UR 1941/42-44

815 TRANS

REPORT ON LEASE 326P/M (CHAPMAN & DWYER) GOSHEN

INTRODUCTION -

This lease is situated on the Groom River, 30 chains upstream from the junction of the Groom with George River. Access is gained by the road from St.Helens to Herrick, the lease being situated about 9 miles to the west of St. Helens.

The lease contains an alluvial flat which is reported to contain tin ore, and the inspection was made because of an application for financial assistance to work the reported tin deposits. The lease is in the names of Ian B. Chapman and Thos. Dwyer.

GEOLOGY -

The lease has been surveyed to embrace approximately all the alluvial flat along that portion of the Groom River. The lease has a total area of 31 acres and it is probable that approximately 25 acres represent the area of the alluvial flat. The flat has been cleared and is, at present, being used for pastoral purposes. There are no excavations (natural or artificial) which would permit the examination of the nature of the alluvial deposits. At one place, an old shaft exists but has been almost completely in-filled. The only evidence of the material consists of a few pebbles of soft and hard granite. Some material near one of Champman's bore holes consists of fine, friable sandy material. The Groom River has cut its course to a depth of 5 to 7 feet below the surface of the flat and the banks show fine sandy deposits. It is stated by Mr. T. Dwyer that the depth of the alluvial deposits is about 16 feet and that the upper 10 feet consist of fine silt and the lower 5 to 6 feet of wash (gravels etc.)

Immediately to the west of the western boundary of the lease, a few rocky outcrops occur. The rocky outcrops consist mainly of boulders of granite and pieces and pebbles of mica greisen, quartzite and reef quartz. Some of the granite outcrops probably represent bedrock and not merely boulders. No other outcrops of bed rock occur in the immediate vicinity of the lease. Granite occupies the surrounding country and almost certainly will form the bed rock of the alluvial deposits on the lease.

ALLUVIAL TIN DEPOSITS -

As already stated, the lease forms part of the pastoral land of the vicinity, and there is little or no evidence to show the nature of the deposits in the flat and the depth of same.

Mr. T. Dwyer states that the flat was bored by him about 1931 for the Siamese Tin Company and that the boring proved that the alluvial deposit had a uniform depth of approximately 16 feet. He also stated that the deposit consisted of 10 feet of silt overlying 5 to 6 feet of tin-bearing wash and that the average grade of the deposit was approximately 2 lb. of cassiterite per cubic yard. The

present leasees do not possess any plans showing the bore holes and the results obtained therefrom. Mr. Dwyer states that 4 to 5 lines of bore holes were put down. The only bore holes pegs that could be found were Nos. 17, 18, 19, and 22, and these somewhat confirm the existence of 4 to 5 lines of bore holes.

It is also stated by Mr. Dwyer, that after a change of management by the Siamese Tin Company, further boring was done about 1938, by a Mr. Trickett on behalf of the then Manager, Mr. Cox. No plans or other information in connection with this boring are available.

Recently, one of the lessees (Mr. I.B. Chapman) stated that he put down three bore holes and he states that according to his own calculations, the results were over 1 lb. per cubic yard. The sites of these three holes can be seen on the ground but there is no other information available about them.

The above three statements would suggest that the alluvial deposits of the flat contain alluvial tin ore, but the statements are not supported by plans and written reports.

At the western end of the lease, the flats are 250 to 300 feet wide in a north-south direction. Towards the eastern side of the lease, the river makes a very sharp bend and the flat is much wider and attains a maximum width of 800 to 900 feet in a north-south direction. Where the river leaves the south-eastern boundary of the lease, the flat has a width of approximately 100 feet.

PROPOSED METHOD OF WORKING -

It is proposed to commence working in the southern portion of the lease and to put the tailings into a small marsh existing in that vicinity. The deposits would then be worked towards the north-west over a narrow width until the western boundary of the lease was reached. The river would be diverted into this narrow working and the deposits on the remainder of the lease worked in turn.

A dam would be built across the river near the western boundary of the lease and the water would be conveyed by pipe line (15 inch pipes) to the workingface. From the western to the south-eastern boundary, the fall in the bed of the river is approximately 10 feet (measured by aneroid). As the alluvial deposits are stated to be 16 feet deep, the pressure head at the bottom of the workings would be approximately 25 feet at the south-eastern end of the lease and would decrease to 16 feet at the western end. For the purpose of elevating the sluiced ground, it is proposed to instal an 8-inch gravel pump driven by a portable Buffalo steam engine and boiler (20 to 25 H.P.) using wood as a fuel.

The proposed method of working might prove to be satisfactory. Without knowing the nature of the wash, however, it cannot be stated as to whether the pressure head of 16 to 25 feet would be sufficient to sluice the ground. If, as stated the upper 10 feet of the ground is a fine silt, there should be no difficult in shifting this portion of the ground.

It is claimed that 25 cubic yards of wash would be treated per shift of 8 hours. Once again, the lack of information concerning the wash prevents any definite statement being made, as to this estimate.

CONCLUSION -

From the above descriptions, it will be realised that except for the few feet of sandy material exposed in the banks of the river, nothing could be seen of the alluvial deposits reported to occur beneath the flat. The flat might contain tin deposits of potential value, but intil either the reports and plans of past boring campaigns can be produced or another systematic boring campaign undertaken to provide such information, no recommendation in connection with any proposed working can be made. Any testing campaign should include, in addition to bore-holes, a few shafts in order that the nature of the deposits could be seen and to determine whether the proposed method of working would be satisfatory.

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