

body of water, much in the way of sluicing operations at a low level, and it will continue to be of great service as an extension of the main drain to the claim while it lasts. Since the construction of the tunnel, Mr. Jackson, the manager, is enabled to divide the high gravel face into two sluicing benches on the west side, and one high face to a low level on the sloping bottom on the east side of the claim. Very shortly he should be enabled to estimate the cost per cubic yard at each face, and arrive at a sound conclusion as to the advantages of high face over low ones, assuming the work in each face to be done so as to be safe for the workmen at the bottom. Mr. Jackson informed me that he had ascertained that the first 100ft. from the surface down was the most valuable portion of the cement, so far as he had worked it. The lower part appears to be much the hardest, and therefore requires the expenditure of more labour to break it up. The highest place was fairly well sloped, with plenty of room at bottom for men to get away in case of a fall of *débris* from the face. It is a great pity that there is not a greater head or pressure on the jets directed on the cement, or much larger main pipes from the reservoir to the jets. These requisites, if applied, would expedite the work, and increase the returns very much, in my opinion. The first is available at a short distance, it is said, but the second means almost a new plant in pipes, which would cost more money than the company is likely to expend in that way for some time to come.

Leviathan Quartz-mine, Skipper's Point.—Two young men, McPherson and Phillipine, gathered some 15 tons of stone from the surface up Sawyer's Creek—distant from Johnston's Hotel about a mile and a half—from which they obtained 24oz. 12dwt. A tunnel was then driven from the side of the hill to the line of lode, which has been followed for about 50ft., but only a small block of stone has been found in that distance. The drive is being continued on the line in the hope of finding the lode below where the stone was gathered on the surface. I did not visit the work, because the men were not there; one was ill and in bed in the township.

Tokomairiro Dredge, Glenore.—(26/10/93): A small company of five, including J. Nelson, who is manager, has nearly completed a dredge to work the bed of the stream from the Glenore Bridge upward first. The claim is said to take in two miles of the river, one above and one below the bridge. They expect to start mining operations in a fortnight. The dredge, it is said, is capable of dredging to a depth of 30ft., which will be about 20ft. below the old workings of thirty years ago. The engine is a double-cylinder, and said to be of sufficient power to do the work. The dredge measures 80ft. long by 20ft. wide, and the plant is all new except the engine and boiler. The buckets, thirty-eight in number, are calculated to hold $2\frac{1}{2}$ cubic feet each. The ladder is 60ft. long. The washing-tables are to be equal to 250ft. on one side of the dredge only. The total cost of plant when finished is estimated to be £2,000.

Round Hill Gold-mining Company.—(24/11/93): Since my visit last year sluicing operations have been continued a few chains higher up the creek on the same side, where a considerable quantity of ground has lately been sluiced away, with, Mr. Evans informs me, good results. The manager regrets his inability to have had two jets going all the time, by which he could have doubled the yield of gold at a small proportionate outlay in wages only. He is now making an effort to get two jets to work by laying a second length of pipes; but, as he has not the length required by 17 chains, he is constructing a wood box of 2in. planking, 22in. by 24in., for 10 chains, and a double box, 16in. by 12in., for the balance of the distance. Mr. Evans estimates the greatest pressure on the box at 37lb. per square inch, and thinks by strapping the boxes well with wood straps they will withstand the pressure. The necessary quantity of water to work the two jets is not very often available. The ground now being operated on was driven out many years ago, therefore the gold now being obtained must be diffused through 30ft. of the 35ft. depth of face sluiced. Mr. Evans is satisfied he is not losing any gold worth mentioning.

J. Ewing's, Matakauui.—(15/12/93): A large quantity of ground has been sluiced away during the past twelve months, which has brought his open face close up to the schist-rock on the hill-side, and close to Greenbank's south-west boundary on the other. The length of strip sluiced out is about 3 chains, and about 60ft. deep. The layers of gold-bearing wash appear to dip slightly into the hill. It is now very evident, from the rotten character of the schist-rock so close to the gold-bearing wash, that there is a limit to the depth it can be followed by open sluicing, and that limit, with safety to the workmen, is nearly reached in more than one claim in Matakauui.

Greenbank's Blue Duck Claim.—(14/2/93): This claim joins J. Ewing's north-east boundary, and, like his, the workings are hugging the hill-side very closely. A strip of probably 2 chains or 3 chains in length had been sluiced away, and the bottom apparently cleaned up to the level of the present tail-race, some short time before my visit; but the hill-side had recently broken several chains back, and slid into the opening, filling the same to near the head of the tail-race. Of course, this slip can be easily sluiced away, since it appears to be of fine material, but when it is sluiced away more will come in from the hill, till the water-race or -races are carried away. The present slide has nearly reached one race already. The low side of this open face is probably from 50ft. to 70ft. deep. The return from the claim for the past two years, or nine months' actual sluicing (the fifteen months were lost for want of water), was 560oz. There are seven men employed.

Sugar-pot Claim.—(14/2/93): This claim and open face joins Greenbank's, and has been sluiced along the face of the hill in a similar way to the other claims referred to. The ground sluiced out to the level of the tail-race is probably 3 chains long by 2 chains wide. The layers of wash, which have a dip of ten to one, follow the side of the hill, and at this claim they are very distinct, in alternate layers of clay, sand, and gravel, all of which are said to carry more or less fine gold. The coarse layers yield the best prospects. A prospecting shaft was sunk in this open face to a depth of 240ft., where the layers still exist at about the same angle and of equal value when prospected. The last washing was sluiced off to the level of the tail-race, and was being cleaned up at the time of my visit, but the result of the two years' work was not ascertained.

The Drybread Claim.—(14/2/93): This claim was not working at the time of my visit, in