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REPORT ON

GEOLOGICAL MAPPING

AUGUST - SEPTEMBER, 1989

VICKERS LAKE PROPERTY

KENORA MINING DIVISION

ONTARIO

RECEIVED

AFR 09 1990

MINING LANDS SECTION

prepared by:

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POV ŽWO

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Sept. 16, 1989



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INTRODUCTION

A gold showing was known to occur near the southwest part of Vickers Lake. Following the acquisition of the ground by the present owners, an exploration programme was undertaken. The geological mapping described in this report is a part of this programme.

LOCATION AND ACCESS

The property is located in the southwest part of Vickers Lake about midway between Dryden and Fort Frances in Northwestern Ontario.

Convenient access to the claims is provided by boat or ATV from Highway 502, the paved all-weather road between Dryden and Ignace.

A boat landing is located on the southeast shore of Vickers Lake. The landing is connected to Highway 502 by a 250m trail. The property is 10 minutes by boat from the landing. This route provides the most convenient and rapid access to the northern part of the claims.

A logging road leads north from Highway 502 from a point 1.3km southwesterly of the trail to the landing. This logging road is negotiable by truck for a distance of 3km. From this point a skidder road suitable for ATV's continues northerly for an additional 2km to the vicinity of 5S, 2E on the claim block.

A tractor road continues northeasterly to the main showing. This road was pushed in by a 'muskeg' tractor mounting a backhoe for a stripping programme around the Main Showing. This road is not suitable for ATV's due to numerous trees on and across the road.

PHYSIOGRAPHY

The claim block is characterized by rugged, tree-covered topography in the north and more rolling, less rugged tree-covered terrain in the south.

Glacial till covers the area. The higher hills are covered with a scattering of boulders with thin pockets of till in the hollows. Lower areas contain a mantle of boulder till. Often this till has been water worked resulting in a layer of boulders being exposed on the surface. This surface layer of boulders requires that caution be taken while walking or moving tracked equipment.

Mature stands of timber consisting of jackpine, spruce, birch, poplar, cedar and red pine are present in the southern part of the claim block. Much of this timber is scheduled for harvesting in the near future. The northern and part of the property is covered by new growth following a forest fire about 35 years ago. This new growth consists principally of jackpine on the hills and a mixture of birch, spruce and poplar in the valleys and gullies. Balsam fir was widespread in the area but has been widely killed off by budworm infestations over the past few years.

Vickers Lake is a deep, clear lake. Lake trout are present in the lake and therefore water quality and lake trout habitat are of major concern to the Ministry of Natural Resources. Consequently, work permits receive more than normal attention. This will not result in any significant effect on exploration.

CLAIMS

The property presently consists of 30 claims. The claims cover an area at the junction of four claim maps centered at 93 degrees west and 49.125 degrees north. These are Mang Lake Area (map G 2685), Napanee Lake Area (map G 2690), Sakwite Lake Area (map G 2697) and Vista Lake Area (map G 2701), located in the Kenora Mining Division.

The claims are numbered:

K 1078160

K 1081021

K 1084130 to K 1084135 incl.

K 1085799

K 1100131 to K 1100135 incl.

K 1108559 to K 1108572

K 1108637 and K 1108638

Claim posts observed were in conformance with the Mining Act and the lines were well blazed.

PREVIOUS WORK

The first record of activity in the area was in 1917. At this time exploration was underway at a gold occurrence known as the 'Smoothrock Lake Showing'. Pits and trenches had been excavated and a shaft was being sunk. This showing is presently located on K 1100134.

The showing remained unexplored until the 1980's when it was 'rediscovered'. During the interval, Smoothrock Lake had been renamed Vickers Lake.

During the mid 1980's, exploration work consisting of geophysics, geology, sampling and drilling was carried out in the vicinity of the showing. In addition, very limited reconnaissance work was carried out over several square miles to the west and southwest of the showing. Results indicated an east-west trending gold-bearing zone containing some ore grade values. The claims were allowed to lapse.

The present owners of the claims have carried out a limited stripping programme on the showing. In addition, a grid has been cut and used for magnetic, VLF, geological and partial I.P. surveys. The results of the geophysical surveys are presently being compiled.

GEOLOGICAL SURVEY

The geological survey was carried out during August and early September by the author. Outcrop areas are common on the claims however the variable distribution of the outcrop and a heavy root and moss matting over many of the outcrop areas severely limits the rock exposed without extensive stripping. Exposed bedrock is obscured to a great extent by lichen. Freshly exposed bedrock is required to observe the internal features of the rock revealed by differential weathering.

ROCK TYPES

Mafic Volcanics

Most of the bedrock consists of Precambrian mafic volcanics altered to various chlorite-bearing rocks. They can be subdivided into several rock types.

Massive Mafic Volcanics (mmv)

This rock type is the name applied to all mafic volcanics which cannot be differentiated into more precise categories. The rocks are massive, dark green to black and fine grained. No internal structure is discernible. It is considered that most of the mmv represents mafic tuffaceous rocks.

