

under date the 4th July, 1901, calling upon him to have the pit put in a state of safety. Although the owners are old miners of many years' experience, I fully expect, from the careless manner in which their pit is worked, that one or other of them will eventually meet with a serious accident. The old workings (of which no plans are in existence) are a source of danger, which is not sufficiently realised by Sutherland and Shanks, although I have impressed it upon them.

*Otiake Coal-pit, Otiake* (Simpson and Cunningham).—(9/12/1901): A prospecting-shaft, 3 ft. 6 in. by 2 ft. 3 in., 70 ft. deep, has been sunk alongside an old shaft abandoned many years ago. The coal-seam is said to be 18 ft. in thickness, dipping west at an inclination of 1 in 3. I instructed the owners that several sets of timber were required at the top of the shaft, where the sides were crumbling. Owing to there being 30 ft. of black damp in the shaft I was unable to get down, the windsail in use being inadequate to ventilate the shaft. The shaft is too small for a centre wall. Mr. D. Scott was in charge. I recommended the owners to abandon this shaft, to sink a new shaft away from the old workings, and to drive a tunnel to it from the gully.

*St. Andrew's Colliery, Papakaio* (T. Nimmo, permit).—(30/10/1901): Owing to slackness of trade the mine is idle to-day, and the manager in town. No person was in the mine, but I got one of the men to go in with me. The furnace was not alight, and a north-west gale was blowing. Air very dull at faces (pillar-workings). Another instance of deficient ventilation under adverse natural conditions. (10/12/1901): Air good to-day. Furnace and return airway in good order. Two pillars at the back are being taken out abreast. Ample supply of props in use. Damp is leaking from the waste, but current of air ample to carry it away.

*Prince Alfred Colliery, Papakaio* (J. Willetts).—(30/10/1901): Work now confined to drawing pillars next old workings. Mr. Willetts's method of setting the timber not quite safe, and I instructed the men as to the proper method, and also told them to err on the safe side by setting plenty of props at the lip and in the bords before starting to the pillars. An air-shaft is required to the rise, and Mr. Willetts promised to have it sunk at once.

*Ngapara Colliery, Ngapara* (W. Nimmo, permit).—(26/6/1901): Brown-coal seam 8 ft. thick. Three men employed. The coal is brought down with powder, and the smoke hangs in the workings. Recommended that the quantity of air should be increased in the working-faces. Plan kept. Rules posted. Report-book up to date.

*Shag Point Colliery, Shag Point* (Thomas Shore, manager).—(21/3/1901): No. 6 seam, south workings, stopped, coal having turned into stone. A prospecting-bore in No. 6 seam is down 85 ft., with no sign of a lower seam of coal as yet. Air dull at Klason's level face, No. 5 seam, stenton not being through. In the main the requirements of the Act are duly observed at this colliery. Ventilation good. Report-books and plan to date. (22/6/1901): I went through the mine with the acting-deputy, and visited Nos. 1, 5, and 6 levels districts. Fifty-two men employed in the mine. Ventilation: Air good throughout the mine. Prospecting-work is being carried on under the sea to prove a small seam which had been passed through in the main shaft. The working-places are in good order. The lower seam (No. 6) is being worked long-wall. Seam thin, and work difficult, but well conducted. The miners are paid at the rate of 6s. per ton for winning the coal in this seam. (10/9/1901): The under-sea cross-measures drive (Hunt's) has been extended, and at 130 ft. east from No. 1 seam a 4 ft. seam of clear bright coal was struck. North and south levels have been commenced. The roof is quartz conglomerate, containing "cutters," or small fissures, from which feeders of water are flowing, making at the rate of 15,000 gallons of water per hour. Owing to the breakage of the eccentric strap of the pumping-engine and its consequent stoppage for repairs, the water rose over the pump, and two tanks holding 360 gallons each were put on for baling the water, but very little progress is being made. A dam is being built in the stone drive to retain the bulk of the water to enable repairs to pump being effected. The water from the fissures is brackish, and the mine-water—which is all that is available for boiler-feed—is proving more troublesome than formerly, each of the three boilers requiring to be blown down at intervals of not more than seven days. The No. 5 landing in shaft being cut off by water being up over the door-heads, the intake air is conducted from No. 3 landing, which is also used as a travelling-way. The cover overhead from the face of Hunt's drive is 300 ft. thick vertically, and numerous soundings of the sea taken some years ago give a depth of 30 ft. to 35 ft. of water in this locality. (29/10/1901): Still patiently baling water, which is 28 ft. up the shaft, and the manager expects that it will take about eight weeks' baling to uncover the pump and get the water down again. (12/12/1901): Water in shaft still at 28 ft. mark. A "Johnston" pump, having a capacity of 10,000 gallons per hour, has just been started, which, together with tanks, reduced water in shaft 13 in. in twenty-four hours. Boiler-feed water from the pit is proving very injurious, and is the cause of frequent stoppages and delay, during which the water in the pit gais rapidly on the plant in use. The Government Analyst finds that the water from the mine is composed of 60 per cent. of sea-water and 40 per cent. fresh water, while the water taken direct from the fissures in the new seam under sea consists of 90.9 per cent. sea-water diluted with 9.1 per cent. fresh water.

*Allandale Colliery, Allandale* (Alexander Gillanders, manager).—(21/3/1901): Air at intake, 6,750 cubic feet per minute. A "creep" on the old mine section has caused the pillars to sink, and the intake airway is low in places. Some of the broken timbers have been renewed, and the manager is taking up bottom to increase height of airway. The seam being thin, the roof and floor meet in the places. In consequence of this feature the airway will settle and cause no further trouble. Owing to brattice not being up across ends, air is not being conducted to several working-places which are warm and badly ventilated. I wrote Mr. Gillanders, under date the 29th March, requiring him to have these several matters remedied forthwith, and subsequently visited the mine on the 16th April, 1901, when I found that the airway was being attended to, and the ventilation of the mine satisfactory throughout. (16/4/1901): Five men lifting and stowing bottom in air-course where affected by "creep." Air in pillar-workings good. Plans are being prepared for a cross-measures drive at the main horse-road level face to connect with a shaft from the surface.