



## Lenwood Mining Company CLAIMS

James Township, Montreal River Mining Division

Foreword

The claims were mapped on the seven days <sup>July 30th.</sup> ~~August 6th.~~ to ~~August 12th.~~ inclusive. Ground control was picket lines run at three hundred foot intervals north and south from an east-west base line. The lines were chained and marked with chainage pickets at one hundred foot intervals. Unfortunately too much attention was paid to stakers lines in the cutting of the picket lines. In order to map some parts of the ground which had not been adequately covered by the picket lines it was necessary to make some short compass and pace ~~surveys~~ traverses. No survey posts or lines were found on the ground and the only known point on the ground with respect to the lot and concession lines is the junction of the two transmission lines.

C. J. C.

Property and Access

The property consists of sixteen claims, Nos. -M.R. 12352, 15116, 22325-22336 inclusive and 22548-49. The description is as follows, -W $\frac{1}{2}$  of N $\frac{1}{2}$  Lot 7, N $\frac{1}{2}$  and NW $\frac{1}{4}$  of S $\frac{1}{2}$  Lot 8, E $\frac{1}{2}$  and NW $\frac{1}{4}$  of N $\frac{1}{2}$  Lot 9, and N $\frac{1}{2}$  Lot 10 all in the 5th. Concession. SW $\frac{1}{4}$  of S $\frac{1}{2}$  Lot 8 and SE $\frac{1}{4}$  of S $\frac{1}{2}$  Lot 10 in the 6th. Con.

It is possible to drive a car or truck over a rather rough road a distance of one mile to the shaft site from the substation. A short section of gravel road connects the substation with the Elk Lake-Matachewan Highway a short distance north of the one mile post from Elk Lake.

Topography

Much of the ground is covered by a light mantle of boulder clay and there are many small outcrops of rock, but the percentage of actually bare rock is less than ten. There are some fairly large areas of flat clay in the eastern part of the property and there are small ash swamps and muskegs covering about seven percent of it. Hills between fifty and one hundred feet high above the surrounding country are common and in places there are cliffs over fifty feet high. The whole area has been burned within the last fifty years, but there have been no fires in the last twenty-five years. The trees are mainly poplar and white birch, with spruce and balsam in places and a few small patches of jackpine.

Geology

The geology is typical of the Elk Lake Area. The Cobalt Sediments dip at from 5 to 10 degrees generally in a southeasterly direction and the Nipissing Diabase intrudes the sediments at a somewhat steeper angle. The basement rock is almost certainly all granite. The general geology of James Township and the surrounding country is shown on Map 1934a of the Ont. Dept. of Mines.

### Granite

The granite is mostly grey, but grades to pink in places, it is evenly medium grained and shows no dikes or inclusions. It appears to be deep in a large batholith.

### Matachewan Diabase

One dike of medium grained diabase was found cutting the granite in Lot 10. The east wall of this dike is not exposed, but it is between 60 and 100 feet wide with a strike a few degrees east of north. It is probably of Matachewan Age.

### Cobalt Sediments

More than seventy percent of the exposed sediments are conglomerate with a preponderance of granite and felsite pebbles, there are few boulders, the matrix is often pink and is commonly gritty. Much of the remaining thirty percent is arkose which is usually poorly bedded. Where bedding is well developed there are usually a few thin beds of greywacke or slaty greywacke. Some thin-bedded argillite was seen near the top of the diabase in Lot 8.

### Diabase

The diabase sill must have an average dip of twenty deg. or more if it has its usual thickness of one thousand feet in the part of it running north and south. The part of the sill running east and west is much wider and probably has the dip of less than ten degrees indicated by gentle hills which look like dip slopes, and parting planes at about seven degrees.

The rock has its usual grey colour except that some of the coarser grained parts are lighter coloured than normal. In a few places there is a pinkish tinge, but there is no "redrock" or granophyre. The grain increases quite rapidly below the upper contact and an unusually high percentage is quite coarse grained. No exposures of the lower contact were seen.

The manner of occurrence of the diabase in the southeast part of the property suggests that its presence at surface here is due to an upward roll of the sill rather than faulting. There is a slight possibility of a northeast striking fault just north of the transmission line to Gowganda, but nothing to suggest a major fault here.

### Veins

A great deal of trenching and test-pitting has been done through the years and at least three shafts have been sunk and one adit driven. The old trenches are all caved in, no doubt some were only prospecting, but probably many follow veins.

A number of narrow calcite veins and stringer zones, some associated with aplite dikes, can be seen under present conditions. These veins belong to two systems, one near north-south and the other roughly east-west.

The majority of the veins, and the only ones which showed promise, are apparently in the upper half of the diabase. The adit was driven at the upper contact and some work has been done in the overlying sediments. No work was done in the sediments below the diabase.

So far as is known the only silver and cobalt were found in the workings at the main shaft and the shallower shaft to the northeast of it. I have information from the man who cobbled the ore from the two hundred level of the main shaft that this ore was found in two rounds on this level and that nothing important was found in the deeper workings. This ore was about an inch and a half wide and the cobbled ore was by no means highgrade as silver ore is figured.