Massive Mafic Tuff (mmt)

The tuff is characterized by the presence of a faint layering and/or a rough texture. The rough texture is due to deeper weathering of the groundmass leaving the lapilli standing out in relief.

Massive Mafic Flows (mmf)

The flows have been identified primarily on the basis of their coarser grain size. Though generally still fine grained, the granular crystalline nature of the rock is apparent. The rock is massive without visible internal structures.

Mafic Agglomerate (m.agg)

The predominant rock in this class consists of 5 - 20% dark grey to black felsic fragments 1 to 5cm across in a chloritic matrix. The felsic fragments form raised surfaces, often polished, in outcrop. In some outcrops the felsic material appears to have been originally in layers and the layers later deformed to form the present texture. If this is the case then the rock would more correctly be called a boudinaged tuffaceous sediment.

Weak shearing is evident in many of the m.agg exposures. This shearing is considered due to differential movement between the fragments and the groundmass during regional compression. This shearing is not in itself related to later shearing associated with mineralization.

Several small isolated exposures of agglomerate containing mafic to intermediate fragments in a mafic groundmass were noted in the field. This rock type is volumetrically minor and is not shown separately on the map.

Massive Pillowed Flows (mpf)

This rock consists of pillow lavas and similar rocks. The similar rocks contain ameboid shaped structures rather than pillows. Some of the ameboid structures may be deformed pillows however in most exposures it is apparent that the ameboid structures are of primary origin. Both the pillows and ameboid structures are surrounded by thick (to 5cm) altered selvages. The colour contrast between the selvages and main bodies characterize this rock type.

Unambiguous tops were not identified in any of the outcrops. Tails were either absent or too distorted to be of value.

The selvage areas of the rocks often contain quartz aggregations and/or 2 -3% disseminated pyrite. This is restricted to the thicker parts of the selvage where several of the pillows or ovoid bodies join. In outcrop a rapid examination of this feature suggests the rock to be silicified and pyritized. Closer examination reveals that the effect is localized within only a portion of the selvage and the mineralization does not appear to be of economic significance in itself. From the cherty nature of some of the quartz the feature is considered to be either primary or diagenetic in nature.

Massive Amygdaloidal Flows (maf)

This rock is similar to mmf with the presence of several percent of 1 -5mm ovoid amygdales. The amygdale filling is generally carbonate, occasionally quartz.

Felsic/Intermediate Tuff (fit)

This rock type was only encountered in a very limited area on line 12N. The rock is massive and pale brown in colour. A portion of the rock could be classified as crystal lithic tuff. The maximum thickness exposed was only 2m. It is considered to be a volumetrically insignificant rock type.

Gabbro (gb)

The gabbro underlies portions of the western part of the claims. The rock is dark grey to black. The colour is darker as the ferromagnesian mineral content increases. Composition ranges from 60 - 80% pyroxene and 40 - 20% feldspar. Up to 1% pyrrhotite may be disseminated in the rock. Occasional hairline cracks in the rock contain stringers of pyrrhotite. The rock is sometimes easily differentiated from the mmf by a coarser grain size and a much 'fresher' appearance. Though no contacts were found, the fresher appearance is believed due to the younger age of the rock.

Gabbro Porphyry (gbpor)

This rock is the same as the gabbro (gb) with the inclusion of 2 - 5% feldspar phenocrysts. The phenocrysts are generally distinct on both fresh and weathered surfaces.

Granite/Granodiorite (gr)

Granite and granodiorite underlie the north and northeastern parts of the property. Plagioclase feldspar is present in small amounts indicating the granodioritic character of the rock. Quartz, potash feldspar and biotite constitute the bulk of the rock. The colour is generally pink to a pinkish grey.

Several small dykes and sills of presumed granitic composition are seen to cut the gr and the adjacent volcanics.

STRUCTURAL GEOLOGY

Data on the structure of the rocks on the claims is very sparse. Pillow measurements from other sources suggest the tops face south. Throughout the property the volcanics usually strike approximately east-west with a The only exception to this appears near vertical dip. to be the dip noted in the felsic/intermediate tuff on which dips -45 degrees to 12N the north. Regionally the strike is north-south. It appears likely the volcanics on the claims formed part of east-west fold zone which was largely destroyed by the intrusion of the granite. Observations to the east of the claims reveal numerous mafic volcanic remnants intrusive which tend to within the support this hypothesis.

Drag folding striking east - west and plunging 10-20 degrees to the east is present beside the pit at the Main Showing. A suggestion has been made that folding is present west of the shaft and is responsible for some of the changes in attitude of the quartz veins. While the rock itself is too massive to display structure, it is possible that more extensive stripping and detailed mapping may reveal more structural information.

