

R E P O R T

ON

TRANSVAAL GROUP OF MINERAL CLAIMSby C.B. Bask H.E.
(ca. 1916?)

The Transvaal Keystone and Highland groups of copper claims are located on Forge mountain, in the Ashcroft, B.C. mining division, in the Yale district; about 26 miles southeasterly by wagon road from the town of Ashcroft; and about 12 miles from Spatsum Station, both places on the main line of the Canadian Pacific Railway.

The district is known about Ashcroft as Highland Valley, although Highland Valley proper is a short distance easterly from these claims.

The Transvaal group consists of six claims and one Fractional claim, all crown granted.

The names of these claims are Ladysmith, Chamberlain, Imperial, Transvaal, Pretoria, Mafeking, and Pretoria Fraction.

Veins lie almost entirely in altered granite, and see, to be fissures around a centre of disturbance or upheaval, and while generally extending northerly and southerly. Some of the veins are at various angles to this direction.

Ladysmith:- All of the development on the Ladysmith were 4 shallow cuts on a vein with a magnetic iron capping, which carries some carbonate of copper. The general average width of the vein is about 4 feet. This vein is traceable on the surface for nearly the full length of the claim.

Chamberlain:- The Chamberlain has a number of veins, and more ore occurrence than on any other claim of the group. It is opened by a number of shallow pits and cuts, the greater part of which have showings in them of heavy black iron mixed with copper carbonate and also high grade "glance" in sufficient quantities to bring the whole up to a fair average in copper. The veins average in thickness apparently, from four to more than twenty feet. On some of the veins there is insufficient work along the strike to form a definite idea of the horizontal continuity, although at intervals through the whole length of this claim and into the adjoining claims good ore is exposed in a direct line.

Imperial:- On the Imperial are a number of large outcrops with cuts and shallow shafts showing ore from four feet to twenty feet or

more in width. A shaft has been sunk on this claim 220 feet deep. It is located about 100 feet west from the end line between it and the Chamberlain. At the 100 feet level a drift has been run easterly about 180 feet, about 110 feet from the shaft in the above draft cross-cut to the south about 56 feet long was run which cut an ore body 15 feet thick, of carbonate and sulphides of copper and also black iron which lay in altered and decomposed granite.

Ore was first encountered in the south drift above referred to about 15 feet from the main east drift.

About 150 feet from the shaft in the same drift east a cross-cut was run for about 70 feet north, which encountered a crushed zone. Apparently a mineralized section of country rock which carries a fair amount of copper in addition to the ore found just above referred to. Stringers from two to six inches thick, apparently, good grade of ore were frequently encountered between the shaft and the end of the main drift.

The east main drift was not advanced far enough to encounter the large ore deposits that are exposed on the surface east of the shaft. There is a trap-dyke in evidence on the surface east of the shaft. Its strike is almost north and south, and what effect this dyke may have in connection with the ore deposits is yet to be known. Taking it into consideration the depression of the surface at this point gives the impression that the dyke may have caused to some extent faulting, the position of the dyke gives conclusive evidence, that the east main drift on the 100 foot level is not far in enough to encounter any of the ore bodies east of the dyke also those that are close to the dyke. One of these bodies is traced on the surface by open cuts for a distance of 1500 feet.

The ore encountered in the south cross-cut has the appearance of not being in place. This cross-cut is not far enough to cut the veins exposed on the surface south of the shaft which can be traced on the surface along the strike close to 1000 feet, and to encounter this vein it would be necessary to extend the cross-cut about 75 feet. A drift was also run 200 feet in a north westerly direction on the 100 foot level. About 75 feet from the shaft a cross-cut was run 35 feet south. This cross-cut cut through some high mineralized country

rock; evidently this cross-cut was also started to cut the vein that is exposed on the surface close to the wagon road south of the shaft, and if so, this cross-cut would have to be extended at least about 100 feet. As the course of the main drift is too much to the right from the mineral zone, when considering the unnecessary long distance in driving cross-cuts for to encounter the veins south and west of the shaft. A short distance from the face of the main drift a seam about 8 inches thick of soft black and red gangue was cut, it contained some native copper. It assayed 70 per cent and \$20.00 in gold per ton.

