

Grand Lake, where the coal has the greatest thickness, mining has been carried on for more than a century. The coal production in New Brunswick increased from 44,780 tons in 1912 to 287,513 tons in 1922. The output of 268,212 tons reached in 1918 was the highest yearly production previously attained by the province.

Saskatchewan.—The coal-bearing areas lie principally in the southern part, and are being mined in the vicinity of Estevan on the Souris river. The elevation known as the Coteau is also composed of coal-bearing rocks which continue westward in the Wood mountains and the Cypress hills. This area contains possibly 4,000 square miles within which coal may be found. Between the two branches of the Saskatchewan river is an area of possible coal-bearing rocks.

Alberta.—The province is liberally supplied with coal areas. The coal is found in three distinct horizons in the Cretaceous, separated by shales of marine origin. The lowest, named the Kootenay, is practically the base of the formation and is considered Cretaceous from its fossil flora. The Belly river formation is the next in which there appear to have been land conditions of sufficiently long duration for the growth of material to form coal beds. The coal horizon of the Belly river contains but a few workable seams, but its areal distribution makes it important. The third coal horizon, known as the Edmonton, is at the top of the Cretaceous. The upper part in Alberta is a fresh water deposit and is not distinctly coal-bearing; the lower contains many lignite seams.

Belly River Formation.—The coals that belong to the Belly River horizon grade generally between lignite and bituminous and are found over the enormous area of about 16,000 square miles. The formation outcrops over a great curving band 125 miles broad at the international boundary and stretching northward to the Red Deer river, a tributary of the South Saskatchewan. In the south the beds outcrop at many points, in places, as along the Saskatchewan, in seams 18 feet thick, while at Lethbridge and Taber more than 800,000 tons of a somewhat high grade lignite are annually produced from seams of the Belly river measures. The probable reserves of the formation, including the seams at the top of the horizon, continuing beneath the Edmonton formation, are 189,450 million tons.

Edmonton Formation.—The coals of the formation are generally lignites, but in the foothills grade up to bituminous. The formation of Tertiary age with the overlying Paskapoo occupies an immense basin gradually widening toward the north and reaching from the international boundary almost to Lesser Slave lake. Coal seams outcrop in the Edmonton on both sides of the area of younger Paskapoo, lying basin-like in the centre of the Tertiary area. The lignites have been found outcropping as far north as Edmonton, one of the principal mining centres of this coal horizon. The actual reserve for the formation, the calculation being based on the actual thickness and extent is 111,097 million tons, underlying an area of 9,590 square miles. The additional probable reserve is 268,161 million tons, contained in an area of 20,340 square miles.

Kootenay Formation.—As the coals in this horizon are in the lower measures and have been subjected to greater load, they are as would be expected, of higher grade, but as the exposures are all in the broken and faulted blocks of the mountain area, a much greater change has taken place than is common in undisturbed beds. The coals range from coking coals to anthracites. The anthracite area is that of the Cascade basin, the greatest alteration being found near Banff. The Cascade area extends from south of Kananaskis river to within about twelve miles of the Saskatchewan. It is estimated to contain 769 million tons of anthracite and 2,009 million tons of the softer grades. Other important coal