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REPORT ON THE PETOSA PROPERTY

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REPORT ON THE PETOSA PROPERTY

GABOURY TOWNSHIP

TEMISCAMINGUE COUNTY, QUEBEC.

QUEBEC DEPARTMENT OF MINES
NOV 17 1954
MINERAL DEPOSITS BRANCH
No. GM-2979-A

By. J. De Geoffroy,
North Bay, Ont.
Aug. 6th, 1954.

PUBLIC

REPORT ON THE PETOSA PROPERTY
GABOURY TOWNSHIP
TEMISCAMINGUE COUNTY, QUEBEC.

I. PROPERTY, LOCATION, ACCESS

The property owned in partnership by Mr. Petosa of Guiges, Mr. Legault of Lorrainville, and Mr. Br sard of Fugerville, in Temiscamingue County, (Quebec), lies within the south-west corner of Gaboury Township, and consists of eight claims (Lot 1 to 8 inclusive) in Range IV and six contiguous claims in the adjoining Range V.

The property has been originally staked in order to protect the dip and strike of several veins mineralized with gold, copper and silver; it covers an area of approximately 1000 acres.

The property lies east of Lake Temiskaming and south of Lac des Quinze, within an area known as "clay belt", the greater part of which is settled with much of the land under cultivation; numerous roads make all points easily accessible.

The Petosa property may be reached from Fugerville by driving seven miles along a dirt road that branches from the main Ville Marie-Belleterre road; the remaining four miles of very rough road could be easily improved by bulldozing, if a large scale development is contemplated.

2. GENERAL CONDITIONS.

The entire area is underlain by Precambrian rocks and presents the topography characteristic of the Canadian shield.

Most of the Precambrian bedrock is covered with a thick clay blanket; projecting through it are numerous rocky hills and ridges that rise from 100 to 300 feet above the general level of the clay country.

A wide belt of Keewatin rocks extends east-westerly from Laverlochère township, through Gaboury and Blondeau townships to Belleterre (Guillet twp.)

The Keewatin formations consist of tightly folded, steeply dipping volcanic rocks, that range in composition from acidic (rhyolite and dacite) to basic (basalt and andesite), with interbedded tuffs and agglomerates.

The Keewatin rocks have been intruded by a large granite batholith that underlies the north half of Gaboury township and most of the adjoining ones, while gneiss and other metamorphic rocks extend continuously from the Ottawa River to the Belleterre area, south of the greenstone belt.

The discovery of several promising gold bearing quartz veins within Guillet township (Belleterre) in 1933 aroused great interest in the possibilities of the whole district.

Extensive prospecting for gold has been carried on during the past twenty years, and numerous gold deposits have been found, but outside the Belleterre district, very little commercial production has been achieved so far.

3. LOCAL GEOLOGY

The Petosa property lies on the north rim of the greenstone belt mentioned above; its north half (claims in range IV) is underlain by granitic rocks, while the greenstone formation extends through the six remaining claims (range V).

The granite is of hybrid character, owing to the vicinity of the greenstone formation. Little or no pegmatitic or aplitic material is present.

The rock, medium to coarse-grained, grey to pink in colour becomes higher in dark elements (mica and hornblende) near the greenstone contact, and approaches the composition of a granodiorite; many dark inclusions of greenstone were observed, in the vicinity of the greenstone contact.

Several feldspar porphyry dykes with blocky feldspar phenocrysts were observed, cutting across the granitic rocks, with an east-westerly direction.

The Keewatin volcanic rocks consisting of andesite and dacite show locally characteristic pillowed structures and white amygdale.

Following the intrusion of the granite batholite, the whole area has been the scene of intense fracturing.

Many shear zones and quartz filled fractures were observed within the property. The shear zones and quartz veins run either north-south or east-west, and may represent conjugate set of fractures of roughly the same age.

4. DESCRIPTION OF MINERALIZED ZONES

A. Mineralized zones in Greenstone

The most prominent structural feature of the area is a shear zone running east-west along the north margin of the greenstone belt; it can be traced through the whole property over a length of more than one mile.

The greenstone material is sheared and distinctly schistose over a width ranging from fifty to eighty feet.

Pyritization and chloritization are widespread through the sheared material within which numerous quartz stringers carrying pyrite mineralization were observed.

No systematic work has been done yet, but several grab samples returned values ranging from \$ 1 to \$ 9 per Tbn, in gold.

Another shear zone runs a few degrees east of north across the top of a high hill within the north half of claim # 2, Range V. It has been traced over a length of more than 500 feet, the maximum width being ten feet.

