

way and Co.—are engaged in constructing a race fifteen miles long, to bring in six heads of water for their own use, at a cost at from £1,200 to £1,500. I predict that a big rush will be made to this field in spring, as I am aware that parties at work there last summer netted handsome returns.”

In his report for the same year (1885) Mr. H. A. Gordon, Inspecting Engineer, Mines Department, at page 11, has the following: “Criffel Diggings.—This is a field that has only recently become generally known. It is situated on the top of the range, between the Cardrona River and Luggate Creek, about 4,000ft. above the sea-level. A party consisting of three miners has been working there for about two years, but it was only during the last year that rich auriferous ground was discovered. From its high elevation it can only be worked during the summer months; but from the rich deposits that have been found, and the apparent extent of auriferous country there is in the locality, it is likely to support a considerable mining population next summer, when fresh discoveries will probably be made. There were about fifty miners on the ground during the latter portion of last season, and the amount of gold that has been purchased from this field is about 1,000oz., of which amount the three prospectors obtained 300oz.; but this was principally from ground that they had worked the previous season and had stacked ready for washing when the snow melted, which gave them a supply of water. They have about 1,700 loads of washdirt again stacked ready for washing next spring. The great drawback to this field is the want of a plentiful supply of water, as it is ground specially adapted for sluicing. A water-race is at present being constructed from the Luggate Creek, but the parties that are constructing it do not anticipate being able to supply any other claimholders with water, as they consider it will be more advantageous to use the whole of it themselves. There is likewise no passable road to get timber and supplies upon the ground at present; pack-horses manage to get up on the top of the range with provisions, but the track is a very bad one.” In a further report—“Reports on the Mining Industry in New Zealand, 1890”—at page 82, Mr. Gordon remarks, “The run of auriferous wash-drift found on the top of this range cannot be traced for any great distance. The wash-drift is also of two different characters—one description of it is formed similar to that found in the low terraces near Cardrona, while the other is an old quartz-gravel wash similar to that found in the vicinity of St. Bathans and Mount Buster, having large trees lying amongst it, with branches complete, all silicified. The gold found in this quartz drift also seems to be more ground up than that found in the other wash-drift. It is only here and there where this old quartz-drift deposit occurs; it seems to come from the direction of Mount Pisa, but the top of the range has been greatly worn down since this deposit has been made, and only a few places remain to mark the course of an ancient current, which must have carried this material for a considerable distance.”

At the time of my visit only two parties of miners were on the ground, and these were sluicing towards the southern end of the workings. Criffel proper is confined to the western bank of Luggate Burn. On the east side the area of quartz drifts and auriferous ground is known as Fat Boy.

*Fat Boy.*—The diggings known by this name include an area of quartz drifts commencing near Luggate Burn, a quarter of a mile below Halliday's camp, and the principal quartz-drift workings on the Criffel side of the creek. At its lowest point this eastern run of auriferous quartz drift has an elevation of 3,250ft. above sea-level, and here the last of the drifts, barred by a narrow rim of schist rock, overlooks by some 300ft. to 400ft. the bed of Luggate Burn. This gives great facilities for draining this northern part of the quartz-drift area on the east side of the creek. On the Criffel side the quartz drifts are not deeply involved amongst the older rocks, but cap, or lie in depressions of, the schist rocks. It is otherwise on the Fat Boy side. The width of the formation varies from 4 to 15 chains, and this runs south-south-west a distance of about four miles to the northern foot of the ridge of rocky heights that separates the watershed of Luggate Burn from that of the Roaring Meg before the former turns to the east to drain the higher part of Mount Pisa. The quartz drifts along this line dip to the westward, and on that side are suddenly terminated along a line of fault, while on the western side, towards Alice Burn, they dip at moderate or high angles from the schist rock on that side towards the northern end, but are said to be deeply involved on that side also in the southern part of the line. At its southern termination the Fat Boy line of quartz drifts attains an elevation of about 4,000ft. above the sea. My examinations were confined to about a mile of the northern part, but the line of drifts could be traced by the eye as far as stated, and shown to be present by a line of prospecting-holes made in white gravel for a considerable distance farther to the southward; and, as regards the south end of the line, Mr. Halliday informed me that the presence of the gravels had been proved to the foot of the rocky spur already described.

A party of miners—Newman and party—hold a lease of the northern end of the line, and for the past three years have been prospecting the ground during the summer months. Various trial cuts in the eastern shallow ground have been made, but these appear not to have yielded satisfactorily, and a shaft bottomed at a considerable depth gave gold, but not in paying quantities. In yet deeper ground two boreholes have been put down, but these, so far as could be learned, did not reach the lower beds of the deposit. At the extreme northern end of the white quartz drifts a tail-race has been cut partly into the rocky rim that borders the deposit. This tail-race has enabled the sluicing-away of less than 2 chains in length by 1 chain in breadth to the level of, or a little below, the rocky ledge at the northern end, but as the gravels dipped rapidly to the south, as well as to the west, in the upper half of the cut they could not be bottomed otherwise than by sinking a shaft, which was done, and from this a drive was put in westward to the schistose wall on that side. As none of the party had arrived on the ground at the time of my visit, during the second week of November last, full particulars with respect to what had been done could not be obtained. From the northern limit of the line of drift the ground rises to the south to the top of the first ridge some 200ft., and this northern slope is strewn with large boulders of cement stone, such as has already been frequently described as resulting from the sands themselves being cemented into a hard quartz-like rock, the cementing medium evidently being silica. These blocks of cement are very numerous