#### Conclusions

The geological setting does not correspond to that of any important silver producer in the Cobalt-South Lorrain-Gowganda Area, though it is similar to the nearby Cotley Mine which had a small production last year. All of the important producers have Keewatin basement rock, and where the diabase sill is underlain by more than one hundred feet of Cobalt Series sediments the ore was found in the underlying sediments.

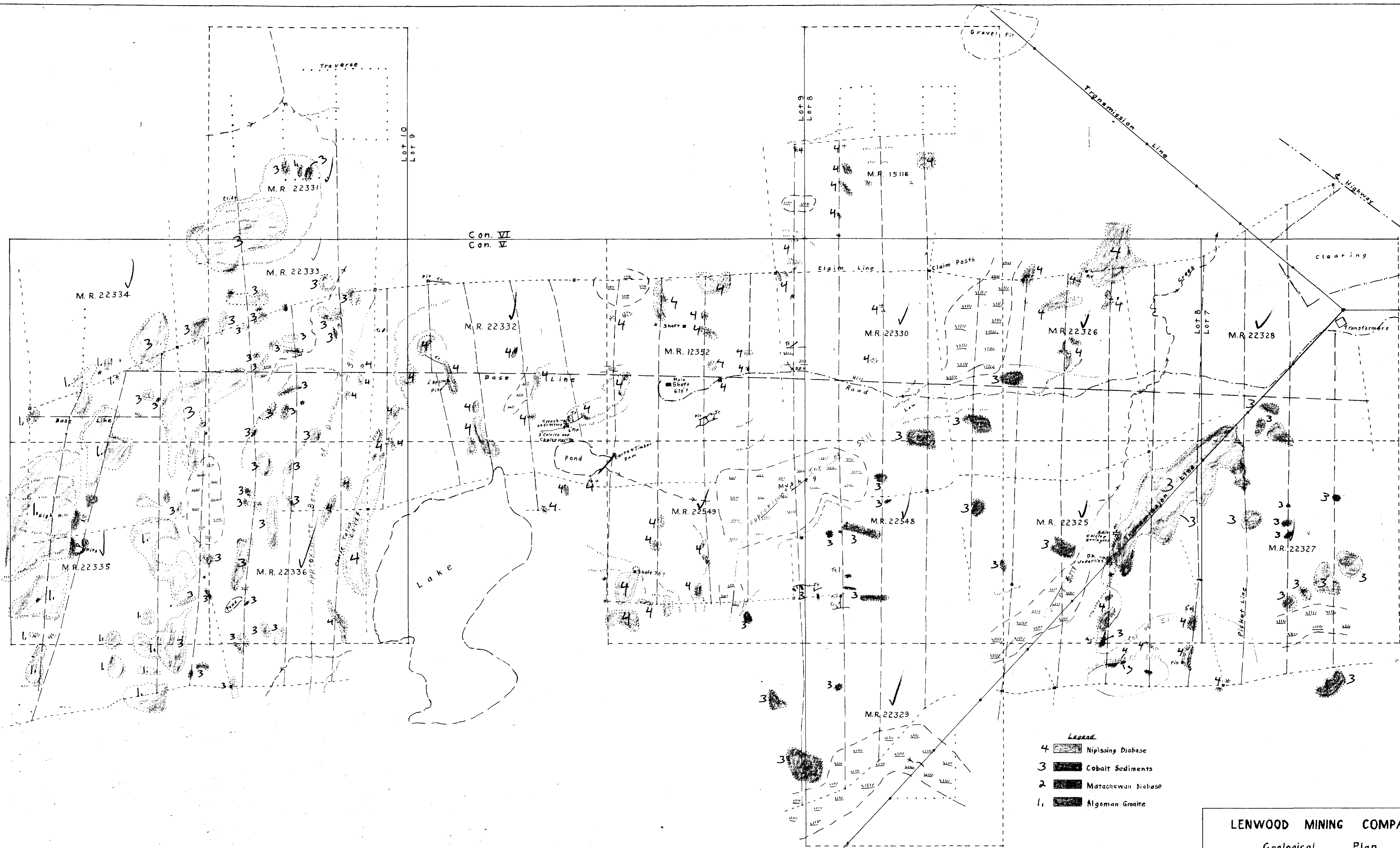
The veins near the main shaft were, no doubt, fairly promising to start with as veins in this area went at that time, but they have been adequately explored without finding very much. The ground appears to have been thoroughly prospected.

Respectfully submitted

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Haileybury, Ont.  
13 Aug. 56

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- Legend**
- 4 [Shaded Box] Nipissing Diabase
  - 3 [Shaded Box] Cobalt Sediments
  - 2 [Shaded Box] Matachewan Diabase
  - 1 [Shaded Box] Algonian Granite

**LENWOOD MINING COMPANY**  
 Geological Plan  
 James Township Claims  
 Scale - 1 in. = 300 ft.

