UR 1929/106-110



THE NEW STIRLING VALLEY MINE

MURCHISON DISTRICT

MINERAL LEASE No. 9419/M - AREA 80 ACRES.

GENERAL STATEMENT -

It is now a good many years since this mine received any attention in the way of actual developmental work. The former company which commenced operations in the year 1912 carried out a limited amount of exploratory and productive work from shallow tunnel workings along the course of the lode.

Pumping and hoisting steam plants were installed and preparations were made to sink a main shaft in order to explore the ore body below the tunnel level. Operations were definitely suspended in the year 1915. During the period of active mining work about 50 tons of galena were produced assaying approximately 50 oz. of Silver per ton and 55 per cent Lead. The quotations for these metals at that time were silver 2/4 to 2/7 per oz., Lead £15 to £18 per ton. Geological Survey Bulletin No. 28 by A. McIntosh Reid, Director of Mines, includes a detailed description of the property, together with the mineralogical and geological features of the ore body, and general information respecting the equipment and ore dressing appliances. The concentrating plant referred to has since been dismantled and removed from the district. The pumping and hoisting engines are still in position. There are no steam boilers on the mine.

Within the last few years the property was acquired by a new company which raised a small amount of capital. Its energies were at first directed in relaying the wooded tramway connecting the mine with the township of Tullah, a distance of six miles. Upon completion of the tramway, funds were almost exhausted, and the mine being in a totally inadequate state of development to enable productive mining work to continue on a payable basis operations were suspended.

Still later and up to the time of the writer's examination (4.2.29) work was resumed on a limited basis, the Company having several men employed in productive operations.

SITUATION & ACCESS -

The mine is situated at the foot of the western slope of Mt. Murchison about 3 miles on the southern side of the River Murchison which is crossed by the tramway to Tullah. It is practically at the head of the vally lying between Mts. Murchison and Black.

It is, as atated, connected to the township of Tullah by a wooden tramway. Apart from a short distance on either side of the bridge crossing at the River, the tram route is fairly level.

From Tullah to Farrell station on the Emu Bay Railway the distance is about 7 miles. A light steel railway owned and operated by the North Mt. Farrel Company connects these points and is in constant use in the conveyance of large quantities of ore for shipment.

Farrell Station is 64 miles by rail from the deep water port of Burnie on the North West Coast.

The mine can be reached by track from Rosebery, the

route being across the south end of Mt. Black, distance about 6 miles.

TOPOGRAPHICAL FEATURES -

That portion of the lease which is traversed by the ore body is on the lower western slope of Mt. Murchison, its altitude being very little above the level of the button grass plain area of the valley.

The lower tunnel driven to intersect the lode is placed so as to command the maximum depth below the outcrop, which does not exceed 44 feet. The ore body strikes along the foot of the mountain slope, consequently no greater depth than that already obtained is possible.

To explore the ore body below the existing tunnel level, it will be necessary to do so by shaft sinking.

Above the lode outcrop the ground rises fairly steeply towards the summit of the mountain, the slopes increasing progressively in that direction.

The lower slopes of the mountain are thickly wooded with typical west coast myrtle forests. Further north, along the mountain range, large areas of well grown gum tree forests occur.

ORE BODY -

The ore body where opened in the tunnel workings consists chiefly of pyrites, with a siliceous gangue, with which is associated galena and zinc blende in irregular distribution; small quantities of copper and arsenical pyrites are also present in addition to siderite.

The workings extend over a total distance of 325 ft. on the strike of the lode. The width of the ore body varies considerably - in some places it is up to 20 ft. across. Some stoping work has been carried out above the tunnel level at several points along the drive. This work exemplifies the irregular distribution of galena in the lode channel.

A better idea of the occurrence of galena in the lode would be formed at the time productive work was proceeding than would be the case to-day, hence an extract from Bulletin No. 28 with reference to this ore body is here recorded. Mr. Reid says "Galena usually occurs in rich shoots 20 to 50 feet in length, sometimes in intimate association with sphalerite in a quartz gangue. Fine blende is more frequently found in clean veins 2 to 6 inches wide on the footwall side of the lode. Rich bunches of galena occur in the shattered hanging wall rock as much as 10 ft. beyond the lode proper, but these are not persistent, and no definite idea of their actual size is obtainable.

The selected ore averages 60 per cent Lead and 50 oz. Silver per ton. A sample of selvage material from the footwall contained 190 oz. of silver per ton."

DEVELOPMENT -

The accompanying plan shows the extent of the workings which are in practically the same state as when the original company ceased operations in the year 1915.

