REPORT

ON

A GEOLOGIC MAPPING

OF

THE BAG BAY - SHOAL LAKE CLAIM GROUP

KENORA MINING DIVISION

N. W. ONTARIO

August 30, 1972.
C. J. Kuryliw.

PROPERTY & LOCATION:

The property consists of one contiguous claim group 18 claims numbered:-

274182, 274183, 274184, 274185, 274186, 274187, 274188, 274189, 274190, 274191, 274192, 274193, 274194, 274195, 274196, 274197, 274198, 274199.

The claim group is located within Glass Township and Bag Bay of Shoal Lake in the Kenora Mining District of Northwestern Ontario.

The property is readily accessable from Trans Canada Highway 17, 23 miles west of Kenora by following the Rush Bay - Clytie Bay narrow gravel roads for 14 miles to the landing at Clytie Bay. The property can then be reached by boat in summer or by skidoo in winter or by aircraft summer and winter.

INTRODUCTION:

This claim group was staked in August, 1971. Linecutting on a land grid over the Bag Bay claims was started with the base line oriented N-S. The grid was tied in to the Bag Bay topographic station #93 which was arbitrarily chosen to be 12W - 100N on the Bag Bay land grid. The lines were turned off E-W at 400 foot intervals across the base line with pickets marked at 100' intervals.

Geologic mapping was started July 19, 1972 on a scale of 1" = 400 feet. The writer was assisted in the field work by Adrian Kuryliw. Detailed mapping was undertaken on the grid to also include outcrops between picket lines. The shorelines and all islands of the Bag Bay area were also mapped in detail, on a prepared 'blow-up' of the Bag Bay area to a scale 1" = 400 feet, which proved to accurately tie in with the land grid. The locations of adjoining past producers and known gold occurrences were examined. An extensive search of existing records at the Kenora Geology Department records office of the O.D.M. were also studied. Some pertinent information is included with this report. The mapping of the Bag Bay shorelines and islands on and alongside the Bag Bay claim group fills in gaps in geology of the claim group, and so provides more than the usual number of observed outcrops for geologic interpretation.

TABLE OF FORMATIONS:-* (*after J. C. Davies O.D.M. P.528)

LEGEND

CENOZOIC

Recent - swamp and stream deposits.
Pleistocene - sand gravel clay (unconsolidated)

PRECAMBRIAN

Proterozoic

10 - Diabase

Intrusive Contact

9 - Archean
Late Mafic Dikes

Intrusive Contact

8 - Late Felsic Intrusive rocks (quartz porphyry)

Intrusive Contact

7 - Early Felsic Intrusive rocks (quartz diorite)

Intrusive Contact

6 - Mafic intrusive rocks (gabbro, amphibolite)

Intrusive Contact

5 - Metasediments
(cherts, etc.)

4 - Massive Felsic volcanic rocks
(rhyolite, dacite, quartz porphyry, feldspar porphyry)

3 - Felsic volcaniclastic rocks
(fine to coarse fragmentals)

2 - Intermediate Volcanics
(porphyritic andesite)

1 - Mafic Metavolcanics
(andesite, basalt)

REGIONAL GEOLOGY:

Precambrian rocks underlie the area, the oldest rocks are the mafic metavolcanics around Bag Bay where they are interlayered with altered mafic intrusive rocks. Large feldspar crystals occur in the andesite at the south end of Bag Bay in a porphyritic volcanic rock with the feldspar phenocrysts probably formed prior to extrusion. Overlying the mafic volcanics is a sequence of flows and fragmentals predominantly intermediate in composition. In the northwest part of the area the base is marked by felsic fragmentals. Overlying the intermediate rocks is another series of mafic metavolcanics within which there is a zone of metasediments near the eastern outlet of Shoal Lake.

Mafic intrusive rocks occupy a zone of structural weakness extending N-N-E from Dominique Island along the west side of the Sirdar Peninsula which is at the west side of Bag Bay.

The Bag Bay - Canoe Lake quartz diorite stock is characterized by quartz in excess of 25%, yellowish green altered plagioclase and partly chloritized black amphibole. Contacts with surrounding volcanic rocks are sharp but some intrusive tongues occur.

