



52F05SW0144 63.3341 DOGPAW LAKE

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PROGRESS REPORT

DUBENSKI OPTION - DIAMOND DRILLING

JUNE 5 - JULY 3, 1974

GENERAL STATEMENT

In May, 1974, a contract for 3,000 feet of BQ diamond drilling was let to Midwest Drilling Company. From June 5 to July 3, 1974, seven diamond drill holes were completed and two other holes extended from previous drilling. A total of 2,899 feet of drilling was done.

Drilling was concentrated around the Shaft Zone and a possible smaller zone in the vicinity of 8+00W, 1+00N. Reconnaissance detailed mapping approximately 300 feet southwest of the Shaft Zone uncovered banding and folding trending near perpendicular to the Shaft Zone. Should the ore lenses be stratabound, this could result in a southwesterly bend in the Shaft Zone. The 50-60° eastward plunge of the folding may also have some effect on the plunge of the ore zone.

Following are the descriptions, purposes, and results of the most recent diamond drilling:

DO 74-13 - Extension

Location: 15+50W - 0+58S, 354° Azm.

Collar Elevation Above Lake: 26'

Dates Drilled: June 5-6, 1974

Total Depth: from 363-466'; Casing: 10' (left in hole)

Inclinations: @466': -46°

Purpose: To extend the hole 100 feet to determine if siliceous sections carrying low gold values continue deeper.

Results: Low grade gold values continued beyond the previous drilling. A zone from 363.0 to 368.7' ran $\frac{.06}{5.7}$.

When combined with $\frac{.034}{22.0}$ (341.0-363.0), from previous drilling,
the total combined zone runs $\frac{.04}{27.7}$ (341.0-368.7). ✓

DO 74-14

Location: 15+50W - 0+00N, 354° Azm.

Collar Elevation Above Lake: 29.1'

Dates Drilled: June 7-9, 1974

Total Depth: 299'; Casing: 8.0'

Inclinations: @collar: -51°
 @100' : -44°
 @200' : -42°
 @299' : -40°

Purpose: To test for possible upward extensions of favourable gold zones in DO 74-13.

Results: A zone was intersected from 90.0' to 132.0' running $\frac{.29}{42.0}$ (.36 uncut). This zone increased drill-indicated $\frac{.29}{42.0}$ $\frac{.36}{42.0}$

tonnage in the Shaft Zone area to 85,476 tons @.263 oz/ton from 81,675 tons @.255 oz/ton.

DO 74-15

Location: 13+20W - 1+85S Azm. @surface

Collar Elevation Above Lake: 42.1' 355° Azm. @427'

Dates Drilled: June 10-13, 1974

Total Depth: 427'; Casing: 4.0' (left in hole)

Inclinations: @collar: -60°
 @150' : -56°
 @300' : -52°
 @427' : -51°

Purpose: To test for possible eastward plunge of Shaft Zone at depth.

Results: Only low values were encountered. The Shaft Zone was not intersected.

DO 74-16

Location: 14+85W - 2+62S 354° Azm. @surface
Collar Elevation Above Lake: 46.0' 347° Azm. @243'
Dates Drilled: June 15-18, 1974 348° Azm. @527'
Total Depth: 527' Casing: 6.0'
Inclinations: @collar: -60°
 @100 : -54.2°
 @243 : -45°
 @527 : -35°

Purpose: To test downward extension of the Shaft Zone below
Do 74-9 ($\frac{.38}{32.1}$ 363.4-395.5).

Results: The Shaft Zone was not intersected. The drill hole
drifted 6-7° west of section and only low values were
encountered.

DO 74-17

Location: 9+00W - 0+68S 354° Azm. @surface
Collar Elevation Above Lake: 31.0' 353.5° " @327'
Dates Drilled: June 19-21, 1974
Total Depth: 327'
Inclinations: @collar: -59°
 @147 : -53.3°
 @327' : -49°

Purpose: To test for possible downward extensions of a favour-
able zone in DO 74-7 ($\frac{.191}{23.0}$ (154.5-177.5)).

Results: A wide favourable looking zone from 230.8 to 271.0
yielded only .02 - .03 oz/ton. One small zone from
276.0 to 285.0 yielded $\frac{.06}{9.0}$. A portion of this zone (281.6-
285.0), running $\frac{.10}{3.4}$ was a felsic tuff/porphyry similar to the
rock which yielded good values in DO 74-7. A zone from 276.0
to 301.0 ran $\frac{.04}{25}$.

DO 74-18

Location: 8+00W - 0+00N 354° Azm. @surface

Collar Elevation Above Lake: 21.0' 002° Azm. @207'

Dates Drilled: June 21-22, 1974

Total Depth: 207' Casing: 18.0'

Inclinations: @collar: -51°

@95' : -45°

@207' : -45°

Purpose: To test for a possible eastward extension of the zone encountered in DO 74-7.

Results: A zone of favourable rock was encountered where an eastward extension was expected, but values were low (162.5 - 179.4; $\frac{.05}{16.9}$).

DO 74-19

Location: 7+04W - 0+06N 354° Azm. @surface

Collar Elevation Above Lake: 8.6' 352° Azm. @207'

Dates Drilled: June 23-24, 1974

Total Depth: 207' Casing: 10.0'

Inclinations: @collar: -50.5°

@107' : -45.1°

@207' : -39°

Purpose: To test for eastward extension of zone in DO 74-7 and attempt to duplicate values intersected in old hole 45-21 ($\frac{.091}{13.0}$ (158.0-171.0)

Results: V.G. was present in the core. A section containing the V.G. ran only $\frac{.06}{9.0}$ (167.0-176.0). Including 5 feet of .03 oz/ton immediately down hole from the above there is a zone from 167.0 to 181.0 of $\frac{.05}{14.0}$.

DO 74-20

Location: 1+00E - 0+04S 355° Azm. @surface

Collar Elevation Above Lake: 15.0' 355° Azm. @279'

Dates Drilled: June 27-28, 1974

Total Depth: 279' Casing: 6.0'

Inclinations: @collar: -50.5°

@127' : -45.8°

@279' : -41°

Purpose: To test for downward extensions of favourable zones intersected in old hole 45-1 (69.0-84.4, $\frac{.106}{12.4}$; 91.2-104.0, $\frac{.126}{12.8}$).

Results: No favourable zones were intersected. Assay values ranged from trace to 0.03 oz/ton.

DO 74-21

Location: 14+50W - 1+75S 354° Azm. @surface

Collar Elevation Above Lake: 51.0' 350.5° Azm. @496'

Dates Drilled: June 29-July 2, 1974

Total Depth; 496' Casing: 2.0'

Inclinations: @collar: -61.5°

@150' : -55.7°

@328' : -48.1°

@496' : -47°

Purpose: To test for downward extension of Shaft Zone beneath DO 74-10 (204.0-247.0 $\frac{.266}{43.0}$ cut, $\frac{.394}{43.0}$ uncut).

Results: Felsic silicious zones did not carry good gold values as expected. A zone of felsic to intermediate tuffs and felsic tuffs with minor felsic porphyry from 409.0 to 437.5' ran $\frac{.12}{28.8}$. This zone is open above 409.0 to 389.0 and further sampling may result in a wider zone.

DO 74-9 - Extension

Location: 14+85W - 1+97S 354° Azm. @surface
Dates Drilled: July 3-4, 1974 349.5° @447'
Total Depth: 447'
Inclination: @447': -26°
Purpose: To test for possible gold bearing zones deeper in
DO 74-9.
Results: Due to increased flattening (59.5° @collar to -26°
@447') the extension was abandoned. Drilling became
very difficult and the rock type unfavourable.

GOLD MINERALIZATION

Gold zones were restricted to the more felsic siliceous rocks as in the earlier drilling. However, minor gold was observed in a thin quartz-carbonate veins (DO 74-13) and a substantial zone below the siliceous portion of the Shaft Zone carried important values (see Table 1, page following). Other than one small speck of sphalerite observed in a vug in a quartz vein from DO 74-21, sulphide mineralization was as reported (Diamond Drilling Program, Dubenski Option, Flint Lake, Ontario).

TABLE I

INTERSECTIONS OF SILICIOUS ROCK AND THEIR ASSOCIATION WITH
GOLD BEARING ZONES

DUBENSKI OPTION, FLINT LAKE

HOLE NO.	SILICIOUS ZONES	AU BEARING ZONES	REMARKS
DO 74-13 extension 15+50W	Odd bands - no definite zone	210.2-235.0; $\frac{.09}{24.8}$ 269.7-273.0; $\frac{0.23}{1.5}$ 301.8-311.2; $\frac{0.19}{9.4}$ (uncut .50) 363.0-368.7; $\frac{.06}{9.4}$	Combined with uphole section $\frac{.04}{27.7'}$; (341.0-368.7) True width: 17.0'
DO 74-14 15+50W	66.8-112.4 112.4-138.5 (fair) 158.0-162.0	90.0-132.0; $\frac{.29}{42.0}$ cut (uncut $\frac{.36}{42.0}$)	True width: 32.0' V.G. fairly common
DO 74-15 13+20W	183.5-207.0 (poor) 349.6-364.6 381.3-391.0 396.0-414.0 425.0-427.0	386.0-391.0; $\frac{.04}{5.0}$ 425.0-427.0; $\frac{.03}{2.0}$	The Shaft Zone was not intersected.
DO 74-16 14+85W	431.0-448.0 (fair) 460.5-474.0 (fair) 474.0-494.5 (bands)	474.0-484.0; $\frac{.025}{10}$	Hole swung 6-7° to v Did not intersect Sh Zone.
DO 74-17 9+00W	230.0-271.0 281.0-285.0 291.0-298.0	276.0-285.0; $\frac{.06}{9.0}$ 276.0-301.0 $\frac{.04}{25.0}$	Similar rock type to section in DO 74-7. width 14.5'.
DO 74-18 8+00W	162.5-179.4	162.5-179.4 $\frac{.05}{16.9'}$	True width: 120'.
DO 74-19 7+04W	162.0-171.0 (fair) 171.0-181.0 183.5-188.4 (fair)	167.0-176.0 $\frac{.06}{8.0}$ 167.0-181.0 $\frac{.05}{14.0}$	True width: 11.0' V.G. @173.6'
DO 74-20 1+00E	129.5-132.5 132.5-148.6 (fair) 192.0-199.0 (fair)	None	
DO 74-21 14+50W	170.0-197.0 (fair) 231.0-241.0 (fair) 339.2-347.0 (fair) 360.0-374.8 427.3-437.5	409.0-437.5 $\frac{.12}{28.8}$	Au zone is not assoc ed totally with fels silicious rock. More assays may improve g and width: True width 19.0'
DO 74-9 extension 14+85W	None	None	

GENERAL GEOLOGY

Outcrop stripping and reconnaissance mapping uncovered an area of folding, 300 to 400 feet southwest of the Shaft Zone. Banding was observed striking at high angles to perpendicular to the gold zone. Small-scale folding associated with the bands plunge easterly @55° to 60°.

Drill holes in this area (DO 74-9, 21, 16) bent westward 4-6° against their natural tendency to bend to the right. It is concluded that the holes were bending due to the south westerly trends expressed in surface exposures.

The scale of folding is unknown but is believed to be localized and small-scale. It is probably representative of more open regional features. Banding within 150 feet of the folding exhibits east-west trends similar to the general trend in the area.

Intrusive rock types are suspected in the core from DO 74-21 and 16, though it is impossible to call it such due to the limited exposed core widths. What appears as a small intrusive sill was observed on surface near 16+00W - 1+70S.

Quartz veins up to 3 feet core width were found in core from DO 74-16. Similar occurrences were not observed either at the surface or on adjacent drill holes. The veins may be quartz filled dilation zones in folded sequences.

