

NOV 29 1963

104M/01
Prop. Sub.

820204

KEI

File 104 M / 01

To..... P.M. KAVANAGH

Laverdiere' Property Habs

Subject..... LAVERDIERE PROPE

Break Atkin B.C.

per 27th, 1963.....


Nov 27 1963

W.S.R.	
K.C.G.	
G.H.M.	
R.D.S.	
B.C.B.	
P.M.K.	✓
C.K.W.	
E.O.C.	
H.A.P.	
J.B.S.	
G.P.R.	
E.L.D.	
J.H.	
E.C.J.	
D.V.B.	

This property was brought to our attention by Bob Chaplin approximately two weeks ago. The ground is now held by Bethlehem Copper Corporation and, apparently, Bethlehem has given first refusal to some other company up to December 31st, 1963, or thereabouts. The other company may be C.M. & S.

The deposit is a contact metamorphic type and consists of zones of chalcopyrite up to 10 or 12 feet wide within magnetite mineralization which is as much as 130 ft. in width.

I will contact Huestis again after the end of the year to determine how his negotiations are developing. Enclosed is a photostat taken from a Minister of Mines Report for 1918.


William M. Sirola.

Encls: Pages 93 & 94, Minister of Mines Report 1918.

NOV 29 1963

KERR-ADDISON GOLD MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

104M/01
Prop. Sub.

820204

To..... P.M. KAVANAGH From..... W.M. SIROLA

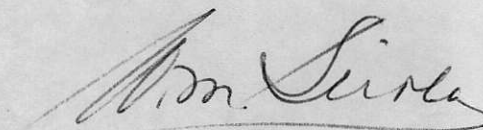
Subject..... LAVERDIERE PROPERTY - HOBOE CREEK, SOUTH END OF Date..... November 27th, 1963.....
ATLIN LAKE (104-M-5)

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M. M. 1918

Brown Group. This group of four claims—*Brownie No. 1, Brownie No. 3, Brownie No. 4,* and *Brownie No. 5*—is owned by Dunham, Nichol, Kershaw & Gilmore. The claims are situated about half a mile up the Wann river, which flows into the arm from Edgar lake, about half a mile south of the *Engineer*. There is a fine water-power available on the Wann river about a mile from Taku arm. Edgar lake is 280 feet higher than the arm, with the greater part of the drop about a mile from the mouth of the river. The two lakes, Edgar and Nelson, drained by the river from an extensive reservoir. The trail from the *Engineer* wagon-road extends up the east side of the Wann river for some distance, and a trail has been built from the upper end, part way down, leaving a small portion along the river unfinished.

At an elevation of about 50 feet above the arm, on the west bank of the river and about 40 feet above the water, an open-cut into the side-hill exposes a vein, 4 feet wide, of quartz sparingly mineralized with galena, blende, and some grey-copper in places. Along one wall there is a narrow vein of high-grade ore. A tunnel has been started at the edge of the river and is just into the solid, showing two seams of quartz carrying galena and blende. The vein is worth exploration on account of the high-grade ore showing in the upper cut.

Along the shore of the arm a number of open-cuts have been put in, following small veins of quartz which apparently are not persistent, being small replacements along the slips in the sheared or gneissoid granite.

White Moose Group. This group, as described in my preliminary report, is evidently the *Rupert* group; the *White Moose* claims lying along the shore, while the *Rupert* claims are well up on the mountain. The claims of the *White Moose* group are eight in number—*Pansy, Rose, Buttercup, Calder, Primrose, Daisy, Merry,* and *Daffodil*—and are owned by Mr. Partidge and associates. As I did not examine the showings, I will quote from D. D. Cairnes's Report of 1913.

"The rock formation consists of a greenish schistose amphibolite, much faulted, contorted, and altered. The main showing on the property is a quartz vein from 18 inches to 4 feet wide, fairly well mineralized with grey-copper, pyrite, and chalcopyrite, with a little galena also showing. On the north end of the vein a small shaft has been sunk, exposing the vein 2 feet wide, of nearly solid grey-copper, chalcopyrite, and galena. On the southern end of the claims some open-cuts have been made, a shallow shaft sunk, all exposing ore, from which assays of from \$10 to \$15 in gold were obtained and silver of from 20 to 100 oz. a ton."

Rupert Group. This group (described in my preliminary report as the *White Moose* group) is situated on the east slope of Whitemoose mountain, on the west side of Taku arm, across the arm from and a little south of the *Engineer* group. The camp is on the bank, about 100 feet from the water's edge, at which there is a floating dock for landing. I followed the trail leading from the camp up the hill to a tunnel at an elevation of 4,100 feet, or about 1,900 feet above the lake. The tunnel starts on a face of quartz about 8 feet wide lying in the granite formation, and follows the vein for 80 feet where the quartz pitches out; the balance of the distance to the face, 160 feet, is in granite. At 40 feet from the mouth of the tunnel the vein splits, and, as stated, continues to 80 feet. There is a crosscut to the right from the 80-foot point, for the purpose, no doubt, of picking up the right fork of the vein. The water in this was 2 or 3 feet deep, so that it was impossible to examine it. The split in the tunnel shows on the surface, but it is impossible to trace the vein any farther than showing in the tunnel. The vein strikes N. 80° W. and dips 70 degrees to the north. The quartz is sparingly mineralized with chalcopyrite, pyrite, and a little galena.

