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PRELIMINARY REPORT ON

THE SOVEREIGN PROPERTY

CK 1003291 TO K 1003293

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EAGLE LAKE AREA 2 · 11355

KENORA MINING DIVISION

ONTARIO

RECEIVED

JUN 29 1988

MINING LANDS SECTION

Prepared by:

J. W. Redden, B. Sc. Box 117 Wabi9oon, Ont.

June 12: 1988

### Introduction:

The Eagle Lake Area has been the scene of mining exploration for almost a hundred years. Numerous gold Prospects have been discovered. It has only been in the last few years that systematic exploration has been undertaken.

Presently, several Properties in the area are vigorously explored for gold.

Mr. W. Sovereign of Dryden holds four claims mean the northeast corner of North Twin Island. These claims were spaked tonegyer an old gold showing and Possible extensions

This report is based on the results of field examination, review of the literature and discussions with individuals familiar with the area.

Location, Access and Physiconaphy:

The Sovereign Claims are located in Norhwestern Ontario, 30 km west of Dryden, Ontario.

Dryden is a town on the Trans-Canada Highway mid-way between Winnipeg, Manitoba and Thunder Bay, Ontario (fig.1). Dryden has a population of 6500 and is the commercial centre for a regional population of 35,000.

TransPortation facilities include twice-daily Canadian Airlines International flights to and from Toronto and WinniPeg, daily transcontinental Via Rail service and Greyhound bus service four times daily. Major trucking firms are represented in Bryden, as is Canadian Pacific Railways, whose main line Passes through Bryden.

The ProPerty covers the northeast Part of North Twin Island and adjacent waters in Eagle Lake.

It is most conveniently reached by outboard motor boat from any of the numerous tourist camps on the north shore of Eagle Lake. Boats, motors and other year can be rented from most of the camps.

The area is rocky with sparse overburden on the higher ground. Lower ground is covered by a variable thickness of till overlain by a mantle of clay. The island is tree-covered.

The Claims

The Property consists of four claims;

K 1003291 to -293

K 1007480

All claims are in 900d standing.

Previous Work in Area

The only systematic Geological mapping of the area was carried out by Moorhouse in 1938 for the Ont. Dept. Mines. The following description is based on that work, review of other data on the area and field work by the author.

Several Partially documented exploration Programmes and numerous undocumented ones have been conducted on and near the Properties.

The claim block is situated between several small Past-Producers and showings. The area has been actively Prospected for Gold since the 1890's. Two features of note are inherent in earlier work. Work was confined to a narrow strip of land adjacent to the lake and the exploration tended to concentrate only on quartz weins.

Durin9 the 1930's and 40's several individuals held the 9round and carried out trenchin9 and samplin9. Hi9h 9rade 9old values were reported.

Exploration was carried out by Steep Rock Iron Mines Ltd. during 1955. A magnetic survey and three diamond drill holes were completed to assess a magnetite occurrence running easterly from the northeast corner of North Twin Is. Results indicated only a marrow discontinuous horizon of magnetite to be present. The work was directed specifically at the iron ore potential of the magnetite and gold was not a consideration.

W. Sovereigm has cleaned out some of the old trenches and stripped several areas to the south of the trenches.

### Regional Geology

The Property is located within the Wabi9oon sub-Province of the Canadian Shield. All consolidated rock types are Pre-Cambrian in age. A granitoid in the southern Part of the Property has invaded the Pre-existing Pile of mafic and felsic volcanics.

The General trend of the volcanics is Parallel to the Granitoid contact. The volcanics to the east appear to be truncated by the intrusion.

The area was subjected to tectonic movement. The result is a series of east - west to northeasterly shears and subsidiary shears. Some of the shears contain Gold.

### Property Geology:

The oldest rocks exposed on the property are a series of mafic and felsic metavolcanics. These occupy the morth and east parts of the property. They strike morth mortheast to east and dip vertically to steeply morth. Most outcrops expose foliated to slightly schistose rocks with considerable local shearing.

The intrusive 9ranitoid varies in composition from a true 9ranite to 9ranodiorite. Only a few small felsic dykes were noted to cut the 9ranitoid.

The Granitoid contains numerous volcanic inclusions. Mafic inclusions are the most common, Generally chlorite schist. Kenoliths of magnetite-rich chlorite rock are also Present.

Felsic fra9ments are also Present however it could not be determined if these were volcanic or a Phase of the Granitoid.