CONCLUSIONS

The additional diamond drilling in the vicinity of the Shaft Zone resulted in a westward extension of the zone to at least 15+75W. The western extension is near the surface at this point, apparently plunging eastward.

Drilling beneath the main portion of the zone, 14+50W, increased the known depth of the body to at least 300 feet where

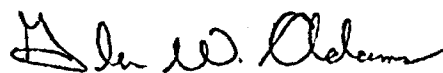
it has dropped both in grade and apparent width. The ore zone at this depth is not in the characteristic silicious felsic tuffs but rather in a much less felsic though still fairly silicious rock.

It is debatable whether the areas of folding southwest of the Shaft Zone shed any light on the structure of the ore body. The attitudes may be local features representative of more regional structures. It is suspected that the one body does not bend sharply to the southwest, but the slight northern displacement of the west end of the zone may be a subtle expression of the tighter folding. The easterly plunge of the folded band is also considered to be a local feature. The drill-hole-indicated outline of the body exhibits a much steeper plunge.

Utilizing the old 1945-46 drill holes and trenching information along with the recent drilling program, the ore body probably bottoms near surface and pinches out at the west end. The old trenches and drill holes west of 16+00W probably follow the thin, low grade, western tail of the body. The initial drill holes, 73-1 and 2, may have intersected portions of the narrow western tail but most likely went underneath it. There is the possibility that the ore zone was moved a considerable distance north at the west end. In this case the old trenching and drilling intersected a thin gold bearing band associated to, but not connected with, the main zone. Further exploratory drilling testing for this possible displacement should be conducted from underground or while development of the body is in progress.

RECOMMENDATIONS

It is recommended that no further surface drilling be done at present. Money appropriated for additional drilling would be better spent on initial development such as dewatering the old shaft and taking a bulk sample.



Glen W. Adams
Exploration Geologist
Western Ontario Division



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GEOLOGICAL REPORT
DUBENSKI OPTION
FLINT LAKE NTS 52F-5

PURPOSE

The Dubenski Option was mapped in conjunction with a diamond drill program which was to outline possible ore grades in a gold bearing shear zone. The area was mapped in order to obtain a better knowledge of the local geology and aid in understanding drill hole information.

LOCATION & ACCESS

The 22 claims of the Dubenski Option lie on, and to the north and south of, a neck of land between Cedartree and Flint Lakes. The area lies 16 air miles northeast of Nestor Falls, Ontario. It can be reached by float plane from Nestor Falls or Sioux Narrows, about .30 miles north on Highway 71. The property may also be reached by boat from the Whitefish Bay Indian Reserve on Dogpaw Lake via Caviar Lake. In the winter months the property may be reached with snowmobile from Whitefish Bay by going down Dogpaw Lake and across a short portage, leaving the extreme southeast end of the lake into Flint Lake.

A semi-permanent tent camp is located on the south side of the peninsula jutting eastward into the southern part of Flint Lake. The camp is approximately seven miles east of Highway 71.

PREVIOUS WORK

The gold zone was initially discovered by Mr. Albert Gauthier prospecting for Mr. J. Errington. In 1936, trenching and four

diamond drill holes were drilled. Due to some difficulty in ownership, some of the claims were allowed to lapse. The claims were restaked by Mr. Norman Caswell in partnership with Mr. Percy Williams, and optioned to Noranda in 1943.

In 1945, the Caswell-Williams Option was drilled by Noranda. At that time 494 feet of x-ray and 6108 feet of E core diamond drilling tested a length of 3000 feet of shearing along the south shore of Flint Lake. Though favourable gold values were intersected, ore grade material of adequate dimensions was not outlined, and the option was dropped.

Wampum Gold Mines Limited, later renamed Dogpaw Gold Mines Limited, acquired the ground in the late 1940's. In the early 1950's a shaft, known as the Falnora shaft, was sunk to 132 feet and a 60 foot crosscut was extended northward from the 125 foot level. Due to a combination of unsafe operations and a lack of funds, work ceased and the patented claims allowed to lapse.

In 1971, Albert Zeemel restaked the ground for Gunnex Limited. Ground geophysics outlined two anomalies trending roughly parallel to the south shore of Flint Lake. One zone was located approximately 500 feet north of the shaft and extending for some 2000 feet eastwest. The second anomaly was 300-400 feet north of the shore and similarly 2000 feet in length (Davies, 1973). Though the zones were considered to represent pyrite rich shears or fault zones, the ground was again dropped in 1971.

In that same year, Paul Dubenski, a diamond driller from Kenora, restaked the ground. Noranda Exploration Company, Limited again optioned the ground in July, 1973 and staked six additional claims to the south which were included in the option agreement.

Work on the property commenced in late September 1973, when a grid was established, trying, fairly successfully, to duplicate

the old original Noranda grid. The main portion of the ground was mapped during mid and late October. Drilling started on October 22, 1973, and continued until an early and long freeze up with five holes completed.

Immediately into the new year, geophysical crews conducted VLF, CEM and Magnetometer surveys over the entire grid as well as on ice grids on Cedartree and Flint Lakes. It is believed that VLF picked up the main shear zone though it was often masked by lakeshore effects. For further information the reader is referred to the geophysical reports and maps on the property.

Drilling was continued after the new year and is expected to continue until break up. A total of 9 additional holes and a total in excess of 3500 feet of drilling was completed at the time of this writing.

GENERAL GEOLOGY

The general geology of the area consists of a series of intertonguing felsic to intermediate, intermediate, and felsic agglomerates, tuffs, and crystalline tuffs. A prominent stratiform dioritic body outcrops in the southeast portion of the property. Its genetic characteristics are unknown, but it is believed to be a thick, coarse grained, mafic flow. Two gabbroic bodies, considered unrelated to the dioritic body are also found in the mapped area (see accompanying map).

GENERAL STRUCTURE

The mapped area lies on the flank and north of a regional syncline, the axis of which lies some four miles to the south (Davies, 1971). The regional structure is truncated to the north by a large NW-SE trending sheared zone extending through Dogpaw, Flint and Stephen Lakes.

Locally, the lithologies bend from a NE-SW trend in the southwest to a more easterly strike in the eastern portion of the property, paralleling the regional folding. Foliations exhibit the same trends with near vertical dips.

Banding, though very difficult to discern, follows a pattern similar to that of the foliations. Minor distinct changes of strike in the banding, however, may indicate isolated minor folding. No top determinations could be made in the area mapped. However, as the stratigraphy is continuous with that to the south, tops are inferred to be to the south (Davies, 1971).

Faulting is probably more common than was noted. A two to five meter scarp with associated minor shearing was observed trending E-W midway through the eastern one third of the claim group. Probable, though not visible, faulting is thought to be associated with the gabbroic bodies of the south-central and west-central regions of the group. Some minor faulting in the western portions of the area was inferred from airphotos.

Shearing is fairly common and almost always associated with felsic rocks. There are several minor occurrences in the western and southwestern portion of the area. A major zone of shearing is present along the south shore of Flint Lake. It extends eastward through the thin neck of the peninsula and out into the south bay of the lake. Shearing is quite intense north of the old shaft but becomes less intense at crossing the peninsula.

LITHOLOGIC DESCRIPTIONS

Felsic Intermediate Pyroclastics

The pyroclastic rock types vary greatly in texture and composition. Grain sizes vary from fine, to lapilli size to coarse

agglomerates. The most prominent rock type is that of felsic and felsic to intermediate coarse tuffs and lapilli tuffs with lesser amounts of intermediate tuffs.

Coarse agglomerates are fairly common, often forming well defined units. Compositionally they range from intermediate to felsic. The fragments, elongated parallel to the regional foliation are almost always more felsic than their matrix and generally porphyritic in nature. Fragments range in size from 10 x 20cm to 30 x 80cm with the larger sizes not being uncommon.

Facies changes are the rule and all the tuffaceous lithologies are intertongued with one another. Due to this fact there was much difficulty in establishing lithologic contacts. For this reason many of the outcrops were mapped as felsic to intermediate tuffs, though both rock types more present as distinct types.

Felsic Crystalline Tuffs (Rhyolites)

Felsic, silicious, crystalline tuffs occur as small lenses and thin bands throughout the tuffaceous lithologies, though they are most common in the southeastern portion of the area. A unit of well banded rhyolite outcrops in the southeastern part of the group and may be easily traced. It lies in contact with the dioritic unit to the north and grades sharply into less felsic tuffs to the south. There appears to be little or no contact effects between this unit and the dioritic unit. Though pyrite is a common constituent, no concentrations of this mineral, or any others, were observed.

Gabbro-Diorite

The main mafic rock unit consists of a medium to coarse grain dioritic to gabbroic rock. Though it appears to be a sill-

like body it is very likely a coarse grained flow. There are essentially no visible contact effects between this unit and felsic and felsic to intermediate tuffs to the north or the rhyolites to the south.

Several quartz veins occur within the unit exhibiting random orientations. The veins vary from 5 to 30cm in width. None were found to carry any mineralization.

Gabbro-Peroxenite (?)

A fairly large outcrop of gabbroic rock occurs in the central portion of the map area. Rightly named it would probably be considered a pyroxene porphyry. It consists of a matrix of dark green-yellow, fine grained material hosting euhedral to subhedral, 2 x 4mm phenocrysts of pyroxene. The phenocrysts compose up to 20% of the rock. A fine grained variety, minus the phenocrysts is found about the margins of this body. The fine grain phase varies in thickness from 50 to 60 feet on the northwest portion of the outcrop to less than one foot on the northeast and probably identifies a chilled margin.

There appeared to be little or no contact effect where the mafic rock lies in contact with felsic and felsic to intermediate tuffs along the northeast part of the outcrop. From airphoto information it is very possible this body and adjacent tuffs were faulted into place. This body appears very similar to mafic sills to the south as explained by Davis (1973), and may be faulted blocks of these bodies.

The main gabbroic body hosted the odd thin quartz vein. They averaged 3-10cm wide exhibiting random orientations and yielded no gold on panning.

MINERALIZATION

Pyrite is the most common mineral and is found from trace amounts to 1-2% in nearly all lithologies. The mafic rock types were the only exceptions where it occurred only in trace amounts.

Chalcopyrite, sphalerite, and galena were discovered in very trace amounts in one location. The sulphides were in a thin quartz vein within a small, silicious, felsic band or inclusion in dioritic rock. The occurrence was found in the southeastern portion of the group (approx. 700W-1300S) while searching unsuccessfully for a vein reported to carry visible gold, which may lie further south. No gold could be panned from this showing.

Gold mineralization is associated with the shearing along the south shore of Flint Lake. It may be easily panned from many of the old trenches. Though no gold could be panned from trenches on the western part of the area, east of the Cedartree River, the shearing and rock type were very similar to the gold bearing shear.

Old trenches found by the broken wooden dam on the Cedartree River were reported to carry gold. This area was neither sampled or panned.

CONCLUSIONS

The geological environment appeared favourable for base metal deposits. Recommended geophysical surveys proved nothing of interest. Mapping did result in a better idea of the general geology and revealed areas similar to the known zone of gold mineralization.

RECOMMENDATIONS

It is recommended that the map area be thoroughly prospected. This could be done during the early part of the 1974 field season, as other areas of interest in the general region should also be prospected. Special interest should be paid the known shear zones and the southeast portion of the claim group.

At present, the area about the old shaft appears the most interesting from drill hole data. A very close examination of the geology should be made in the near vicinity of the shaft as it is possible that the area just west of the shaft zone has been faulted northward. This would better match the trend of the western-most shear zone and help explain the drop in grade in the two western drill holes.

Respectfully submitted by,

Glen W. Adams

Glen W. Adams,
March 14, 1974.

References Cited:

Morin, J.A., and Davies, J.C., 1973; Geology of the Cedartree Lake area, District of Kenora; Ontario Division of Mines.

