

Bankhead, Alt. 4,510 ft. About one mile east of the Bankhead siding, the railway leaves the bottom of Cascade valley and, turning at 90 degrees to the southwest, passes between Cascade mountain on the north, and Tunnel mountain on the south. This was at one time the course of Bow river, but the channel was obstructed by the gravels brought down by Forty-mile creek, as well as by the moraine left by the continental ice-sheet, so that now the Bow passes through this range between Tunnel mountain and Mt. Rundle.

The structure of the beds in Cascade mountain is well shown in the cliff to the right of the railway. The beds are steeply dipping to the west and terminate in a precipitous cliff on the east. The cliffs at the base are Intermediate Limestone (Devonian), overlain by Lower Banff Limestone (Lower Carboniferous). The Lower Banff Shale above (also Lower Carboniferous) weathers into talus-covered slopes. The mountain is capped by Upper Banff Limestone and Rocky Mountain Quartzite (Upper Carboniferous). An over-thrust fault-line scarp defines the steep eastern face of this mountain; the Devonian limestones are thrust over the Cretaceous coal measures. This fault-line defines the southwest side of Cascade valley. It is exposed in the base of the Three Sisters, and extends to the southeast along the eastern face of the Livingstone range at the Crow'snest Pass, and into Montana, where it is known as the "Lewis thrust." It has not been possible to measure the actual amount of displacement, but there is a vertical throw of about three miles in Cascade mountain. McConnell has estimated that the front ranges of the Rocky mountains have been thrust about seven miles over the plains to the east, but it is not possible to measure the horizontal displacement in the Cascade Mountain thrust-fault.

A spur runs from Bankhead station to the Bankhead coal mines, about two miles to the northeast. These mines are owned and operated by the Canadian Pacific Railway Company. They are situated in the Kootenay coal measures, which are Lower Cretaceous in age. The coal is bituminous and semi-anthracite. The plant is well equipped with a large breaker and a briquetting mill.

Between the coal mines and Lake Minnewanka, a section along Cascade river exposes Cretaceous, Jurassic, Permian and Upper Carboniferous beds. Fossils are abundant, especially in the Rocky Mountain Quartzite. For a portion of this distance the driveway follows along the top of a morainal ridge. In pre-Pleistocene time, Cascade river drained out by Lake Minnewanka and Devil's Gap to the plains, but in recent time it has cut through the thick morainal detritus and has joined Bow river four miles east of Bankhead station.

Banff, Alt. 4,521 ft. This is the gateway to the Rocky Mountain National Park. This reservation covers 5,732 square miles. The town lies west of Tunnel mountain. On the north side of the valley are Cascade mountain and a subsidiary ridge, Stoney Squaw mountain, in which is shown the eroded end of an asymmetrical, anticlinal fold.

A few yards to the west of the station Bow river turns sharply to the southeast, and after passing the town and cascading over a very picturesque