



41104NW0018 MONGOWIN20A1 MONGOWIN

010

REPORT ON OWEN PROSPECT

LOCATION AND ACCESS

The property consists of fifteen claims, three of which are patented. Located in Mongowin Tp. NW $\frac{1}{4}$, N $\frac{1}{2}$, lot. 11, con. VI. My report concentrates on claims S16448 and S16449 respectively, because of work that is being carried out, trenching and some drilling.

The property is 8 miles south of Espanola on good gravel road, which branches out into property. Water is available from Bass Lake, property borders on it, mine labour and casual help is available in the area at the usual wage standards. Supplies are available from local mines or from Sudbury, 45 miles away.

HISTORY

The property has quite a long history, dating back to 1929 when it was mentioned in the Annual Report of The Ontario Department of Mines by Dr. E.S. Moore. At that time it was somewhat of a curiosity due to presence of a peculiar magnetite vein exhibiting a Botryoidal structure and a vein of clear "Iceland Spar" samples which were tested by Professor Bain of the University of Toronto.

In 1932 samples of rock from the property were sent to Sweden to the "Radiumhemmets Fysiska Laboratorium" to be tested for radium. These assays showed only 2 milligrams per ton of rock radium content and thus nothing further was done on the property as far as radium was concerned.

In 1934, Falconbridge Nickel Mines became interested, upon receipt of some ore samples from Owen which assayed 5.47% copper, 2.13% nickel and 2.9% zinc. There were also some six creditable gold assays ranging from \$0.70 per ton to \$15.05 per ton.

Falconbridge did some further sampling on their own in the years 1935 and 1936 and were interested enough to prepare certain geophysical work which was done in 1936, further work was done in 1939 since it is reported on in the Annual Report of the Ontario Department of Mines for that year by Mr. T.C. Phemister. Drilling of the property was done in 1951 by Falconbridge.

Drilling results, done by TRIO MINING CO., which I believe are important follows:

D.D.H.#1	5-00SE	$\frac{.12\text{Ni } .44\text{Cu}}{3.4}$			
D.D.H.#2	5-00SE	$\frac{.63\text{Ni } .32\text{Cu}}{1.2}$			
D.D.H.#3	5-00SE	$\frac{.483\text{Ni}}{19.2}$			
D.D.H.#6	3-00SE	$\frac{.37\text{Ni } .23\text{Cu}}{5.0}$			
D.D.H.#7	4-00SE	$\frac{.20\text{Ni } .20\text{Cu}}{14.0}$	$\frac{1.17\text{Ni } .50\text{Cu}}{14.2}$		
D.D.H.#8	4-00SE	$\frac{.52\text{Ni } .16\text{Cu}}{3.0}$	$\frac{.57\text{Ni } .52\text{Cu}}{2.5}$	$\frac{.35\text{Ni } .27\text{Cu}}{2.2}$	$\frac{.92\text{Ni } .42\text{Cu}}{1.0}$
D.D.H.#10	3-00SE	$\frac{.30\text{Ni } .18\text{Cu}}{20.0}$			
D.D.H.#12	4-00SE	$\frac{.61\text{Ni } .14\text{Cu}}{4.0}$			

D.D.H.#5 had an intersection of $\frac{.84\text{Ni } .36\text{Cu}}{21.0}$ which is not included in my calculations, since it is approx. 600 feet below the surface, this intersection should be correlated to the same horizon with 2 holes, one on each side.

From the above data we have a value of $\frac{.5343\text{Ni } .271\text{Cu}}{7.4}$ ✓

GEOLOGY

The claim group lies in an area of west, east striking quartzites and greywackes of the Gowganda formation. More particularly in the area examined, namely claims S16448 and S1449, there is a body of peridotite intruding quartzite and granite. This body was inspected with a view to correlate geology.

Several zones showing visible magnetite masses were noted.

At the north east corner of the peridotite body a magnetic anomaly occurs in the area of trenching in the contact zone of quartzite and peridotite. Mineralization consisting of disseminated to massive pyrrhotite and chalcopyrite has been exposed in a pit 20 feet deep.

