The Rocky River mineral district is situated in the south western portion of the country of Russell on the West Coast. Two extended prospecting claims dated 15th February, 1926 each of three hundred and twenty acres pegged in the names of M. Doody and A. Beach respectively are the only areas held in the district. That in the name of M. Doody, Geeveston, comprises the main portion of Brown Plain, the centre of the claims being in the vicinity of 8 Mile Creek on the road from Corinna.

A. Beach's claim embraces the greater portion of the Little Plain south of Brown Plain a belt of timbered country some twelve chains wide separating them.

These Plains which have an elevation of approximately 650 feet above sea level form the crest of a ridge which is the southern portion of the divide for the water shed of the Whyte River to the east, and Savage River on the west.

Geology

The country rock consists wholly of Pre-Cambrian micaceous schist the surface of which is covered with white quartz rubble to an average depth of 15 inches, the rubble in turn is covered with a depth of about 1 foot of black peaty button grass soil.

The schist rock which has been tilted to a high angle dips to the east the bedding planes strike a little to the east of north.

Numerous bedded veins of white quartz ranging from the thickness of a knife blade to 3 inches traverse the whole area of the schist examined.

No intrusions of igneous rock are observed and no evidence of such are apparent.

The overlying quartz rubble contains small quantities of tin oxide and to a lesser extent monazite sand, black tourmaline particles with an occasional colour of gold.

Brown Plain Report

Sparsely distributed through the quartz rubble occur small water worn boulders (2"-3" dia.) of porphyritic quartz tourmaline (known as boron tourmaline). The source of the quartz tourmaline boulders is not local.

The geological features point to the conclusion that during the glacial epoch the land lying between the summit of Meredith Range 5 miles to the east - and Brown Plain formed a gradual slope towards the sea coast on the west.

There appears to be little doubt that the presence of tin oxide, quartz tourmaline and the minerals in the rubble covering the Plain have been deposited through glacial agencies during the ice flow from the western slopes of Meredith Range to the sea. The intervening country between these points has subsequently been deeply dissected by the waters of Whyte River. The fact of tin ore being discovered some years ago on the foothills of Mt. Meredith strongly supports this theory particularly as none appears to have been found in site on the western side of Whyte River.

The deposit of quartz rubble on Brown Plain and adjacent Plains is residual due to the erosion of the schist following the deposition of tin and other minerals. The schist weathers to a dark coloured earthy clay which is readily carried off by rain water leaving behind the comparatively large pieces of quartz of the bedded veins from the schist. This action has proceeded steadily until a sufficient depth of rubble was retained to hold enough soil for vegetation to establish itself in the form of well known button grass, checking, if not preventing further general erosive action.

At widely separated points on the Plain small masses of West Coast conglomerate occur. The surfaces of these do not stand out in relief but correspond with the general contour of the land. Prospectors state where gold is found it is more plentiful in the vicinity of these conglomerate erratics. Tests made in the course of this examination failed to confirm this statement.

The occurrence of gold in this locality is sporadic and the theory of the origin of this metal on the Plain is more obscure than in the case of tin. There is no known record of gold being found in quartz in the locality, the bedded veins of this material in the schist are not auriferous otherwise a more general distribution of gold would occur. It is probable that the gold was deposited contemporaneously with the tin and other minerals the former being derived from the large mineral belt in which magnetite predominates, bearing northerly from some distance below the junction of the Whyte and Rocky Rivers.

On Little Plain two miles south-west of Brown Plain the general features are similar to the latter. The quartz rubble however contains appreciable quantities of chromite but the quantity of tin present is less than at Brown Plain.

Investigations made indicate that the chromite was shed from a belt of serpentine occurring in a westerly direction from Little Plain.

Superficial Deposits

The quartz gravel of the Brown Plain and Little Plain areas is covered with a depth of about 1 foot of black peaty soil in which button grass grows and thrives. The soil itself contains quantities of the finer portions of the gravel and in some cases carries quite as much tin oxide as the underlying rubble which is almost entirely free of soil and vegetable matter.

Beneath the soil covering the average depth of rubble is about 15 inches, for the most part this rubble is loose, ranges in size from 3" in diameter downwards to sand. In some portions of the area it is cemented and too compact for removal without the aid of explosives. Between the rubble and the schist on which it rests there is generally an inch or two of soft clayey material derived from the decomposition of the latter. The depth of soil and rubble is very uniform over the whole area and only in one instance - as proved by the numerous holes sunk did it exceed 2 feet, this being at a point near the road ½ mile south west of 7 Mile Creek. A depression in the surface here has been filled with fine gravel to a depth of 12 feet. The extent of this deep ground is very limited, and a careful sampling of the wash dirt returned only a trace of tin to the dish, no gold was visible. Rock bottom was obtained but the lower portions showed no improvement in tin or gold.