About the same number of stringers were cut as are mentioned in the east drift. Said stringers in both drifts ran in all directions some of them with the drift.

In a westerly direction from the shaft is a large surface showing with some work done on it. The ore is a carbonate and silicate of copper of heavy black iron. And the formation at this place has changed to a pophyry. No efforts were made to develop this ore body on the 100 foot level.

All the work done on this level does not indicate that any great efforts were made to encounter any of the ore bodies that are in evidence on the surface. The formation on this level is badly fractured and decomposed. At the 200 foot level a cross-cut was run from the shaft 50 feet north and from it a drift was run about 75 feet westerly. The country rock in this drift close to the face is strongly mineralized with native copper and iron, it frequently being sufficiently heavy to hold pieces of broken rock together. And according to the surface, this drift is driven under the present waste dip towards a depression or a gully, where there is no ore deposits in evidence on the surface of any great importance. My opinion is that the present course of this drift is more out of place than the one above it on the 100 foot level, for the same reasons as already stated. It should run south westerly. A drift to the east was also run for about 125 feet from the shaft, in the face of this drift the formation has changed to a fine grain rock of granodiorite. And some of this rock is impregnated with copper sulphides and black iron. It was not assayed. In both said drifts on this level small stringers were encountered and apparently most

all show good grade of sulphide ore. The carbonate and silicates of copper are not in evidence on this level and the decomposed formation that is on the above level does not extend down to this level, the formation on this level is firm not broken or shattered, and well in place.

Taking into consideration the extensive mineralization of the country rock on this level, which is mostly due to chemical action, or leaching, by descending water coming in contact with the ore deposits and percolating through and along the lines of least resistance and depositing there residue therein, where-ever the conditions were most favourable. This is evidence that large ore bodies are in close proximity. The east drift should be continued for about 300 feet this would bring it about 200 feet beyond the trap-dyke and into the Transvaal claim. With this drift the different/^{east}veins of the shaft and dyke should be encountered, and this would also place this drift within a short distance of the section of the main Transvaal vein, perhaps not more than 300 feet. There should be no reason that under a good practical management why these veins should not be encountered on the lower level. There are strong evidences that give good reasons to believe that these large ore bodies are deep seated and that they will go down to a great depth. The 220 foot vertical shaft is of a two compartment, and was not sunk on ore but in country rock, as already pointed out, it is to one side of the mineral zone. In sinking some small veins were struck at intervals. About 140 feet down native copper was met about six feet thick, it appeared to be a mineralized section of country rock. Seven or eight feet of the bottom of the sump below the 200 foot level; the rock is strongly mineralized carrying native copper. Several cuts were made in large surface showings on the Imperial. Some of them being about 350 feet westerly from the shaft. All of them have more or less good ore in sight.

Mafeking:- No work has been done on the Mafeking, but croppings have been discovered on the ground.

Transvaal:- This claim is opened up by open cuts and small shafts on ore bodies in many places, some of them being in very rich carbonate and glance, others principally in black iron. The most extensive vein on this claim is the one that is known as the main

Transvaal vein. It has a strike approximately 25 degrees west of south, and the surface work done on this vein consists of several cuts and a shallow shaft principally along the strike, with no systematic stripping to uncover the vein on the side hill below the shaft, to show the full width of the vein. Judging by the different outcrops with some of the cuts would indicate that the ore body is at least 50 feet wide at this point. None of the cuts have reached the outer limits of the mineral zone. This vein can be traced along the strike on the surface through this claim into the Chamberlain, while other veins on this claim average smaller than on some of the other claims, yet, they are of workable thickness and generally high grade. A tunnel about 180 feet long was run between two veins and with no cross-cuts to either one to cut the ore. One of these veins is the main Transvaal vein. The course of the tunnel is about 20 degrees east of south, there is no evidence in any of the work done as to the dip of the vein. I believe that to encounter the ore without changing the present course of the tunnel, will be necessary to extend the tunnel at least 150 feet. But a cross-cut about 75 feet long to the right from the face of the tunnel should intersect the vein within this distance. Some of the northerly and southerly veins on this claim are traceable entirely across it. The distance between the Imperial shaft and the Transvaal tunnel is 700 feet on a straight line. And between these two points various openings were made, mostly show good mineral and numerous surface showings with no work done on them, are in evidence where-ever the surface is not covered with loose dirt and accumulation.

