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GEOLOGICAL REPORT

MACHO RIVER GOLD MINES LIMITED

GROUP OF CLAIMS

PICKEREL TOWNSHIP

NORTH-WESTERN ONTARIO.

LOCATION OF PROPERTY:

The property owned by Macho River Gold Mines Limited, 330 Bay Street, Toronto, comprises 16 unsurveyed mining claims registered as Pu 9954-61 inclusive, Pa 9963-71 and Pa 10824. The claims are located about the centre of Pickerel Township (Concessions 3 and 4, Lots 6 to 9) in the Patricia Mining Division, District of Kenora, Ontario.

MEANS OF ACCESS:

Provincial Highway No. 72 cuts across the morth-western corner of the property about 20 miles south-west of Sioux Lookout, Ontario. Heavy freight could be delivered by barge from Sioux Lookout via a direct water route of about 25 miles, if this means of transportation were considered practical.

ACKNOWLEDGMENTS:

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The writer wishes to thank A. W. Johnston, Consulting Geologist, for assistance in classifying rock types, and D. A. Fransworth who directed the preparatory work.

Reference has been made to M. E. Hurst's Report on the Sioux Lookout area (1933).

PRELIMINARY SURVEY NOTES:

(a) Line outting:

Two base lines (east to West) were cut and chained. The South boundary of Concession 4 was used as a base line and northerly base line was zeroed at #4 Post of Pa 9954.

North to South picket lines were turned off from base lines at 400 foot intervals, out out and chained.

Line-outting was done on contract at \$40.00 per mile, which included chaining. Close supervision was required to check chaining and bearing of lines.

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(b) Mapping:

Actual mapping commenced July 1st, and was completed by August 15th, 1950

Rook outcroppings were covered by heavy growth of moss. A light prospector's grub-hoe was ideal for exposing rock surfaces.

(o) Topography:

Generally the ridges and valleys follow the morth-easterly strike of the rocks. Steeply rising escarpments in parallel from Pickerel arm to the Provincial highway increase the elevation by about 300 feet. High water level in early summer flooded low areas mean the lake, necessitating numerous detours.

TABLE OF FORMATIONS:

LENOZOIC:

Recent and Pleistocene:

Boulder clay, sand, and gravel.

PRECAMBRIAN:

Intrusives:

Porphyry dikes - quarts and feldspar porphyries.

Sediments:

Arkose?

Keewatia:

Andesite, basalt, pillow lava, rhyolite, diorite volcanio tuff and agglomerate.

Undetermined somes of altered material:

Serieitic, chloritic and carbonated schists.

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INTRUSIVES:

Quartz and feldspar porphyries

The only definite intrusives noted on the property were quarts and feldspar porphyry dikes, varying in width from two to 100 feet. Their light yellowish weathering sharply contrasted with dark bordering lawss. Numerous phenocrysts of quartz or an abundance of pinkist feldspar were distinguishing features of the two types of intrusives. It is believed that most of zones with serecitic form of alteration were originally porphyries subjected to intensive shearing.

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SEDIMENTS:

Two narrow beds of sedimentary rocks probably an arkose, were found in south-west corner of property. They were a light grey sandy textured rock.

KEEWATIN:

Classification of most of greenstones as either an andesite, pillow lava, or a volcanic tuff or agglomerate was a necessary generalization because of too many local gradations in texture of rock examined, and the time required to expose rock surfaces.

Dioritic rocks were definitely flows, and no evidence was noted to indicate that they might be intrusive.

Volcanic tuffs are mostly basic, and often interbedded with agglomerate.

Pillow lavas are quite common and pillows well defined. Their tops indicate south facing flows.

It was difficult to determine origin of highly altered shear zones. These were classified according to type of alteration or by predominent mineral or its oxide still recognizable.

FAULTING:

Two topographical features in the form of deep valleys, may indicate transverse faults through centre of claim Pa 9965 and Pa 9955. The strike of depressions is about N. 10° E. There is no evidence of displacement to support this theory.

A well pronounced escarpment striking N. 60° E. angles diagonally across the property and may indicate a strike fault.

STRUCTURE:

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General trend of formation ranges between N. 50° E. and N. 70° E. with some local variations, and dip steeply from 70° to vertically to the N.W.

Several wide shear zones were noted on the property. For the most part, mineralization is sparse in the zones, although some irregular quartz stringers contained a little fine pyrite and tourmaline.

SUMMARY OF EXPLORATION:

A thorough prospecting program was carried on in conjunction with the geological survey. Interesting zones or quarts float were followed up, and grab samples taken of mineralized material. A conscientious effort was made to establish a zone which would warrant further expenditure. Unfortunately our efforts were not rewarded by examination of rock outcroppings. All work to date on the property has been confined to the past season's combined prospecting-mapping program, as covered in this Report.

ECONOMIC GEOLOGY:

1. N.E. corner of Pa 9963:

Four large blocks of white, milky quartz were found about 300 feet S.W. of No. 1 Post of Pa 9963. Sharp edges indicated that quartz vein in place was in near vicinity. It was not located in place. Fine pyrits mineralization was fairly well distributed in quartz. Grab sample assayed a trace of gold.

2. N.E. corner of Pa 9966:

A grab sample from an altered zone on Claim No. 9966 assayed 0.62 oz./au/ton. The sample was about 40% white glassy quartz with balance a light yellowish green alteration. Considerable coarse cubes of pyrite were roted in alteration.

Upon receipt of the above assay return, the showing was investigated, and some stripping done in effort to extend it. It appears to be two parallel altered sections with scattered quartz stringers. The altered sections are each about thirty inches wide and about eighteen inches apart. The zone was traced for one hundred and seventy feet, and samples taken in three places. The zone was much narrower at new exposures and less altered. Two parallel quartz stringers were uncovered and sampled. The strike of altered zone is North 50° East, and dip 85° N.W. It is the writer's opinion that the altered zone described above is of a local nature, and would prove to be very inconsistent in structure and gold content. Results from additional samples should give a more complete picture.

RECOMMENDATIONS:

Two drift covered sections of property should be investigated by cross-sectional diamond drilling. They are from 300-500 feet wide and extend from 3,000 to 4,000 feet along normal trend, or approximately N. 60° E. on strike. The 1st section commences on West boundary of Pa 9957, and between 0-300 and 0-650 on Line #1. The 2nd section commences immediately East of 0-325 to 0-575 on Line #6 of Pa 9956. A 750 ft. drill hole at -45° dip and bearing S. 30° E. across each of these sections would be good geological bets, and would take care of two years assessment work.

MAPS:

Two sets of Geological plans (100 scale) accompany this Report.

J. D. WILLIAMSON.

JORDAN TWP. VERM 86 50 4 57 12 11 10 Moskinonge L. ECHO TWP. 111 of KEY MAP MACHO RIVER GOLD MINES BATCH RIVER GOLD MINES SIOUX LOOKOUT AREA SCALE 1/2 miles + 1 inch

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SEE ACCOMPANYING MAP(S) IDENTIFIED AS 52F/16NE-0034, #1-3

LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE (X)













