

Property File

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*See sample notes
for
July 23, 1946*

003329

Brief report on the
TOUGHNUT GROUP OF MINING CLAIMS
on
Toad Mountain
Nelson, B. C.

To

Santiago Mines Ltd.
423 Hamilton St.
Vancouver, B. C.

By

C. C. Starr,
720 Pacific Building,
Vancouver, B. C.

THE TOUGHNUT GROUP

INTRODUCTION: Six hours were spent on the property, and a further eight hours in traveling from Nelson and back.

Mr. Elwood Clum was sent as a guide, but it turned out that he had never been on the property except when it was covered with deep snow and he did not know the location of the workings, which are masked by thick brush.

LOCATION: The group is situated about eight miles southerly from Nelson, B. C., via the Granite-Poorman road, and across the headwaters of Sandy Creek. The upper two miles of the road are scarcely passable for a car, and from the end of the road to the property no trail was found, although there must have once been one.

PROPERTY: There are six claims in the group, of which one, the Toughnut L-199, a 600 by 1500 foot claim, is Crown Granted. Five unsurveyed claims are held by recent location, as follows: Bad Nut, Good Head, Maude S. Fr., Toughnut Fr., and Soft Nut Fr. The approximate positions of these claims are given on the sketch herewith, also some of the old original, mostly reverted, Crown Granted claims are shown in dotted lines. The claims are owned by Mr. W. E. Sturgeon of Nelson, B. C.

GENERAL: The elevation where the vein crosses Sandy Creek at the cabin is approximately 5400 feet; thence the mountains rise steeply to the eastward, and somewhat more gently to the westward to an elevation approaching 6000 feet.

There is considerable timber on the property ranging up to two feet in diameter.

The creek has a sufficient flow of water for any probable need except for power.

There is no equipment, and the fairly roomy cabin is in very bad condition.

GEOLOGY: The only rocks seen in the vicinity of the property are volcanics of the Rossland Series, but it is believed that the contact with the granite of the Nelson batholith is not far to the southward, and roughly parallel to the shears and veins.

VEIN: The Toughnut is a fissure vein lying between walls of strongly altered volcanics, striking about N 65° W and dipping about vertical. The filling is quartz, silicified rock, and carbonate, with generally finely disseminated galena, pyrite, zinc blende, and chalcopyrite in descending order of prominence. Occasionally galena occurs in crystals up to half an inch across.

The width of the vein is from three to four feet in most exposures, but in at least one place irregular,

reticulated, semi-transparent quartz stringers, containing the various metallic minerals mentioned above, extend for a width of ten or fifteen feet into the north wall of the vein.

DEVELOPMENT & VEIN EXPOSURES: A tunnel has been started at the creek on the Toughnut claim but is caved. A depression on the surface for 150 feet to the southeast suggests that overburden has caved in for that distance. There is nothing at the portal to suggest that the vein was cut.

At an estimated 400 feet east-southeast of the creek tunnel there is a large, badly sloughed open cut, or short tunnel which does not show the vein in place, but there is quartz on the dump showing specks of pyrite, galena, and blende. There are also several small cuts near this to the westward which show similar quartz on their dumps.

At an estimated 450 feet east-southeast of the creek tunnel there is an open cut which shows a three foot quartz vein with fine scattered sulphides. A rough sample across this assayed Gold 0.01 Oz. Silver 0.80 Oz. per ton.

At 500 feet easterly from the creek an open cut shows a four foot vein of quartz and the usual sulphides sparsely distributed. A sample of the best appearing half of this assayed Gold 0.02 Oz. Silver 2.10 Oz. per ton.

At an estimated distance of 700 feet east-southeast from the creek tunnel there is a tunnel on the vein which could easily be made accessible by propping up a boulder, and draining the water. The size of the dump indicates a length of perhaps 200 feet. The vein, proper, is about three feet wide at the portal but there is an additional ten or twelve feet of the reticulated, sulphide-bearing quartz stringers in the north wall of the vein, cutting altered ironstained rock, and forming perhaps fifteen percent of the whole. This formation is exposed for a length of about 50 feet on the surface, and most of the dump is of the same material. A picked sample was taken from the dump consisting especially of quartz with good showings of galena and zinc blende. It assayed Gold 0.08 Oz. Silver 8.80 Oz. per ton.

It is possible that there are more workings on the Toughnut further southeast, but it was decided to spend the remaining time on the continuation of the vein on the former Yakima and Royal Irish claims to the northwest of the creek. Unfortunately none of these workings were found in the time remaining except a long trench which had not uncovered the vein.

GENERAL: The Toughnut is mentioned in the Minister of Mines Reports for 1888, 1889 and 1890 and from these the following quotations are taken --- "The body of the ore on

the Dandy will yield 60 oz. to the ton and Toughnut can ship ore of the same value". On the Sandy Creek slope of the mountain are some important locations, among which are the Toughnut and the Evening; on the former a shaft has been sunk 80 feet and a tunnel 127 feet and contains ore of high character".

The Royal Irish is mentioned in the reports of 1902 and 1910 -- "An opening has been made on the vein, which has a width of nine feet and is well mineralized". Good silver values, some gold, and a small percentage of copper, lead, and some zinc". "The Royal Irish group are developed by assessment work through shipping two years ago".

Extracts from "Memorandum" by A. St.Clair Brindle,
Feb. 1, 1945.

Mineralization in this whole area is connected with two rock phases, viz., the very extensive Nelson granitic batholith and its outliers; and the Rossland volcanic series of ancient metamorphosed rocks. In some instances the narrower outliers have broken through and fissure veins formed carrying high grade gold ores.

About halfway between the Silver King and the latter property (Granite-Poerman) lie the Toughnut-Evening and Yakima-Royal Irish groups, and without question on the extension of the Silver King ore-zone northwesterly, since the ridge of the batholith boldly outcrops on a long line throughout all the distance mentioned and the contact with the volcanics can be plainly followed at many points. The mineral zone is not, however, at the actual contact, but close by in the timber. The zone referred to is a very strong shear and in this occurs a major vein with, at points, smaller parallel veins more or less close by.

On the Yakima-Irish, also, the workings along the zone were caved when I was on the property, so that one could not gain much specific data. However, the dumps, dirt from the cuts, and general appearance coincided exactly with the Toughnut condition across the creek where better conditions obtained, more work done, and tunnels open.

(End of extracts)

CONCLUSION: The Toughnut vein is of moderate size, exclusive of the stringer zone which is fairly large, it is rather prepossessing in appearance, and should be persistent in length and depth, but the low value of the three samples taken is disappointing. However, if the old workings were cleaned out and made accessible I would advise a more complete examination and sampling of the group, and perhaps of adjoining claims, but under present conditions it would not be worthwhile to revisit the property. The cost of cleaning the workings seen might be \$200; the cost of cleaning the remaining workings is not known.

Respectfully submitted,
Chas. C. Farr
July 25, 1946