### Structural Geology:

No structural data is available on the Geometry of the volcanics underlying the Property. Work by the author to the northeast indicates tight isoclinal folding to be present in the volcanics.

Shearing is the most Prev<mark>alent structural feature visible.</mark> Two shear directions have been identified: NNE-SSW to E-W and N-S.

### Economic Geology

Several showings occur on the Property. They are summarized below:

### Gold - Loc. 1

- -centre of K 1003291
- mexPlosive volcanic breccia?; blocks of magnetite and mafic volcanics in a felsic tuff 150-3001 inland
- -to the morth are intermediate/mafic tuffs
- -trenched 9v to 24" exposed for lem9th of 150', strikes 013, dip 80-85E tension crack fillim9
- -4-6" shear on shore striking 077, dip -85N,
- contains 1/2" Av. hosted in intermed. tuff
- -felsic tuff and agglomerate also Present
- -two other small 9v reported to be nearby but not examined
- -minor silicification in exposures

### Samples

sericite schist, trace Py trace Au xenolith, 60% mag, 2-3% pg, mafic volc. 0.005 oz/ton Au 5% Py in mafic volc. 0.005 oz/ton E4 1/2% Py in sheared intermed. volc. trace Au F 5 felsic/intermed. tuff, epidote, py, cp 0.005 oz/ton Au xenolith, mag-rich, 1/4" Py seams 0.005 oz/ton Au 177 10-20% Py, sheared mafic volc. 1.120 oz/ton Au comPosite chiP, 24" 9v, banded, no S ES 0.080 oz/ton Au 11 " 4-12" qv (013), py 0.200 oz/ton Au " 1/2" 9v (077), minor Py E10 trace Au

### Gold - Loc. 2

- -reef off M shore, N Part K 1003292
- -shear zone in intermed. volc. strikes 066, dip vert
- -hosts 9v 2-15" thick containing cP, tour, sericite

### Samples

E12 9tz with chlorite, tour and talc slips 0.320 oz/ton Au E13 " " " " " " " 0.025 oz/ton Au

### Gold - Lot. 3

-to west of K 1003293 -similar strike and mineralogy to Loc. 2

# Magnetite - Loc. 1 -shoreline, east Part K 1003292

-20' width of 30-80% magnetite, est. strike 075, dip vert, contains talc and carbonate on shears

-felsic volcanics on S, mafic volcanics on N

-mafic volcanics contain dissem, ma9. Xls mear ma9 zone

### Sample

Ell magnetite, Pyrite

trace Au

SteeP Rock Iron Mines Ltd. Drilling

### Hole t

drilled at -45 degrees ( -34 degrees at 500')

intersected - 6" quartz vein

- 5.5′ chert with Pyrite

- 25' siliceous Greenstone

### Hole 2

drilled at -45 degrees ( -29 degrees at 501)

intersected - 1731 Greenstone locally altered and

silicified

- 36' altered and silicified Greenstone

### Hole 3

drilled at -43 degrees ( -32 degrees at 5001)