I have been informed since going over the property that there are three or four more veins on it, and from their description I judge that they all have about the same characteristics, and that the one mentioned is probably the best-looking one of the bunch. It was unfortunate that I had no one with me familiar with the ground, for I could have taken in all the showings of the claims as well as the one I saw.

Laverdiere Group. This group consists of six claims and is owned by the Laverdiere Bros. The property is situated on the west side of Hoboe creek, a small stream emptying into West bay at the extreme south of West channel. It is about two miles from the mouth of the creek, the whole distance being a perfectly flat valley-floor, with a fair trail from West bay to the property. The rock formation is a contact between the Coast granites on the west and the greenstone-schists and limestones which form the bed of the valley and extend along the base of the hill.

The main showing of this group occurs in this contact and is of contact metamorphic origin. There is a general mineralization along the contact through to the *Callaghan* group. The best showing yet exposed has been opened up by a tunnel 180 feet long, driven at an elevation of 2,240 feet, or about 40 feet above Atlin lake. In this tunnel the mineralized zone extends from about 30 feet from the collar to about 20 feet from the face, or about 130 feet in width. The body dips 70 degrees to the west. Of the total width of ore, 130 feet, there is between 30 and 40 feet of pretty fair ore, occurring as bands of magnetite, carrying chalcopyrite, up to 10 or 12 feet wide. Further development-work should be done here by diamond-drilling, which would probably be the best, as the depth of the deposit could be more readily determined, or by drifting on the best-looking band of ore to ascertain the extent of the deposit. It can be seen on the surface that there are bunches of magnetite, carrying chalcopyrite, in the limestone-belt for 200 or 300 feet south of the tunnel. A general sample was taken from the dump, which gave assay returns of 1.7 per cent. copper and a trace each of gold and silver a ton. This is probably a fair average of all the mineralized portions of the deposit. The ore would therefore have to be concentrated, for the chalcopyrite is so distributed that, I believe, hand sorting to a shipping grade would be impossible. This is a big deposit and worth sufficient exploration to get the average content and probable tonnage information necessary before a concentrating plant could be decided on.

About 100 feet north of this tunnel another crosscut tunnel has been driven about 40 feet, cutting a deposit of almost pure pyrrhotite, containing less chalcopyrite than the magnetite in the other showing. Some cobalt bloom was noticed in pieces picked up from the dump.

Some 1,000 feet south of the long tunnel another crosscut tunnel has been driven for 213 feet into the limestone, the first straight portion being 168 feet; then 27 feet to the left at right angles; then straight ahead again for 18 feet to the face. A little scattered chalcopyrite shows in the face, and I judge there is a little disseminated throughout the limestone. It is said that free gold was found in an open-cut just above this tunnel.

Probably 1,000 feet south of this tunnel an open-cut and drift has been driven about 50 feet, following a small quartz vein lying in the granites. The face of this tunnel shows only a mud-seam marking the fissure, and about a foot on each side of it of altered granite. A sample across it gave only a trace of each of gold and silver. It is claimed that high silver values were obtained near the mouth of this tunnel in a grey-copper ore. This showing will be tapped by a crosscut tunnel now being driven about 35 feet vertically lower. It was in 40 feet when I was there, and the face then looked as if it were close to the vein, and I have no later information as to the results of this work.

Mining conditions are very favourable for this property, being only two miles from the lake, on a flat grade, plenty of water for power and other purposes, and plenty of timber. The property is under a three-year bond to a Mr. Zortman, who contemplates putting in a small compressor plant and thoroughly investigating the magnetite-showing by sinking 100 feet and drifting and crosscutting at that level. From a general sizing-up of the ore exposed and the formation, there are good reasons to believe that this property will develop into a big concentrating proposition.

This group, consisting of six claims owned by Mrs. Callaghan, is situated **Callaghan Group**, adjoining the *Laverdiere* group on the north and extending through to the shore of West bay. The same ore occurrences are found here in the same formation as on the *Laverdiere*, being on the continuation of the contact of the Coast granites and sedimentaries. The claims are heavily timbered and overburdened, and as little work has been done by way of stripping or open-cutting, no conclusions can be made as to the extent of the mineralization. Two quartz veins have had a little work done on them on the shore of West bay. They lie in a greenish schistose formation which is badly distorted; consequently the veins have no continuity and are of little importance. The quartz carries good gold values, a few pieces picked from one of the open cuts giving assays of 1.58 oz. gold and 7 oz. silver to the ton.

This island is situated on the south end of Atlin lake and has had claims **Copper Island**, staked and restaked from time to time on the copper-showings there. At present I think all the claims have lapsed. The rock formation is a reddish-brown granular basalt, through which are small calcite-filled fissures in which are slabs and seams of native copper. There appears to be no other mineralization, no sulphides of copper of any kind from which the native copper could be redeposited, from which it may be concluded that the native copper was primarily deposited as such. An open-cut 30 feet long, with a face