dykes; but the creek itself having cut through a somewhat softer class of country, in which some remunerative workings have been situated, proves that these are not the outcrops of dykes, but parts of a belt which is lying parallel to the bedding of the country. Interstratified with these hard bands are belts of more kindly country, in which the auriferous workings have been carried forward, and have at places, as in the Alburnia, proved highly remunerative.

"The dip of the beds between the Tararu and Waiotahi Creeks is constant to the west-north-west, at an approximate angle of 1 in 2, flattening somewhat as Tararu Creek is reached, which would give a thickness of over 2,000 ft. of strata in this section above the belt of hard rock in the Moanataiari cross-cut. On the north-west side of Tararu Creek, near its mouth, a coarse breccia similar in character to that at Hape Creek occurs, and this can be traced for a long distance up the creek, which it crosses at places, it being in the same formation that the Little Agnes Claim, up the Ohio Creek, is situated. The late E. H. Davis, in his report on the Thames Goldfield (Geological Reports, 1870–71, page 56), has very carefully described the characters of this rock as seen in Tararu Creek, and he estimates its thickness at 150 ft. (*l.c.*, page 58), but I should consider the total thickness to be a great deal more. The dip of the rock interstratified with it in Tararu Creek is south 60° east, at an angle of 15°, and the breccia turns up against the outcrop of slates and felsite at Waiohanga Point. This bed does not appear to be represented in the section between the Moanataiari and Tararu Creeks, and the evidence of the section on the southern side of the Moanataiari main slide is to place it at the base of the auriferous series so far as at present proved, a position which it must occupy here, since it rests upon the basement-rock of the district. Under these circumstances, the only way of accounting for its occurrence at Tararu Creek is by a fault traversing the country in a north-east direction from the mouth of the creek, which would bound these breccias accurately as far as Little Agnes Claim, beyond which point I am not acquainted with the country. I have accordingly shown this fault, which would have a throw of not less than 2,000 ft. . . . It is sufficiently remarkable that this line of fault is parallel to the lines of fracture of the principal auriferous reefs, with which it is probably contemporaneous.

"To the north of Waiohanga Point, until reaching Tapu Creek, the strike of the beds varies from east-north-east to north-east, and the dip from south-south-east to south-east, all at low angles, the strata consisting of alternations of hard and soft bands of rock until Waiomo is reached. At this point, where some workings have lately been started, the country, which is of a sandy nature, is banded, and strikes east-north-east, dipping south-south-east at flat angles, but waving slightly; overlying which, and preserving the same strike and dip, another of these hard bands is met with, differing in no degree from those of the Alburnia and Moanataiari. It occurs capping the spur on the northern side of the creek, and descends to the creek-level on the southern side, while in the direction of the Thames it is overlaid by a light-grey decomposed felsitic-looking rock. Between Waiomo and Tapu Creek very little change takes place in the character of the rocks, which consists chiefly of a jointy, decomposing, tufaceous formation, with (at a point near Tapu) a thin band of lignite of very inferior character interstratified with them. Up to the present time no gold has been obtained from these rocks, and it appears probable that the series belong to a younger formation, which lies on the western side of a belt of slate at this point, and corresponds with certain rocks which I shall have to mention further on.

"At Tapu, on the north side of the creek, there is a belt of auriferous country overlying the slates on the western side of Number One Gully, and this belt extends into Number Two Gully, it being partly in this formation that the Great Republic Claim was worked, and also that the present patch of gold has been obtained by Bowden and party. There is, however, a belt of felsitic rock represented in this district which very closely resembles that found at the Waiohanga Point, and which I am inclined to regard as related to the slate formation. The slates are met with in the Great Republic Claim, and I am informed that the reefs were traced down into these, and also that they carried gold; but the reefs were pinched, and the country was so hard that the workings were very soon abandoned. These slates can be traced up the creek from just above the bridge to Number Five Gully, where they are overlaid uncomformably by a belt of hard rock and breccia, which in places resembles the Hape Creek breccias, and at others are far more like those belonging to the Miocene formation, to which, however, they cannot belong. Overlying these beds, in which, by the way, reefs occur, but have never yet proved highly auriferous, a belt of softer country is met with, and in this the principal auriferous workings have been carried on. The dip of these beds is south-east at low angles, and they are capped again by a harder belt of rock. The auriferous belt may be traced across the country from Tapu Creek to Mata Creek, in which it it is found as high up as Gentle Annie Creek; but above this point no gold has yet been found, and the younger Miocene breccias come in with thin seams of coal.

"Passing again to the southward of the Thames we find the auriferous series of rocks retreating from the western side of the range, which they occupy at that place; when Tairua is reached they form the body of the main range, with the Puriri rocks flanking them to the westward. The country between Tairua and Waitekauri is practically unknown, but it is probable that the same belt of rocks is continuous throughout, although it may be capped at places by the Younger series. When we arrive at Waitekauri we find a similar class of country to that represented at the Thames, although somewhat coarser-grained rocks appear to have been the matrix of the gold here. The strike and dip of the beds both at Waitekauri and Owharoa have changed, but they are still lying at flat angles, and information is more readily obtainable here concerning them than at the Thames, or possibly, having, before visiting this locality, gained some insight into the stratification elsewhere, it appeared simpler to me.

"At Owharoa the Smile of Fortune and Radical Claims are being worked in the same belt of what the miners call 'good' sandstone country, and these have hitherto proved the most remunerative mines in the district. This country is rather coarser-grained and more gritty than the auriferous country of the Thames, and is traversed by 'flinties' (small veins of cherty quartz)