

Coal beds occur in the Williams Fork and Iles Formations east of Douglas Creek and in their partial stratigraphic equivalents, the minor and main coal units of the Mesaverde Group, west of Douglas Creek. The thickness of coal, in feet, measured at right angles to the strike of the beds, is shown in stratigraphic order with youngest bed at top.

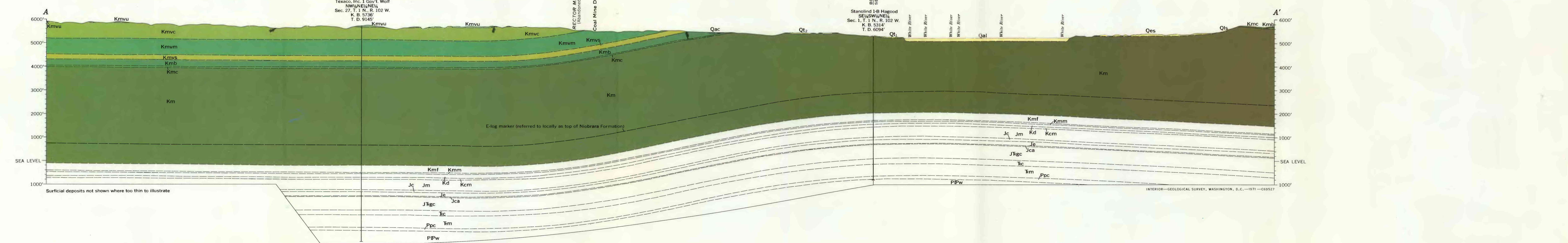
Stratigraphy of the Mesaverde Group. In the past, several mines have produced coal in the Rangely area. In addition to normal heating uses, some of the coal was sold to provide fuel for drilling wells in the early days of the Rangely field. Gale (1910, p. 250) sampled the coal from the Rector mine in the NW, SE, sec. 14, T. 1 N., R. 102 W., and the results of the analysis are listed below.

Scattered samples of coal and carbonaceous coals were collected in the Rangely area. The sample from local locality D3844 in the SW, SE, sec. 12, T. 1 N., R. 102 W., yielded polymorphs that, when compared with the forms used by Newman (1964) for correlation in the Meeker area, strongly suggest that the sample is from below the Trout Creek Sandstone Member (R. H. Tschudy, written commun., 1967). In the light of this information, the unit mapped as Rector Sandstone is stratigraphically too low to be equivalent to the Trout Creek Sandstone. Polymorphs collected by the writer from a core hole on the north side of the Rangely anticline in a coal bed of the main coal unit were reported by Tschudy (written commun., 1967) to be "the close to Trout Creek interval but not very far above the Trout Creek." This sample was about 1,200 feet above the Castlegate Sandstone.

Although the top of the Mesaverde Group is not exposed in the Rangely quadrangle, samples were collected near the top of the Mesaverde in the Point quadrangle (Cullins, 1968). Samples from a bed 40 feet below the Wasatch-Mesaverde contact at local locality D3848 in sec. 2, T. 1 N., R. 103 W., yielded paleontological assemblages similar to those obtained from the Fox Hills, the lower part of the Lance, and the lower part of the Medicine Bow Formations in Wyoming. This bed was 360 feet below the base of the Green River Formation and about 2,760 feet above the Castlegate Sandstone. Fossil locality D3852 in the SE, SW, sec. 11, T. 1 N., R. 103 W., is 125 feet above the base of the Green River Formation in the Douglas Creek Member and 485 feet above locality D3848. Polymorphs indicated an early Eocene age for the Douglas Creek Member of the Green River Formation. It appears that, when compared to areas east of Rangely, the Mesaverde at Rangely is thin, and early Eocene age beds are separated from early Lance age beds by 485 or less feet of strata.

The writer estimated that a minimum of 6,000 feet of strata of Lance age and younger is missing in the Rangely area when compared with Hancock and Eby's (1930, p. 197) measurements in the Meeker area. A minimum of 4,400 feet of strata is missing when compared to Dym's (1968) work in the Elk Springs area. These data suggest an unconformity either at the Wasatch-Mesaverde contact or possibly within the Wasatch as mapped in the Banty Point quadrangle.

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GEOLOGIC MAP OF THE RANGELY QUADRANGLE, RIO BLANCO COUNTY, COLORADO

By
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