Davies, J.C. & Morin, J.A., 1972; Cedartree Lake area, District of Kenora; Ontario Dept. Mines and Northern Affairs, Prelim. Map P.731, Geol. Ser., scale 1 inch to $\frac{1}{4}$ mile. Geology 1971.



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GEOPHYSICS AND GEOLOGY

REPORTS AND MAPS

Geophysical Assessment Report

GEOPHYSICAL MAPS: VLF Survey - Dubenski Option
Magnetometer Survey - Dubenski Option
CEM Survey - Cedartree Lake Grid
Magnetometer Survey - Cedartree Lake Grid

Geological Report

Geological Map

GEOPHYSICAL ASSESSMENT REPORT

DUBENSKI OPTION

LOCATION

This assessment report covers sixteen claims optioned by Noranda Exploration Company, Limited from Paul J. Dubenski. These claims are: K273821-K273826; K314923-K314932. Also covered were six claims staked by Noranda: K351873-K351878.

The claim group is in Dogpaw Lake area, Kenora Mining Division.

ACCESSIBILITY

Access can be gained either by aircraft from Nestor Falls to Flint Lake or by road to Whitefish Bay Indian Reserve and then by snowmobile eight miles via Dogpaw Lake to Flint Lake. In summer this area is reached by boat travelling east along the North shore of Dogpaw Lake to the west side of Caviar Lake and then turning south down Caviar Lake into Flint Lake.

Whitefish Bay Indian Reserve is reached via Highway #71 and then turning four miles south of Sioux Narrows and travelling east for approximately three miles.

GENERAL GEOLOGY

This area consists mainly of a series of felsic to intermediate tuffs with some lapilli tuffs. There are four gabbro intrusives fairly well defined but much of the area is covered by swamp and contacts are hard to pin down. There are numerous shear zones in the northern sector.

The structure of the rock is in an east-west direction, curving to the south-south-west on the southernmost claims. Generally the dip of the rock in the claim block is near vertical.

LINECUTTING

Near the southern end of the claim group there is a change in the regional strike direction and two grids were necessary to outline anomalous features.

In the northern portion of the claim block the baseline was put in at 264° azimuth and wing lines are 200' apart. Stations were picketed at 100' intervals. At the extreme west and east ends of the baseline detail lines 100' apart were cut.

On the southern area a baseline was established at 220° azimuth. Wing lines were cut 400' apart with stations at 100' intervals.

ELECTROMAGNETIC AND MAGNETIC SURVEYS

PURPOSE

To follow shear zones for possibilities of gold content.

COMPANY CONDUCTING THE SURVEY

Geophysical operators employed by Noranda Exploration Company, Limited did the survey under supervision of Peter G. Cooper, Geophysicist, who planned and is responsible for the survey.

INSTRUMENT & SENSITIVITY

The Electromagnetic Survey was carried out using the Crone Electromagnetic Unit (C.E.M.). This unit is manufactured by Crone Geophysics Limited.

The survey data is obtained by a two man crew. Each man is equipped with a coil capable of receiving and transmitting.

and a power supply of three 6 volt batteries. The crew uses the "Horizontal Shootback E.M." method of surveying. One man transmits while the other man receives, and then the procedure is reversed at the same station. The coil operates at frequencies of 5010 Hz., 1830 Hz., and 390 Hz.

The magnetic field (primary field) caused by an alternating current in the transmitting coil induces an alternating current into any conductive medium within the range of the magnetic field. The conductive medium emits its own magnetic field (secondary field), and the combination of those two fields (primary and secondary) produces a resultant magnetic field. When the plane of the receiving coil is positioned in the direction of the resultant field, there is a minimal amount of current induced into the coil, and there is a minimum indication on the field strength meter set within the receiving coil. The dip angle is read from the clinometer when the receiving coil is in this position. After the two men have reversed this procedure and they each have taken a reading at the same location, the readings are added together to obtain a resultant dip angle. When the readings cancel each other out and the resultant dip angle is zero, then there is not any subsurface conductivity. But when the resultant dip angle is ± 5 or greater then an anomaly exists and detailed readings are taken. A detailed survey necessitates readings on at least two different frequencies.

This shootback method helps to eliminate effects due to topographical relief and coil misorientation. The readings are plotted always at the "chief's position" which is either to the north or east of the helper depending on the direction of the lines.

[A V.L.F. survey was conducted using the Scintrex Scopas

SE 80 V.L.F. unit. This instrument is a one man E.M. instrument utilizing low frequency radio waves transmitted from military transmitters situated around the globe.

A station in the same direction as the geological strike is chosen in order to give a maximum coupling with the conductor. The direction of the magnetic component of the transmitted field is horizontal and perpendicular to the geological strike. The field direction and thus the traverse direction is perpendicular to the transmitted location.

The Scopas measures the secondary field generated by conducting bodies when they are subjected to the transmitted field. This measurement is in terms of dip angles. The dip angles are read every 50 feet along the cut lines. These dip angles are then filtered using the "Fraser Filter Effect", and the positive values are contoured. The positive peaks pin point the anomalous locations.

The magnetometer survey was conducted at the same time as the E.M. with equally qualified personnel using a McPhar Flux-gate Magnetometer.

The same grid was used with readings every 100 feet, this being reduced to 50 foot readings over anomalous areas.

The idea of the survey was to give additional information to the E.M. survey.

RESULTS & DISCUSSION

There are three main areas in the claim block areas A, B, and C, which contain conductors. They are grouped according to their geological interpretation.

AREA "C"

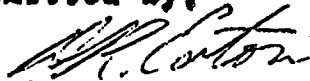
A small but distinct conductor was picked up by the C.E.M. survey on L28S, 16 + 50W. Detailed vertical loop E.M. confirmed its presence but showed it to be a very weak and small conductor. There was no magnetic correlation.

On most of the south lines, excellent response was received near the baseline using medium frequency C.E.M. but negligible response on the low frequency. This is most likely due to lake bottom effects.

CONCLUSION

A drilling program is continuing on this claim group to test the possible continuation of the gold bearing shear zones in area "A".

Submitted by,


Douglas R. Eaton,
Geophysicist.

February 22, 1974.

AREA "A"

In this area there are a series of east-west striking conductors which extend off our claims. It is difficult to definitely distinguish possible shear zones because of edge and topographic effects but there are five zones of interest, zones I-V.

Zone I appears to be due to a shear zone in the felsic volcanics and could be a continuation of a zone which conforms to the shoreline of Flint Lake. Magnetometer readings show a structural change in this zone.

Zone II is an isolated conductor shown by drilling to be a gold bearing felsic tuff. Magnetics gave no further information on this zone.

Zone III is a moderately conductive area in felsic tuff with indicated shearing. This zone possibly has a connection with zone II. Again, magnetics do not help us.

Zones IV and V appear to be continuations of the general east-west conductive shear zones but no gold has been found in the felsic volcanics.

AREA "B"

There are three zones of possible conductors in this area, zones I-III.

Zone I is due probably to a combination of a fault zone and topography. This area is in felsic tuffs and a volcanic-gabbro intrusive contact. Magnetics pick up the more magnetic gabbro.

Zones I and II are again most likely due to faulting and topography. They are in intermediate volcanic rocks.

AREA "C"

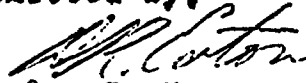
A small but distinct conductor was picked up by the C.E.M. survey on L28S, 16 + 50W. Detailed vertical loop E.M. confirmed its presence but showed it to be a very weak and small conductor. There was no magnetic correlation.

On most of the south lines, excellent response was received near the baseline using medium frequency C.E.M. but negligible response on the low frequency. This is most likely due to lake bottom effects.

CONCLUSION

A drilling program is continuing on this claim group to test the possible continuation of the gold bearing shear zones in area "A".

Submitted by,


Douglas R. Eaton,
Geophysicist.

February 22, 1974.



52F05SW0144 63.3341 DOGPAW LAKE

040

DIAMOND DRILLING PROGRAM
DUBENSKI OPTION, FLINT LAKE, ONTARIO
KENORA MINING DIVISION
NTS 52F-5/SW

GENERAL STATEMENT

A total of 18 holes and 5180 feet of diamond drilling was completed on the Dubenski Option between October, 22, 1973 and April 7, 1974. (Fig. 1, pg.2). Drill holes DO 73-1 through DO 73-5, were drilled prior to freeze-up. Drill holes DO 74-1 through DO 74-13 were drilled during the winter and spring of 1974. All drilling was contracted to Midwest Drilling Company of Winnipeg, Manitoba, using BQ wireline methods. An average of three acid tests were taken in every hole to determine changes in inclination of the holes.

The drilling concentrated on a gold bearing shear zone previously drilled by Noranda Exploration in 1945. (for further information on history, previous work, and local geology, see Geology Report on Dubenski Option). With the exception of one hole, all holes were drilled between 9 + 00W and 17 + 20W and within 305 feet of the baseline. All holes with the exception of DO 74-1 through DO 74-4, and DO 74-8, were drilled from south to north with an average dip of 55°. Depth of holes varied from slightly over 200 feet to almost 500 feet. Sludge was collected at the beginning of the program but was halted as core recovery was excellent.

Diamond drilling revealed a favourable zone, since termed the Shaft Zone, which, projected to the surface, lies approximately 65 feet north of the baseline between 15 + 25W and 13 + 75W. The zone averages 23 feet in width dipping nearly vertical to very slightly south.

Figure IDRILL HOLE DATA - DUBENSKI OPTION - FLINT LAKEDO 73-1

Location: 17 + 20W - 0 + 0N, 354⁰Azm.
 Collar Elev. above lake: 18.0'
 Dates Drilled: Oct. 22-25, 1973
 Total Depth: 258 feet Casing: 4'
 Inclinations: @collar: -55⁰
 @258' : -40⁰
 Remarks: Total accum. footage: 258 feet

DO 73-2

Location: 16 + 00W - 0 + 25S, 354⁰Azm.
 Collar Elev. above lake: 25.6'
 Dates Drilled: Oct. 25-27, 1973
 Total Depth: 97' Casing: 13'
 Inclinations: @collar: -51.5⁰
 @97' : -35.5⁰
 Remarks: Hole was lost due to flattening. DO 73-2A was collared
 approximately 70' down 73-2. Total accum. footage 355 feet

DO 73-2A

Location: 16 + 00W - 0 + 25S, 354⁰Azm.
 Collar Elev. above lake: 25.6'
 Dates Drilled: Oct. 27-28, 1973
 Total Depth: 154'
 Inclinations: @collar: -40⁰
 @100' : -40⁰
 @224' : -25⁰
 Remarks: Accum. footage: 509 feet

DO 73-3

Location: 15 + 00W - 0 + 00N, 354⁰Azm.
 Collar Elev. above lake: 30.5'
 Dates Drilled: Oct. 29-Nov. 1, 1973
 Total Depth: 203' Casing: 10'
 Inclinations: @collar : -58.5⁰

@100 : -54.2°
 @203 : -48.7°

Remarks: Accum. footage: 712 feet

DO 73-4

Location: 14 + 00W - 0 + 50S, 354° Azm.

Collar Elev. above lake: 21.4'

Dates Drilled: Nov. 3-4, 1973

Total Depth: 253' Casing: 10'

Inclinations: @collar: -60°

@100' : -57°

@253' : -46.4

Remarks: Accum. footage: 965 feet.

DO 73-5

Location: 13 + 00N - 0 + 12S, 354° Azm.

Collar Elev. above lake: 27.5'

Dates Drilled: Nov. 5-7, 1973

Total Depth: 248' Casing: 16'

Inclinations: @collar: -60°

@100' : -56°

@248' : -50°

Remarks: Accum. footage: 1213 feet

DO 74-1

Location: 15 + 50W - 1 + 25N, 174° Azm.

