

GM 05168

PROGRESS REPORT ON THE EXPLORATION PROGRAM

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Énergie et Ressources
naturelles

Québec 

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April 15th, 1957.

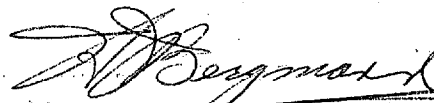
The Directors,
Lyndvue Mines Ltd.,
Montreal, Que.

Dear Sirs,

The following is a Progress Report on
the exploration program carried out on your
properties in Beaudet township.

This program has included surface trenching,
geophysical surveys and diamond drilling to explore
and develop the titanium - columbium showings on
your properties. Exploration is continuing and
with the coming of spring additional prospecting
will be carried out on the large acreage held by
your Company.

Yours very truly,



H.J. Bergmann, P. Eng.,
Consulting Engineer

*Page II lots 52 to 59
Page III lots 38 to 43*

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MAY 6 1957
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PROGRESS REPORT
ON PROPERTIES OF
LYNDVUE MINES LTD.
BEAUDET TOWNSHIP, QUE.

SUMMARY

The exploration program carried out on the properties of Lyndvue Mines Ltd. has shown concentrations of titanium and columbium minerals in pegmatites. The values obtained in these dykes are quite high grade but their size is such that they are not of economic importance.

Combined with these concentrations there is a widespread distribution of finely disseminated ilmenite and magnetite in the granitic rocks underlying the greater portion of the properties. All samples taken show low values in titanium and columbium and these samples cover a large area.

Exploration is continuing on the properties with its objective the development of a sufficiently large concentration of these minerals to be of economic value. There has only been preliminary prospecting carried out on the "B" property where concentrations of titanium and columbium bearing minerals have been found in a pegmatite dyke and the exploration on this property will be intensified during the coming season. Prospecting on this property has also indicated the presence of copper mineralization.

SURFACE TRENCHING

A considerable amount of surface trenching was carried out on three separate showings on the "A" property and one on the "B" property, all of which contained good values in titanium and columbium. These values ranged as high as 58% TiO_2 and 10% Cb_2O_5 in grab samples. Trenches were blasted along the strike of these mineralized zones and showed reasonable continuity over narrow widths.

The mineralization consisted of massive ilmenite together with some columbium bearing rutile. The iron content ranged from 30 to 35%. The ilmenite occurs as narrow veins and irregular lenses within pegmatite dykes which strike northwest and have an almost vertical dip. In most cases the veins were non magnetic but they did show some slight radioactivity when tested with a geiger counter.

The country rock is largely granite and granite gneiss which contains biotite, magnetite and fine grained ilmenite as accessory minerals.

GEOPHYSICAL SURVEYS

Geophysical prospecting is primarily used to outline the favorable areas for more advanced exploration. The most common surveys are:

- (1) Magnetic surveys for detecting magnetic minerals.

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(2) Electrical surveys which outline bodies or zones of good electrical conductivity. Certain types of fractured and sheared rocks and some types of mineralization are known to conduct electrical current and from the shape and extent of these zones it is possible to select areas most favorable for further exploration.

A small portion of the "A" property which contained the main mineralized showings was chosen to carry out test surveys to determine the best method for outlining the titanium bearing zones.

A. MAGNETOMETER SURVEY

Ilmenite itself is usually non magnetic but a large body of this mineral will usually contain enough magnetic iron to show up as a magnetic high and so a magnetometer survey was carried out over the test area.

The survey showed a great many irregular zones of high magnetic readings but investigation of these showed that they were caused by concentrations of magnetite in the granitic rocks. They did not appear to have any relation to the titanium bearing zones so this method was abandoned as not being practical although in conjunction with another type of survey it could be useful.

B. SELF POTENTIAL SURVEY

This method was chosen as it was known that magnetite, when in sufficient concentration, can give a self potential

anomaly and it was expected that ilmenite would react in a similar manner. This survey would also outline any areas containing base metal mineralization such as copper and nickel.

The results of the survey showed a distinct anomaly over the major ilmenite showing and also outlined two large anomalous areas well to the north of the showings. The readings on these anomalous areas were lower than over the ilmenite and diamond drilling indicated that they were probably caused by disseminated ilmenite, magnetite and pyrite in the granitic rocks.

C. ELECTROMAGNETIC SURVEY

The self potential survey was shown to be practical for the property but it is not well suited to winter conditions due to the necessity of making contact below the frost line in the ground. As a result, the electromagnetic galvanic method was chosen as it gives similar results.

A survey using this method was carried out over the balance of the northern portion of the "A" property but it did not outline any additional favorable areas.

DIAMOND DRILLING

A limited diamond drilling program was carried out to test the known mineralized zones along strike and at depth and to test the favorable areas outlined by the

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self potential survey. A total of 2,870 feet have been drilled consisting of 12 holes.

The drill holes tested the mineralized zones to shallow depths but no improvement in the zone widths was indicated in the drilling. However, the holes showed widespread finely disseminated ilmenite and occasionally crystals of rutile as well as disseminated magnetite in the wall rock of the pegmatite zones. Several character samples taken of the drill core showed consistent low values in titanium and columbium.

One of the large self potential anomalies was tested by diamond drilling and this showed similar granitic rocks containing the same finely disseminated mineralization with small amounts of pyrite. It was felt that this type of mineralization had caused the anomaly and no further drilling was done.

CONCLUSIONS AND RECOMMENDATIONS

It is apparent that the mineralized zones uncovered to date, although of excellent grade, are not of economic importance.


The majority of the exploration work has been confined to "A" property and has shown widespread disseminated mineralization containing low values in titanium and columbium together with narrow concentrated veins and lenses of high grade material.

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Geophysical surveys have not indicated anything of importance on the "A" property and it seems advisable to concentrate additional exploration on the "B" property. This exploration should take the form of prospecting and geological mapping. The Company have a Warsop plugger and a Packsack drill which are excellent tools for surface exploration.

If overburden conditions are such that surface prospecting is hampered, it may be advisable to proceed with geophysical prospecting.

Respectfully submitted,



H.J. Bergmann, P. Eng.

Montreal, Que.,
April 14, 1957.