149

REPORT ON BLACK BEACH SANDS BETWEEN THE MOUTHS OF THE PIPER AND LITTLE PIPER RIVERS.

The black sand deposits exist between high and low water, and the extent over which they were sampled along the beach is about thirty chains. To the west of this the beach passes into a rocky point, and to the east into a shingle beach in which a little black sand occurs.

The sand is dark in colour, and consists of quartz sand and shell fragments with ilmenite giving it the dark colour.

The thickness of the sand varies from nothing at the shingle beach to two or three feet at the western end of the deposit with an overburden from 1 foot to 1 foot 6 inches of white sand.

Nine samples were taken along this stretch every three or four chains. No gold was found in the separate assays, and the sample nearest the shingle beach, i.e. the furthest east, was the only one to show any appreciable quantity of tin assaying 0.045% of this metal. The occurrence of a greater quantity of tin near the shingle beach suggests that there may be a concentration of this metal amongst the shingle. Titanium oxide was present to the extent of 0.18% and 0.13% in the two samples which were determined for this constituent.

A bulk sample of the nine samples showed a minute trace of gold and a trace of tin, with 0.23% of titanium oxide. The undersize from a 100 mesh sieve was 7.5% of the bulk sample, and the assay of this showed a trace of gold, and 0.15% of tin. This 0.15% of tin with a concentration of 7.5 in 100 gives a percentage of 0.011 in the bulk sample. 1.53% of titanium oxide is present in the sieved material, showing that half the ilmenite passed through the sieve.

Mr. Rivett Carnac who has been investigating the deposits, states that he concentrated 11 lbs. of the sand down to 5 oz. concentrate, which assayed 2.70% tin and 19 grs. of gold to the ton.

This on the original sample gives 0.077% of tin and 0.5 gr. of gold per ton.

The ilmenite in the sand has been derived from the basalt which occurs in this locality, but the origin of the tin is obscure.

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