intersected - 9° highly silicified with mimor chert

- 17.5′ silicified tuff with minor chert

- 20′ silicified Greenstone

- 60' Porphyry with disseminated sulphides

- 11 of 20% Pyrite

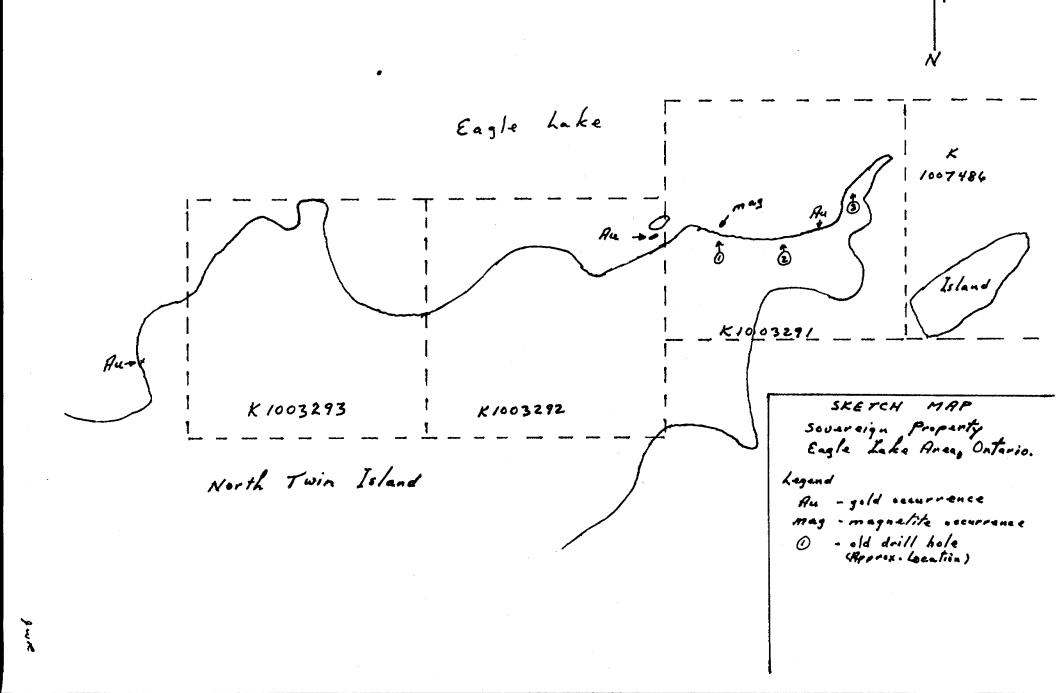
The drilling was aimed specifically at evaluating the magnetite. The drill logs do not indicate that samples were taken.

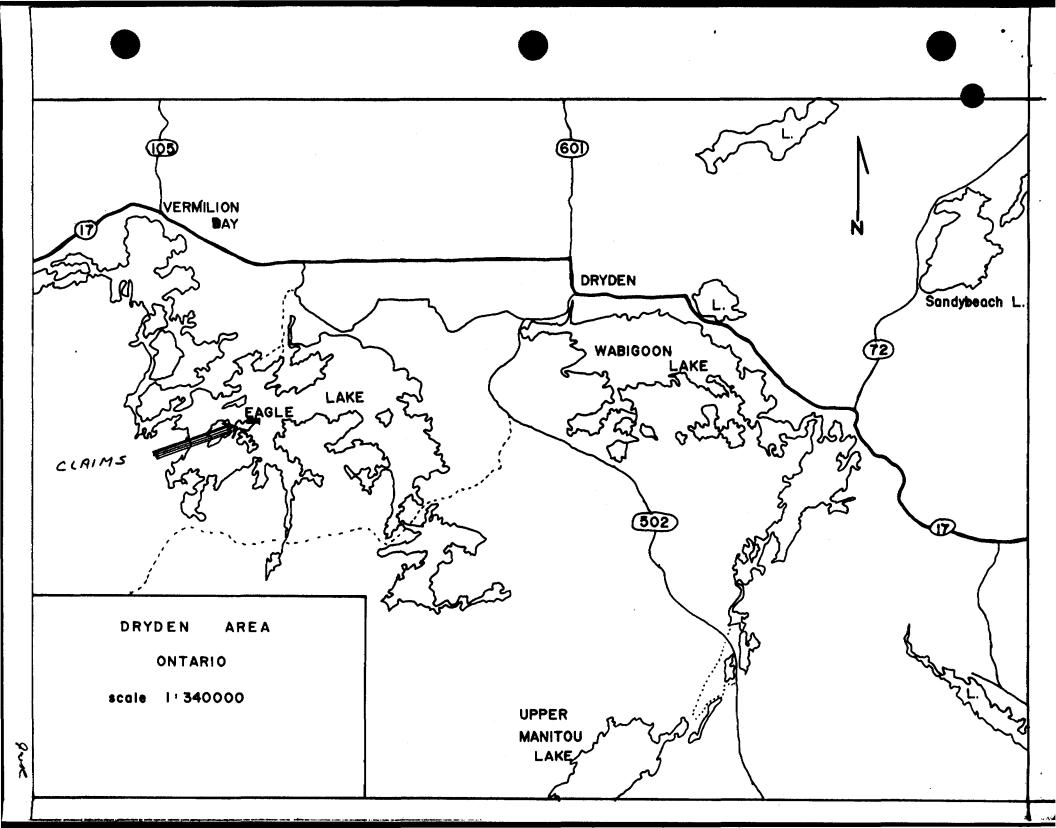
### Conclusions

- 1. Gold is Present in N-S quartz veins occupying tension cracks.
- 2. Gold is Present in quartz veins in ENE-WSW shear zones.
- 3. Drilling by Steep Rock Iron Mines Ltd. indicates silicification and Pyritization in the volcanics and Porphyry near the north shore of the island. The silicification is widespread and would appear to be Parallel to the regional foliation. Substantial strike lengths are therefore likely.
- 4. The Presence of 90ld values and the favourable 9eology justify further exploration on the claims.