LOCAL ROCK TYPES:

(1) Mafic Metavolcanics:

Andesite - basalt. These dark greenish rocks are fine to medium grained and highly altered. Amphibolization is the most common alteration which makes these rocks very difficult to distinguish from adjoining mafic altered gabbro or amphibolite intrusions. Gross textures such as fracture patterns or pillow remnants assist in field recognition during mapping.

(2) Intermediate Volcanics:

Porphyritic Andesite. This is a dark greenish grey volcanic rock of andesitic composition that contains 5 - 10% of coarse phenocrysts of white plagioclase (oligoclase). The phenocrysts commonly reach cross section diameters of ½ inch. Good exposures of this rock occur at the south end of Bag Bay on the east shore opposite Cedar Island.

(3) Felsic Volcaniclastic Rocks:

Rhyolitic agglomerate:- This rock is whiteish in surface outcrops and is composed of a fine rhyolitic ground-mass of quartz-sericite with a few rare quarts "eyes" recognizable. Variable amounts of rhyolitic fragments are found in the formation just north of the Bag Bay - Clytie Bay narrows on the claim 274183 on the east shore. The formation is about 800 feet wide.

(4) Metasediments:

Interflow cherty tuffs: In the map area only two narrow interflow cherts about ½ foot thick were found along the

south sides of claims 274185, 274184 on the north shore of Sirdar Point. The cherty tuff is composed of finely banded chert interlayered with narrow greenish bands of argillitic composition. The attitude of these beds is about N-75° W and they dip N at 80°. The attitude of these beds must represent a local fold which departs from the usual N-N-E trend of the rocks of Sirdar Point.

(5) Mafic Intrusive Rocks

Gabbro: Along the west shore of Bag Bay there are several extensive intrusions of highly altered gabbro which may be coarse grained towards the central portion of an intrusive but towards their contacts they are difficult to distinguish from altered amphibolized basic metavolcanics.

(6) Early Felsic Intrusive rocks

Quartz-diorite:- This is a light colored, coarse grained rock composed largely of a yellowish green plagioclase and 20 - 35% quartz and usually 5 - 10% dark amphibole. This rock underlies about 15% of the east part of Bag Bay and forms part of a large circular stock about 5 miles in diameter. During mapping no significant lineation was recognized, however, locally the amphibole content rose up to 20% at the north end of Bag Bay near the Sirdar Point Narrows.

(7) Late Felsic Intrusive Rocks

Quartz porphyry dyke intrusions: This rock occurs as a series of narrow intrusions in all rocks of the area including the quartz diorite. The rock is a fine quartz-sericite rock with some porphyritic quartz of up to 2 mm diameter visible in some of the dykes.

LOCAL GEOLOGY:

The most prominent geologic feature of the Bag Bay area consists of the western rim of a large quartz-diorite stock that intrudes the complex of metavolcanics and mafic intrusives. There is little evidence of assimilative processes during intrusion of the quartz-diorite although for about 200 feet from the contact at Sirdar Point inwards the quartz-diorite contains 10 - 20% amphibole as compared to 5 - 10% common throughout the rest of the main mass of the stock. The quartz-diorite intrusive contacts are somewhat irregular and in the vicinity of the Mikado Mine has been intruded as a series of parallel sill-like tongues the main one is 150 to 300 feet thick. These sills run generally N-W whereas the metavolcanics trend N-N-E. These sills of quartz-diorite with included remnants of metavolcanics became the ideal location for the formation of veins that follow faults across the interlayered quartz-diorite and metavolcanics of highly different competence and composition to provide a location for both good fracturing characteristics and abrupt wall rock changes in chemical environment for the emplacement of gold in quartz veins. There is an easily recognizable spatial arrangement of the gold occurrences in the Bag Bay area around the perifery of the Bag Bay - Canoe Lake quartz-diorite stock.

To the west of Bag Bay along Sirdar Point basic metavolcanics are interlayered with mafic intrusives which run N-N-W, however, along the north side of Sirdar Point near the Bag Bay - Clytie Bay Narrows the metavolcanics curve to S-75°-E

as indicated by narrow interflow cherty tuffs.