The best prospects of tin were obtained in the vicinity of 8 Mile Creek. Regularly spaced holes were sunk here over a large area, measured quantities of the rubble were tested. The average quantity of tin obtained did not exceed 4 oz. to the yard. In the lower portions of the area near the water channels better prospects were obtained but not sufficient to be payable. Very few colours of gold were seen. The whole of Brown Plain area would not average more than a mere trace of tin. Those parts which show fair prospects are so limited in extent which in addition to the shallowness of the rubble render them of no value commercially.

The tin oxide is of very good quality being chiefly of ruby and resin variety. The grain size varies from 1/32" to 1/64".

In the bed at Chinaman Creek one mile north of 8 Mile Creek some fair prospects of tin and gold were obtained, holes put down a few yards on either side gave very poor returns, this and similar tests made over the whole area prove conclusively that what little tin and gold is present in what may be considered in encouraging quantities, if confined to very narrow limits in the creek beds.

Chromite

This mineral is fairly abundant in the creek beds of Little Plain. The quartz rubble here is similar to that on Brown Plain.

There is very little tin associated with chromite on the Little Plain. On the slopes of the hillocks above the creeks the quantity of chromite in the wash is small.

The market price for this mineral is about 48-51% chromium, about £4-10-0 per ton c.i.f. Its price is therefore much too low to render it of any value at such a remote situation.

From information supplied by Messrs. Findlay and Beach a good quantity of gold has been obtained from time to time on and in the near vicinity of Brown Plain.

Old workings in the shape of shallow tunnels and small paddocks worked in the detritus here and others on the banks of the creeks give evidence of considerable activity in long past years. The distribution of gold has been most erratic and confined to very limited areas. The place is almost entirely deserted by gold seekers. No definite or continuous work is being undertaken.

This is not to be wondered at. In the summer months no water is available for washing dish prospects, whilst in the wet season the weather is too severe to attract prospectors when water is plentiful.

A short distance east of Brown Plain at 8 Mile Creek on a wooded ridge separated from the former by the valley of Graham Creek there occurs a depth of about 8 feet of gravel wash. A small paddock about 30' x 30' of shallow ground worked some years ago by Mr. J. Findlay is stated to have yielded 50 oz. of gold.

To the east of the small paddock referred to an excavation 50' x 20' has been made in the deeper wash. Careful testing of this face proved the material to be of

no value in gold or tin although small quantities of the latter are present.

A few colours of gold were noticed in the dish prospects. This bed of gravel rests on a thin layer of blue pug which is said to be an indicator of gold. This run of wash dirt extends easterly down the hillside but the extent of the deeper ground is limited to a small area.

A few hundred feet north from this point at the same elevation a small irregular excavation has been made in the shallow wash dirt from which it is stated some 4 ozs. of gold were obtained. Large boulders of water worn quartz occur in the wash here. The gold bearing area was apparently limited to a few yards in extent.

Some eight or ten chains down the hill easterly some work has been carried out in the bed of a small creek. The quartz gravel is about 1 foot deep. Dish washings from this gravel showed fair prospects of tin and gold. This area as in all the sloping ground surrounding the Plain is thickly wooded.

Conditions Affecting Mining

Topography

The topography features of these Plains are ideal for sluicing operations. From the eastern side of Brown Plain there is a gradual fall westerly to the head of the tributaries of the Savage River. The water shed of the Little Plain is to the valley of the Whyte River.

Accessibility

Brown Plain is situated 33 miles south westerly of Waratah a good road from the latter covers 23 miles of the distance the remainder is by track for a distance of 6 miles thence by the old Corinna road. The Public Works Department is at present engaged in extending the road from Waratah end. The roads and tracks are, generally speaking, in good order, transportation is therefore not difficult.

The old road from Corinna passes south westerly through Brown and the Little Plains. The distance to the Pieman River at Corinna is 8 miles. The road is in very fair order but to some extent is overgrown by small trees, in places it needs draining to carry off surface water. If sea trading to Pieman River was re-established this route would be much the easier for access to Rocky River district.

Water Supply

The general situation of Brown Plain as above described precludes the possibility of obtaining a permanent water supply in the immediate neighbourhood.

In the winter months small streams of water flow through the several valleys in the Plain. These do not continue to run for many days following the cessation of rain and are therefore of no value as a source of water supply.

The Hazelwood River is considered as a possible supply of water for Brown Plain district. The proposal involves the construction of a water race about 22 miles long picking up the water in the vicinity of Mt. Cleveland.

The comparatively small known area of sluicing ground at Brown Plain district together with the low average values in tin, gold and chromite combined with the very shallow depth of wash does not justify the consideration of any expenditure in providing a permanent water supply for sluicing purposes.

Conclusion

In the early days of the field dating back some 40 years ago and subsequent to that time a great deal of prospecting and investigation has been carried on. It is obvious so far as gold is concerned the results obtained have not been encouraging.

It is quite possible with perseverence small payable areas of gold bearing wash will be located particularly on the heavily timbered slopes between Brown Plain and Whyte River.

The time occupied in this examination in addition to the extremely unfavourable weather conditions prevailing did not permit any investigations being made in this direction.

The writer is much indebted to Messrs. A Beach and Findlay for information supplied and valuable assistance rendered at various times during the period of this examination.

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