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## 673269 LAY CREEK RAVEN

E. Bronlund Box 970, Fort St. James, B.C. October 28, 1973

Mr. Doug Stelling Germansen Landing, B.C.

Re; Granite Basin.

Dear Doug:

I have now had a chance to re-locate and look thru reports, notes and other data relating to our initial work on the Granite Basin property from 1935 to 1938. Some data were lost in the Aiken Lake fire of 1938 but are not too important. I thought a summary of this information might be of some help to you.

We took many hundreds of samples, most of which were moiled channel samples in 5ft sections across solid outcrops and were carefully taken. We found the assay results quite confusing in that there was no correlation of Af gold and silver values with apparent mineralization. Most of our samples showed only trace or very low gold values (.02 to .03) but there were certain areas of marginal values (.10 to .35) and it was decided to investigate one of these (No.1 zone) by driving an adit tunnel to intersect the zone some 90 feet below the surface trench. This was the No.1 tunnel (upper adit) which was 158 feet long with two crosscuts 66 ft and 10 ft long, for a total underground footage of 234 feet, completed in October 1937. It cut a sheared zone containing pyrite and small amounts of chalcopyrite, tetrahedrite and galena, and gave a weighted average assay of .117 oz Au across a true width of 40 feet, with the best sections showing .335 oz Au across 10 feet. (Douglas Lay sampled the tunnel in 1939 and reported .20 oz across 40 feet) The surface trench some 90 feet directly above, gave a weighted average of .17 oz Au across 60 feet with the best section showing .355 oz across 20 feet. The surface trench cut across the zone at an angle and the widths therefore greater than true.

We considered this a satisfactory check for this particular show but it did not account for the erratic results of our sampling elsewhere which had assumed that the gold and silver values were associated with the 4 or 5 pyritized bands of porphyritic diorite referred to in Roots' report (G.S.C.Mem 274). These bands are from 50 to 150 feet thick and show a sub-parallel northwesterly strike from the crest of the mountain ridge down the steep slopes towards the basin valley. They are for the most part heavily pyritized and contain no other visible sulphides.

Some years later I had the opportunity to visit the property a couple of times. A few check samples were taken and a number of specimens for petrographic work. Some detailed mapping of contacts, shears and other structures was also done. As a result of this work we came to a quite different interpretation of the geology. It appears the gold and silver values are associated with a pattern of shearing which cuts across all rock types and contacts and is later than the pyritic zones and probably the latest structural event. The zones of shearing are from 10 to 50 feet wide, have an east - west strike with steep, northerly dips and trend parallel to the Basin valley axis. There are 3 of these zones presently known and they look like gneissic bands and contain quartz, sericite, chlorite and carbonates. Sulphide content, mainly pyrite, is quite low. Being scantilly mineralized in relation to the general country rock, these shearzones are easily overlooked and it is my feeling that sampling in recent years has missed this point and could account for the negative results reported.

No.1 Shearzone is the most easterly and on which the tunnel was driven. Its width was about 40 feet in the tunnel, with the best values towards the footwall. Little is known of the length because of talus cover in both strike directions.

No.2 shearzone outcrops at a point 600 feet southwest (bearing 230°) from the upper tunnel portal and 280 feet higher elevation. It shows a width of about 40 feet of which the hangingwall section assayed .275 oz Au and 12.83 oz Ag across 10 feet, and the footwall section .03 oz Au and 3.68 oz Ag across 15 feet. The 15 ft intervening section showed only very low values. To the east of this outcrop are steep, imaccessible bluffs, to the west the zone is covered by talus for about 400 feet and then outcrops on a ridge where it crosses one of the pyritized bands of porphyritic diorite. It shows here a width of 10 feet assaying .22 oz Au and 7.9 oz Ag

No.3 Shearzone lies about 500 feet further southwest and at an elevation about 600 feet above the tunnel. It is a broad zone which may actually comprise two or more shears. The area is steep and under constant bombardment from rockbluffs above. Our samples indicate one shear which was sampled at 50ft intervals for 150 feet along strike as follows: .30 oz Au across 7 feet (top,east), .52 oz Au across 5 feet, .16 oz Au across 7 feet and .18 oz Au across 5 feet. Another parallel shear higher up, 100 feet slope distance shows .18 oz Au across 5 feet (top exp.), .15 oz Au across 5 feet, .12 oz Au across 15 feet, .152 oz Au across 20 feet and .063 oz Au across 15 feet for a sampled length of 140 feet. Silver contents were less than one ounce but could have been leached out partially.

Rock specimens from these 3 shearzones show a white to light blueish colored aphanitic groundmass with thin, closely spaced ribbon-like, wavy bands of pyrite, patches of carbonates, some vugs and crossfractures. Thinsections show a schistose, gneissic, banded agregate of quartz, sericite chlorite and hydromicas with some carbonates. Mariposite is present. There are two generations of pyrite, an early finegrained variety randomly dispersed in part as a film along shearplanes. This is quite noticeable where the country rock is a pyritized diorite. The late pyrite is coarser grained, darker yellow and occurs as irregular pods, in small crossfractures and as beaded ribbons along the foliations, generally accompanied by very finegrained chalcopyrite, tetrahedrite and galena which are thelatest sulphides. Much of the gold is associated with the basemetal sulphides but some can be seen as extremely fine, dust-like particles in the siliceous matrix. The silver values are all with tetrahedrite.

Looking at the general picture I find this an interesting property. It will take some close examination and careful sampling to establish continuity and extent of values along the indicated zones, and there is of course the possibility of similar zones at lower slope elevations under the talus cover. This preliminary work should be done before any elaborate program is planned. I will be glad to help you re-locate some of the survey stations and outcrops.

With kind regards, sincerely

E. Bronlund



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