Collar Elev. above lake: 26.1'

Dates Drilled: Jan. 15-21, 1974

Total Depth: 208 feet Casing: 14'

Inclinations: @collar: -56°

@100' : -44.5°

@208' : No test

Remarks: New crew. Slow progress. Numerous small breakdowns.

Accum. footage: 1421 feet

DO 74-2

Location: 15 + 00W - 2 + 60N, 174⁰Azm.

Collar Elev. on ice

Dates Drilled: Jan. 22-25, 1974

Total Depth: 325' Casing: 14'

Inclinations: @collar: -50⁰
 @100' : -40⁰
 @200' : -36.5⁰
 @315' : -30⁰

Remarks: Accum. footage: 1746 feet

DO 74-3

Location: 14 + 00W - 3 + 05N, 174⁰Azm.

Collar Elev. on ice

Dates Drilled: Jan. 29-Feb. 10, 1974, deepened Mar. 8-11, 1974.

Total Depth: 487' Casing: 18'

Inclinations: @collar: -58⁰
 @100' : -56.8⁰
 @225' : -53.0⁰
 @350' : -46.4⁰
 @475' : -45.4⁰

Remarks: Hole was shut down due to engine problems on deep hole.
 Drilling resumed on this hole March 8, using new motor.
 Accum. footage: 2113 feet

DO 74-4

Location: 12 + 00W - 2 + 10N, 174⁰Azm.

Collar Elev. above Lake: 21.4'

Dates Drilled: Feb. 15-18, 1974

Total Depth: 308' Casing: 10'

Inclinations: @collar: -53⁰
 @100' : -48.5⁰
 @200' : -48.0⁰
 @308' : -42.5⁰

Remarks: Accum. footage: 2421 feet

DO 74-5

Location: 11 + 00W - 0 + 00N, 354⁰Azm.

Collar Elev. above lake: 27.3'

Dates Drilled: Feb. 20-26, 1974

Total Depth: 222' Casing: 12'

Inclinations: @collar: -53⁰

@100' : -48⁰

@222' : -46⁰

Remarks: Drill shut down 22-25th.

Accum. footage: 2643 feet (new contract over 2500)

DO 74-6

Location: 10 + 00W - 0 + 00N, 354⁰Azm.

Collar Elev. above lake: 27.8'

Dates Drilled: Feb. 27-Mar. 1, 1974

Total Depth: 218' Casing: 16'

Inclinations: @collar: -53⁰

@100' : -49⁰

@215' : -46.8⁰

Remarks: 4' Casing left in hole.

Accum. footage: 2861'

DO 74-7

Location: 9 + 00W - 0 + 00N, 354⁰Azm.

Collar Elev. above lake: 26.1'

Dates Drilled: Mar. 2-4, 1974

Total Depth: 207' Casing: 22'

Inclinations: @collar: -50⁰

@100' : -46.6⁰

@197' : -44.5⁰

Remarks: Accum. footage: 3068 feet

DO 74-8

Location: 0 + 00W - 2 + 45N, 174⁰Azm.

Collar Elev. on ice

Dates Drilled: Mar. 5-7, 1974

Total Depth: 206' Casing: 18'

Inclinations: @collar: -48⁰

@100' : -45⁰

@200' : -41⁰

Remarks: Accum. footage: 3274 feet with deepening of DO 74-3,
3394 feet.

DO 74-9

Location: 14 + 85W - 1 + 97S, 354⁰Azm.

Collar Elev. above lake: 51.1'

Dates Drilled: Mar. 13-17, 1974

Total Depth: 418 feet Casing: 4'

Inclinations: @collar: -59.5⁰

@200' : -46.5⁰

@300' : -36.8⁰

@418' : -27.0⁰

Remarks: Casing left in hole: Accum. footage: 3812 feet.

DO 74-10

Location: 14 + 47W - 0 + 60S, 354⁰Azm.

Collar Elev. above lake: 31.0'

Dates Drilled: Mar. 21-28, 1974

Total Depth: 284' Casing: 12'

Inclinations: @collar: -60⁰

@100' : -55.2⁰

@200' : -54.3⁰

@285' : -49.5⁰

Remarks: Accum. footage: 4096 feet.

DO 74-11

Location: 16 + 00W - 1 + 41S, 354⁰Azm.

Collar Elev. above lake: 36.9'

Dates Drilled: Mar. 29-Apr. 1, 1974

Total Depth: 454' Casing: 8'

Inclinations: @collar: -67⁰

@100' : -62.6⁰

@200' : -58.4⁰

@350' : -53.6⁰

Remarks: Accum. footage: 4550 feet

DO 74-12

Location: 13 + 50W - 0 + 60S, 354⁰Azm.

Collar Elev. above lake: 29'

Dates Drilled: Apr. 2-4, 1974

Total Depth: 267' Casing: 14'

Inclinations: @collar: -60⁰

@100' : -57.5⁰

@200' : -54.3⁰

@267' : -54.0⁰

Remarks: Accum. footage: 4817 feet

DO 74-13

Location: 15 + 50W - 0 + 58S, 354⁰Azm.

Collar Elev. above lake: 26'

Dates Drilled: Apr. 5-7, 1974

Total Depth: 363' Casing: 10'

Inclinations: @collar: -60⁰

@100' : -57.5⁰

@250' : -53.9⁰

@363' : -51.0⁰

Remarks: Casing left in hole. Accum. footage: 5180 feet.

GENERAL GEOLOGY FROM DRILL HOLE DATA

The most common rock type observed is felsic to intermediate tuffs and lapilli tuffs. Lesser amounts of intermediate and felsic tuffs as well as minor porphyries and possible intermediate to mafic flows are also present. Due to the very frequent and random change in rock type in each hole, correlation between holes is extremely difficult. There is a possible marker horizon in the shaft zone defined by an intermediate to mafic porphyry.

All the felsic and felsic to intermediate rocks are slightly sericitic evidenced by talc-like sericitic films along foliation planes and as sericitic bands. Some zones appear more sericitic than others but no continuity may be drawn.

Silicious zones are fairly common as thin bands generally associated with the felsic sections. There does appear to be a main silicious zone which does exhibit continuity. This zone is of major interest as the favourable gold intersections of the Shaft Zone, as well as flanking lower grade intersections, appear to be directly associated to it. (Table I, page 9). All silicious zones, however, do not carry gold.

MINERALIZATION

Pyrite is ubiquitous to all rock types encountered being most prevalent in the more felsic tuffs. It occurs as very finely disseminated grains, bands of fine pyrite and as coarse grains. The coarse material may be found both as cubes or pyritohedrons.

Chalcopyrite occurs in trace amounts in intermediate and mafic bands. There may be an association between gold bearing zones and an increase in chalcopyrite.

Gold may be found in trace amounts in all rock types encountered, but appears concentrated in silicious felsic tuffs.

TABLE 1 INTERSECTIONS OF SILICIOUS ROCK AND THEIR ASSOCIATION WITH
AU BEARING ZONES. DUBENSKI OPTION, FLINT LAKE

HOLE NO.	SILICIOUS ZONES	AU BEARING ZONES	REMARKS
DO 73-1 17+20W	228.5 - 246.0	223.5-233.0; $\frac{.067}{9.5}$	
DO 73-2& 2A 16+00W	109.0 - 114.0	109.0-144.0; $\frac{.02}{35}$ 159.0-185.0; $\frac{.02}{26}$	
DO 73-3 15+00W	108.0 - 117.0 124.0 - 147.5	101.5-137.3; $\frac{.39}{35.8}$ 148.7-162.5; $\frac{.10}{13.8}$ 169.0-178.5; $\frac{.07}{9.5}$ 192.0-197.0; $\frac{.54}{5}$	22.0' true width. No silic section assoc 8.0 true width. 3.5' true width. Hole intersects shaft Au zone approximately 115' below surface.
DO 73-4 14+00W	157.0 - 226.0	145.0-188.0; $\frac{.06}{49.0}$ 188.0-226.0; $\frac{.25}{36.0}$ 238.0-242.5; $\frac{.16}{4.5}$	(145.0-165.0 $\frac{.10}{20}$) 28' true width. 24' true width. 3' true width. Hole intersects E-ward extention of shaft Au zone approximately 170 below surface.
DO 73-5 13+00N	128.0 - 152.0	133.0-138.0; $\frac{.14}{5}$	2" true width. (128- 138: $\frac{0.09}{10}$)
DO 74-1 15+50W	59.0 - 126.0	59.0-84.0; $\frac{.096}{25}$	17.0' true width.
DO 74-2 15+00W	214.0 - 224.0 (fair) 259.0 - 284.9	259.0-281.0; $\frac{.288}{22.5}$	18.0' true width. Hole intersects shaft. Au zone approximately 180' below surface.
DO 74-3 14+00W	No definite zone	378.3-382.0 $\frac{.26}{3.7}$	1-2% pyrite

DO 74-4 12+00W	183.0 - 200.0 (fair) 231.0 - 274.0	200.0-205.5; $\frac{0.07}{5.5}$ 231.0-286.0; $\frac{.035}{55}$	
DO 74-5 11+00W	128.7 - 144.0	119.0-149.0; $\frac{.05}{30}$	21.0 true width.
DO 74-6 10+00W	124.0 - 149.6 149.6 - 175.0 (fair) 187.0 - 213.0 (fair)	149.6-175.0; $\frac{.03}{25}$	18.0' true width.
DO 74-7 9+00W	150.0 - 203.0	154.5-177.5; $\frac{.191}{23.0}$	16.0' true width.
DO 74-8 0+00W	145.0 - 150.0	145.0-150.0; $\frac{.05}{5}$	Probably drilled under Au zone.
DO 74-9 14+85W	177.5 - 183.0 352.0 - 405.0	363.4-395.5 $\frac{.38}{32.1}$	28.5' true width. Hole intersects shaft Au zone approximately 345' below surface.
DO 74-10 14+47W	184.7 - 192.4 (fair) 192.4 - 261.5 261.5 - 275.1 (fair)	204.0-247.0; .268 $\frac{.396}{42.7}$ uncut 42.7 cut	27.0' true width. Hole intersects shaft Au zone approximately 190' below surface.
DO 74-11 16+00W	No definite zone	None intersected	Au zone displaced to north.
DO 74-12 13+50W	186.1 - 200.0 205.7 - 222.8	188.0-200.0; $\frac{.043}{12}$	

DO 74-13
15+50W

210.2 - 240.0	210.2-235.0; $\frac{.09}{24.8}$	15' true width.
263.0 - 273.0	269.7-273.0; $\frac{.23}{3.3}$	15' true width.
297.4 - 353.0	301.0-311.0; $\frac{.19}{9.4}$	Uncut $\frac{.50}{9.4}$; 7' true width.
	341.0-358.0 $\frac{.04}{16.4}$	10' true width.

Visible gold occurs as thin films along foliation planes and less commonly as small grains disseminated through the rock. Visible gold is not necessary for zones to yield favourable assays, though anything assaying over 0.25 ounces per ton generally carries visible flecks or films of the metal.

ACCESSORY MINERALS (field identifications)

Black chlorite is a common accessory mineral in siliceous zones. It occurs as thin films and bands along fractures and foliation planes. Gold has been observed as thin sheens on this mineral.

A light green mineral thought to be mariposite or fuchsite is present in trace amounts in siliceous, felsic zones. It is most common in association with porphyritic rocks where it occurs as thin blebs and seams and as a partial replacement of some phenocrysts.

Minor occurrences of marcasite were noted. They are always found in association with pyrite.

An unknown dark mineral has been observed associated with pyrite. It occurs as a dark grey to black halo surrounding the pyrite and may be an alteration of that mineral. Rare occurrences of an acicular mineral, possibly tourmaline, have also been noted.