GEOPHYSICS

Results of the ground magnetic survey conducted by Falconbridge are indicative of the peridotite mass and are similar to anomalous conditions usually obtained in areas of peridotite. This condition is typified by local highs superimposed upon a general anomalous condition associated with the peridotite.

In 1952 the Ontario Government issued an airborne magnetic and radiometric map covering Mongovin Township on which the peridotite body shows up very well. From the appearance of this airborne magnetic anomaly one might expect that the peridotite is a dyke rather than a plug-like intrusive since the anomaly has a "tail" striking in a south easterly direction toward Raven Lake. In addition there appears to be two radioactive zones that would fall on the claim group.

ECONOMIC FEATURES

ONTARIO DEPARTMENT OF MINES MINERAL RESOURCES CIRCULAR NO.12, 1969.

Mineralization intersected in drilling ranged from 0.31% Ni and 0.44Cu in disseminated material to 3.82 Ni and 2.38 Cu in massive material.

Falconbridge assays 1936

Sample No.	Cu	Ni	Cr	Zn	Fe	S
1159	0.07%	1.04%				
1160	0.45%	0.10%	1.90%	21.4%	14.1%	
1161	3.00%	0.55%				
1162	—	—	—	—	—	4.50%
1164	0.07%	1.05%				
1165	Trace	2.43%			51.5%	34.4%

Massive ore, very fine-grained, muddy	Ni 3.82%	Cu 2.38%
Heavily disseminated ore, coarse grained	Ni 0.81%	Cu 0.39%
Disseminated ore with massive patches	Ni 0.28%	Cu 0.80%
Faintly disseminated	Ni 0.21%	Cu 0.44%

from the same property.

Gold	\$2.80
Copper	0.18%
Nickel	2.77%
Silver	0.36 oz.

There are many more certified assays for gold and base metals, they can be checked by interested parties with the owner Mr. M.L. Owen.

I did not attempt to make detailed ore reserve calculations nor did I use highest assay values, high grade assays from the pits and trenches are not included.

From D.D.H. sections calculated tonnage is 92,610 Tons

This figure does not include broken ore in the pits. Tonnages could be 3 to 4 times this figure easily if section 5400SE were correlated.

Metal content in 92,610 tons

Copper @ 0.26% --- 5.2 Lbs. per ton - - - - -	481,572 Lbs.
Nickel @ 0.54% - 10.8 Lbs. per ton - - - - -	1,000,188 Lbs.
Gross metal value at current metal prices,	
Copper 481,572 Lbs. @ 70¢ - - - - -	\$ 337,100.40
Nickel 1,000,188 Lbs. @ \$1.30 - - - - -	\$ 1,300,244.40
Total gross metal value in the ore	<u>\$ 1,637,344.80</u>
Less 10%	\$ 163,734.40

Assuming a safety margin of 10%, Metal value in the ore becomes \$1,473,610.40

CONCLUSION

The presence of trace amounts of copper, nickel and cobalt as well as chrome, in ultramafic rocks indicates that the rocks themselves are a possible source of the metals. Trace amounts of metals present in the olivine are released during serpentinization. If the hydrous solutions effecting this alteration contain sulphur in one ionic form or another this could combine with the copper and nickel to produce pyrrhotite and chalcopyrite. The sulphides would either be distributed throughout the rocks, or could migrate to suitable "traps"

such as contacts and breccia zones.

The southern half and western part of the peridotite remains undrilled. apparently. The mineralization consists of pyrrhotite disseminated in the peridotite together with serpentine and carbonate veining.

Brecciation is common.

It is the writers belief, that previous companies, which had an interest in the property, concentrated their exploration in the hope of finding a gold mine, a very logical undertaking at that time, due to low base metal prices also because near by were two producing mines.

The writer contacted Mr. G.H. Cluff, Senior Field Geologist, hoping to obtain the data on D.D.H. drilled in 1951, but unfortunately their company policy does not allow to release this type of information. This is significant because if their drilling did not discover anything of worth while mentioning, no secrecy would be attached to their previous work pertaining Owen property. Also they are interested in learning of any new exploration work to be done in the future and of any results.

