

class of coal is limited, very little development has so far been carried out. Over 90 per cent. of the coal won from this mine during the year was obtained from the top seam. Although a considerable amount of new and larger fluming has been erected to convey the water from Victoria Creek on the western side of the lease, and from the source of the Murray Creek on the eastern side, the fire in the old Phoenix Mine still continues to burn fiercely in one or two places.

*Watson and Moyle's Coal-mine, Murray Creek* (W. Watson, permit).—(24/11/09): After being closed down for upwards of twenty years, this mine was reopened by the present owners in September. Owing to the faulted nature of the country, the coal is soft and only fit for steam-producing purposes; it is used by the Keep It Dark Glod-mining Company at their reduction-works.

*Lankey's Creek Coal-mine* (D. Turnbull, permit).—(24/11/09): Since the Progress Gold-mining Company took over this property, in August, the mine has been thoroughly renovated. All the old workings and levels have been retimbered, and several faces have been reopened which were abandoned in the early working. The outside improvements consist of the construction of a new self-acting incline, 1,000 ft. in length, with bins at top and bottom. The former have a storage-capacity of 125 tons, and the latter 100 tons. It is intended to improve the present system of haulage from the bottom of incline to the battery, by the substitution of a traction-engine for the horse-haulage hitherto employed, when it is anticipated a load of from 8 to 10 tons will be hauled.

*Merrijigs Coal-mine* (McGee and Osborne, owners; J. Osborne, permit).—(25/11/09): In order to develop this coal area, a rock tunnel, 6 ft. by 5 ft., was driven for a distance of 145 ft. to intersect the coal, which, on being cut, was found to be standing almost vertical, and on being driven on to the east, a gradual thinning took place, the coal becoming unprofitable to work. Mining is now entirely confined to the western side of the area, where the coal is 2 ft. 5 in. thick, and of fair quality. Throughout the mine the timbering is done in a very workmanlike manner.

*Loughnan's Coal-mine* (J. Billett, owner, permit).—(25/11/09): A fault of considerable displacement having cut the coal in the main north level, preparations are now in progress to start a new heading at a much lower level. The coal in this mine is of excellent quality, and is used principally by the Progress Gold-mining Company in connection with their winding plant on the Globe Hill.

*Blackball Colliery* (owners, Blackball Coal Company (Limited); Walter Leitch, mining manager; William Clark, mine-manager).—(3/12/09): During the year a fair amount of development work was completed, but, unfortunately, a large fault was intersected by the main levels. After considerable prospecting, it is now intended to cut through this fault and open out to the line of outcrops about 60 chains ahead. Nos. 17 and 18 headings, at right angles to the main levels, have been pushed forward to prove the coal to the rise, and at a driven distance of 15 chains show good coal throughout, and, although not yet extended their full distance, open up a fairly large field of coal. Heating continues to give as much trouble as formerly, but the panel system of working prevents any large outbursts, this having proved efficient for coal of this class. The general workings of the mine are adequately ventilated by a belt-driven Capell fan, but the ventilation of Nos. 17 and 18 headings during their extension was at times poor. Until the end of last November all coal was carried to Ngahere by aerial tramway, but, owing to the expense and delay caused by breakdowns, the Government agreed to convey the coal over their partly completed Ngahere-Blackball Railway, with the result that a decided increase in the output of the mine has taken place. During the past year a record output of 120,065 tons was made. In connection with the Government railway, storage-bins of 3,000 tons capacity were constructed at this mine; and to further facilitate the economical handling of the coal modern machinery and labour-saving appliances have been installed. The main endless-rope system of haulage has been extended about 300 ft. at the surface end to convey the coal direct to the bins.

*Paparoa Colliery* (owners, Paparoa Coal-mining Company, Limited; J. T. Watson, mine-manager).—(4/12/09): All preparatory work in connection with the development of this colliery is now practically completed. The branch line to connect with the Government railway at Blackball is two miles in length, with a uniform gradient of 1 in 25, and is fitted throughout with a centre-brake rail. At Roa, where the bins are situated, about one mile of railway sidings have been laid down to provide storage-accommodation for full and empty wagons. The bins have a storage-capacity of 4,500 tons. The superstructure, which is built of local red-pine and steel girders, supported on ferro-concrete piers and foundations, has complete screening plant, distributing conveyors, cross and picking belts, slack-elevator, power-driven tippler, &c. This plant is actuated by Pelton wheels, driven by a 200 ft. head of water, taken from Ford's and Tunnel Creeks and other sources. It is estimated that the quantity of water available under ordinary conditions is from two and a half to three Government heads. This power is to be supplemented by steam for use in dry seasons. Mining operations have been carried on in No. 1 seam, from which a daily output of from 200 to 250 tons is lowered. The development of No. 2 seam is now being vigorously prosecuted, when the output from the mine should be materially increased. A considerable amount of work has also been done on No. 3 seam, from which coal should be produced in a few months. Among the works contemplated are the erection of a few coke-ovens for dealing with the very small coal.

*North Brunner Colliery* (owners, North Brunner Coal-mining Company, Limited; Arthur P. Harper, attorney; George Smith, mine-manager).—(19/11/09): In connection with the development of this company's property, contracts were let in the early part of the year for the formation of 57 chains of incline, having a mean gradient of 1 in 12 in favour of the load. At the same time tenders were called for building a bridge to span the Grey River. This bridge, which is built entirely of Australian hardwood, is 660 ft. long and 10 ft. wide (which allows for two lines of rails to be carried across, leaving ample room between the two for footway). To open out for temporary purposes a small area of coal covering 5½ acres, lying from 400 ft. to 500 ft. above sea-level, a tunnel has been driven for 8 chains to the coal, which was found to be standing almost vertical, and of poor quality. Work was therefore abandoned, and preparations made for the extension of the incline a further 20 chains, the coal there