SHAFT ZONE

The Shaft Zone is approximately 150 feet long by 20-25 feet wide. It has been intersected to a depth of 250 feet below the surface. At 15 + 00W, where three holes intersect the zone, it averages 0.36 ounces of gold per ton over 23 feet (all widths are true widths) to a depth of 250 feet, and is open at depth. One hundred feet to the east only one hole intersects the zone.

OTHER AREAS OF INTEREST

East of the Shaft zone are two known areas of interest. At 9 + 00W, 0.15 ounces of gold per ton over 18 feet was intersected at a depth of 100' (1 + 20N). This intersection is in line with the Shaft Zone though they are connected by low grade intersections of varied width. This area has been tested with only one hole and there is no knowledge of its size.

Drill hole D0 74-8 was drilled in an attempt to intersect, at depth, a surface gold occurrence at 0 + 00W - 1 + 55N. Gold can be panned from old trenches on the surface and previous drilling intersected good values at 45 feet below the surface (0.22 ounces per ton over 11 feet). Drill hole D0 74-8 failed to intersect the gold zone and it can only be assumed the showing has no depth at this location.

GEOPHYSICAL ANOMALIES

There are VLF anomalies associated with the Shaft Zone as well as the zone at 0 + 00 - 1 + 55N (see VLF map, Dubenski Option). It is uncertain whether these anomalies are directly associated with gold bearing zones. The strongest point of the anomaly at the Shaft Zone is located at 14 + 00W - 0 + 40S and tails off eastward. It is possible that this anomaly is caused by water filled fractures, and while drilling in this area, water return was lost in all holes. The fractures may be related to the sinking of the shaft. If the anomaly is associated with the Shaft Zone the source must be approximately 350 feet below the surface.

The eastern anomaly follows the gold bearing shear zone across the neck of the peninsula and appears to be directly related to it. It is not believed that the amount of pyrite

visible in the core of either area could cause the anomaly.

CONCLUSIONS

Drilling on the Dubenski Option has outlined a favourable gold bearing zone located from 13 + 75W to 15 + 25W and approximately 65 feet north of the baseline. The zone dips vertical to slightly south and averages about 0.30 ounces per ton over 23 feet to a depth of 200 to 250 feet. There is at least 60,000 tons of the above mentioned grade in the zone. The Shaft Zone appears to pinch out to the east and is cut off by a fold or fault on the west. It is open at depth. West of the break, the zone has shifted 40 to 50 feet to the north. Drill hole data in this area is insufficient to determine whether the zone is strong to the west.

Gold has been noted in non-silicious rock, but appears to be directly associated with felsic silicious zones. Visible gold is present as very thin films and as small anhedral flecks disseminated through the rock. In certain instances silicious zones with high concentrations of pyrite yield good gold values though this combination is highly unpredictable.

Other areas of interest are at 9 + 00^WN and 0 + 00. At 120 feet north of the baseline at 9 + 00W, 18 feet of 0.15 ounces per ton has been intersected 100 feet below the surface. At 0 + 00 - 1 + 55N, surface showings of gold occur. They have been tested by previous drilling and exist to a depth of 45 feet but fade out below this depth.

VLF anomalies occur near the Shaft Zone as well as near the surface showings at 0 + 00 - 1 + 55N. It is not known whether these anomalies have any direct relationship with gold-bearing zones.

RECOMMENDATIONS

Due to the favourable results obtained from drilling to date, it is recommended that further drilling be done to better outline known zones and explore for additional ones. Further drilling associated with the Shaft Zone should be done, concentrating on the following three objectives: 1) to determine if the zone extends to depth, 2) to determine if the zone extends west of the break around 15 + 50W, and 3) to test at depth east of 14 + 00W to determine if the zone plunges eastward.

There are three areas that require testing which are not associated to the Shaft Zone. The area east of 9 + 00W should be drilled, as favourable intersections on section 9 + 00W and 7 + 00W (old hole 45-21) may define a small gold bearing zone. This possible zone should be tested both along strike and at depth.

Another area which warrants further investigation is in the area about 0 + 00 - 1 + 40N, where both old holes and surface trenches reveal good values. The poor results of D0 74-8 should not handicap this area. The ore could be either shallow or lense like, explaining the failure of D0 74-8 to intersect the zone cut by old packsack holes DX-1 and DX-2.

The third area of interest lies far to the west around 52 + 00W - 11 + 00N. Here the rock type is much the same as near the Shaft Zone, besides being well sheared. Several old trenches are present here and favourable values have been reported from old work. Additional trenching and sampling would be beneficial prior to drilling.

The following diamond drill holes are recommended to test the areas discussed above. Due to possible problems in setting up a rig in some locations, the exact collar locations and average dips are adjustable.

PROPOSED DIAMOND DRILL HOLE LOCATIONS - DUBENSKI OPTION -
SUMMER 1974 (All holes drilled South to North)

DO 74-13

Location: 15 + 50W - 0 + 58S

Object: Deepening of DO 74-13 by 100' to test westward extension of Shaft Zone and determine if values present in DO 74-13 continue down hole.

DO 74-14

Location: 15 + 50W - baseline

Ave. dip: 48°

Depth: 300'

Object: To test upward extensions intersected in DO 74-13.

DO 74-15

Location: 14 + 85W - 1 + 97S

Collar: approx. 220' down DO 74-9 and wedge down.

Ave. dip: 58° from horizontal; 12-15° from the hole angle at 220'.

Depth: 260'

Object: To test Shaft Zone at depth, approx. 350' below surface and 100' below DO 74-9 intersection.

DO 74-15 - Alternate collar location

Location: 15 + 00 - 3 + 00S

Ave. dip: 45°

Depth: 470'

Object: Alternate collar location should wedging not be possible in DO 74-9.

DO 74-16

Location: 13 + 00W - 2 + 20S

Ave. dip: 50°

Depth: 425'

Object: To test east of Shaft Zone to determine if the Shaft Zone plunges to the east.

DO 74-17

Location: 9 + 00W - 1 + 00S
Ave. dip: 48°
Depth: 350'
Object: To test downward extension of DO 74-7. Intersect approximately 100' below zone in DO 74-7.

DO 74-18

Location: 8 + 00W Baseline
Ave. dip: 45°
Depth: 225'
Object: To test eastward extension of zone intersected in DO 74-7.

DO 74-19

Location: 7 + 00W - Baseline
Ave. dip: 45°
Depth: 225'
Object: To test eastward extension of zone intersected in DO 74-7 and test intersection of old hole 45-21.

DO 74-20

Location: 1 + 00E - 0 + 90S
Ave. dip: 48°
Depth: 210'
Object: To test zone approx. 50' below old hole 45-1.

DO 74-21

Location: 17 - 19 + 00W - 0 + 30 - 40N
Ave. dip: 45°
Depth: 225'
Object: To test for westward extension of Shaft Zone.

DO 74-22-23

Location: 52 + 00W - 11 + 00N

Ave. dip: 45°

Depth: 200'

Object: To test shear zone. Locations optional after further investigation of area.

Total proposed footage 2700-3000 feet.

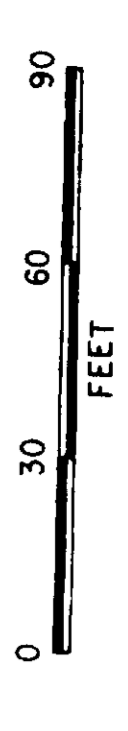
Submitted by,

Glen W. Adams
Glen W. Adams,
Exploration Geologist.
May 6, 1974.

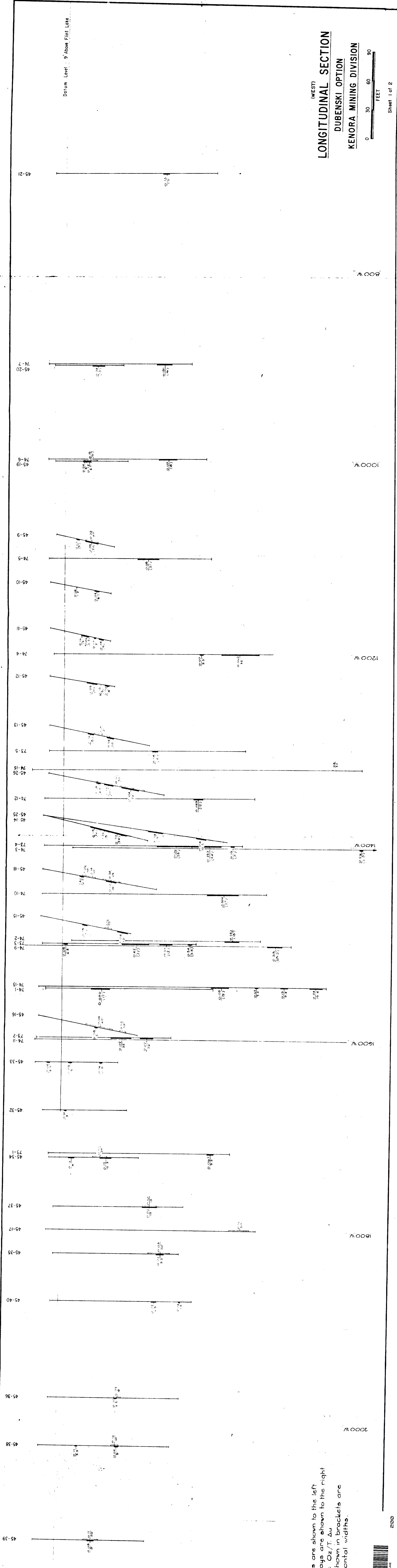
N. 84° E.

Datum Level 9 Above Flint Lake

(WEST)
LONGITUDINAL SECTION
 DUBENSKI OPTION
 KENORA MINING DIVISION



Sheet 1 of 2



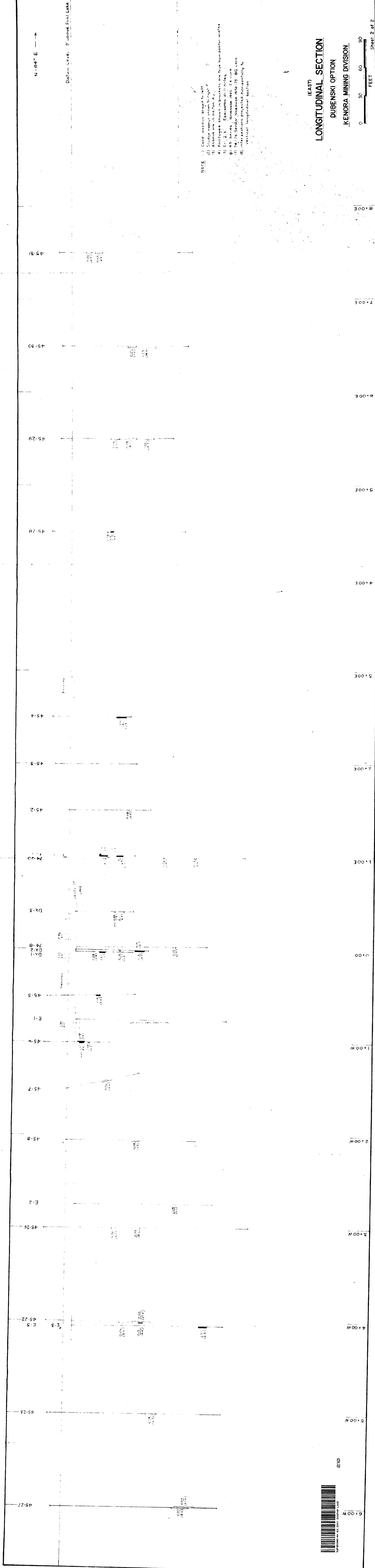
NOTES

1. Core assays are shown to the left
2. Sludge assays are shown to the right
3. Assays are Oz/T. Au
4. Footages shown in brackets are true horizontal widths.