### Recommendations

1.	Cut Grid, GeoPhysics	(9rid 50m X	(10m)	7000
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P.	strip, trench, sample	) assay		5000
4.	diamond drill (2000)	)		70000
		contingency		11500
			Total	\$95000







Ministry of Northern Development and Mines

J.W. REDDEN

Waligion, Ony. POVZWO

Report of Work

WFF 61.137

(Geophysical, Geological, Geochemical and Expenditures)



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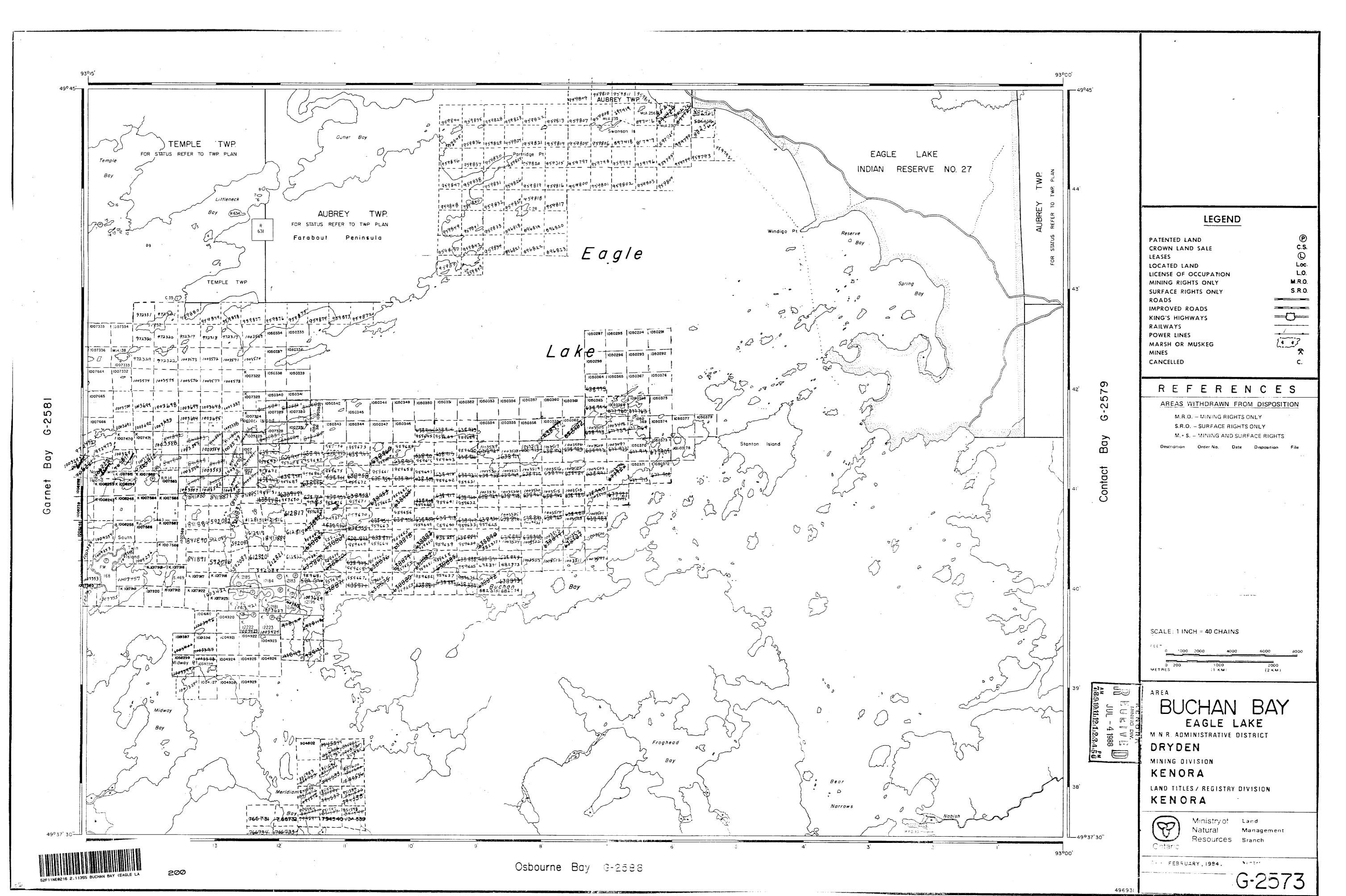
