



GROUP NO. 9 - DORION TOWNSHIP AREA

Group No. 9 consists of two properties, referred to as the Upton property and the Dorion Mine property.

The Upton property consists of two patented and six unpatented claims.

The patented claims are: T.B. 29586  
T.B. 29615

The unpatented claims are: T.B. 84882  
T.B. 84883  
T.B. 84884  
T.B. 84885  
T.B. 84886  
T.B. 84887

The Dorion Mine property consist of two patented and three unpatented claims.

The patented claims are: T.B. 27345  
T.B. 27346

The unpatented claims are: T.B. 84888  
T.B. 84889  
T.B. 84890

Dorion township is about 40 miles northeast of Port Arthur, adjoining Black Bay on Lake Superior.

Upton Property

General Geology

The claims are underlain by a nearly horizontal diabase sill and by sedimentary rocks of Keeweenawan age. Sediments also underlie the diabase. The sediments strike N 15° W and dip northeasterly at 45° on the patented claims, probably as a result of arching and faulting related to the intrusion of the diabase sill.

Economic Geology

The veins are in a fractured and brecciated zone in sandstone and in diabase. One vein, exposed for 140 feet, is about 4 feet wide and mineralized over one foot with galena and sphalerite. A second parallel vein contains massive galena and sphalerite in widths up to two feet.

A brief description of the property is given on p. 73 of Part VI, Ont. Dept. of Mines Report of 1929. The report mentions a grab sample of rich lead ore which assayed 41% lead.

A sample from one of the sphalerite rich veins was sent to the Bureau of Mines at Ottawa in 1943.

The following figures are extracts from their report:

Head Assay	Lead	8.14%
	Zinc	45.48%

The test work showed that a zinc concentrate assaying 60% zinc, with a recovery of 90% of the zinc in the ore, can be obtained without cleaning. This preliminary testing indicates that no great difficulties would be encountered in the milling procedure.

Conclusions

The character of the ore mineral occurrence is such that hand cobbing of a shipping product is possible, but not enough development has been carried out to delineate the tonnage which might be present. However, the known exposures indicate that the tonnage would not be large.

The driving of an adit should be considered in any proposed development program to test the favorable calcareous sediments at the lower contact of the diabase sill.

If a concentrating plant is ever established in the area shipments from this property should prove feasible.

Dorion Mine Property

General Geology

The Dorion Mine property is underlain by granite and flat lying Sibley sediments of Keeweenawan age. The sediments are underlain by granite.

The property is described in the Ont. Dept. of Mines 38th Annual Report Part VI, 1929 pp 69-71.

Economic Geology

A prominent brecciated fault zone crosses the property and extends from Cavern Lake to Wolf Lake. The fault is of the normal type, strikes N 60° E, dips 70° S and varies in width from 10 to 40 feet.

The foot wall (NW side) is granite, the hanging wall is sedimentary rock. The hanging wall side was dropped about 100 feet so that the sediments are in faulted contact with granite for a depth of 100 feet. Below this depth both walls are granite.

The main galena and sphalerite mineralization is confined to a zone from one to four feet wide within the fault breccia for a length of about 3,500 feet. The mineralization does not appear to continue below the base of the hanging wall sediments so that the vertical extent is about 100 feet.

M. W. Bartley P.E. of Port Arthur in a private report dated 1948 states, "Channel and chip samples cut at approximately fifty foot intervals, and taken by Andowan Mines, are reported to have assayed from 4% to 28% lead."

The 1929 Government report (cited above) reports: A sample across 26 inches assayed 4.88% lead and no zinc or silver, a sample across 4 feet

assayed 11.18% lead, 0.6% zinc, and no silver. A grab sample from the dump assayed 35% lead. These figures confirm the Andowan samples.

Conclusions

The ore zone is long but of limited vertical extent. A maximum of 35,000 tons averaging 10% lead is suggested in Bartley's report. In my opinion this figure is a reasonable evaluation of the potential of the fault zone.

The material is of a type which could be hand sorted and would be simple to treat in a mill.

The tonnage is too small to support mining and milling except as a very small operation of perhaps 25 tons per day.

Limited shallow drilling and further sampling should be carried out to confirm tonnage and grade before considering active mining.

Installation of a mill in the district could result in operation of this property.

Other small, but occasionally rich deposits are known in the district. Amalgamation of several of these properties might provide sufficient tonnage to support a central mill.



*D. H. Yardley*  
D. H. Yardley P.E.

Feb. 18/57

the west of this property, the Great Lakes Copper Company is ring another large Copper deposit. This Company is backed up by its findings continue favorable it is more than melted. In that event our property would be greatly enhanced. Our sound policy to eliminate further expenditures on Group Six.