SRP000114 63 3341 DUBENSKI LAKE

Datum Level: 3' above Finli Lake

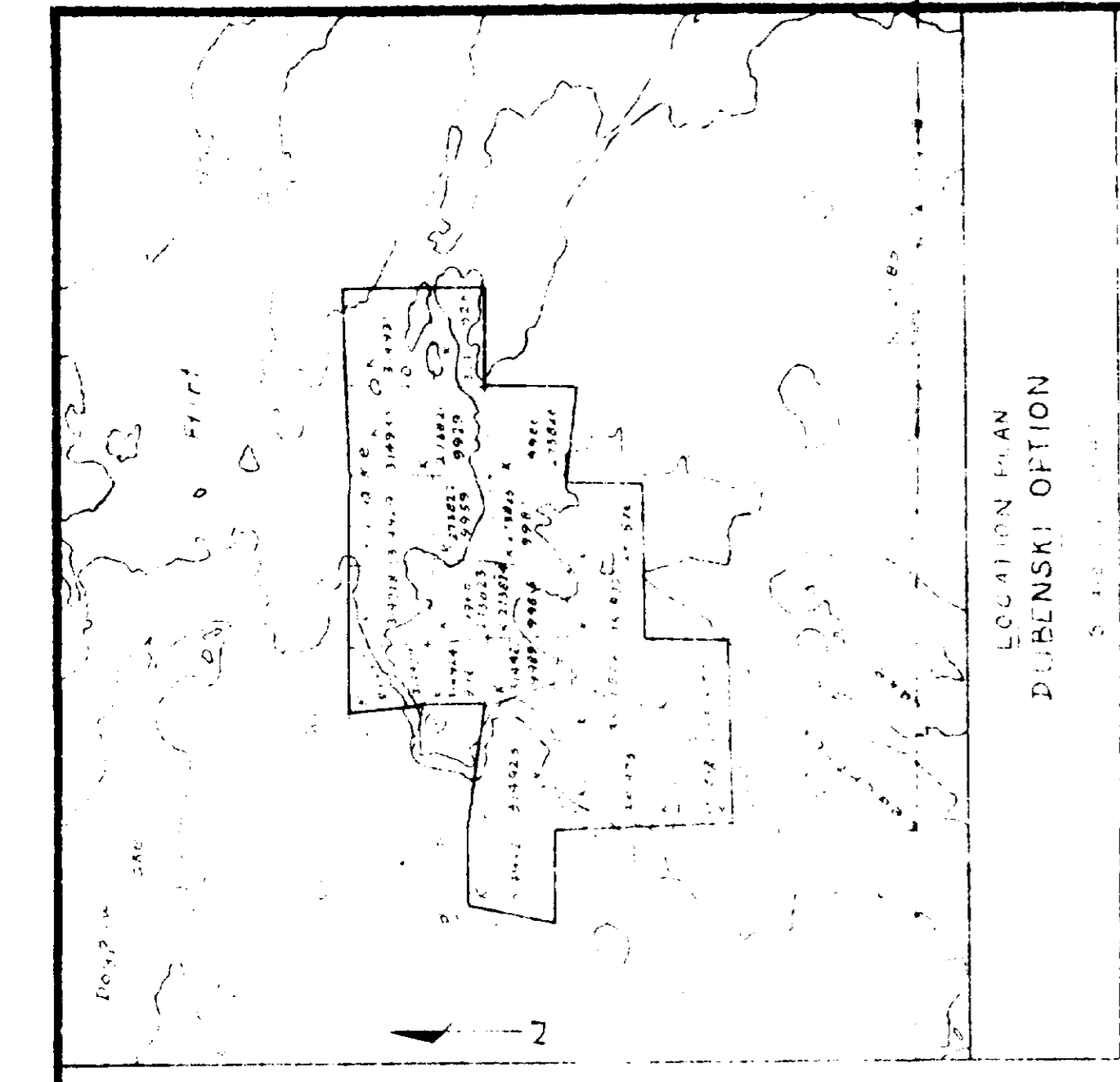


NOTE: (1) Core assays shown to left
 (2) Sludge assays shown to right
 (3) Assays are in oz./ton A.S.
 (4) Footages shown in brackets are True horizontal widths
 (5) E-2, 3: BRIMINGTON drill holes
 (6) 45 Series: NORMAN 1945 EX Core
 (7) 74-75 Series: NORMAN 1974-75 BC Core
 (8) Intersections projected horizontally to vertical longitudinal section

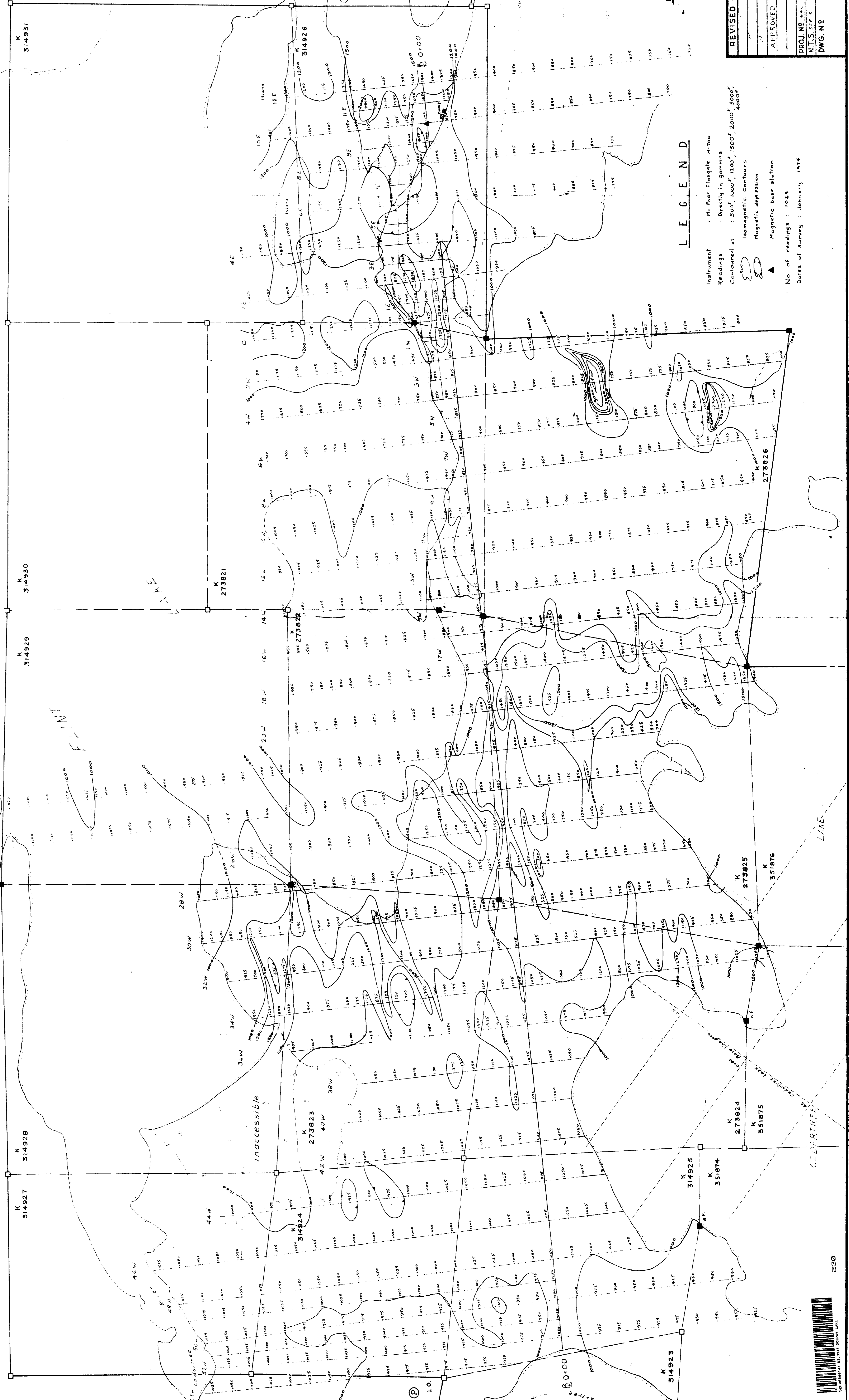
LONGITUDINAL SECTION
 (EAST)
 DUBENSKI OPTION
 KENORA MINING DIVISION



210



LEGEND PLAN
DUBENSKI OPTION



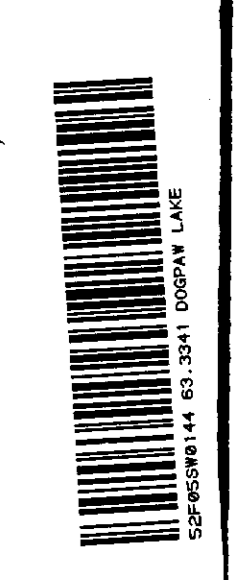
NOTE:
 ■ - Claim post - position located
 □ - Claim post - position assumed
 ■ - Witness post - position located
 □ - Witness post - position assumed