B. Mineralized zones in Granite

A). Vein # 1

The vein runs in an east-west direction with a vertical dip across the central part of lots # 3, Range IV, approximately 400 feet north of the main shear zone mentioned above.

It can be traced over a length of more than 500 feet with a width ranging from ten to fifteen feet.

The quartz material within the vein and the sheared granite of the wall rock are sparingly mineralized with finely crystallized pyrite.

The previous owners of the property did a certain amount of development work that included a short adit and a shallow shaft.

As the results of this work were disappointing, and the surface samples returned only low values in gold, ranging from less than \$ 1 to \$ 2, no further work has been done since undertaken, nor is any further work planned at the present time.

b) Vein # 2

Considerable trenching and blasting done by the present owners of the property exposed a fracture zone running twenty degrees east of north over a length of two hundred feet. On the slope of a hill, close to the east boundary of claim # 3, range IV.

The fracture, ranging in width from one to three feet, dips vertically or steeply to the west, and is filled with quartz, chloritic material and abundant pyrite in association with pyrrhotite and a little chalcopyrite. The chloritization and pyritization extend through the granitic wall rock over a width of more than ten feet.

Two chip samples taken across the vein formation assayed as high as 13 oz. of gold per Ton (\$ 416) and 4.8 oz. (\$ 160); but another channel sample taken across three feet returned only 0.3 oz. of gold and 0.6% copper. (Sample T28).

Three short holes, two of which, D.D.H. " 1 (24 feet) and D.D.H. 2 (7 feet), failed to intersect the vein, were drilled during the month of July 1954.

A sample of mineralized wall rock obtained from D.D.H. #1, (Sample T. 20), and two samples (T. 21 and T.22) obtained from D.D.H. # 3 returned only low values in gold and values ranging from .1 to .5 % copper.

c) Vein # 3

The Vein # 3, known as copper showing, runs fifteen degrees east of north, approximately five hundred feet east of the # 2 vein, within claims # 4, range IV. The vein, exposed over a length of fifty feet, has an average width of ten feet.

The Vein material consists of grey bluish quartz and narrow bands of jasper carrying disseminated pyrite and chalcopyrite.

The copper mineralization consisting of chalcopyrite with some native copper, is very heavy over a width of two feet close to the east wall of the vein. A chip sample gave good values in copper (4.56%) as well as in gold (.27 oz.) and silver (.85 oz.).

Two diamond drill holes were drilled to test the vein at shallow depth. D.D.H. #4 (13 feet) failed to intersect the vein. A sample obtained from D.D.H. #5 returned only .75% copper and trace of gold for a true width of two feet of the vein.

d) Vein Zone # 4.

The mineralized zone #4 consists of two parallel quartz veins running east-west, 150 feet apart. D.D.H. #6 drilled at too steep an angle missed the first vein, well mineralized in surface with pyrite and chalcopyrite; a channel sample taken across the full width of the vein (4 feet) assayed .16% copper and trace of gold.

D.D.H. # 7 and 8, both drilled to a depth of 12 feet, intersected the second vein, consisting of white sugary quartz with numerous inclusions of wall rock mineralized with pyrite; sample of the vein zone, obtained from D.D.H. # 8, (sample T 27), showed only traces of gold and copper.

4. CONCLUSIONS & RECOMMENDATIONS.

The Petosa property has a favourable location on the north margin of a greenstone belt that has been intensely fractured, following the intrusion of a granite batholite.

The fractures, running either north-south or east-west, cross granite and greenstone, served as channelway for the solutions carrying gold, silver and copper mineralizations.

Such a geological setting is similar to that of the Belleterre area, twenty miles further east, where several gold bearing quartz veins are successfully being mined.

Most of the work performed to date on the property, including stripping, trenching, and shallow drilling, has been done on the veins occurring in granite (claims # 3 and 5, range IV.)

These veins proved to be mineralized with gold and copper; although some of the gold values obtained are quite impressive, the mineralization appears to be of erratic character.

Very little work has been done to date on the south half of the property (six claims in Range V), underlain by greenstone formation similar to the Keewatin of Northern Quebec and Northern Ontario, in which the majority of commercial gold and copper deposits occur.

It is therefore recommended that a programme of development work be planned in order to test the gold possibilities of the greenstone formation.

A thorough prospecting of the ground underlain by greenstone should be carried out; this to be followed by trenching at regular interval and systematic sampling of any favourable structure discovered. Any structure which proves to carry commercial values over sufficient length should be drilled.

J. de Geoffroy,

North Bay, Ontario,
August 6th, 1954.