Further eastwards there is a wide formation of a felsitic fragmental that trends N-N-E but curves S - Eastwards where it approaches the quartz-diorite contact to form a sort of "drag structure" that is considered to be a buckling of the felsitic formation due to the expansive pressure of the intruding quartz-diorite stock.

ECONOMIC GEOLOGY:-

There are a number of good gold occurrences, two of these supported producers, the occurrences are located along the perifery of the quartz-diorite stock at Bag Bay of Shoal Lake. It appears that the marked difference in competence of the coarsely crystalline mass of quartz-diorite compared to the surrounding highly altered metavolcanics provided loci for fracture zones within quartz-diorite near the contacts. Most gold structures are found to occur at or near the quartz-diorite contacts, especially where several sill or dyke-like tongues of quartz-diorite are injected parallel to the main body of the intrusive. Quartz veins filled faults and cross fractures which readily developed across the interlayered tongues of quartz-diorite and less competent basic metavolcanics. The great chemical difference between acid quartz-diorite and basic metavolcanics may also have had a favourable geochemical influence on gold deposition. The veins with the best gold bearing valves occurred where the veins run across the quartz-diorite tongues within metavolcanics. At the Crown Point Mine gold occurs at the contact of a sheared inclusion of metavolcanics within quartz-diorite, parallel to and near the quartz-diorite periferal contact. It is difficult to determine the source of the gold bearing solutions but one plausible hypothesis is that the gold source may be related to the magmatic source of the quartz-diorite, but coming in after

the consolidation of the quartz-diorite stock. In any case, the most of the known gold occurrences are found at the periferal contact of the quartz-diorite intrusive especially where tongues of quartz-diorite occur within metavolcanics or within altered basic intrusives.

GOLD OCCURRENCES

The known geology and information on gold occurrences in the Bag Bay area are here referred to in summary with some conclusions.

MIKADO MINE:

The Mikado Mine, a past producer, is located on the south shore of Bag Bay. The mine consisted of two parallel veins 400 feet apart which strike N-30°-W cut across a tongue of quartz-diorite which dip 85°-N-E into the metavolcanics. The quartz-diorite tongue strikes E-W, dips 30°-S and runs for about ¼ mile parallel to the main contact of the Bag Bay quartz-diorite stock. The veins occupy fault planes with the intervening granitic tongue moved 40 feet northwards in a block. The veins pinch within the metavolcanics but the veins open up to several feet in the quartz-diorite country rock mineralized with pyrite chalco-pyrite and in places free gold. The narrowed veins continue persistantly in the metavolcanics and sometimes carry good gold valves. The vein is usually richer in gold where one or both walls are granite or felsite. The southerly dip of the granitic tongue across the northerly striking vein caused the gold enriched portion of the quartz-vein to follow along the vein intersection of the granite tongue with a consequent 30° southerly plunge.

Production from 1896 - 1902 was 57,813 tons milled to produce 28,335 ounces of gold, which averages a recovery of 0.50 ounce gold per ton.

Minor work was done in 1911 and in 1931-34 but there is no record of work carried out since then.

CROWN POINT MINE

Located on the point East of the Narrows between Bag Bay and Clytie Bay.

The main vein strikes E-W along the contact of an inclusion of metavolcanics and the inclosing quartz-diorite. Two shafts were sunk 200 feet apart and about 15 feet of drifting was carried out at the 70' level. 150 tons were sent for ore to recover 100 ounces of gold which is an average recovered grade of 0.67 oz. Au/ton.

It was also reported that the contact between the quartz-diorite and altered metavolcanics is mineralized over a width of 100 feet, but no gold values were reported.

THE TYCOON MINE:

The Tycoon shaft is located on an Island in Bag Bay about ¾ mile north of the Mikado Mine. There are no vein outcroppings, but it was then supposed that the extension of the Mikado No. 2 vein projected to the point where the shaft was sunk to a depth of 78 feet. The results appear to have been negative.