Work carried out subsequent to that date includes sinking the main shaft to a depth of 37 ft. and driving therefrom in a south easterly direction a distance of 57 ft. It is reported that at a point 43 ft. from shaft a lode formation was cut which proved to be 9 ft. wide consisting chiefly of iron pyrites carrying small quantities of galena and sphalerite, also veinlets of siderite.

This work was carried out under disadvantageous conditions necessitating constant pumping to keep the workings drained, the power used to work the pump was derived from a petrol engine. The workings were inaccessible at the time this examination was made through being filled with water.

On the northern extension of the ore body from the main tunnel level at a point 49 feet from the intersection of the lode, a winze has been sunk to a depth of several feet below the floor of the drive. The lode here is 3 ft. wide. A vein of clean galena 3 to 4 inches thick is exposed in the bottom of the winze. Its lineal extension has not been proved.

At 81 ft. from the cross-cut a second winze has been sunk to the depth of a few feet below the floor of the drive, where similar prospects to those in the other winze are showing.

From this point a cross cut has been extended easterly a distance of 27 feet disclosing a well defined vein 15 inches wide carrying small quantities of galena and sphalerite distributed through it with some veins of clean galena. From the cross cut a drive has been extended a distance of 5 feet on the lode, the face shows encouraging prospects of galena. Further developmental work has been carried out on this lode by rising above the floor of the cross cut to a height of 15 feet. Similar prospects to those described are showing on the rise. The apparent strike of this lode is 200°.

NO. 2 TUNNEL -

After passing through the lode the original company continued driving to a point 20 ft. beyond. Recently the tunnel has been driven to 42 ft. in very favourable slate country rock. Water is flowing freely from the face of the drive around which a good deal of hydrated orixde of iron is deposited, indicating the presence of sulphidic ore at some point easterly of the main lode channel.

NO. 1 TUNNEL -

This is driven at a shallow level from a point south of the main (No. 2) Tunnel the direction being south east. The drive on the lode south from the point of intersection was not accessible owing to the fallen in state of the workings.

The tunnel being driven at a depth of only 15 feet below the outcrop, the road was reached by an open trench and the tunnel continued therefrom southerly on the course of the lode. On the hanging wall portion of the lode some developmental work was recently undertaken disclosing payable veins of clean

galena bearing due south. Good prospects of galena consisting of short irregular veins up to several inches in thickness occurring in black slate country rock have been exposed and a quantity of marketable ore has been mined. This occurrence of ore is a lateral extension of the main body and may with development prove to be worth more attention than has been devoted to it. From the point of intersection with the main body not more than 10 ft. of driving has been carried out.

From the foregoing it will be noted that while a number of places along the course of the ore body offer encouraging prospects no sustained developmental work has been carried out to prove the extent of these or any other parallel occurrences which may occur adjacent to the known lode channel.

The extent of work carried out on the ore body is quite inadequate to prove if further development is justified. The fact that the ore body where intersected by the drive from shaft did not carry payable quantities of galena should not deter the company from carrying out further exploratory work below the tunnel level.

In a number of instances it is proved that promising occurrences of galena extend below the tunnel level which has not been explored, but to carry out any work in that direction it would be necessary to arrange for power for pumping purposes, and in this connection reference is here made to a possible source of water power in the vicinity of the mine workings.

WATER POWER -

The writer made a preliminary investigation of a water power scheme that offers excellent possibilities of being utilised at comparatively small expense for pumping and hoisting purposes.

The topographical features already referred to are very favourable in this respect. A small stream which flows down the mountain side in the vicinity of the workings could be diverted for that purpose.

Data obtained by a rough survey indicates that to obtain a head of 200 ft. would need a pipe column 627 feet in length to deliver the water of the stream to the shaft site at the mine. A distance of 15 chains of race cutting would be necessary to convey the water from the bed of the stream to the head of the pipe line.

The stream referred to was at summer level at the time this investigation was made, the volume of water flowing in it is estimated without actually gauging at from 4 to 5 sluiceheads. From information obtained relative to the quantity of water encountered when working from the shaft at the mine, there would be sufficient power developed from the stream under a head of 200 feet to keep the workings drained a depth sufficient for preliminary developmental work.

There are other possible and larger water power schemes in the neighbourhood of the mine which could with advantage be investigated if the developments of the mine under the preliminary scheme outlined warranted it.

It is not often that a mining property is so favourably situated as that of the Stirling Valley Mine in relation to water available at comparatively small cost and in sufficient quantity to supply power for preliminary developmental operations.

CONCLUSION -

The value of the ore body will not depend solely upon the quantity of marketable galena obtainable in ordinary mining work. The ore body is extensive and is worthy of further development and a full investigation with regard to the quantity of low grade ore and its amenability to separation of the marketable constituents by flotation methods.

J. B. Scott
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Mines Department,
HOBART.

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