

A thickness of 3 feet or more and a maximum depth of 500 feet are accordingly set as the limits in estimating the mineable coal reserves.

In the Plains areas of Alberta, the limits of profitable mining for the sub-bituminous coal deposits are placed at a minimum thickness of 3 feet and a maximum depth of 1,000 feet.

In the Foothills belt of Alberta and eastern British Columbia where bituminous coals of Lower and Upper Cretaceous and of Tertiary ages occur, the economic limits of mining are placed at 3 feet thickness and a maximum depth of cover of 2,500 feet.

In southern, central and northern British Columbia and in Yukon Territory, where coals of lignitic and bituminous ranks occur, the limits of economic mining are set at 3 feet thickness of coal seam and 1,000 feet maximum depth. On Vancouver Island and Graham Island where coal deposits of Upper Cretaceous age and of bituminous and anthracitic rank occur, the limits in estimating mineable reserves are placed at a minimum thickness of 3 feet and a maximum depth of 2,000 feet.

Very few data pertaining to the thickness and ranks of the coal deposits in the Northwest Territories and especially in the Arctic Islands are available. The estimates of mineable reserves that have been made are based on limited areas near the coal occurrences and on an assumed minimum thickness of seam of 3 feet. In calculating the reserves, 1.29 has been taken as the specific gravity of the coal, which is about 80 pounds of coal per cubic foot, 1,750 short tons of coal per acre foot, and 1,120,000 short tons of coal per square mile foot.

The reserves of mineable coal, as given in Table 22, cannot be compared with the estimates of total coal reserves published by the Geological Survey in G.S.C. Memoir 53, 1913, for reasons given previously (p. 466). These Geological Congress estimates of 1913 must, however, be retained for comparative geological purposes until a complete re-estimate of the mineable or recoverable coal reserves throughout the world has been made. The current estimate of mineable reserves may be considered a very conservative one and doubtless it will be considerably increased as greater exploration and additional knowledge relating to the deposits of the different coalfields is acquired. In most of the coalfields only a small fraction of the area likely to be underlain by coal has been used in the computation, the extent of such areas being determined by the known occurrences of coal and the thicknesses of the seam or seams at the different localities.

The current estimate of mineable coal is less than one-tenth of the 1913 estimate of total coal. The estimates show a slight change also in the relative standing of the different coal-bearing provinces. Alberta, though retaining the leading position, is credited with only 48 p.c. of the mineable coal reserves of Canada as against the former estimate of 85 p.c. Saskatchewan holds second place with 24 p.c. of the mineable reserves replacing British Columbia which has only 19 p.c. of the mineable reserves. The Saskatchewan coal, however, is of lignitic rank whereas that of British Columbia is largely of bituminous and sub-bituminous ranks. Nova Scotia stands fourth with more than 3 p.c. of the total mineable coal reserves, most of which is of High Volatile A Bituminous Coal. Northwest Territories stands fifth with slightly less than 3 p.c. of the total mineable reserves, Yukon sixth with about 2 p.c., and New Brunswick, Manitoba and Ontario combined possess the remaining reserves which amount to less than 0.5 p.c. of the total mineable coal. The percentages of the estimates of probable and possible reserves and of the coals of the five groups indicated in Canada as a whole and in its several coal-bearing provinces, are indicated in Table 22.