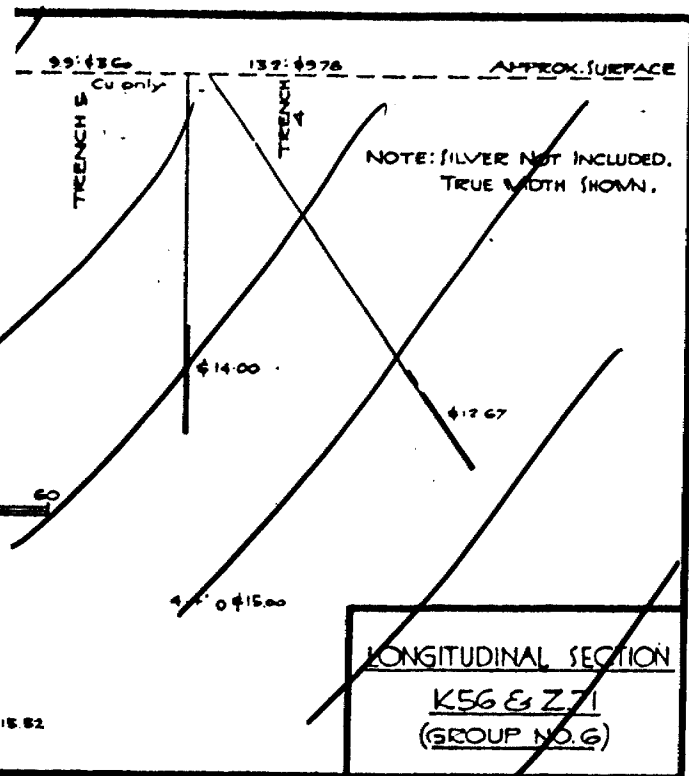
Quote from our Engineers Report dated June 26th, 1946:

It offers no undue difficulty in concentrating, or in siliceous nature of the ore will tend a self-fluxing nature.

Development of Diamond Drilling, was the improvement in values found in the surface trenches. The price of Gold since early exploration, and the price of Copper and Silver, add a great deal to the value of this property.

The widths shown during previous work, together with the results obtained by Andowan Mines, show that this property has the possibility of becoming a profitable producer."

MAP NO. 3



**ANDOWAN MINES LIMITED, GROUP NUMBER SEVEN**

In previous reports little has been said on Andowan's Group Number Seven. During this season, however, an additional eleven 40-acre claims have been secured and added to our original holdings. These include two new groups on line of strike to the east thus giving Andowan control of what appears to be the largest Copper-Nickel-Platinum bearing deposits in North Western Ontario. To date, no testing or exploring has been carried out to depth. A few surface trenches were sampled, disclosing upwards of 1 per cent Copper and Nickel with approximately \$2.00 in Platinum. The important feature is the very immense tonnage of the deposits in which these minerals occur. To date, the eastern zone in particular has every indication of millions of tons. Just how much of this will prove commercial can only be determined by drilling. At the moment, however, we have reason to be very optimistic.

**ANDOWAN MINES LIMITED, GROUP NUMBER EIGHT**

Our Group Number Eight, consisting of 400 acres, adjoins the now well known Steep Rock Iron Mines, Limited. While shallow drilling has given some indications of Iron, these claims require a geophysical survey before doing any additional drilling. In the meantime, all of the required improvement work has been completed, and the great success of our neighbor, Steep Rock, has added to our position in this area. In due course, an attempt will be made to ascertain if we have commercial ore in significant amounts.

**ANDOWAN MINES LIMITED, GROUP NUMBER NINE**

Group Number Nine, consisting of three individual groups is, we consider, one of the Company's greatest potentials for the future. The exploring and mining of the Lead and Zinc on these groups has purposely been postponed. Likewise, a number of offers in the past have been rejected because we felt the market price for Lead and Zinc were bound to increase. This has now happened, although, not to the extent we feel it will. The current price in the United States and Great Britain is nearly triple our pre-war price, while our domestic price is up about double.

In view of the great shortage of these two metals, it is more than likely that in the near future will see prices advance here in line with outside markets.

On these properties, we quote from our Engineer's Report dated June 21st, 1946:

"Andowan Mines holds three groups of claims in Dorion Township, each group having exposures of Lead and Zinc. There are roads to within one-quarter of a mile of the Number Two and Number Three Groups, and a road to the Number One Group. They are close to railways and Hydro Power, and only a few miles from water transportation on Lake Superior.

"In 1943 a sample was sent to the Bureau of Mines at Ottawa, from one of the sphalerite (Zinc) veins, and the following figures are extracts from their report:

Assay—Lead— 8.14 per cent  
Zinc—45.48 per cent.

"The test work was confined to a single flotation test in which Lead and Zinc minerals were concentrated by selective flotation.

"The assays on the concentrates were:  
Lead Concentrate—Lead—73.25 per cent  
Zinc Concentrate—Zinc—60.36 per cent

"The test work showed that a Zinc concentrate assaying over 60 per cent zinc, with a recovery of 90 per cent of the zinc in the ore, can be obtained without cleaning.

"This preliminary testing indicates that no great difficulties would be encountered in the milling procedure.

"The high grade character of the ore makes it of shipping quality, but further development is necessary to outline the tonnage possibilities, particularly where the fault cuts the favorable sediments. In any development work, the driving of an adit on the zone should be considered.

"Further exploration work should begin on the Number Two Group, due to the higher grade of the ore, and to the topography, which is favorable

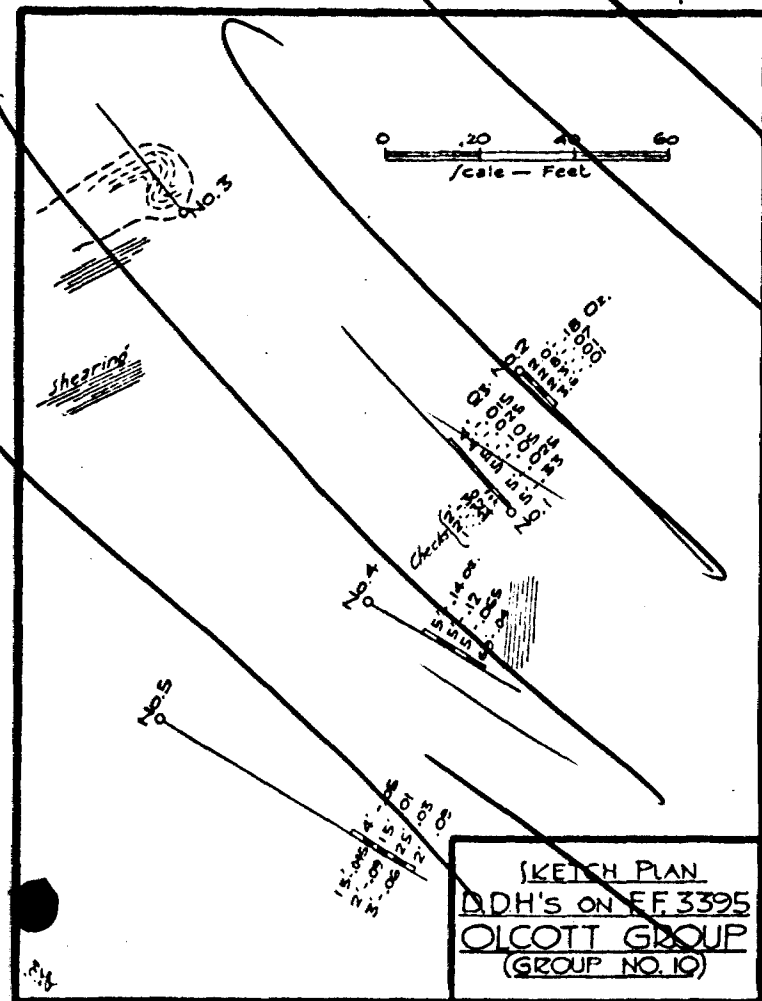
"In view of the present grave shortage of Lead and Zinc, and the price advances which have taken effect, these holdings are a valuable asset. By having these properties close together, the probability of developing sufficient tonnage to justify a concentrating unit is greatly increased."

In a private report, Julian G. Cross, M.E., associated with the Steep Rock Iron Company, Ltd., states that the Lead and Zinc deposits of this area are capable of supplying mill feed for a plant of over 500 tons capacity.

If we consider the low tenor of Lead and Zinc ores mined in other parts of the continent there is no doubt about the possibilities here.

As prices continue to advance, the search by good operators for ore becomes the more keen, and Andowan should have the chance of selecting a good offer for the development of these claims.

MAP NO. 4



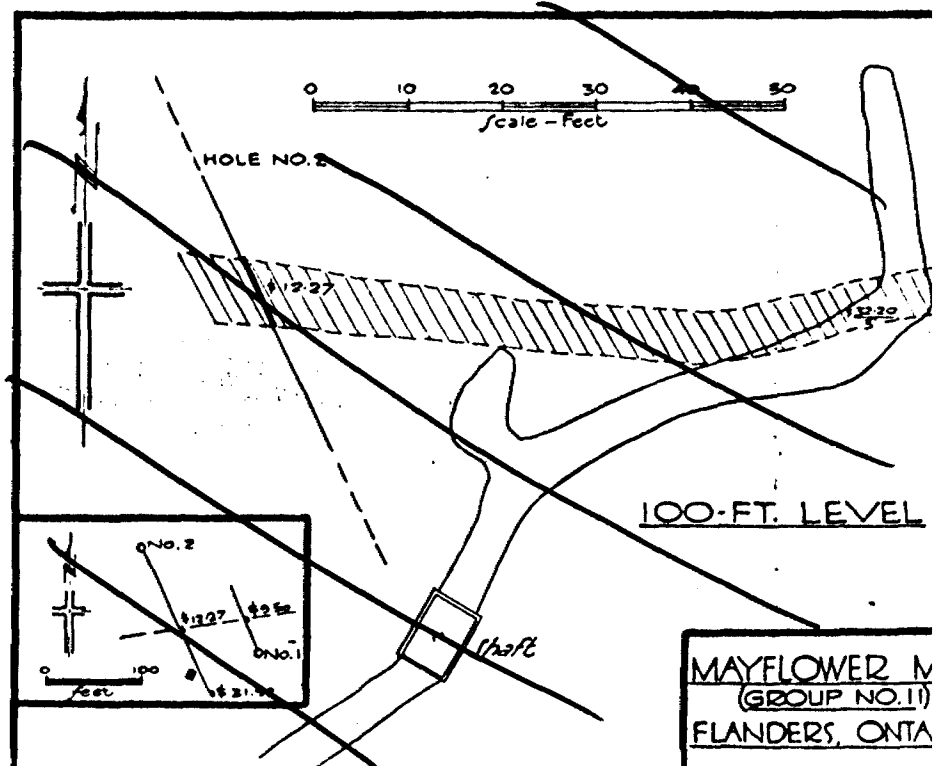
### ANDOWAN MINES LIMITED, GROUP NUMBER TEN

This map indicates the values found in Diamond Drilling last year on our Number Ten. While the values are not spectacular, they are very consistent, and widths are good. This is the type of Gold prospect most sought after by big operators. Recently this prospect was examined by a large concern which was interested enough to ask for terms of a deal, which have been submitted. Now that the smoke is cleared away as a result of the temporary upset to Gold mining, caused by parity of the dollar, we look forward to further development of this prospect. On this point we quote from our Engineer's Report, dated June 1st, 1946:

"The values obtained in the shallow test drillings are very encouraging, and indicate a very good possibility of developing an ore shoot, particularly so in view of the favorable structure. The short section tested, indicates that the values lie not in erratic pockets, but are fairly evenly distributed throughout the zone, a factor which makes for low costs in mining. This property should be geologically mapped and merits a thorough drilling campaign, both at the known showing and along the structure, to probe for further ore shoots."

On the property immediately east, and adjoining us, another ore body is being developed, and reported to be at a depth of over 400 feet with consistent values. The mineralization and structure on this property appear identical.

MAP NO. 5



12. The properties acquired by the Company are set out in the accompanying report of D. H. Yardley, Registered Professional Engineer, dated February 18, 1957, and are designated therein as Groups 2, 3, 5, 6, 8, 9, 10 and 11.

Groups 2 and 3 of the five patented claims comprising part of Group No. 5, Group 6 and two of the patented claims, namely, FF 3419 and FF 3420 in Group 8 were acquired by the Company under an agreement dated 27th February, 1939 from Kashabowie Mining Syndicate Limited.

Included in the agreement also were other claims designated as Groups 1, 4 and 7 which were subsequently abandoned.

In accordance with the agreement 1,299,995 shares of the capital stock of Andowan Mines Limited were issued as fully paid and non-assessable to the Kashabowie Mining Syndicate Limited in consideration of the following assets and liabilities turned over to the former company.

Mining properties — (Groups 1 to 8) .....	\$20,925.00
Development costs .....	21,934.61
Sundry Assets .....	862.03
	\$43,721.64
Less Sundry Liabilities .....	3,471.64
Net .....	\$40,250.00

385,000 of the said shares have been transferred by the shareholders to the Chartered Trust Company, 34 King Street West, Toronto, to be held by it for the benefit of the treasury of the Company.

The nine unpatented claims comprising the balance of Group No. 5 and being TB 77232, TB 77233, TB 77234, TB 83216, TB 83217, TB 83218, TB 83219, TB 83220, TB 83221 were acquired by staking.

The balance of Group No. 8 consisting of FF 3696 which is held in the name of Andowan Mines Limited and other claims which have been abandoned were acquired from Violet May Anderson, Kashabowie, Ontario, and Frank P. Hunt, 63 East Avenue, Rochester, N.Y., U.S.A., at a cost of \$2,899.82 by the issue of 13,181 fully paid shares of the capital stock of the Company at a price of 22 cents per share.

The claims included in Group 6 were sold in October, 1955 to the Newkirk Mining Corporation Limited for \$15,000.00 cash and 300,000 shares of Bandowan Mines Limited. Of the 300,000 shares, 30,000 were to be free and the remaining 270,000 held in escrow subject to release on the consent of the board of Directors of Bandowan Mines Limited and the Ontario Securities Commission.

As noted previously, Ray Smith of Shebandowan, Ontario, received in December, 1956 5,000 shares of the capital stock of Andowan Mines Limited for assisting in negotiating the sale of the Group 6 claims to Newkirk Mining Corporation Limited.

Group No. 9 which was acquired by staking consists of two properties referred to as Upton property and the Dorion Mine property. The Upton property consists of two patented claims TB 29586 and TB 29615, and six unpatented claims TB 84882, TB 84883, TB 84884, TB 84885, TB 84886, TB 84887; and the Dorion Mine property consists of two patented claims TB 27345 and BT 27346 and three unpatented claims TB 84888, TB 84889, TB 85153.

C. E. Anderson and F. E. Anderson of Kashabowie, Ontario, each have a five per cent non-assessable interest in claims TB 29586 and TB 29615.

Group 10 consists of three patented claims, FF 2706, FF 2707 and FF 2708 acquired by the Company (along with other claims since abandoned) from Mrs. Maude R. Jackson, Fort William, Ontario, under agreement dated 11th June, 1945, for \$10,000.05. This was paid as follows: \$4,000.00 in cash and 17,143 shares of the capital stock of the Company allotted and issued as fully paid and non-assessable at a price of 35 cents per share.

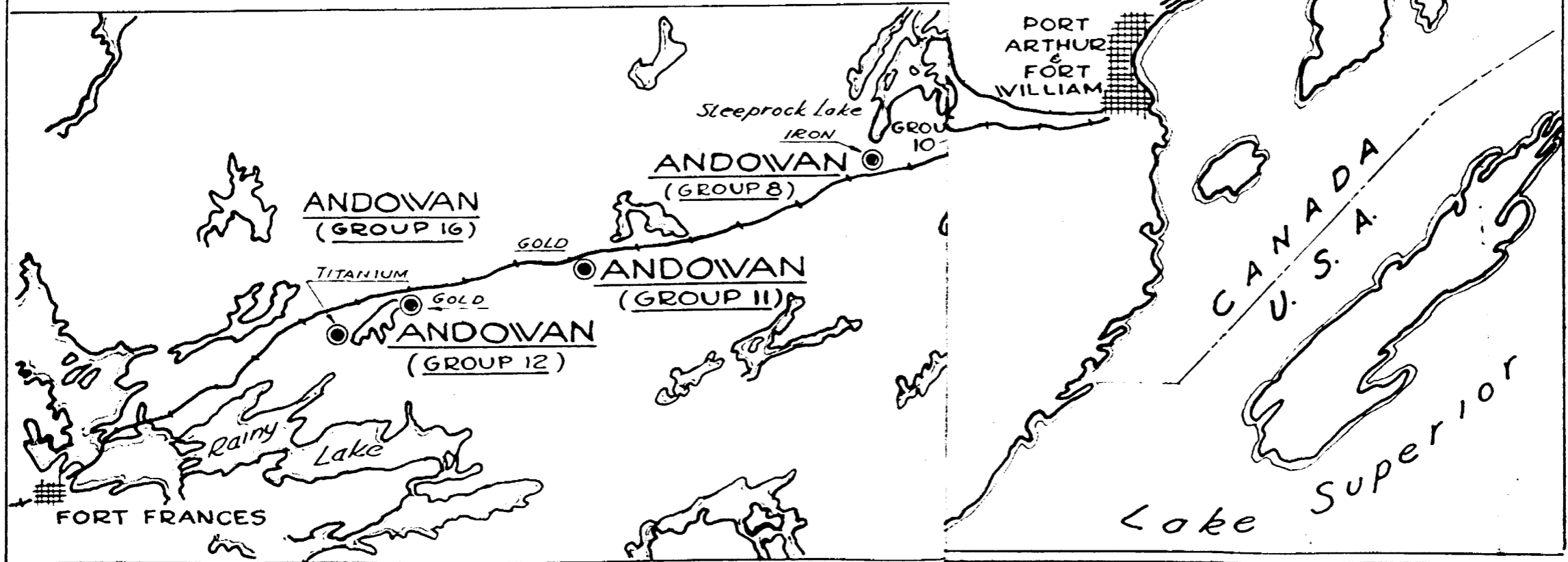
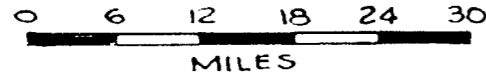
Group 11 consists of six patented claims FF 4300, FF 4301, FF 4302, FF 4304, FF 4305 and FF 4320. These claims were acquired (together with other claims since abandoned) from Violet May Anderson, Kashabowie, Ontario, at a cost of \$1,000.00 by the issue of 5,000 fully paid and non-assessable shares of the capital stock of the Company.

13. In July, 1949, the Company purchased from Caesar Cramette, Fort William, Ontario, a group of claims (Group 16) comprising FF 5628 to FF 5637, both inclusive, for 12,000 fully paid shares of the capital stock of the Company at a price of 25 cents per share. These claims were subsequently abandoned.

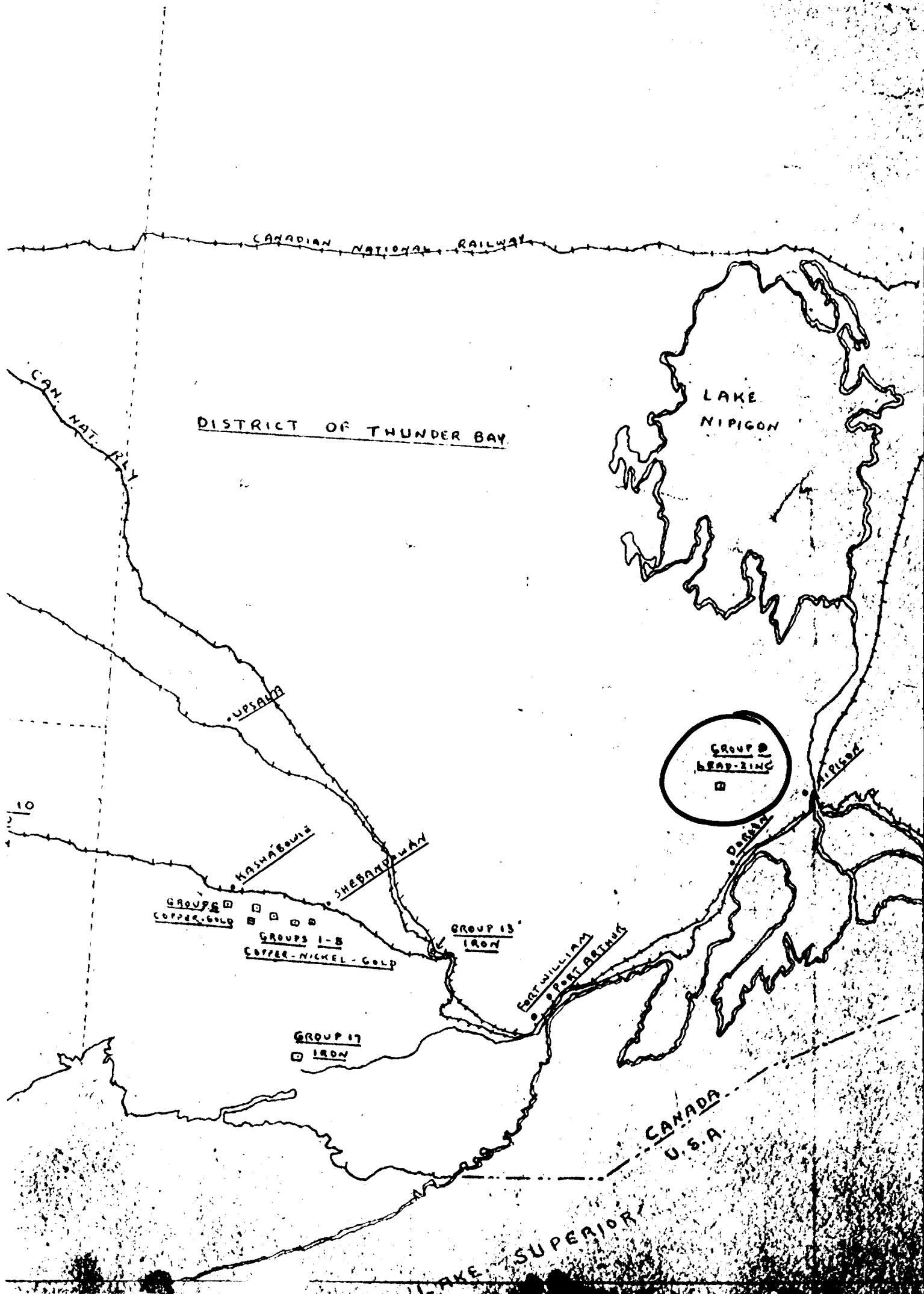
In April, 1952, the Company paid \$12,500.00 to Charles H. Moss, Port Arthur, Ontario, for a group of claims (Group 17) in the Whitefish Lake area by the issue of 50,000 fully paid shares of the capital stock of the Company. These claims were subsequently abandoned.