CORNUCOPIA (Cedar Island Mine)

The Cedar Island Mine is located at the southwest portion of Bag Bay on Cedar Island. Metabasalts of the west side of the quartz-diorite stock have been intruded by aplite and

pegmatite dykes. The most important vein runs N-45°-W and dips 69°-S-W. Gold occurs in the quartz vein associated with pyrite. Some exceptionally rich ore was reported to be located on the 144 level where ore 180 foot section averaged 1.48 ozs. Au/ton over a width of 46 inches. During 1932 the mine milled 17,050 tons for an average recovery of 0.29 oz. Au/ton.

BULLION MINE (Toronto and Western Co., also called the Sirdar)

The Bullion Mine is located on the south shore of Bag Bay just east of the Mikado Mine. The vein consists of a zone of altered quartz-diorite about 4 feet wide impregnated with quartz and pyrite. It has a N-30°-W strike and it dips 60° to 80° East, its strike is parallel to the Mikado vein strikes. A shaft was sunk to 200 feet with levels at the 100' and 200' levels. It was found that there is usually a small stringer of quartz in the plane of faulting and small stringers in the altered zone. The narrow quartz along the fault zone commonly carries rich visible gold.

Note:

It is this writers opinion that this gold bearing fault structure should have been traced southwards towards and across the quartz-diorite metavolcanic contact, where better grades could concievably exist.

SIRDAR:

The Sirdar is located directly north of the Bullion Mine on the shore of Bag Bay, the shaft was sunk to a depth of 125 feet with 500 feet of drift driven westwards towards the Mikado. No values are reported and it is concluded the results were negative.

CONCLUSIONS:

In the Bag Bay Area there are a number of gold occurrences, two of these supported small but successful gold producers of good grade ore. The many gold occurrences are located along the perifery of a quartz-diorite stock intrusion at Bag Bay. It appears that faulting is important in providing structures for vein emplacement especially where it crosses tongue intrusions of quartz-diorite into the metavolcanics where marked physical and chemical characteristics of the rocks occur on opposite sides of the contact. The veins carry the best gold in the granite rocks near the metavolcanics.

It is this writers opinion that two areas of the Bag Bay claim group deserve further exploration. One area is in the south-western portion of the property on claims 274193, 194, 195 where the trace of the periferal contact of quartz-diorite occurs. The magnetic survey planned for the winter of 1972-73 should locate the contact with any irregularities in its trace, the irregularities may indicate favourable faulting or tongue intrusions. Such locations would deserve d. drill exploration.

The other area is at the Crown Point Mine which deserves additional attention, the reported widespread but low grade gold mineralization in a fractured zone near the quartz-diorite-metavolcanics contact should be investigated. The presence of one rich vein near the old shafts at Crown Point is encouraging. With modern low cost open pit mining technology, it is my opinion that at least one drill hole should be drilled to test for this large tonnage-low grade possibility.

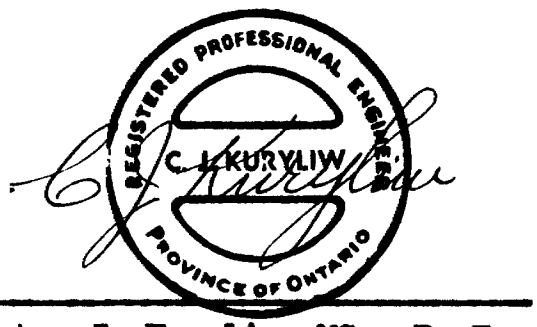
C. J. Kuryliw

C. J. Kuryliw, P. Eng.

DECLARATION

I, Chester J. Kuryliw of 223 Minto Drive, Kenora, Ontario do hereby declare that I have continuously practiced the profession of Geology for the past 23 years and that I hold a degree of Bachelor of Science received in 1949 from the University of Manitoba and the Degree of Master of Science in Geology, received from that same University in 1966 and that I am a member in good standing of the Professional Engineers of Ontario.

I do hereby declare that this report is based upon personal work in the field and in the plotting and study of results.



Chester J. Kuryliw, MSc. P. Eng.
Consulting Geologist.

August 30, 1972.

900

GEOPHYSICAL – GEOLOGIC TECHNICAL DATA STATEMENT

SEP 8 1972

PROJECTS SECTION

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey Geological Survey

Township or Area Glass Twp, Bag Bay Area (Shoal Lake) Ont.

Claim holder(s) Raymond E. Kuryliw 223 Minto Dr. Kenora, Ont.