The following conclusions are herewith submitted:

1. That the property is a "very good prospect" and definitely warrants acquisition.
2. That both ends of the ore body are open and that probably 600-700 feet of vein could be established.
3. That the sulphide mineralization will carry to depth.
4. That stoping can be carried out at not less than 7 feet wide, most stoping much wider, with average grade of $0.53\% Ni$ & $2.7\% Cu$ at \$17.56 per ton at current market prices.
5. That the block of ore to 250 feet horizon can be mined out in less than one year, including development, to take advantage of high metal prices.
6. That further investigation on both ends of the vein and depth, and other parts of the property still unexplored, could disclose other sulphide bearing zones.

Mining method and breakdown of costs.

This ore body should be mined out by decline draw point shrinkage

method. Drive an adit at / - 20% grade, establish draw points at 40' intervals. Bigger proportion of development will be in ore. Not having an accurate surface contour map nor D.D.H. collar elevations I can only give a guess at 1,000 feet of development that will be required to recover this ore body. Mucking should be done by L.H.D. scooptrams, which can be rented or purchased from North Bay.

Choice of sizes are available to suit sizes of headings. For this ore body I would recommend one of the smaller models. Writer is familiar with this type of mining.

Mining Costs.

Drill and blast	50¢ per ton		
Powder	5¢ " "		
Haulage	\$1.50 " "		
Milling	\$3.50 " "		
Development	\$0.47 " "		
Total Cost	\$6.02 " "		
Gross revenue from ore	\$1,473,610.40		
Mining costs for 92,610 tons @ \$6.02 per ton	<u>\$ 557,512.20</u>		
Net profit	\$ 916,088.20		
	Say	\$	900,000.00

Engineering, mining supervision and geology should be done by one person on part time basis.

Power can be provided by a Diesel or gas generator.

The following recommendations are, herewith submitted:

1. That a complete survey of the property be made, D.D. Hole collars surveyed surface contour map be made, locate best place for adit portal, if it is decided to go ahead with development program.
2. Establish coordinates and control stations for the property.
3. That, if money is available, drill at least two D.D. Holes, one on each side of present ore body, to establish length of a vein.
4. That all work be carried out under competent engineering supervision.

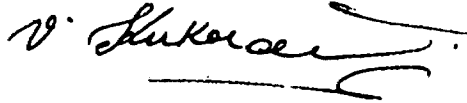
(7)

This report was correlated from correspondence, previous reports, geology sections and other pertinent data supplied by Mr. Owen.

Respectfully submitted,

V. (Val) Kukoraitis, P.ENG.

ESPANOLA, Ontario,
July 2nd, 1970.



Encl. 1 Map, approximate location of the vein.