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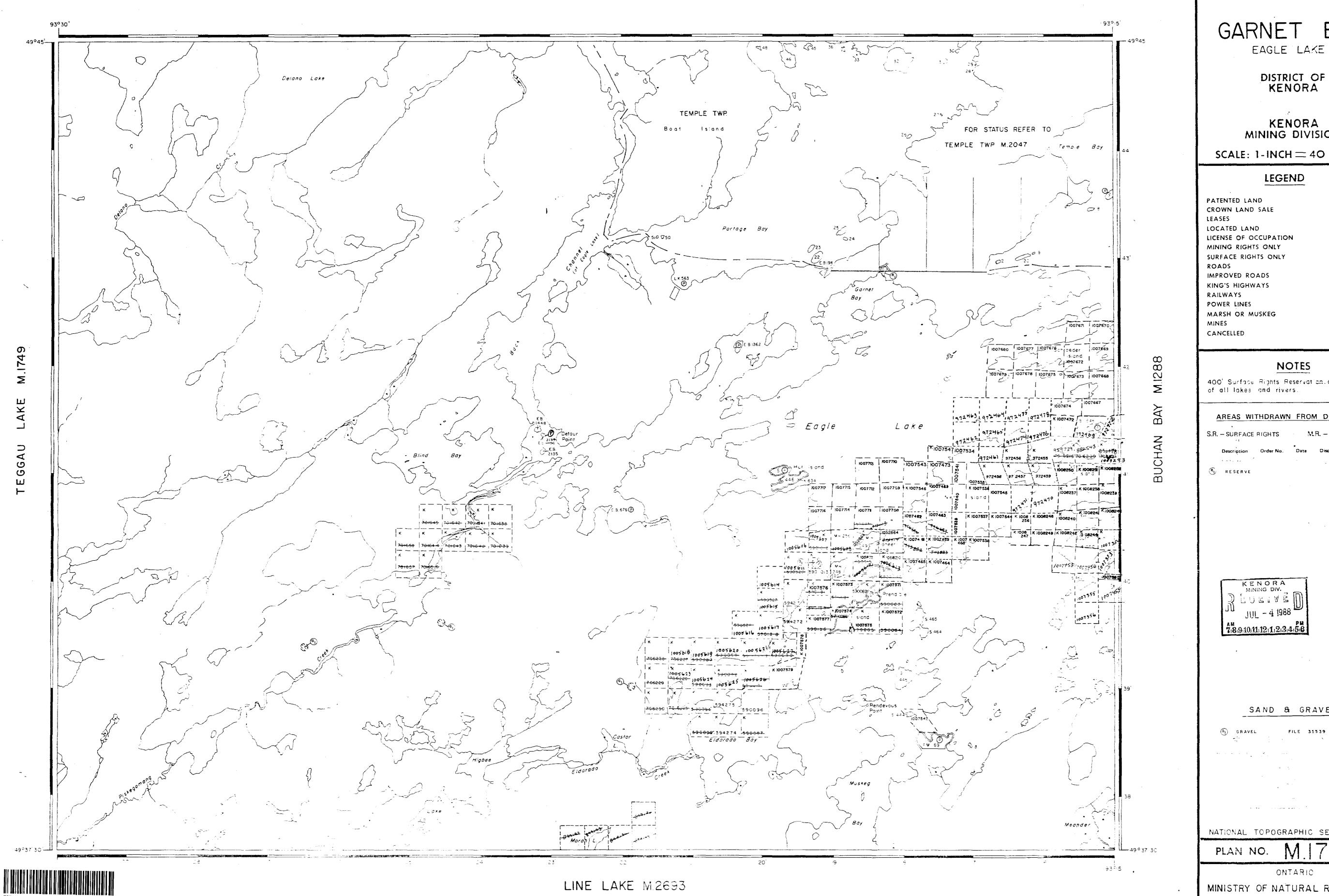
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Date Certified

MAY 11/88





AREA OF

BAY GARNET

DISTRICT OF KENORA

KENORA MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

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400' Surface Rights Reservation, along the shores

## AREAS WITHDRAWN FROM DISPOSITION

SAND & GRAVEL

ONTARIO

MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH