

**ROCKY RIVER**  
**MINING COMPANY**

by

Mr J Wilks    B.C.E.

14<sup>th</sup> August 1899

**99\_003**

000

AMG REFERENCE POINTS ADDED

99-003

Q43/39

615001

H. J. Wilks  
Waratah2. High St-  
Longford  
Tasmania

Report by Mr. J. Wilks, B.C.E.,

ON THE

## ROCKY RIVER MINING COMPANY

NO LIABILITY.

THE MINE, ROCKY RIVER,

August 14th, 1899.

THE CHAIRMAN AND DIRECTORS OF THE

*Rocky River Mining Company No Liability,*

335-339 COLLINS STREET, MELBOURNE.

Gentlemen,

*I beg to hand you my report on your mine known as the Rocky River Mining Company, and trust that it will meet with your approval.*

I am, Gentlemen,

Yours faithfully,

J. WILKS, B.C.E.,

Mine Manager.

This Company's property comprises six sections, numbered  $\frac{22}{14}$ ,  $\frac{21}{14}$ ,  $\frac{24}{14}$ ,  $\frac{25}{14}$ ,  $\frac{26}{14}$  and  $\frac{27}{14}$ , containing a total area of 129 acres, and is situated in the County of Russell, on the West Coast of Tasmania, in lat.  $41^{\circ} 41'$  S., and long.  $145^{\circ} 11'$  E., approximately due south of Melbourne.

The sections on which the principal work has been done are  $\frac{24}{14}$  and  $\frac{26}{14}$ , and consists of tunnelling mainly, the country being very hilly, and well suited to this class of mining.

The property is intersected by the Whyte and Rocky Rivers, the latter being a tributary of the former, which appear to be capable of supplying all the motive power which is likely to be required.

Access to the mine is available from either Zeehan or Waratah by land, or the Pieman River by water, the latter route being a most important one, for it is the only practicable outlet for your ore, and inlet for your goods. This will be dealt with in the report on the tramway route. From Zeehan or Waratah the distance is about 40 miles, and a decent horse traffic road is available from either place.

The prevailing rock is schist, but formations of sandstone porphyry and slate occur in the mine, with a diorite dyke of considerable width running through the property.

The timber for actual mining purposes is in moderate quantity, but mill timber is rather scarce in the immediate vicinity, and owing to the broken nature of the country and thick undergrowth, is rather difficult to convey even a short distance without a somewhat large expense; however, no fear need be entertained as to the supply of timber in the future, when your tramway taps all the country down the Whyte and up the Pieman Rivers.

On the property there are four lodes, Nos. 1, 2, and 3, all of which have been proved by an adit known as No. 2 tunnel, which starts a few feet above the level of the Whyte River, and is driven in a southerly direction. The fourth lode is known as the saw-pit, or western lode, and it is on the course of this lode that No. 3 tunnel is being driven.

This tunnel is at the southern end of the property, and is proceeding in a northerly direction, and ultimately designed to connect with No. 2 tunnel, both having been started from the same level.

There are also two other tunnels driven at different positions on the property, but these have been abandoned, and therefore need no more reference.

#### NO. 2 TUNNEL.

This tunnel has been started from a point near the north-west corner of section  $\frac{34}{4}$ , and was driven south for a distance of 120 feet before any solid ore was met with. Here a vein about six inches wide was cut across, consisting principally of magnetite, carrying pyrites and various other minerals. This vein was turned on, and the drive continued for a distance of about 218 feet, where a chamber was taken out and a winze sunk vertically for a depth of 20 feet, then an additional depth of 120 feet on the underlay of lode. From where the vein of ore was first cut to the winze is practically what is known as the No. 2 lode, although it is probable that all the lodes (Nos. 1, 2, and 3) converge more or less, and also string out towards the entrance of the tunnel.

It should be remarked that the vein struck at 120 feet only continued by its track until it reached a point about 30 feet north of the winze, where it opened out into ore again. The winze was started in about half ore and half country, but the ore came rapidly across, and continued so onwards.

At 110 feet in depth a level was opened out and a drift put in some 100 feet in a northerly direction, bores and cuts being put to prove width of lode and value. It was in this depth that the rich nickel ore was found being on the hang-wall of lode, and varying in thickness, but no doubt of a probably permanent character, continuous with the lode, but partaking of the same character as the lode, that is, of thickening and thinning out in sections. This winze has done good work in prospecting, but I am of opinion that it was expensive work to be carried on by entirely manual labour, and would recommend the discontinuance of any work there until such time as lower levels can be connected therewith. The flow of water into the winze is not very great, considering that the level is 100 feet below the Whyte River. Continuing then from the winze by the main adit for a distance of 27 feet, where a crosscut was driven west and cut No. 1 lode, which proved to be 15 feet wide. On the western or footwall side of the lode a small drive was put in on some good veins of witherite, carrying pyrites. The best vein is about  $2\frac{1}{2}$  feet wide, but smaller veins intersect the lode matter for quite six or eight feet.

At a distance of 52 feet from this crosscut another was driven to the east and cut some very nice country. About 16 feet in No. 3 lode was cut and passed through, being about three feet wide, but the country adjacent is very highly mineralized, and it is a pretty safe conclusion that this lode will open out very well.





Further on, 120 feet, having driven still on the course of No. 2 lode since leaving the winze, we reach a point (A) where the main drive turns west to get on to No. 1 lode. From (A) the drive is continued on the course of No. 2 lode, on lode material (heavily charged with pyrites) for a distance of 63 feet. About five feet on this line from (A), an eastern crosscut was put in, and cut through lode matter charged with pyrites for a distance of 56 feet.

Returning to (A) a distance of 19 feet was driven west, and No. 1 lode intersected at a point we will call (B). The lode was driven through, and proved 20 feet wide, being a solid massive body of ore, the main constituent being magnetite, but carrying calcite, siderite, copper and iron pyrites on observation.

This crosscut is known as the No. 2 west crosscut, and is now being carried on west to intersect the saw-pit or western lode, being in a distance of about 200 feet from point (B). The saw-pit lode is about 300 feet west of No. 1 lode, so that there remains, roughly, a distance of 100 feet to drive before cutting it. This is a good work and cannot be too highly recommended, as it will demonstrate and prove this lode in about the centre of the property, and below the highest point approximately on the line of lode.

Again from the point (B) the main drive was continued on the hang-wall of No. 1 lode, being entirely in solid ore, and leaving a beautiful wall on the left hand. At 50 and 100 feet from (B), Nos. 3 and 4 western crosscuts have been put in, proving No. 1 lode again to be 32 feet and 20 feet wide respectively of solid, massive ore.

From No. 4 west crosscut the drive continues in solid ore to the present face some 100 feet on, the face being in solid ore. Near the face an eastern crosscut and a western crosscut have been put in—the western one not being completed, but as far as it goes it exposes solid ore. The eastern crosscut has been driven for a distance of 62 feet, cutting the track of No. 2 lode, and solid ore near the face of crosscut about three feet wide, belonging to No. 3 lode. This lode is making very rapidly to the south.

In all the crosscuts on No. 1 lode, the ore is of a solid nature, and perfectly defined by good walls, the country on hang-wall and foot-wall being, as is usual, impregnated with pyrites, and even in the No. 2 west crosscut some 200 feet removed from No. 1 lode, the diorite carries pyrites in not inconsiderable quantities.

Your Company deserves great credit for the way in which you have opened up your mine, no less than 1,600 feet of driving and sinking having been done in No. 2 tunnel alone. This may not seem a large amount, but when the conditions of work and difficulty of transit of materials, &c., are taken into account, it assumes a very different aspect. You have the satisfaction of having proved without any doubt that you have very large resources of ore indeed, about the permanence of which there is no cavilling. In passing, I might remark that the same formations crop out on sections south of your property, and are now being opened up.

The value of the ore has been shown to your own satisfaction to be sufficient guarantee for going ahead with works on a larger scale, the main one being to provide an efficient system of transport; but to clearly prove the absolute value of the ore in sight and at grass, it will be necessary to systematically sample every accessible part of the lodes, and thus obtain a correct and workable idea of the position and value of the various parts of the same. This will be started almost immediately, an assay office being just on completion, and your assayer will arrive very shortly to take up this question.



## WESTERN, OR "SAW-PIT" LODE.

Besides the lodes already enumerated, you have the above lode which, like the others already described above, traverses the whole length of your property in a north and south direction.