1 Map, longitudinal section.

B. D. Rept.

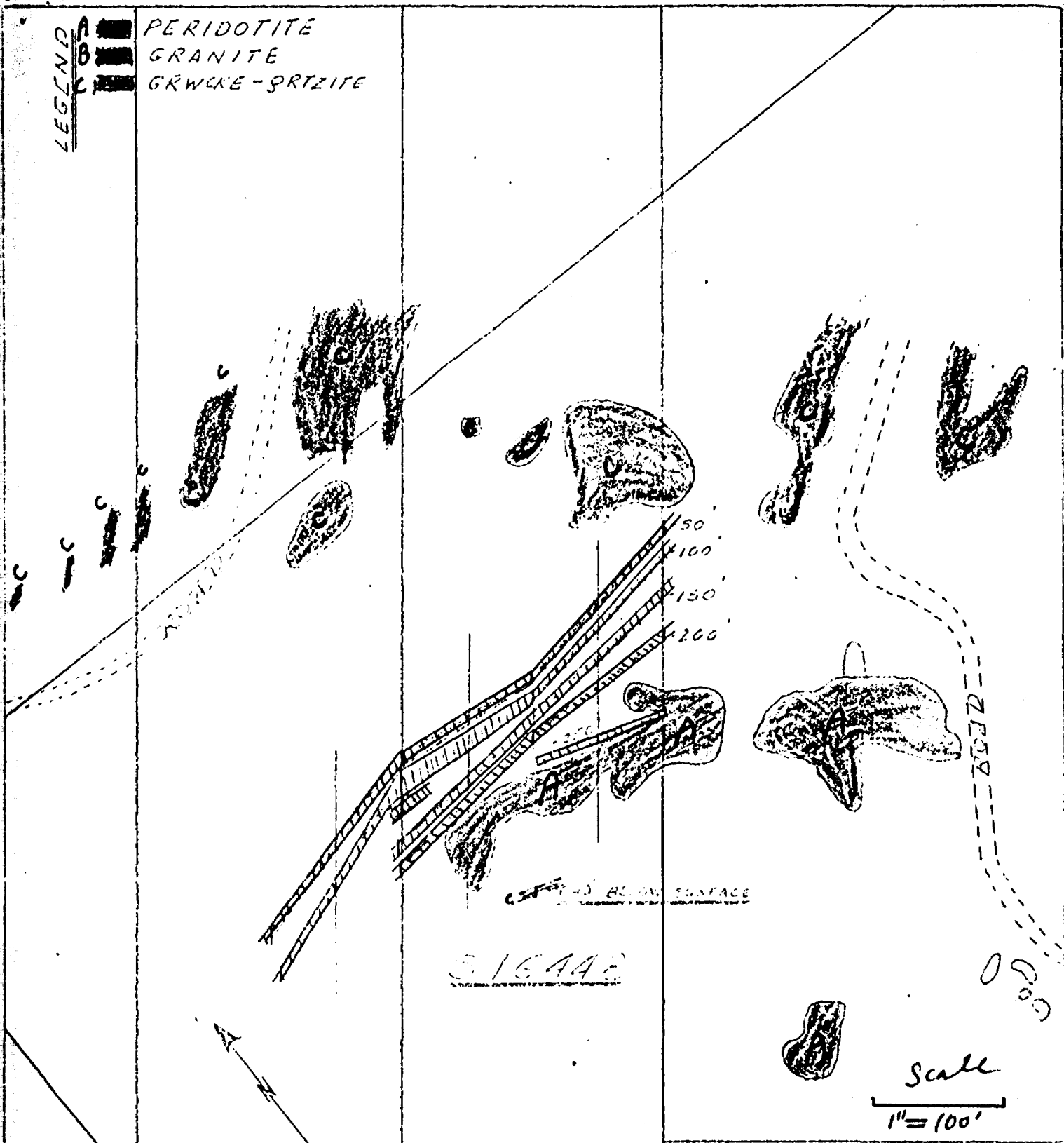
OWEN GROUP, MONGOWN TWP.

In order to further test the unusual occurrence on the Owen property in the northwest corner of Mongowan Twp., two holes were drilled on claim S-16448. The description of this property is, of course, in your hands and the first hole was pointed to cut the contact under the old pit which showed reasonably good copper-nickel assays, to supplement the information obtained by earlier drilling by others. This hole encountered scattered sulphides in the peridotite of negligible copper and nickel values. The second hole was drilled on the other side of the plug to cut the contact there. This hole did not encounter any interesting values and work was abandoned. The total amount of drilling done was 1,009 ft.

"J.C. DUMBRILLE"
Consulting Engineer

LEGEND

- A PERIDOTITE
- B GRANITE
- C GRWCKE-SPITZITE



S 1644E

50' BELOW SURFACE

Scale

1" = 100'

OWEN PROSPECT

SURFACE PLAN

SHOWING VEIN
LOCATION

- ELEVATION INDEX
- 50' BELOW SURFACE
 - 100' " "
 - 150' " "
 - 200' " "
- 2 SE
1 SE

JUNE 15 70

1" = 100'

V.K.