Author of Report Chester J. Kuryliw P. Eng.

Address Consulting Geologist 223 Minto Dr. Kenora

Covering Dates of Survey July 19 1972 – Aug 25, 1972. (linecutting to office)

Total Miles of Line cut 4 miles on land, lakeshores extensively mapped.

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	20 days each
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____ (enter days per claim)

DATE: Aug 25, 72 SIGNATURE: C J Kuryliw Author of Report

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
K. 274 182	30 days
274 183	30 "
274 184	
274 185	
274 186	30 "
274 187	30 "
274 188	20 "
274 189	20 "
274 190	30 "
274 191	30 "
274 192	20 "
274 193	
274 194	
274 195	
274 196	20 "
274 197	20 "
274 198	20 "
274 199	30 "

Circled claims (5)
No credits

TOTAL CLAIMS 18

If space insufficient, attach list

OFFICE USE ONLY

PROJECTS SECTION
Res. Geol. Kenora Qualifications On file
Previous Surveys

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations_____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____

(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____

(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

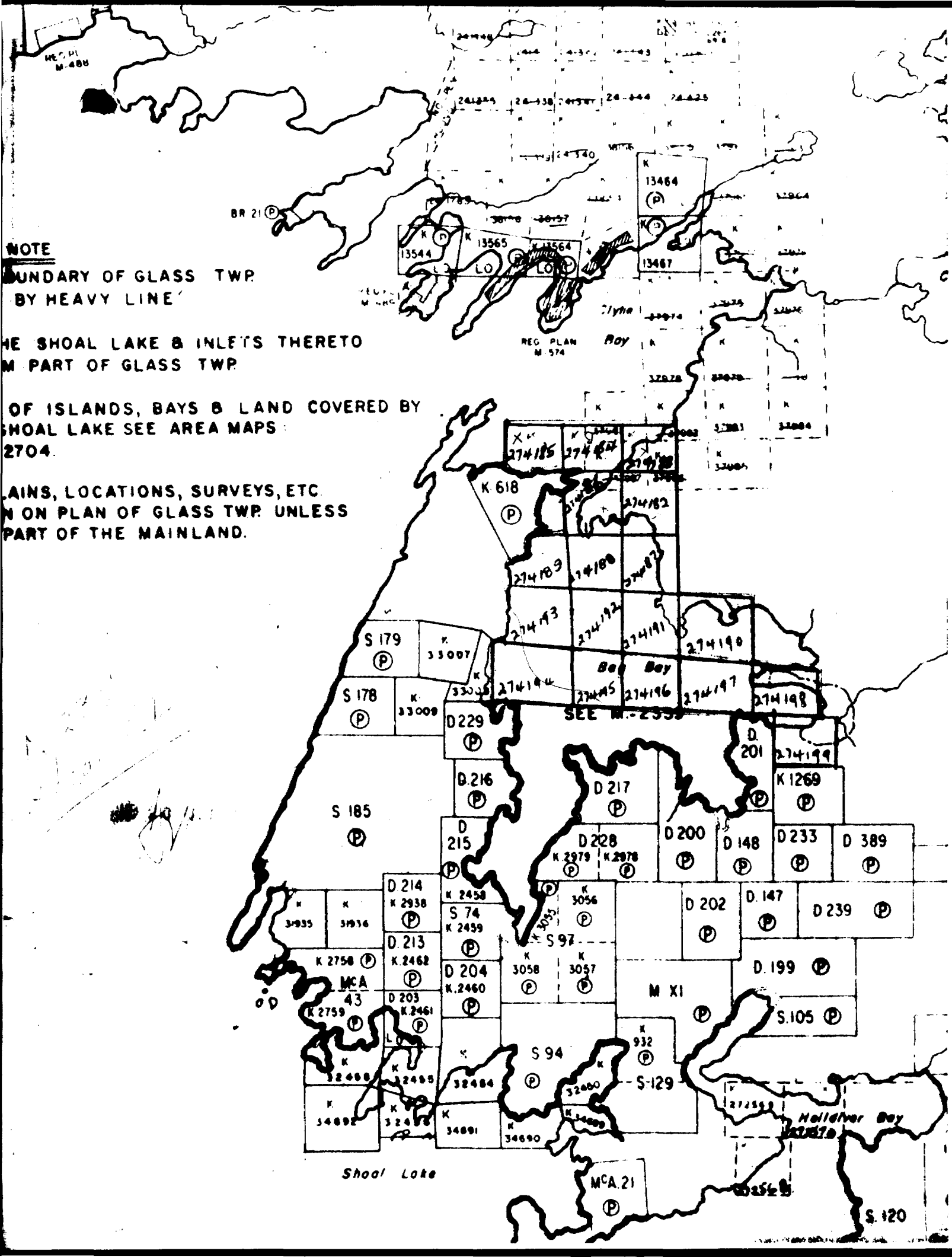
Frequency _____ Range _____

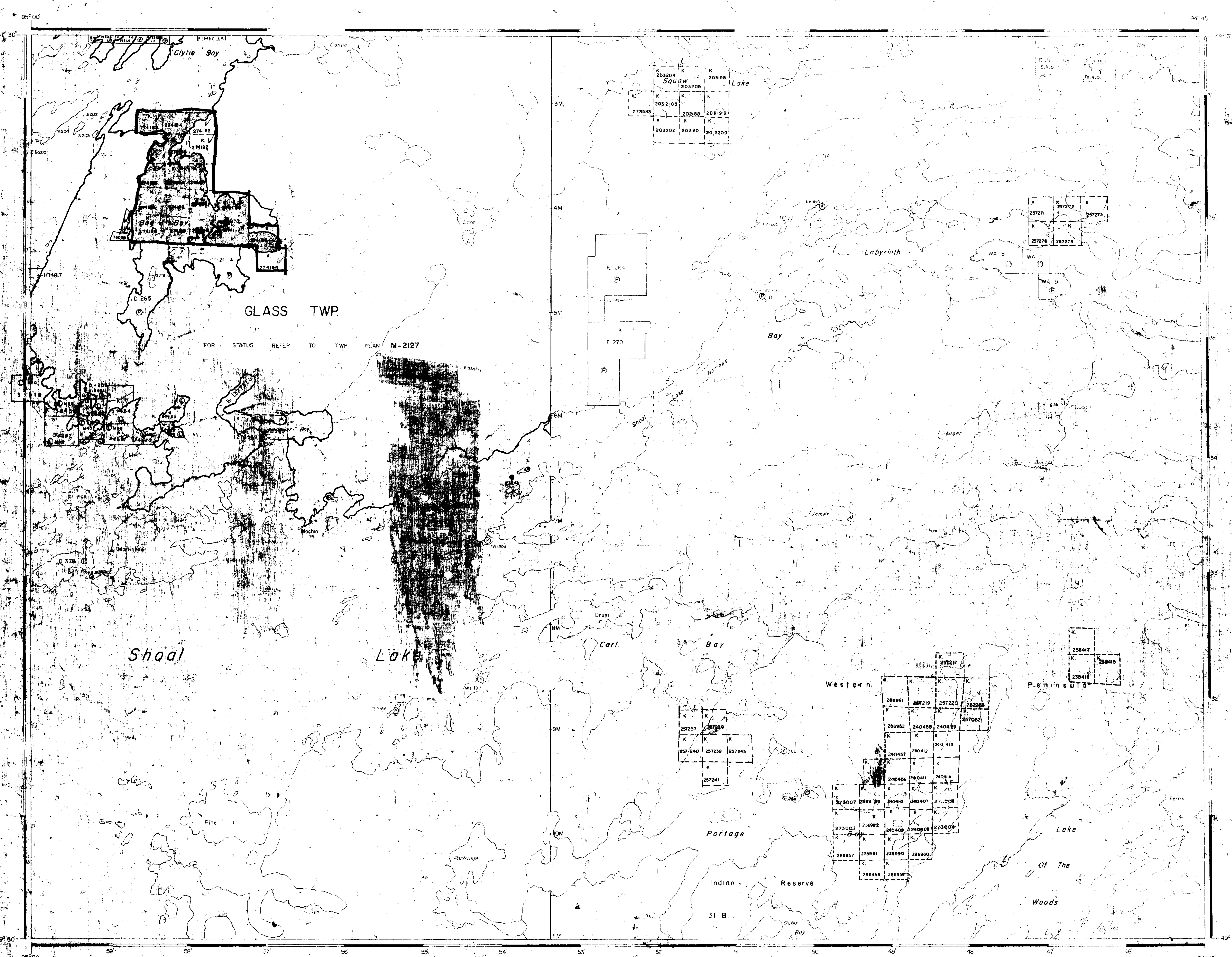
Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____


