

Creek from where it joins the Yukon river, 50 miles below Dawson. Here are a number of good workable seams of lignite, up to 12 feet thick, which have been worked to some extent, during the past few years, and from which a few thousand tons have been shipped to Dawson. There is also a 6-foot seam of good lignite about 20 miles from Dawson on a branch of Rock Creek, a tributary of the Klondike. Also some seams of coal have recently been reported to have been discovered on Indian River. These are all believed to occur in rocks of Tertiary Age which have an extensive development to the west and south-west of the above-mentioned localities.

The Tantalus mine is situated on the left of the Lewes River, 190 miles downstream from Whitehorse, and about midway between the latter and Dawson. At this mine three seams of bituminous coking coal have been developed, averaging perhaps, 7 feet, 6 inches, 6 feet, 6 inches; and 3 feet in thickness, which have been mined for several years and from which in 1907 nearly 10,000 tons of coal was shipped. Across the river from where the same measures outcrop on Tantalus Butte where seams of good, clean, coal, 8 feet 10 inches, 9 feet 10 inches; and 7 feet, have been prospected to some extent. These same measures, which are of Jura-Cretaceous age, were found outcropping for several miles to the north and south of Tantalus Butte and Tantalus, respectively, and are believed to be extensively developed to the south and southwest of the latter. From the Five Fingers mine on the right limit of the Lewes River, 16 miles below Tantalus, considerable coal was shipped some years ago, but since then the company has been chiefly engaged in prospecting and developing the property. The widest seam here is about 4 feet thick, and is a good bituminous coking coal.

A few miles southwest of Whitehorse several seams of anthracite coal have been discovered, two of which are 9 feet 8 inches and 10 feet 4 inches thick respectively, and which belong to the same geological horizon as the coals at Tantalus. Only a small amount of prospect work has been done here, but the measures have been traced several miles to the west.

Seams of lignite are also known to exist in the Kluane district to the west of Whitehorse, and prospectors report having found numerous valuable coal seams in this district. So, judging from the wide distribution of the coal-bearing formations, it is believed that extensive portions of this territory are underlain by valuable coal deposits, thus to some extent counterbalancing the lack of the forests with which nature has endowed other parts of Canada.

For more detailed information concerning the coals of the Yukon the reader is referred to the writer's reports on the Yukon Territory for the past four years, published by the Geological Survey Branch of the Department of Mines of Canada.

The following are a few analyses of Yukon coals:—

Locality.	Volatile Combustible Fixed			
	Water.	Matter.	Carbon.	Ash.
Sour Dough Mine, average of scowload	14.46	33.94	40.52	11.08
Tantalus Mine, from adit where seam was 6 ft. 6 in. thick	0.76	24.74	58.60	15.90
Tantalus Butte, surface average of 8 ft. seam	13.64	31.83	51.84	2.69

Five Fingers Mine, 2 ft. seam	5.95	40.46	45.16	8.43
Whitehorse anthracite average 9 ft. 8 in. seam	2.15	6.01	69.86	21.98

STATE AID TO MINING.

The government of Australia pursues a most enlightened policy in regard to the management of mining. During 1908 the following specific appropriations were made:—

Advances in aid of mining work and equipment of mines with machinery, £8445 16s. 5d.

Advances in aid of boring, £1038 3s. 7d.

Subsidies to provide crushing plants, £2076 5s.

Purchase of boring plants, £1596 9s.

Providing means of transport, £2001 17s. 2d.

Mining water supply, roads, cartage of ore, drainage timber tramways, developmental work below 100ft. level, £1338 6s. 11d.

Private crushing plants subsidies, £2075 5s.

The total is £18,573 3s 1d.

The subsidies given to private crushing plant owners are on condition that they crush for the public at fixed rates. Mr. A. Montgomery, the State Mining Engineer, has recommended for the last two years, that the Mining Development Act should be recognized and amended, so that guiding principles may be clearly laid down as to the sort of applications for assistance that should receive consideration and the terms on which State aid can be made available. The revenue received by the Government in 1908 in return for its expenditure on mining was:—By refunds on loans, £539 1s. 11d.; from sales of securities realized upon, £1559 14s.; miscellaneous sources, £1043 14s. 10d.; total, £3142 10s. 9d. During the same year £3836 14s. 3d. was written off on account of advances deemed to be irrevocable.

Advances under the head of "Pioneer mining" cover all mining work, including the purchase of machinery. It is stipulated, however, that the proposed operations must be approved by a professional officer of the department. The limit of any individual advance under this head is £1000 and the borrower must spend a like sum. Individual advances under "prospecting" are limited to sums of £300. In this case the borrower has to put up an equivalent of pound for pound in labour or material. On the erection of State batteries the capital outlay to the end of 1907 was £237,029. The profit and loss account for 1907 shows an expenditure of £92,973 and an income of £91,274, leaving a debit balance of roughly £1698 on the year's working. This includes the accounts of cyaniding slimes and tin plants all of which operated at a profit, but such profit was absorbed in the deficiency of revenue from the batteries, which in that year, totalled £8725. Altogether, the State spent £95,624 in the smelter business. The receipts, including the money for the sale of the plant, amounted to £81,690. So the business resulted in a direct monetary loss, but the Government consider that this is more than offset by the benefits accruing from their having opened up the Phillips River field and the consequent introduction of foreign capital.

The lowest price on record for copper during the past thirty years was reached in 1894, when the metal fell to 9 cents per lb. During that year also, the average price was lower than recorded during thirty years, namely, 9.43 cents per lb. The highest recorded price during the same period was 26.25 cents in 1907.