The distribution of the gabbro on the property suggests the influence of structural control on at least some of the gabbro bodies. No data is available on which to theorize concerning the nature of any such control. To the west of the property, a large gabbro mass striking north - south has been outlined by O.G.S. mapping.

Several prominent north northeast — south southwest trending lineaments are present on the claims. One of these, located at 5+50S, 2+60E contains abundant sheared rock fragments and numerous pieces of quartz. I.P. profiles across this and other lineaments consistently show resistivity lows. This is evidence of shearing as the cause of the lineaments. Definitive data is not available but sinistral movement along these lineaments appears to be present. Horizontal movement of 25 — 50m is postulated.

A north - south lineament in the southwest part of the claim group can be traced from the pond at 11+00S, 0+50E northerly into Grave Lake. It underlies a bay on Grave Lake and the creek from the pond to the lake. The I.P. survey suggests a shear as the cause of the lineament. Due to the limited I.P. that was done, the north - south lineament can not be definitely identified as the source of the low resistivity encountered.

Several other trends were noted during the mapping. One of these at 0+00N, 0+00E is associated with low resistivity and is thus interpreted as a shear. It appears to strike northwest - southeast to north northwest to south southeast. Other trends, including east - west, have not been covered with I.P. but some likely represent shears.

SAMPLING

A number of samples were collected while mapping to assess the nature and extent of gold mineralization. The locations and results of the analyses are given in Appendix I.

Samples 4, 12 and 18 are anomalous for gold.

ECONOMIC GEOLOGY

Gold is the only commodity of potential economic value known to occur on the claims. Molybdenite is present in some of the quartz veins, however its presence is not considered to be of economic significance.

Two gold occurrences have been found on the claims to date. Though both are associated with quartz veining, the occurrences are otherwise quite different and appear to represent different and possibly distinct types of gold mineralization.

The Main Showing (Smoothrock Lake Showing), in the vicinity of 16N, 7+50E consists of gold-bearing quartz veins within a silicified, pyritic, variably zone striking east-west. The sheared and silicified zone is some 50 - 150m wide and appears to extend from Vickers Lake westerly to beyond the western claim boundary. Shearing and silicification are developed to varying degrees within this zone, ranging from slight to intense. They are exposed in outcrop from the shore of Vickers Lake to about 300m west of the lake. Further west, the degree of shearing and silicification appears to be much reduced. The presence near the west claim line of K 1108637 of a 1m quartz vein with 0.3m of adjacent shearing suggests the zone has not terminated but continues to the west an unknown distance.

A new gold showing (Angove Showing), at appprox. 5+50S, 2+50E has not yet been seen in bedrock. The available data has been collected from the examination of float and debris uncovered in a valley, part of a lineament. Quartz veins are associated with an intensely sheared zone striking approximately 035 - 215 degrees. unknown. The gold occurs in quartz veins up unknown. to 30cm thick (based on the size of float in the lineament). to several percent pyrite is present in the quartz, usually along chloritic slips and fractures in the Several percent of chalcopyrite was also guartz. present in one large piece of quartz float. These slips and fractures appear to represent later movement in the They may represent stages of plane of the vein. forming dilation zones followed by movement introduction of additional quartz along pre-existing zones of weakness. The slips and fractures would also form the conduits for the mineralizing solutions. Gold values to 0.21 oz./ton Au have been returned from this guartz vein material.

lineament appears to have considerable To the north the lineament continues extent. Vickers Lake, some 300m from the showing. the north across the bay of Vickers Lake are several lineaments. One of these is likely the extension of that hosting the showing. To the south the lineament appears to bifurcate at several locations. A lineament the same trend is still discernible on several lines to the south indicating the lineament continues least 4-500m to the south. Further south the land is rather uniformly flat, thus the lineament could not be followed on the ground.

east - west striking, 0.3m thick, quartz vein is exposed in a 3m cliff on the shore of Grave Lake. exposure is about 20m north of line 4S, 3+50W. The vein consists of mainly glassy to translucent white quartz. The vein contains several slips parallel to the plane of the vein, all of which contain smears and disseminations pyrite. chalcopyrite and The massive appearing quartz between the slips is also fractured. Chalcopyrite is present in these fractures. Malachite is present on some of the weathered surfaces. Analyses of two samples from this vein returned 14 and 138 ppb Au.

The vein is covered by overburden at the top of the cliff and to the east. Two quartz boulders (minimum dimension of 0.5m) are present near the shore, 3 to 5m south of the assumed location of the quartz vein in the cliff. The quartz is all translucent white, with only a trace of pyrite and rust. The source of the float is unknown. The character of the quartz suggests a source different from the vein in the cliff.

A showing known as the Grave Lake Occurrence is supposed to exist in this vicinity. The occurrence is reported to contain molybdenite. Molybdenite has not yet been found in this vein. It is therefore not certain if this quartz vein is the Grave Lake Occurrence.