This lode crops out boldly near the north-west corner of section  $\frac{3}{4}$ , and again near the north-west corner of section  $\frac{1}{2}$ , the distance between the two outcrops being (approximately) 1,500 feet, and having at the highest point on course of lode backs to the extent of 300 feet. I should say that from appearances at the outcrop, that this lode will prove a good one, but so far there is little to base an estimate on, the tunnel now being driven not having cut the lode yet, but will do so shortly. Small veins, up to a foot wide, of decomposed lode matter have been cut and passed through, and are a pretty good indication of the proximity of the main body.

The country throughout this tunnel (known as the No. 3 tunnel) is charged with pyrites, and at an excavation now being taken out on the eastern side of tunnel (the latter having been started on the west or foot-wall side of lode), nice veins of lode matter, carrying veins of pyrites, are apparent.

The only mining going on at present is in this tunnel, and in No. 2 west crosscut No. 2 tunnel, and as before mentioned, the latter will cut the saw-pit lode and prove it, and since they are (approximately) on the same level, the difference, if any, being capable of being made up in driving, they will meet and complete the tunnel right through the hill, furnishing a splendid means of ventilation. When this is done your mine will be opened up on a scale to be compared with anything on the West Coast. No. 3 tunnel should be considered as the main outlet for all your ore, whether it comes from Nos. 1, 2, or 3 lodes, or from the saw-pit lode, and to this end it should be carefully driven, timbered and aligned, no deviation being allowed under any circumstances but the most needful.

It has only been driven 120 feet so far, but all the work done is of a substantial character, so that your attention has only to be directed to the future work to be done. In connection with the outlet for ore, No. 2 tunnel is not suitable for the economic handling of the same, being too low, that is, there not being a sufficient difference of level between it and the flood level of the Whyte River. This fault does not appear at No 3 tunnel, plenty of space (although even here limited on account of the broken nature of the country) being available over head and horizontally. The arrangements for shipping ore from No. 3 tunnel to a tramway is a question which can only be answered after the main route of tramway is settled.

It needs only a few minutes of figures and thought to see what resources of ore you have opened out in your No. 2 tunnel, and on a very low estimate I place the ore in sight in No. 1 lode at 200,000 tons, with an additional 3,000 tons at grass.

This is clear proof of the inutility of further developments on your Nos. 1, 2, and 3 lodes, and a sufficient answer, I should say, to the question of sinking which has arisen, and which I consider exceedingly ill-timed for many reasons, the principal ones being :—

1. That you have sufficient reserves of ore to carry on with for a much longer time than it will take to put down a main shaft, when you will be in a much better position to do so, owing to decrease in cost of various materials which must be had in such an operation, on account of ease of transport by tram.
2. It is further to be expected that your ore reserves will possibly be increased many fold, but to an indefinite extent just at present, by the workings on the saw-pit lode, these being of an inexpensive order, comparatively, and quite justifiable.

[illegible]

## AMG REFERENCE POINTS ADDED



3. The cost of getting machinery (even of the very lightest kind) and timber would be very great.
4. Operations in No. 3 tunnel will furnish more exact data for fixing the site of main shaft.
5. You intend building a tramway, the cost (complete) of which is not exactly determinable, and may be very costly; therefore, I think it would be wise policy to husband all resources in the event of some unforeseen difficulty arising, the possible consequence of which it is unnecessary to enter into.

Taking your daily extraction of ore at 200 tons, which is fairly large, then on estimated ore in sight you have sufficient work for three years, and possibly you may have ten years' ore in sight when present developments are further advanced. Under the circumstances, therefore, I do not see any justifiable reason for sinking a main shaft at present, and the only mining work necessary to go on is that in progress at present. I would not advise the sinking of a winze in No. 3 tunnel, unless something very special occurs, for the simple reason that they are not workable reasonably, and are only justifiable to a great extent when they can be connected with lower levels.

Finally, I am of opinion that many years will elapse before the question of sinking becomes a question of any importance.

In your mine you have a vast body of ore, which I think will prove payable, but would strongly advocate the bulk samplings being taken with a free hand. A great deal of your ore is undoubtedly valuable, and this can be made (with proper management) to bring up the average of otherwise low margin ore.

In conclusion, Gentlemen, I will be glad to explain more fully any part of the above report that you desire, which I have endeavoured to make as clear and connected as possible.

JOSEPH WILKS, B.C.E.,

Mine Manager.

14th August, 1899.