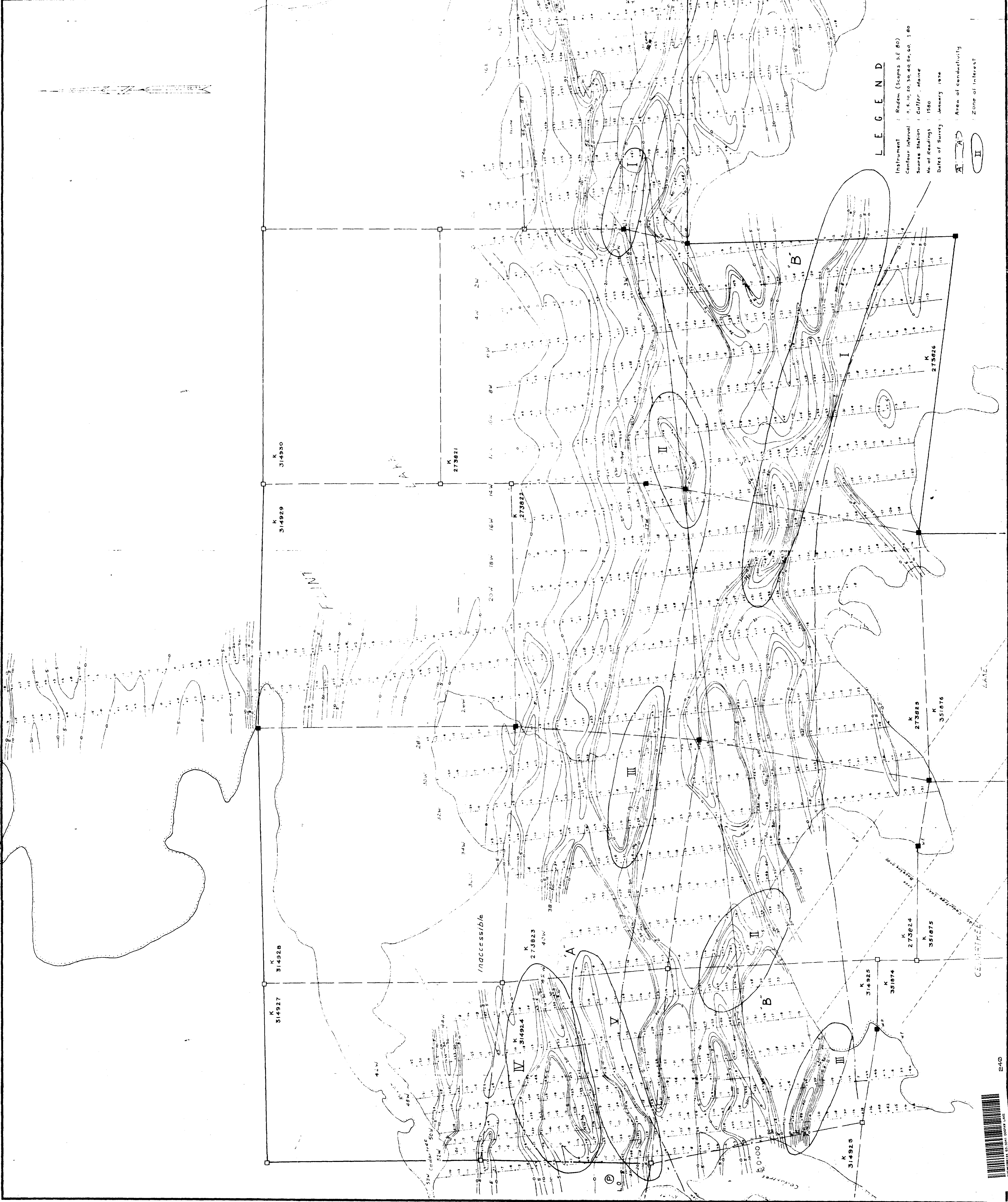
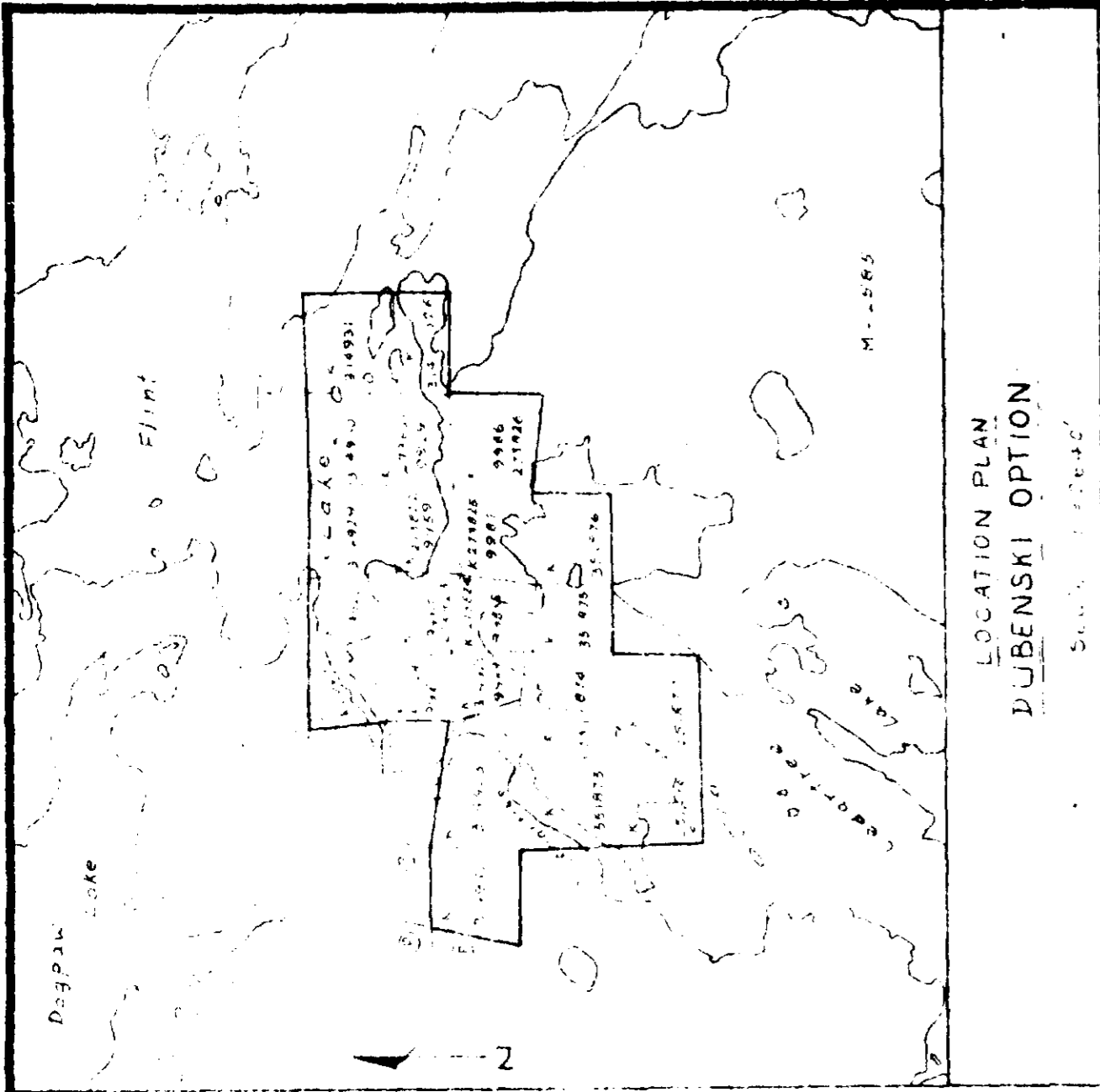
LEGEND

Instrument : Mc Peak Flusgate M-700
 Readings : Directly in gammas
 Contoured at : 500', 1000', 1500', 2000', 3000', 4000'
 Isomagnetic contours
 Magnetic depression
 Magnetic base station
 No. of readings : 1045
 Dates of survey : January, 1974

REVISIONS
 APPROVED

MAGNETOMETER SURVEY
 DUBENSKI OPTION
 KENORA MINING DIVISION
 PROJECT: DUBENSKI OPTION
 SURVEYED BY: J. McNamee
 DRAWN BY: J. McNamee
 DATE: Jan. 74
 SCALE: 1" = 200'
 DWG. NO. 230
 NORANDA EXPLORATION CO. LTD.
 OFFICE: THUNDER BAY, ONT.





NOTE:
 ■ - Claim post - position located
 □ - Claim post - position assumed
 ■ WP - Witness post - position located
 □ WP - Witness post - position assumed

LEGEND

Instrument : Roden (Scapas S.E. 80)
 Contour Interval : 5, 10, 20, 40, 80, 60, 100
 Source Station : Culler, Maine
 No. of Readings : 1980
 Dates of Survey : January 1974

Area of conductivity
 Zone of interest

V.L.F. SURVEY
 (FRASER FILTER EFFECT)
DUBENSKI OPTION

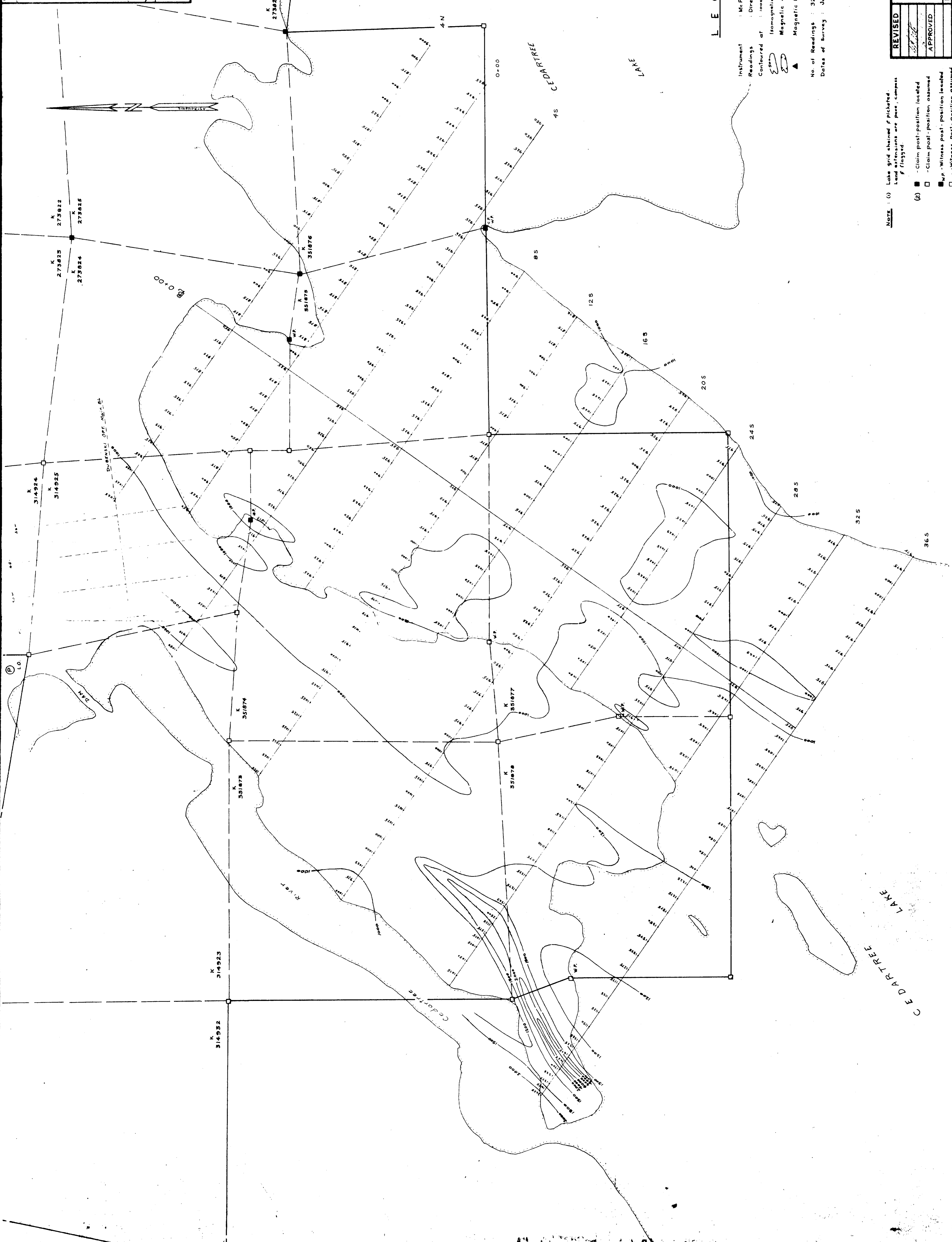
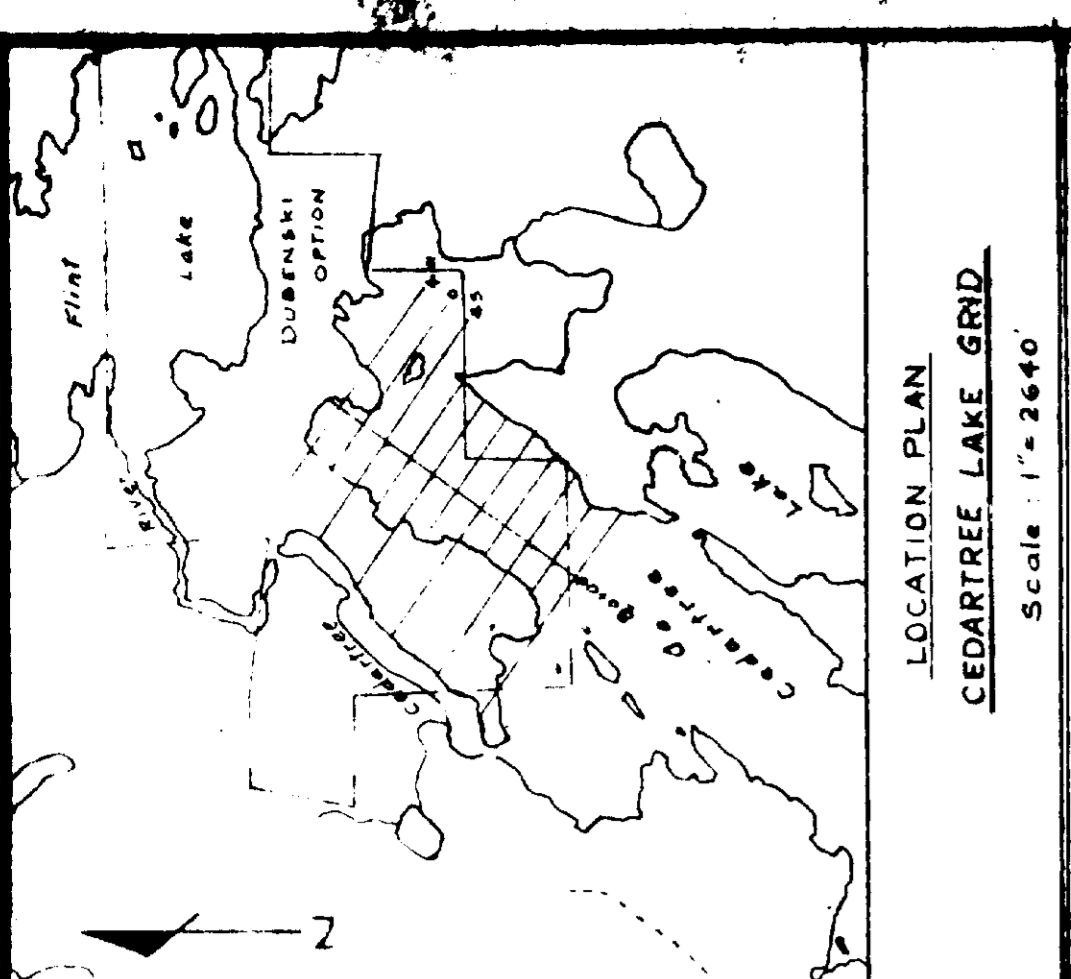
PROJECT: DUBENSKI OPTION
 NORANDA MINING DIVISION