Numerous pieces of quartz up to 10cm in smallest dimension, some well mineralized with pyrite and lesser molybdenite, were found in and adjacent to the creek from Grave to Vickers Lakes. Disseminated pyrite <1mm crystals is associated with schistose wallrock</pre> inclusions. Fine, disseminated pyrite, coarse pyrite up to 5mm and films of molybdenite are also present on slips and fractures within the quartz in varying quantities. The source of the float is unknown. I.P. survey indicates a shear zone to lie below creek. Geology indicates a north northwest to northwest strike to be the most likely trend of this shear. It is considered likely that at least a portion of the quartz is associated with this shearing. Assays from these particular pieces of float returned very low values.

CONCLUSIONS

- Significant gold values are known to be present at two locations on the property.
- 2. The Main Showing is contained within a sheared and silicified zone which is up to 150m wide and at least 300m in length.
- 3. The sheared and silicified zone related to the Main Showing may extend more than 1000m further to the west.
- 4. The Angove Showing is on a shear zone containing auriferous quartz veins. The shear zone is contained within a lineament with a potential strike length in excess of 1km.
- 5. Other lineaments are present on the claims. These lineaments must also be considered as potential gold-bearing shear zones.
- 6. Anomalous gold values are present in a quartz vein on the shore of Grave Lake. Quartz float occurs nearby. Anomalous gold values are also present in silicified greenstone in the same general area.
- 7. The presence of gold mineralization and major structures warrants a thorough exploration programme to evaluate the potential of the claims.

RECOMMENDATIONS

A. Main Showing

- Cut a detailed grid to cover the area of the showing (200m north and south of the shaft, from the shore of Vickers Lake to 400m west with picket lines at 50m intervals).
- 2. Prospecting, trenching and detailed geological mapping using the grid.
- 3. Prospecting to the west of the grid to extend the mineralization westward.
- 4. Extension of the grid to the west plus trenching and mapping as required.
- 5. Diamond drilling.

B. Angove Showing

- 1. Cut a grid aligned with the lineament. A starting grid with picket lines every 50m from a base line running 150m both north and south of the showing would be extended as results warrant.
- 2. Diamond drilling is necessary. Depth of overburden is unknown. Although a backhoe may reach bedrock, any excavation in the lineament would rapidly fill with water and thus not be suitable for examination or sampling.
- 3. Two drill holes per line are recommended. The first hole would be located in the valley as close to the east side of the lineament as is feasible. The second hole would be located far enough to the west to ensure a complete cross section of the bedrock under the lineament. Each hole should be stopped no less than 5m beyond the last encountered mineralization or significant shearing. (Drilling single holes to intersect the full width of the lineament would require considerable additional footage due to the steep slopes along some portions of the lineament which would require drill setups at the top of the slope.)
- 4. The first few series of holes should be at 50m intervals. Once the character and trend of the mineralization are verified, 100m intervals may be feasible for first phase drilling.

C. #3 Showing

- 1. Detailed prospecting is needed to extend this zone and to locate the source of the quartz float found nearby. The area to cover in detail is from 3S to 6S, and from 1W to Grave Lake.
 - 2. Stripping, mapping and sampling to follow.
- 3. Diamond drilling would follow as required.

D. Other

- 1. A geochemical survey would be useful to evaluate the property for other gold-bearing zones, notably within the other lineaments on the claims.
- 2. Prospecting, trenching, mapping and sampling would further evaluate anomalous zones discovered by the geochemical survey.
- 3. Diamond drilling as warranted.

APPENDIX I SAMPLE LOCATIONS AND RESULTS

No.	Loca	tion	Description	ppb Au
1	6+205	W08+ 0	qs, 2cm x 1m	<5
2	6+205	0+80 W	silic. zone 2cm x 0.5m	6
3	5+985	1+22W	dissem. po, py in qs & gb	7
4	5+005	2+77W	silic. & py in mpf selvage	365
5	12+00N	7+20E	5cm qv, no rust	5
6	12+30N	8+10E	5-10cm qv, trace py & cp	7
7	10+00N	4+46W	1m qv, trace py	<5
8	10+00N	4+46W	0.3m sheared wallrock	15
9	14+50N	7+20E	silic. with py in mpf	10
10	12+155	0+95E	1% po in gb	16
11	15+05N	4+35E	15-25cm qv + silic. w py	<5
12	15+10N	4+35E	5-8cm qv + silic. w py	98
13	15+15N	4+35E	silic. zone with py	7
14	12+02N	0+22 W	fit with trace py	<5
15	12+85N	4+50E	5cm qv w py in wallrock	6
16	4+305	3+50W	white qv float, trace py	<5
17	4+255	3+50W	30cm qv, 2-5% py & cp	14
18	4+25S	3+50W	grab sample of VL-17	138
19		0+10E	three samples of quartz	41
21	0+70S	0 1+00E	with py, cp, and Mo from creek valley	<5 34







Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines Mining Lands Section 880 Bay Street, 3rd Floor Toronto, Ontario M5S 128

Tel: (416) 965-4888

Your File: W9001.024 Our File: 2.13225

June 28, 1990

Mining Recorder
Ministry of Northern Development & Mines
808 Robertson Street
P. O. Box 5200
KENORA, Ontario
P9N 3X9

Dear Sir:

Re:

Notice of Intent dated May 29, 1990 for a Geological Survey submitted on Mining Claims K 1078160 et al in Mange Lake, Napanee Lake, Sakwite Lake and Vista Lake.