Pretoria:- Has a vein opened by 4 cuts which show heavy magnetic iron, carrying carbonate and sulphides of copper. In one of the cuts this vein is well exposed. It shows the ore body between two well defined planes with a selvage or a gouge, gives good reason to believe that they will continue to a great depth and carry ore with them.

The face of this cut is about 8 feet high. On top the width of the vein is about 2 feet, and from the top to the bottom of the cut the vein widens out to about 7 feet, this vein shows strong tendency of widening out on its downward course. A short distance from this point the vein crosses a gulch where the country rock is badly crushed.

The two cuts close to the gulch show a displacement of the vein, not in line with the general strike. This vein can be traced on the surface close on to 2000 feet. There are other surface showings on this claim with no work done on them.

Pretoria Fraction:- This claim has had some work done in surface accumulation and has no mineral in sight although the vein apparently crosses it.

Water:- Two small creeks flow over some of the claims of this group. Also there is a large spring on the Mafeking that flows all seasons of the year.

Timber:- There is plenty of good timber for mining requirements on some of the claims.

Buildings:- Bunk houses, Kitchen, Office Building, Shaft house, Powder house, Stable, Root house are on the property.

Unwatering the Shaft:- There is no boiler or pumps on the property, if thought advisable to unwater, these equipments would have to be brought in. There is good dry wood within easy reach for steam making.

Transportation:- A Railway with easy grade could be brought in from two different points of the C.P.R. It would not be difficult to get the company to construct it, if sufficient tonnage were developed. The property is also connected by wagon road with three different stations on the C.P.R. namely: - Spatsum, Ashcroft, and Merritt.

Coal and Coke:- A short distance from Coutlee and Nicola, is a great bituminous coal section. It is generally considered that the coal is of good coking quality.

Altitude:- The elevation of the property is about 5500 feet above sea level.

General Remarks:- This property was bonded one year ago by some people who did the greater part of the development. But I am told that an inexperienced man was placed in charge, and that no efforts were made to develop ore bodies that had been struck in the shaft or on the 100 foot level. And insufficient amount of work done on the 200 foot level to determine whether the large ore deposits go down, and as already stated the Transvaal tunnel was driven between two veins, and to neither of which a cross-cut has been run,

this was a great oversight. While the assays of the ores may be generally regarded as too high for averages, yet there is plenty of the same kinds of ore in evidence at the points from which they were taken. From general evidence the veins are true fissures, and also from the general good quantity of the ores it seems to me that this property warrants a thorough investigation, and it is reasonable to expect that where there is such a horizontal continuity of the ore, as there is on some of these claims, that there should be a corresponding continuance of it downward. In briefly summing up my deductions from the examination of this property, I can thoroughly recommend the property in question, and fully believe that with proper and systematic development it will prove a large and profitable ore producer.

Assay of the Transvaal Group:- Eighty foot drift, from shaft, gold .04; silver trace; copper 1.8%, face of the north cross-cut drift out of the main drift 100 foot level showing native copper, gold trace; silver trace; copper 2.5%. The south cross-cut in mineralized material, gold trace; silver trace; copper 1.67%. Ore 15 feet wide in south cross-cut drift, gold .07; silver trace; copper 4.8%

Ten feet of mineralized country rock carrying native copper from the west drift on the 200 foot level, gold trace; silver trace; copper 6.10%. Open cut 200 feet west from the main shaft, gold trace; silver trace; copper 5.43%

Selected sample of open cut 800 Feet from the main shaft, gold trace; silver trace; copper 37.2%.

From stringer 180 feet tunnel Transvaal claim, gold .1; silver trace; copper 11.1%.

Open cut on Transvaal Claim:- Gold trace; silver trace; copper .4%.

Open cut on the Pretoria claim seven feet wide, gold .4; silver trace; copper .4%.

Average of iron capping Transvaal claim copper 4.18%.

Ladysmith claim average of westerly cut copper 3.1%.

Ladysmith claim average of capping of 4 foot ledge, copper 3%.

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