D.O.H. 11

NO LOSSES AVAILABLE

D.O.H. 4

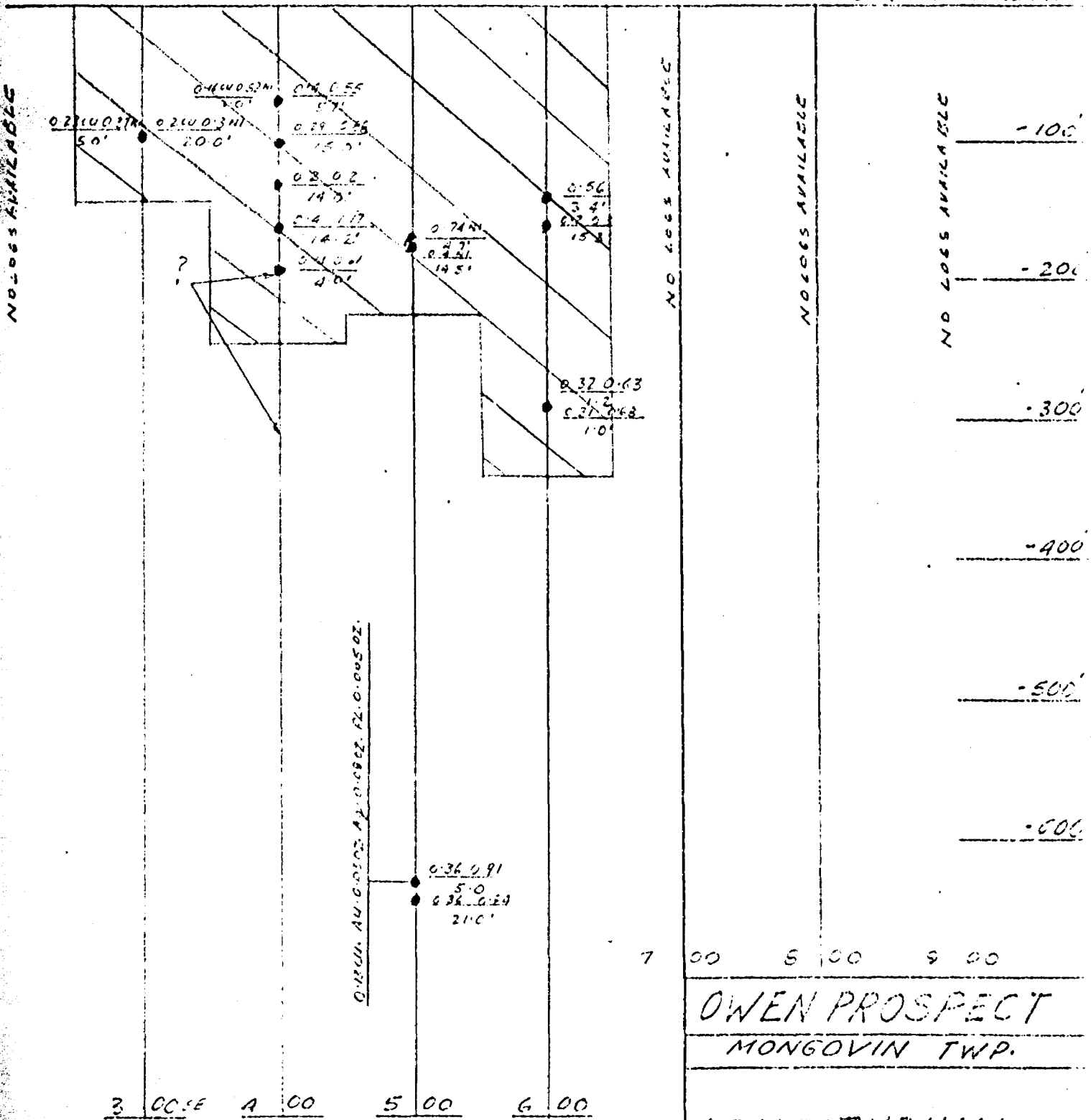
NO LOSSES AVAILABLE

D.O.H. 14

NO LOSSES AVAILABLE

D.O.H. 15

SURFACE HORIZON



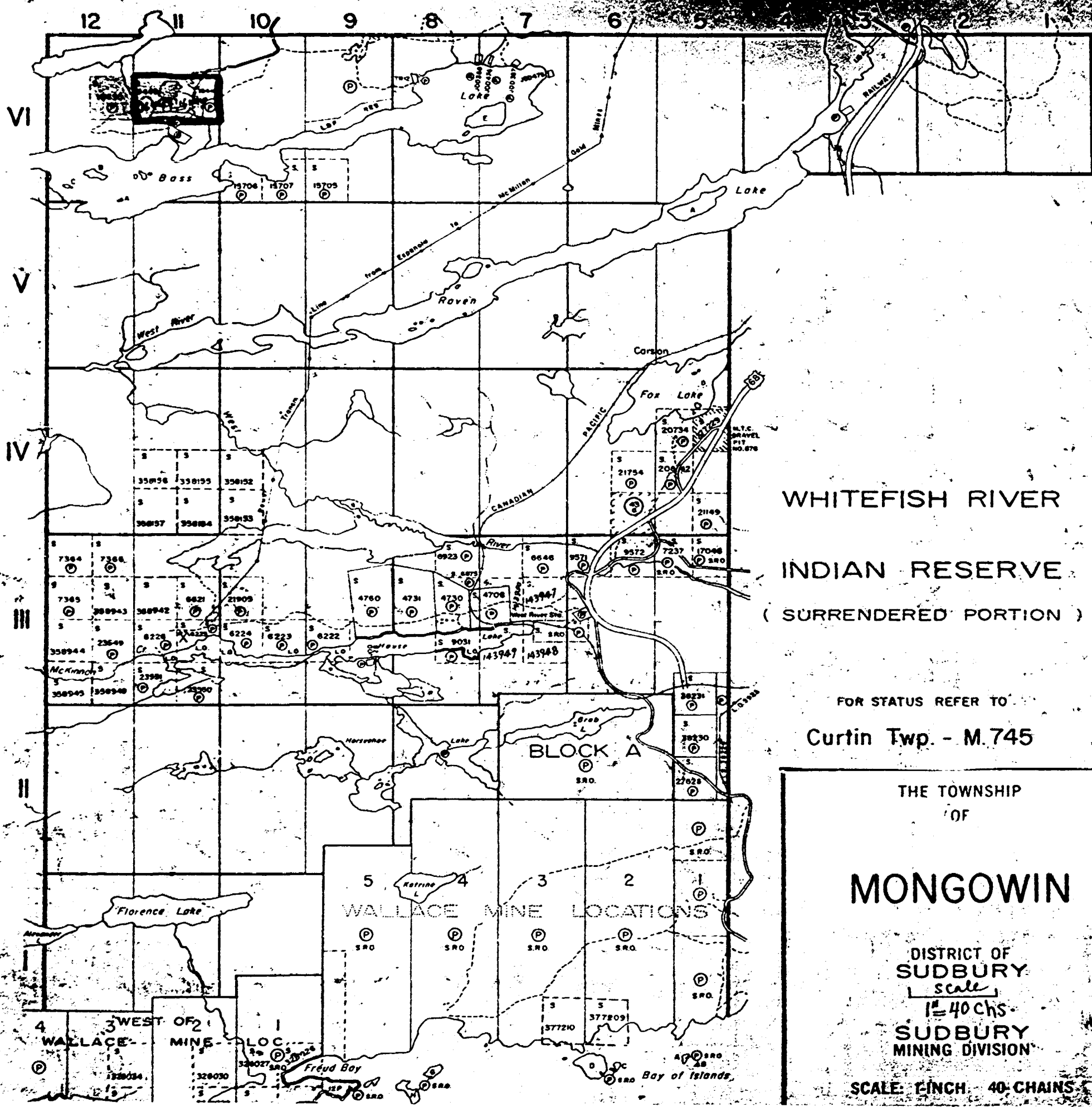
scale
1" = 100'

OWEN PROSPECT
MONGOVIN TWP.

LONGITUDINAL
SECTION

JUNE 25 1" = 100'

Merritt Twp. M.863



WHITEFISH RIVER
 INDIAN RESERVE
 (SURRENDERED PORTION)

FOR STATUS REFER TO
 Curtin Twp. - M.745

THE TOWNSHIP
 OF
MONGOWIN
 DISTRICT OF
SUDBURY
 Scale
 1" = 40 chs.
SUDBURY
 MINING DIVISION
 SCALE: 1 INCH = 40 CHAINS

McKinnon Twp. - M.1014