Map showing location of  
**ANDOVAN MINES LIMITED**  
**HOLDINGS**  
**THUNDER BAY & RAINY RIVER**  
**GOLD MINING AREA**

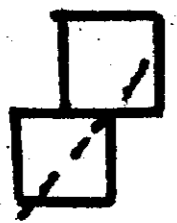
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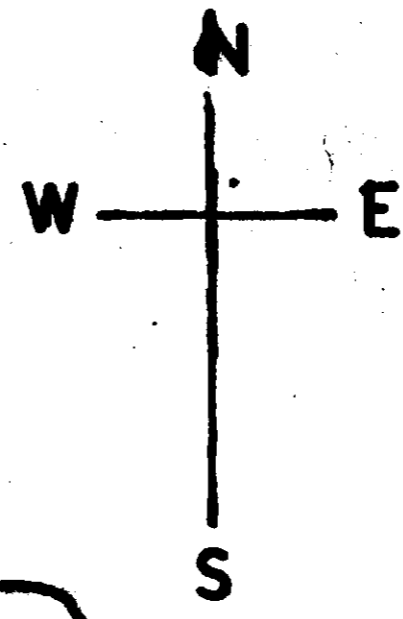
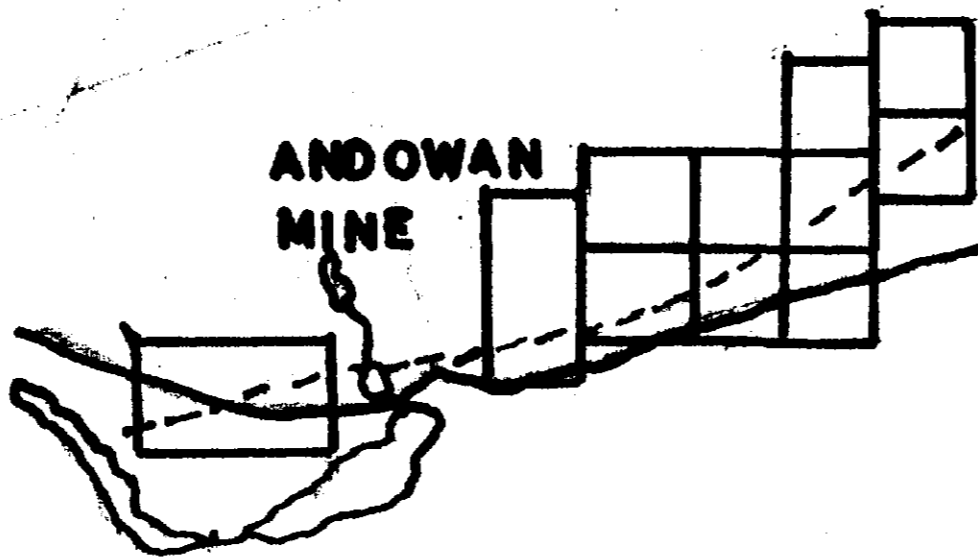




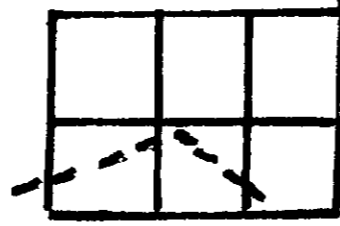
LEBEL  
PROPERTY



ANDOWAN  
MINE

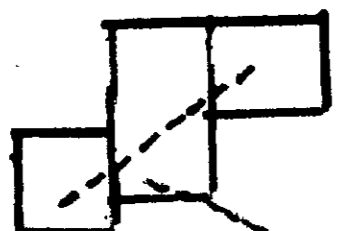


ANDOWAN



PROPERTY

OBEWA  
MINE



KEMERER  
PROPERTY



BLACK BAY  
ON  
LAKE SUPERIOR

MAP SCALE  
4" = 1 MILE

TRANS CANADA  
HIGHWAY

ADIT

CARIBOU  
MINE



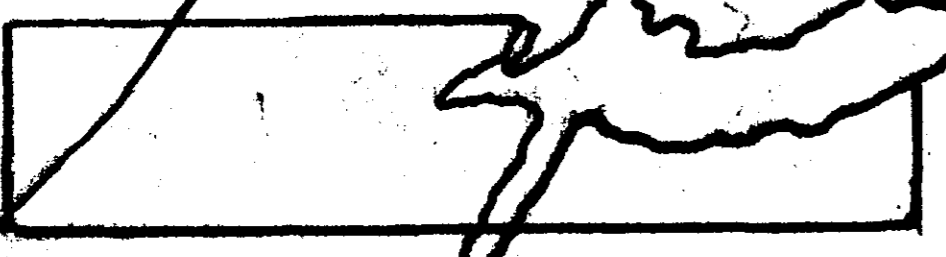
ENTERPRISE  
MINE



ARCTIC  
MINE



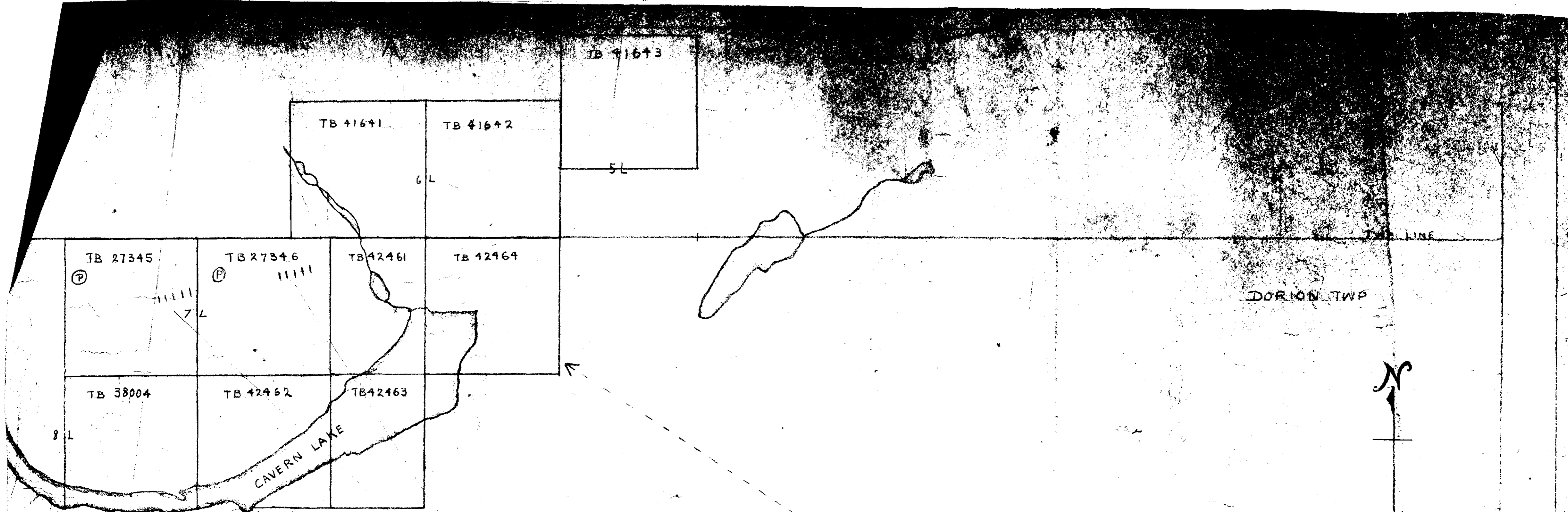
SILVER LAKE  
PROPERTY



BLACK BAY  
ON  
LAKE SUPERIOR

ANDOWANS' GROUP 9 AREA



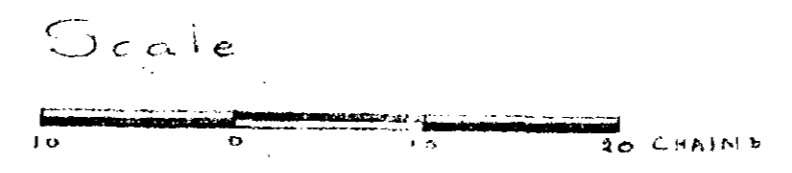


DORION TWP

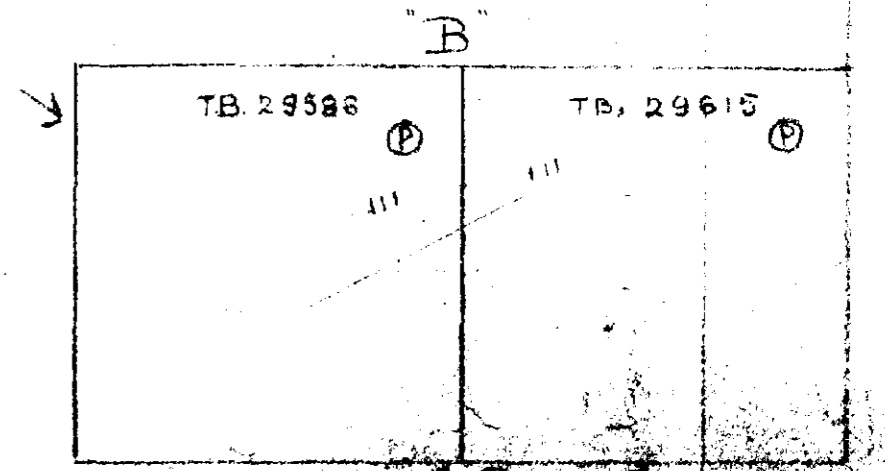
Distance 1 1/2 miles

Trenches approximately  
40' across and 2' deep  
100' apart. Pl. 3n

ANDOWAN  
MINES LTD  
GROUP N<sup>o</sup> 9 (A,B)



Trenches approx.  
30' across 2' deep 100' apart  
Pl. 3n



Prepared by  
Date

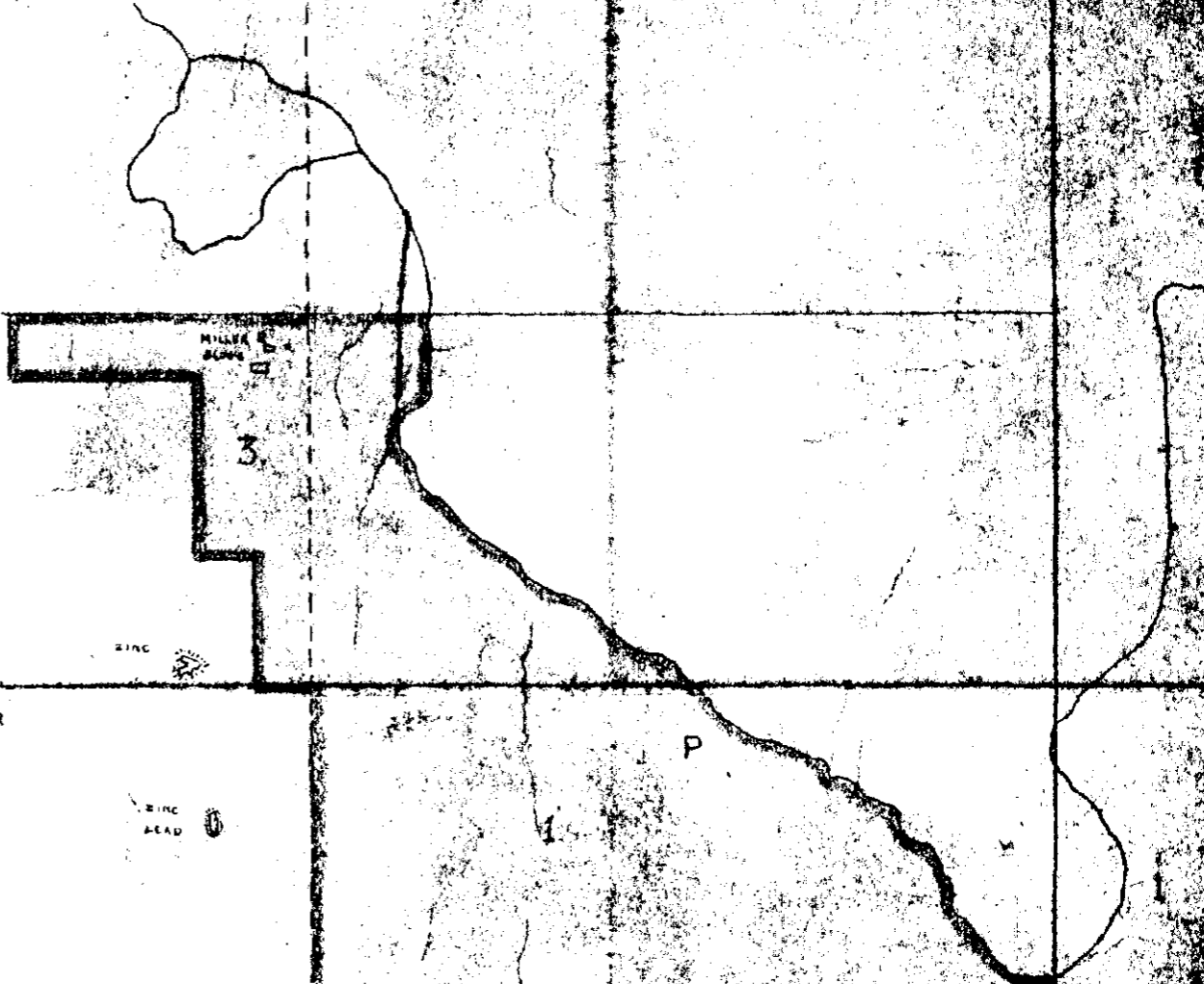


52A155E0021 63.3598 DORION



STAKED BY DAVIDSON AND EMERY

6



MILLER & SONS

3

ZINC

D.C. KEMERER

P

ZINC LEAD

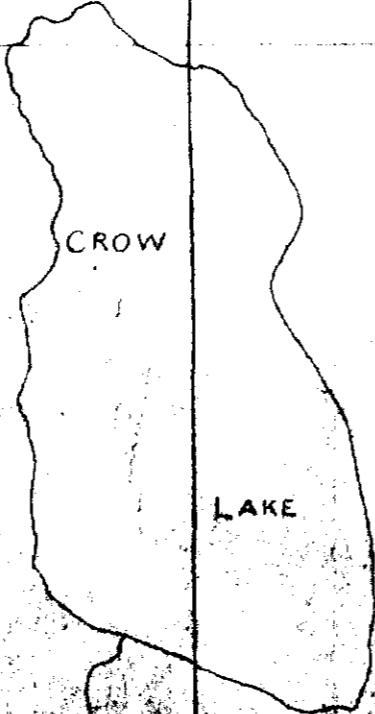
P

FLOAT ZINC AND LEAD

OSMA ZINC ROAD

CROW

4



LAKE

P

2

HARRY BONDY