The assessment work credits, as listed with the above mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W. R. Cowan

Provincial Manager, Mining Lands
Mines & Minerals Division

S:zm Hocl:

cc:

Mr. W. D. Tieman

Mining & Lands Commissioner

Toronto, Ontario

Wellington Cove Exploration

Toronto, Ontario

ONTARIO GEOLOGICAL SURVEY
ALBERT FILES

JUL 03 1990

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Resident Geologist KENORA, Ontario

J. W. Redden Wabigoon, Ontario



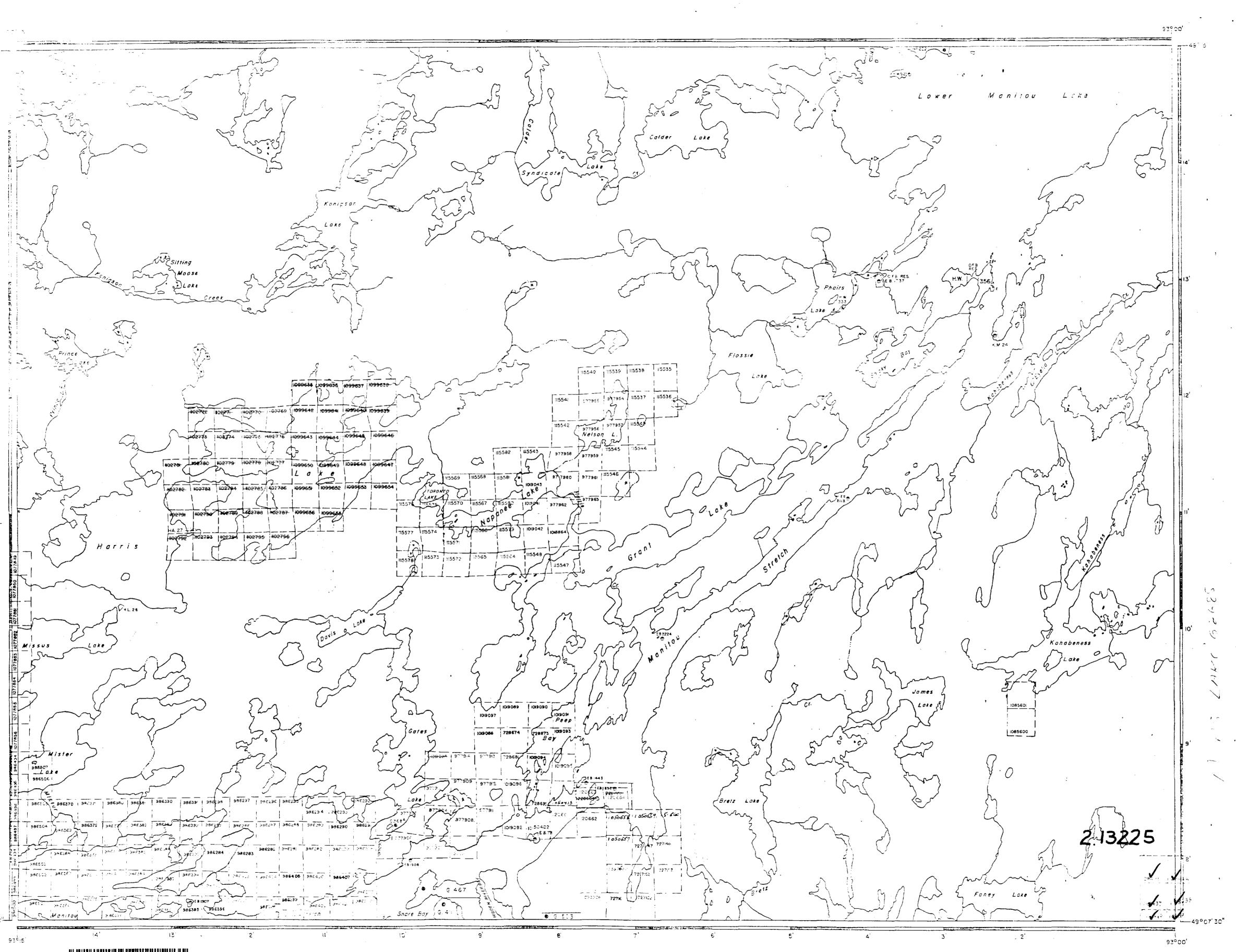
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Technical Assessment Work Credits