APPROVED

PROJ. NO. 447
 SURVEYED BY: R. Burce
 INT. S. 127.3
 DWG. NO. 240

DATE: Jan. 74
 SCALE: 1" = 400'
 NORANDA EXPLORATION CO. LTD.
 OFFICE: BOUNDARY BAY, N.S.W.





Instrument : McPhor Fluxgate M-700
 Readings : Directly in gammas
 Contoured at : 1000', 1200', 1400', 1600', 1800', 2000', 2200', 2400', 2600', 2800', 3000'
 Homographic Contours
 Magnetic depression
 Magnetic base station (on main Duberak Base line)

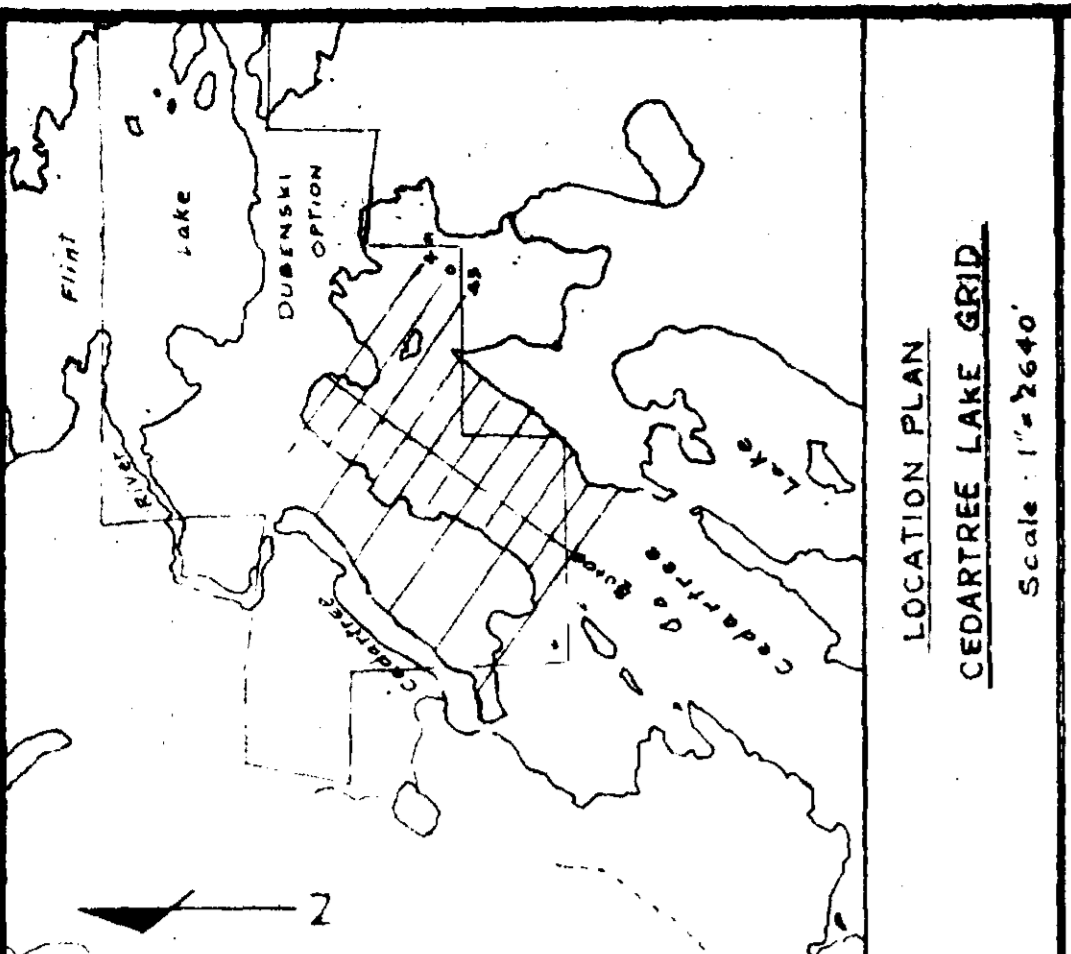
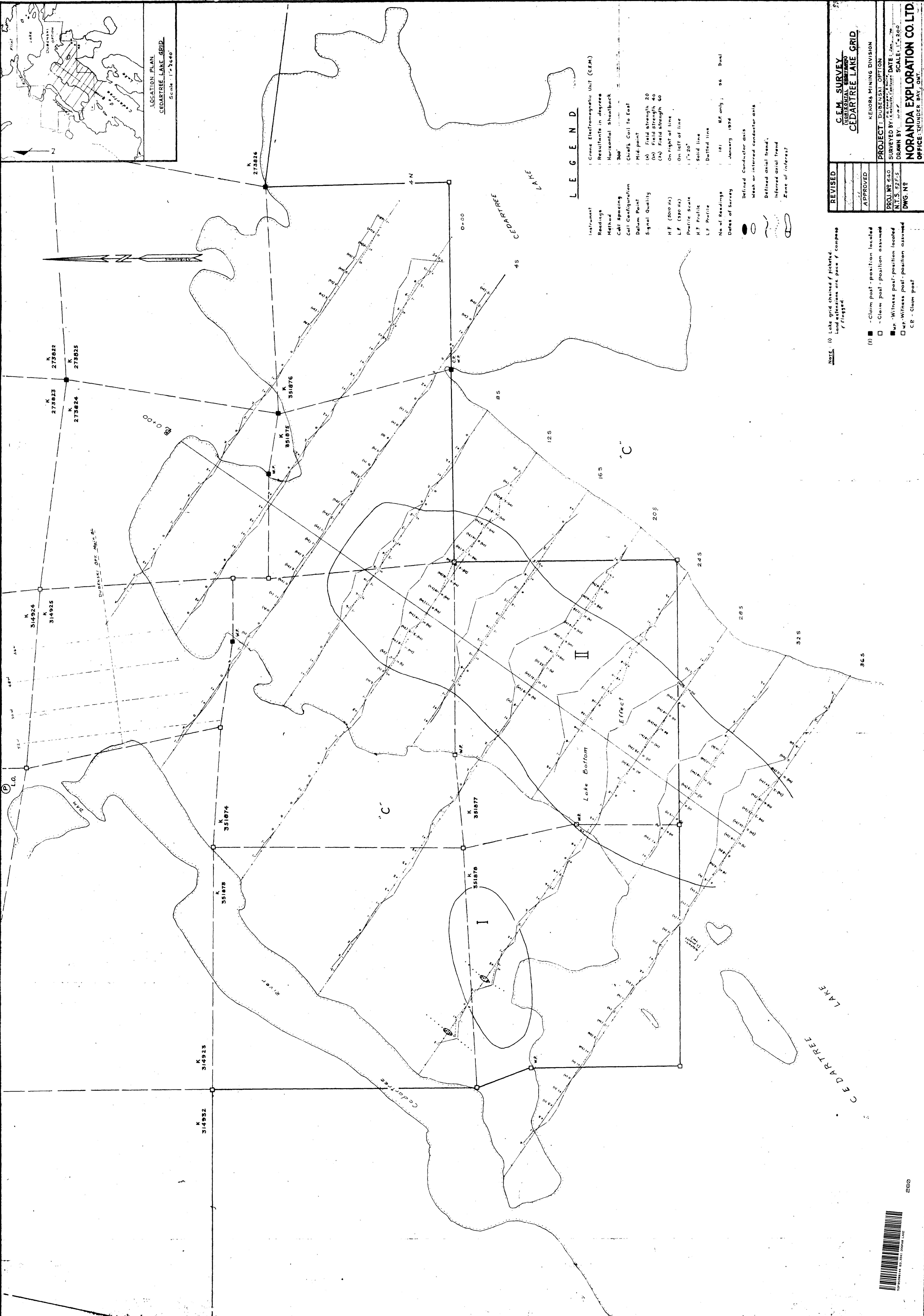
No. of Readings : 327
 Dates of Survey : January 1974

LEGEND

- Notes : (1) Lake grid checked & picketed.
 Land extensions are per compass & flagged.
- (2)
- - Claim post-position located
 - - Claim post-position assumed
 - - Witness post-position located
 - - Witness post-position assumed
 - - Claim post

REVISED	
APPROVED	
PROJECT : MUSEUM OPTION KENDRA MINING DIVISION CEDARTREE LAKE GRID	
PROJ. NO. 650	DATE : JAN. 74
SURVEYED BY : T. H. HARTMAN	SCALE : 1" = 2440
DRAWN BY : J. M. S.	DWG. NO.
NORANDA EXPLORATION CO. LTD. OFFICE : THUNDER BAY, ONT.	





LEGEND

- Instrument : Crane Electromagnetic Unit (CEM)
- Readings : Results in degrees
- Method : Horizontal Shoalback
- Cell Spacing : 300'
- Cell Configuration : Chief's Cell to East
- Datum Point : Mid-point
- Signal Quality : (a) Field strength 20
(b) Field strength 40
(c) Field strength 60
- H.F. (500 Hz) : On right of line
- L.F. (150 Hz) : On left of line
- Profile Scale : 1" = 20'
- H.F. Profile : Solid line
- L.F. Profile : Dashed line
- No. of Readings : 181 MF only : 96 Dual
- Dates of Survey : January 1974
- Defined conductor axis
- Weak or inferred conductor axis
- Defined axial trend
- Inferred axial trend
- Zone of interest

- NOTE: (1) Lake grid changed / picked up
 (2) Claim post - position located
 (3) Witness post - position located
 (4) Claim post - position assumed
 (5) Witness post - position assumed
 (6) Claim post

REVISIONS

APPROVED

C.E.M. SURVEY
 (CRANE ELECTROMAGNETIC UNIT)
CEDAR TREE LAKE GRID

KENORA MINING DIVISION
 PROJECT: DUBANSKI OPTION
 SURVEYED BY: [Name]
 DRAWN BY: [Name]
 DATE: [Date]
 SCALE: 1" = 2500'
 DWG. NO. [Number]

NORANDA EXPLORATION CO. LTD.
 OFFICE: SUDBURY, ONT.