NOTE
UNDARY OF GLASS TWP.
BY HEAVY LINE
HE SHOAL LAKE & INLETS THERETO
M PART OF GLASS TWP.
OF ISLANDS, BAYS & LAND COVERED BY
SHOAL LAKE SEE AREA MAPS
2704.
AINS, LOCATIONS, SURVEYS, ETC.
N ON PLAN OF GLASS TWP. UNLESS
PART OF THE MAINLAND.
BR 21
REG PLAN M-574
Bay
K 618
S 179
S 178
S 185
D 229
D 216
D 215
D 214
D 213
D 204
D 203
D 217
D 228
D 200
D 148
D 233
D 389
D 201
K 1269
D 202
D 147
D 239
D 199
M XI
S 105
S 97
S 94
S-129
S 74
MCA 43
MCA 21
S 120
Shoal Lake
Hollister Bay



AREA OF

SHOAL LAKE

Claim map

DISTRICT OF
KENORA

KENORA
MINING DIVISION

SCALE: 1-INCH. 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

NOTES

400' Reserve to Dept. of Lands & Forests shown thus.

Flooding Rights reserved to 1064' mean sea level

Islands in Shoal Lake and inlets thereto do not form part of Glass Twp.

DATE OF ISSUE
SEP 1 2 1972
ONT. DEPT. OF MINES AND NORTHERN AFFAIRS

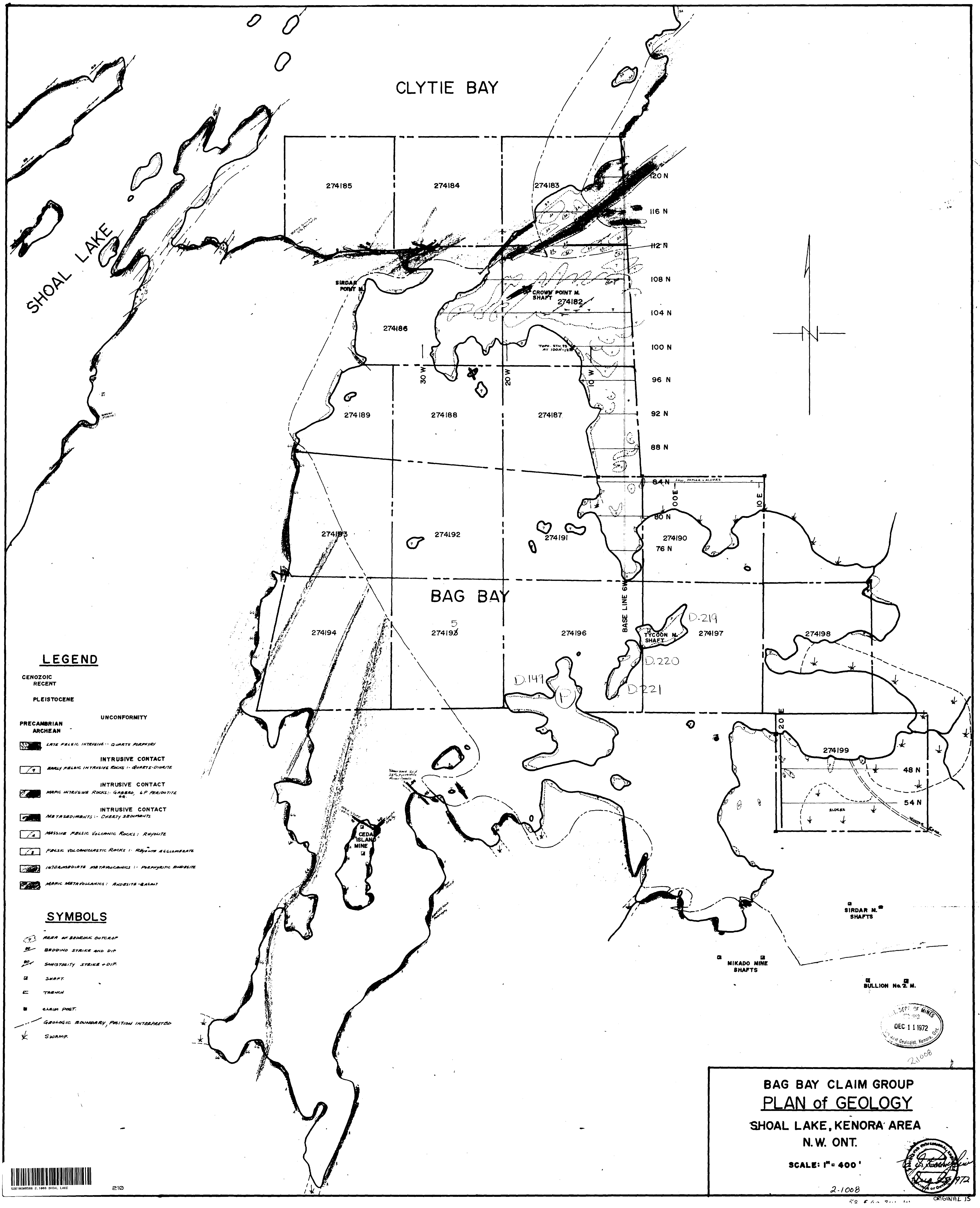
2.1008

NATIONAL TOPOGRAPHIC SERIES 52 E 10

PLAN NO. M-2339

ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

52E10NW8588 2.1008 SHOAL LAKE 200


CLYTIE BAY
SHOAL LAKE
BAG BAY
274185
274184
274183
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274192
274191
274190
