UR 1928A/178-181

REPORT

on

MINERAL LEASES, Nos. 10334/M 10 acres, 10331/M 24 acres, 10333/M 20 acres, 10332/M 16 acres, 5085/M 5 acres. Charted in the name of J.H.S. Brumby.

SITUATION AND ACCESS -

The leases are situated in the Weldborough district, county of Dorset, and lie about 5 miles to thesouth east of the township of Derby. Main Creek, a tributary stream of the Ringarooma River, with which it junctions near Derby, flows through three of the leases.

The area can be approached either from Derby or Weldborough, from the latter in a direct line it is distant about 2½ miles.

From Weldborough a road is constructed for part of the distance, roughly about one half, the remaining portion is by a steeply graded track.

From Derby a fairly good partly formed road extends to within a mile of the sections, being along the valley of Main Creek the gradient is practically level. A sawmilling plant is established within a mile of the area. The road would not be suitable in its present condition for traffic in the winter months.

TOPOGRAPHICAL FEATURES -

The area is characterised by thickly wooded steep hill slopes covered with fairly dense undergrowth. Main Creek flows through the group of sections taking a north westerly direction. Fidler Creek a tributary of Main Creek, takes an easterly course and joins Main Creek near the north western corner section of 5072/M passing through the central portions of sections 10333/M and 10332/M. The configuration of the country, owing to the steeply inclined valleys contguous to the water courses, is favaourable for the utilisation of water power for sluicing purposes.

GEOLOGY -

The area is situated in theextensive tin bearing belt of granite country of thedistrict where in theneighbourhood large quantities of alluvial tin oxide have been recovered from the drifts. Alluvial tin deposits, consisting of coarse and fine grits intermized with clay, occur in terrace form on the bank of Main Creek, which has cut a deep channel in the granite bed rock. Evidence of it flowing at a much higher elevation than it now occupies is left in the form of water worn boulders lying along the former banks of the stream. In some portions large water worn boulders of granite occur in thedrift, the fine "interstitial" material as a rule is the only portion of the drift which is tin bearing.

The quality of thedrift varies considerably. On the western portion of 10332/M it consists of very large boulders of softened granite ranging up to several feet in diameter. On the south eastern part of thearea a fairly

extensive face has been exposed in former workings, it is here fine grained intermized with a proportion of clay.

On the most northerly section a face of tin bearing drift is exposed on the western bank of Main Creek.

The deposit here consists chiefly of granite boulders with which is associated granite detritus carrying a relatively high proportion of tin oxide.

The granite boulders are well water worn and through exposure to weathering agencies the feldspar constituent has decomposed to clay leaving the rock in a softened condition.

The tin oxide associated with these deposits is of very high quality, and, comparatively speaking, coarse grained from 1/32" to 1/16" in diameter.

These deposits have been derived from the tin bearing granite rock in the neighbourhood, weathering of the feldspar has released the tin ore from the granite mass and the tin bearing griesen veins which traverse it.

The action of the streams on this weathered material has caused a concentration of tin oxide in the drifts along the banks and in the beds of former watercourses. So few exposures of the drift have been made that very little information concerning their depth and continuity is available.

FORMER WORKINGS -

The locality in which these deposits occur were no doubt explored in the early days of the field dating back to some 50 years or more ago.

Very little work of any kind, however, has been undertaken in the way of testing or working the known deposits.

Only three exposures of any extent have been made in the drifts. In the vicinity of old section no. 7779, 2 acres, a limited area of heavy drift has been opened up by ground sluicing. A face has been worked here over a width of 4 to 5 chains, depth in places 12 to 15 feet. The wash is very heavy, individual granite boulders up to several feet in diameter are numerous. They consist of pegmatite and micro-granite resting on a bedrock of granite porphyry. It is the filling material found between the boulders which carries the tin oxide, which, as a rule, is fairly coarse. The relatively small proportion of tin bearing material compared to the quality of heavy wash is very disadvantageous to the working of this face.

On the south part of the face the bedrock is dipping northerly. Shallow depth of wash occurs, going northerly the tin bearing material increases in depth and is here overlain to a depth of from 6 to 8 feet of surface drift. The bedrock from this paddock slopes gently in the direction of Main Creek.

SECTION NO. 5085/M, 5 Acres -

A nice face of wash is exposed on this lease over a length of about 5 chains by a depth of 1½ chains, it has been worked into the hillside which here rises southerly.

The depth of face is from 25 to 30 feet, the drift material consists of fine earthy material with which is associated a small proportion of small water worn granite boulders. The bed rock which is fairly even consists of solid granite.

The upper portions approximately half the depth of face consists of over-burden being recent covering of sand detritus.

A sample taken from several points from the lower portion of the face returned one lb. of tin oxide per cub. yard, which is roughly equivalent to ½ lb. per cub. yard for the full depth of face.

The sample taken was merely as an indicator to determine in a general way the approximate tin content of the drift in the face.

To test the extent and value in tin oxide of this deposit it would be necessary to systematically bore or sink shafts through it at regularly spaced distances to obtain representative samples for estimation of thetin content.

This area is fairly heavily covered with thick bush.

Good facilities exist for working this lead, a tail race has been constructed by former operators to connect with Main Creek.

It is stated that 8 sluice heads of water can be relied upon throughout the year, at an elevation of 200 feet vertically above the face, a comparatively short length of pipe line being required to connect with it when productive operations could be commenced.

Another exposure of drift has been made on the most northerly section on thewestern bank of Main Creek.

The depth of wash here is about 12 feet, made up of 8 feet of overburden consisting of clayey detritus of recent origin, below this is a bed of granite shingle drift 4 feet. thick.

The fine filling material associated with the granite shingle consists of weathered granite and carries a well payable proportion of tin oxide, often in the form of rich concentrations. No work to speak of other than stripping the bank and exposing the drift has been carried out at this point.

The granite boulders composing the drift are not too large to deal with in ordinary gravitional sluicing, and as in other parts of the area are in a softened condition through weathering.

WATER RIGHTS -

A total of 15 sluice heads of water have been applied for, being 5 each from Main, Elliott and Wintle Creeks respectively. Races have been constructed to convey the water from thesource of supply to the ground.

PROSPECTING AND DEVELOPMENT -

These leases are situated in a favourable locality for the deposition of tin bearing drifts, and, considering the encouraging prospects showing in the few exposures of the deposit, it is surprising that more enterprise has not

been manifested in the way of systematic development in an effort to determine the approximate quantity of payable drift existing on the leases. The coarse quality of the material precludes the use of boring to test the deposit excepting that on section No. 5085/M which is well suited for examination by hand boring. On other portions of the property shaft sinking would be necessary to prove the extent and quality of the drift.

The comparatively small initial expenditure necessary to commence active productive work, in addition to the encouraging prospects showing, are sufficient to justify a thorough investigation of the area to prove its extent and value.

(J.B. Scott)
STATE MINING ENGINEER.

Mines Department,
Hobart.

30th July, 1928.