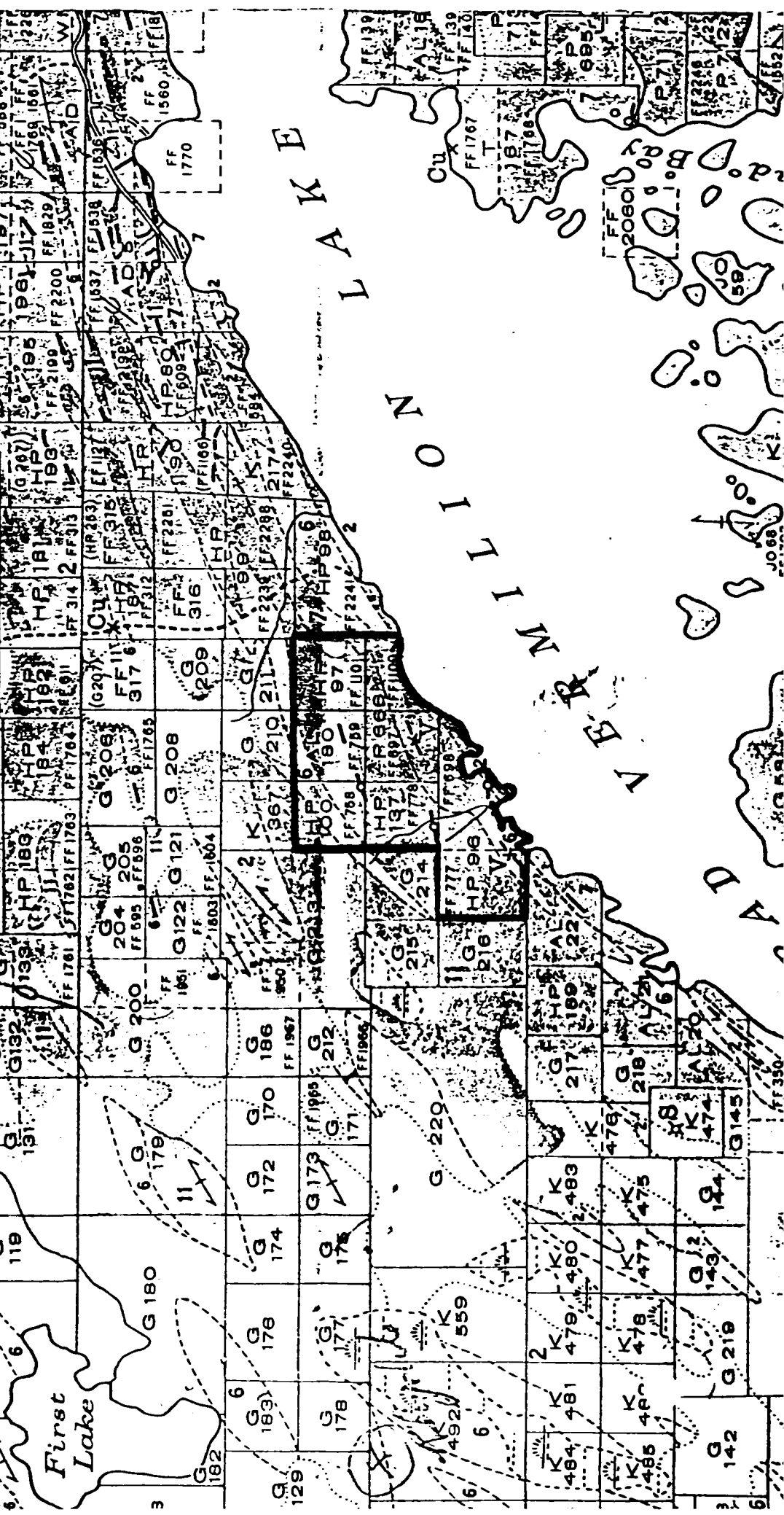
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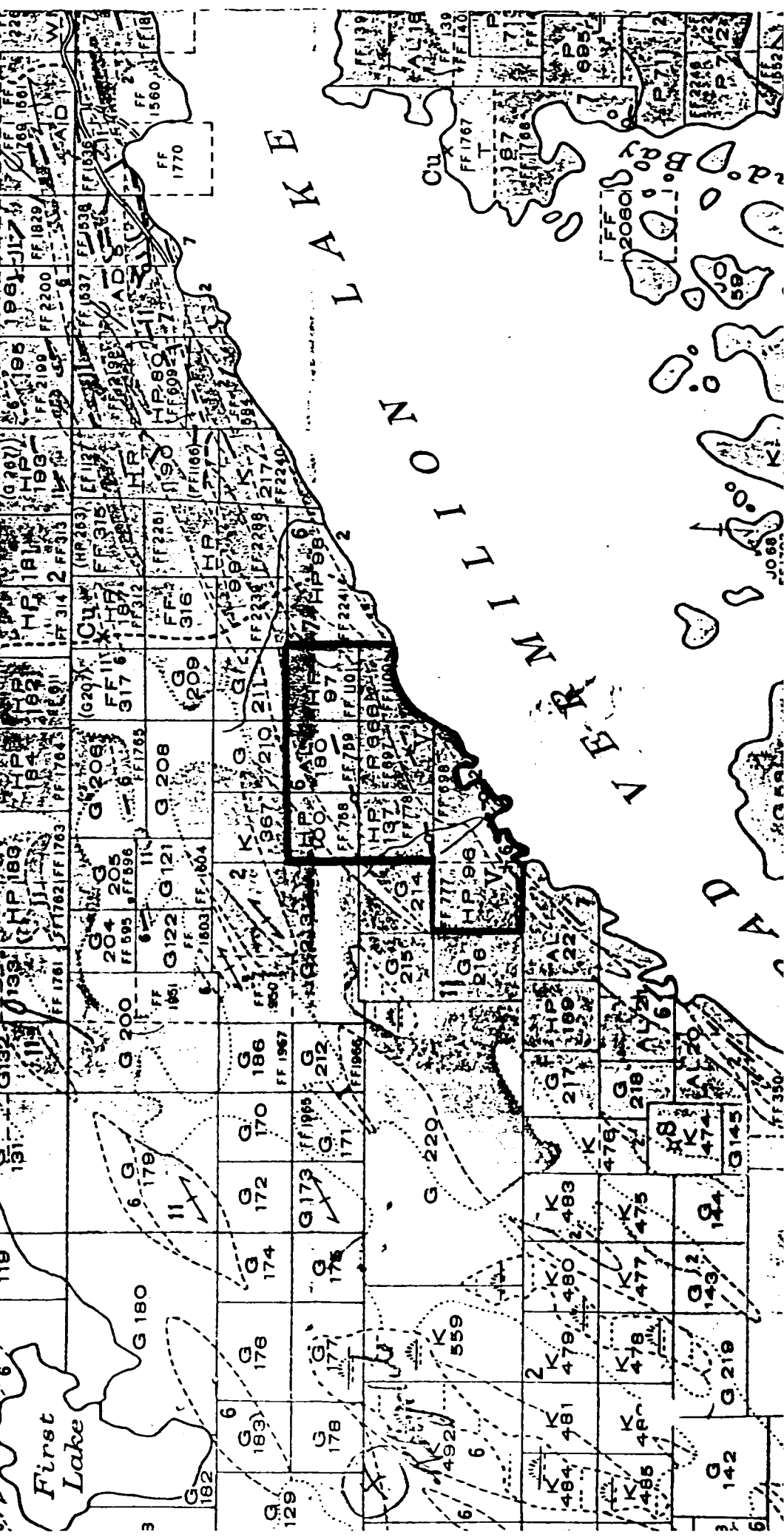