274194
274195
274196
274197
274198
274199
120 N
116 N
112 N
108 N
104 N
100 N
96 N
92 N
88 N
84 N
80 N
76 N
48 N
54 N
30 W
20 W
10 W
00 E
10 E
20 E
BASE LINE 6W
SIRDAR POINT M.
CROWN POINT M. SHAFT
TOPO. STN 95 AT 100N-12W
LOW, POPLAR + ALDERS
TYCOON M. SHAFT
D.219
D.220
D.221
D.149
P
5
CEDAR ISLAND MINE
OPEN STOPE
ALDERS
WINTER ROAD
SIRDAR M. SHAFTS
MIKADO MINE SHAFTS
BULLION No. 2 M.
LEGEND
CENOZOIC
RECENT
PLEISTOCENE
UNCONFORMITY
PRECAMBRIAN
ARCHEAN
LATE FELSIC INTRUSIVE :- QUARTZ PORPHYRY
INTRUSIVE CONTACT
EARLY FELSIC INTRUSIVE ROCKS :- QUARTZ-DIORITE
INTRUSIVE CONTACT
MAFIC INTRUSIVE ROCKS :- GABBRO, 6P PERIDOTITE 6G.
INTRUSIVE CONTACT
METASEDIMENTS :- CHERTY SEDIMENTS
MASSIVE FELSIC VOLCANIC ROCKS : RHYOLITE
FELSIC VOLCANICLASTIC ROCKS :- RHYOLITE AGGLOMERATE
INTERMEDIATE METAVOLCANICS :- PORPHYRITIC ANDESITE
MAFIC METAVOLCANICS : ANDESITE-BASALT
SYMBOLS
AREA OF BEDROCK OUTCROP
BEDDING STRIKE AND DIP
SCHISTOSITY STRIKE + DIP.
SHAFT
TRENCH
CLAIM POST.
GEOLOGIC BOUNDARY, POSITION INTERPRETED
SWAMP.
DEC 11 1972
Geologist, Kenora, Ont.
21008
BAG BAY CLAIM GROUP
PLAN of GEOLOGY
SHOAL LAKE, KENORA AREA
N.W. ONT.
SCALE: 1" = 400'
2-1008
1972
52E10SW8588 2.1008 SHOAL LAKE
210
ORIGINAL JS