2.13225

Mining Recorder's Report of W9001-024

Wellington Cove Exploration Ltd. Township or Area									
Mang Lake, Napanee Lake, Sakwite	Lake. Vista Lake								
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed								
Geophysical Electromagneticdays Magnetometerdays	K 1078160 1084130 to 132 incl. 1100131 - 132								
Radiometricdays	1108559 to 563 incl. 1108565 1108568 to 571 incl. 1108637 - 638								
Induced polarizationdays	1100037 - 038								
Other days									
Section 77 (19) See "Mining Claims Assessed" column									
Geological 40 days									
Geochemicaldays									
Man days Airborne									
Special provision (C) Ground (C)									
Credits have been reduced because of partial coverage of claims.									
☐ Credits have been reduced because of corrections to work dates and figures of applicant.									
Special credits under section 77 (16) for the following m									
30 days geological - K 1100134, 110 20 days geological - K 1081021, 100 10 days geological - K 1085799	08572 84133, 1084134, 1100133, 1108564								
No credits have been allowed for the following mining cl	o credits have been allowed for the following mining claims								
not sufficiently covered by the survey	insufficient technical data filed								



LEGEND HIGHWAY AND ROUTE No CTHER ROADS . TRAILS 表现在文章中的作者 ****。 TOLL IN SHEEL LOTS MINING COARM UHSLIPILEYED LIMES LOTI, NES PARCEL BOUNDARY _____ MINING CLAIMS ETC. RAILWAY AND RIGHT OF WAY STILITY LINES NON-PERENNIAL STREAM FLOODING OR FLOODING RIGHTS SUBDIVISION OR COMPOSITE PLAN RESERVATIONS ORIGINAL SHORELINE MARSH OR MUSKEG MINES TRAVERSE MONUMENT DISPOSITION OF CROWN LANDS TYPE OF DOCUMENT PATENT, SURFACE & MINING RIGHTS " , SURFACE RIGHTS ONLY..... ₩ " ... , MINING RIGHTS ONLY ___ LEASE, SURFACE & MINING RIGHTS ... " , SURFACE RIGHTS ONLY... . . , MINING RIGHTS ONLY...... LICENCE OF OCCUPATION ______ ORDER-IN-COUNCIL RESERVATION _____ CANCELLED _____ SAND & GRAVEL ______ 5 NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913 VESTED IN DRIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, \$18SEC. 1. REFERENCES AREAS WITHDRAWN FROM DISPOSITION MLR.O. - MINING RIGHTS ONLY S.R.O. - SURFACE RIGHTS ONLY M.+ S. - MINING AND SURFACE RIGHTS 789101112123456 SCALE: 1 INCH = 40 CHAINS NAPANEE LAKE M.N.R. ADMINISTRATIVE DISTRICT FORT FRANCES MINING DIVISION

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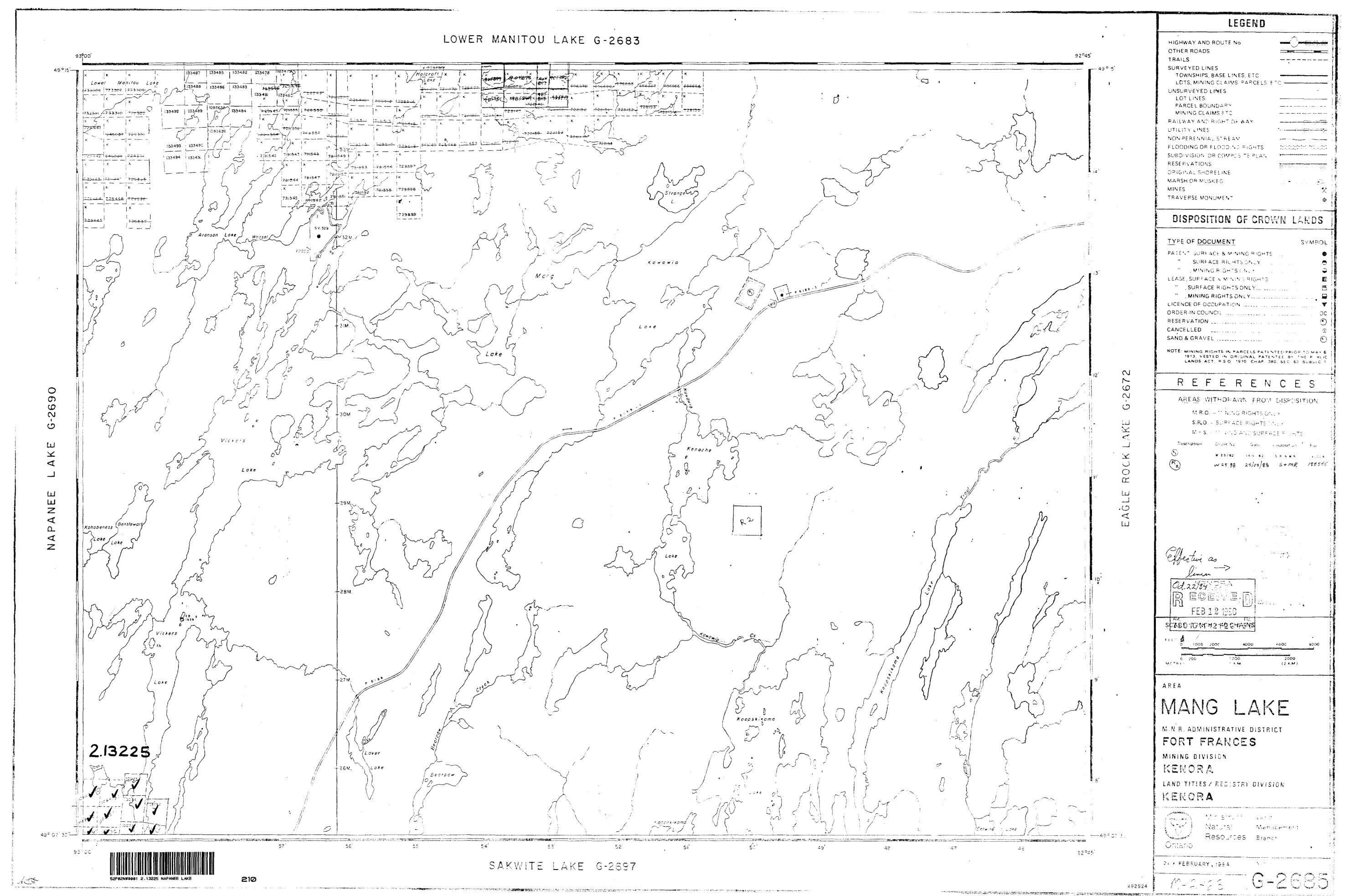
KENORA