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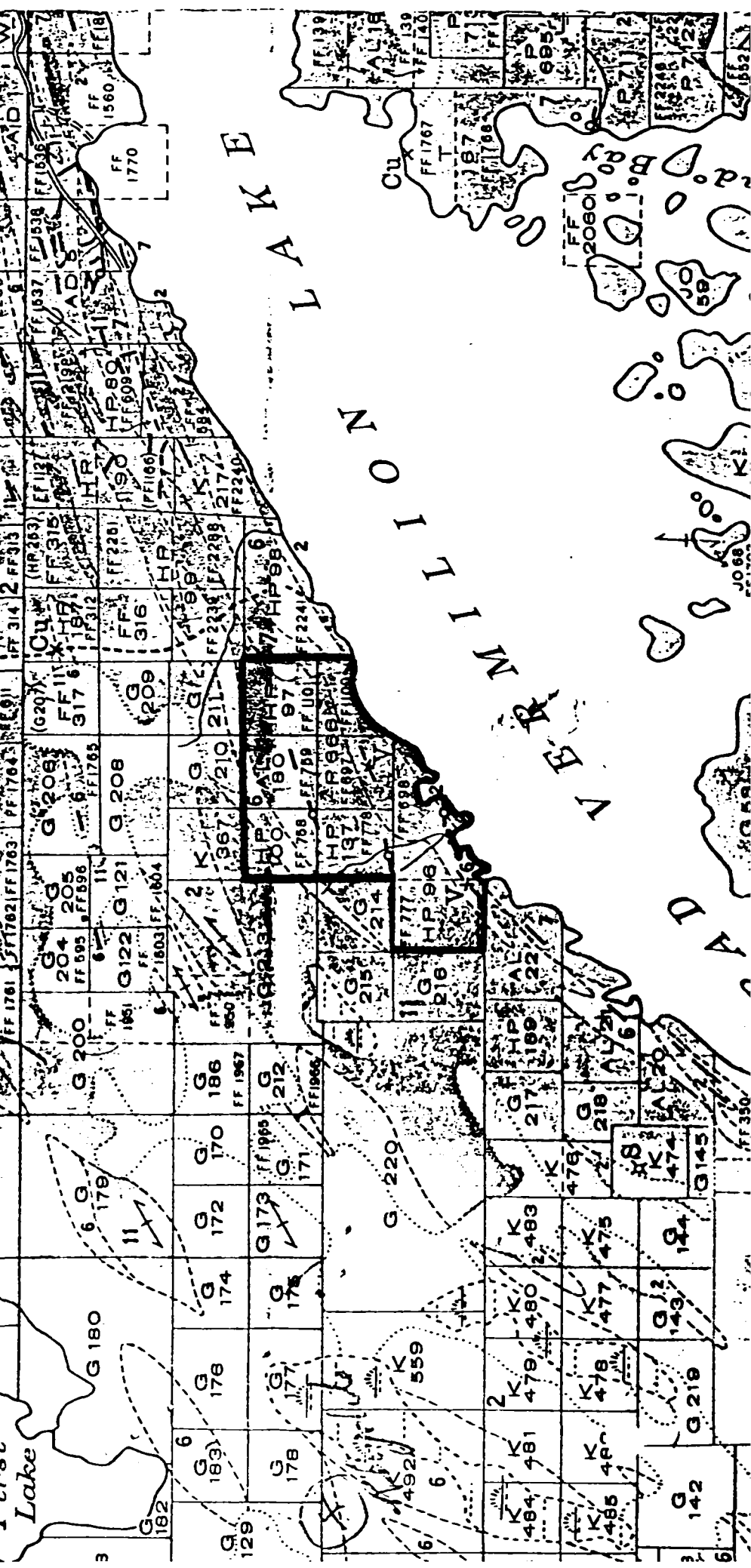
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