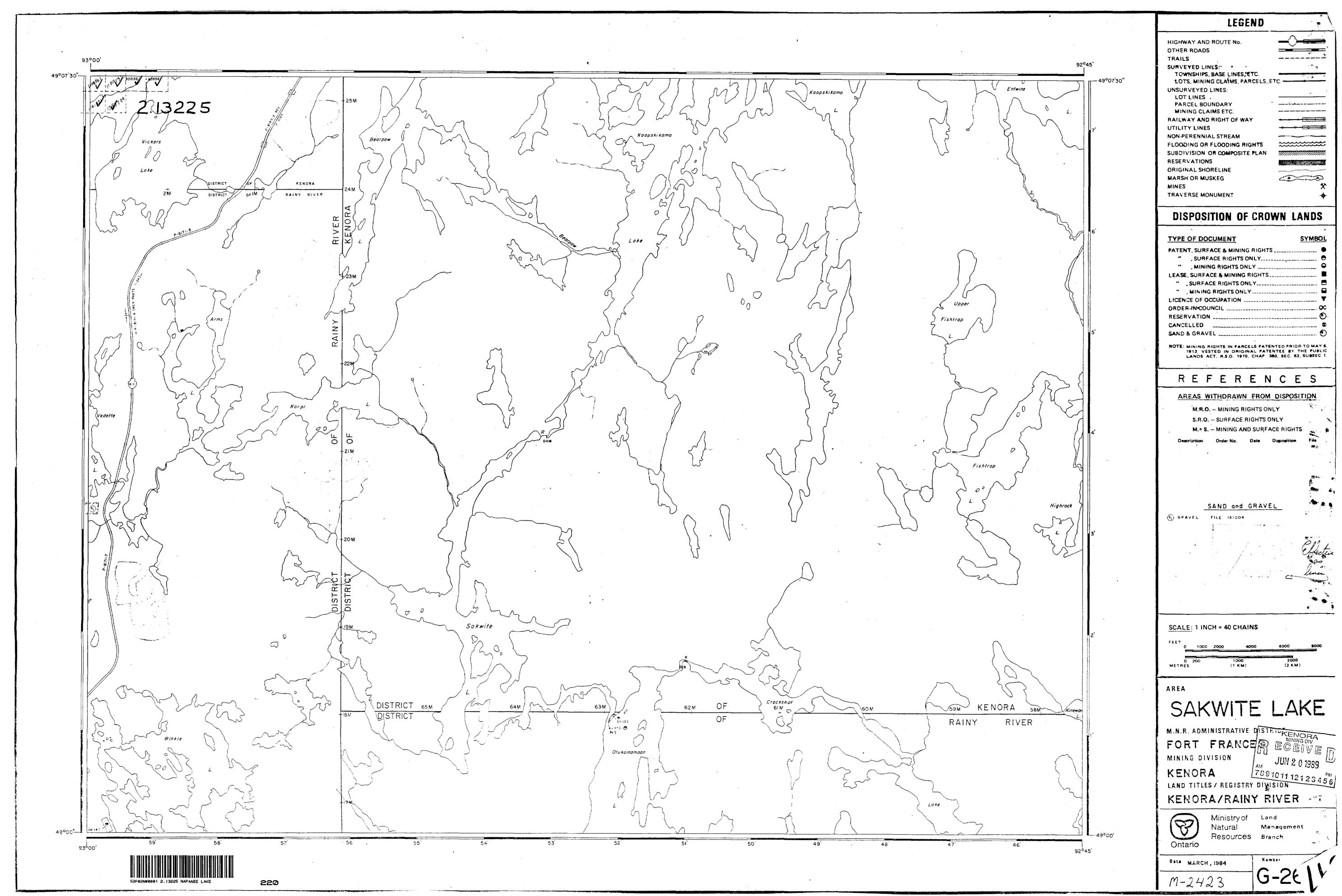
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Resources Branch

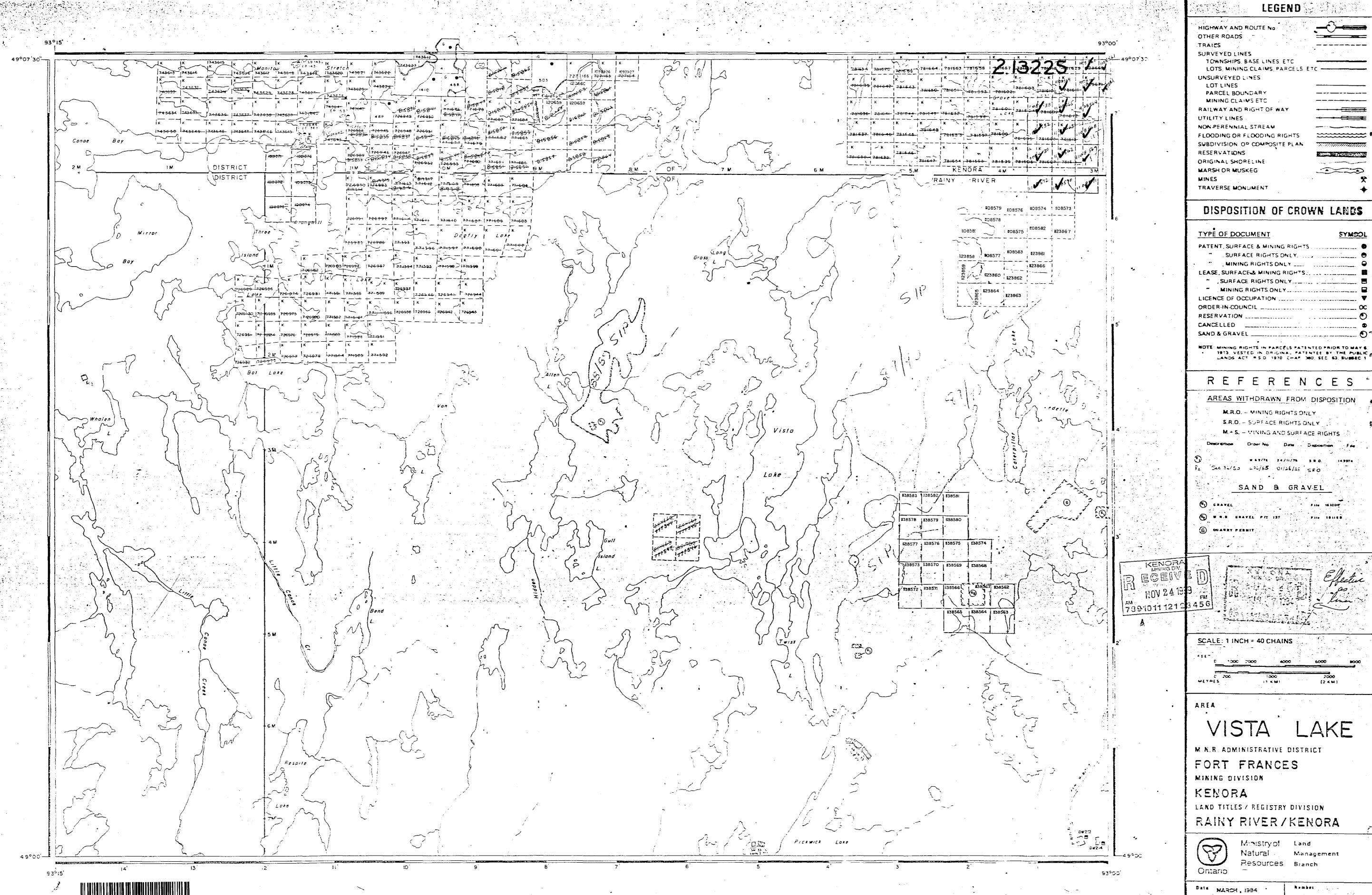
Date FEBRUARY, 1964.

LAND TITLES / REGISTRY DIVISION

G-2690







M-2429. G-2701

