

DESCRIPTION OF MAP UNITS

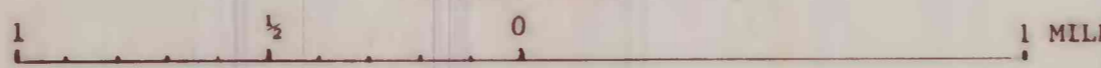
(Divisions of Williams Fork and Iles Formations follow those used by Collins (1976))

- Qa** ALLUVIUM (HOLOCENE)--Unconsolidated gravel, sand, and silt in stream valleys and alluvial fans
- QTa** HIGH-LEVEL ALLUVIUM (PLEISTOCENE AND/OR PLEISTOCENE)--Gravels preserved on ridge tops and in interstream areas; in places mapped previously as basalt of tertiary age
- Tb** BASALT (PLIOCENE AND MIOCENE)--Alkali basalts in lava-flow layers, and interbedded tuffs and volcanic conglomerates
- Tw** WASATCH FORMATION (EOCENE AND PALEOCENE)--Variegated claystone, siltstone, sandstone and conglomerate; at least 4,000 feet thick along Fourmile Creek
- Kwu** WILLIAMS FORK FORMATION (UPPER CRETACEOUS)--Sandstone, locally conglomeratic; siltstone, mudstone, shale, and coal. Undifferentiated upper part (Kw), about 3,000 feet thick, contains "upper coal zone" of this report, near base of map unit. Underlying Sovie Shale Member (Kwb), about 1,000 feet thick, characterized by upper sandstone unit (U) at top of member, and middle sandstone unit (M). Lowermost part of Sovie Shale Member contains "lower coal zone" of this report; coal bed A (A) forms base of map unit.
- Ku**
- U**
- M**
- Kwb**
- A**
- Kir** ILES FORMATION (UPPER CRETACEOUS)--Sandstone, siltstone, mudstone and shale; intertongues with Mangos Shale, Rollins Sandstone Member (Kir), at top of Iles Formation, is directly overlain by lower coal zone.
- Ki**
- Km** MANGOS SHALE (UPPER CRETACEOUS)--Chiefly dark-gray marine shale; minor amounts of limestone in lower part of formation
- Kd** DAKOTA SANDSTONE (LOWER CRETACEOUS)--Light-gray and tan sandstone or quartzite; interbedded dark shale and shaly sandstone
- CONTACT---Dashed where indefinite
- FAULT---U, upthrown side; D, downthrown side. Arrows show direction of relative movement
- 45 \ STRIKE AND DIP OF BED

Base from U.S. Geological Survey 1961

(Geologic map of northern part continues on Figure 6)

SCALE 1:24000



Geologic map compiled 1977 from geology mapped by J.R. Donnell, W.E. Hallgarth, and E.R. Landis, USGS (1952-53), and modified from Donnell (1962) and Collins (1976, pl. 1)

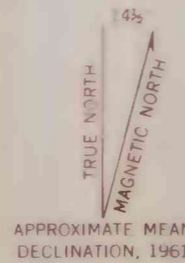


FIGURE 5.--GEOLOGIC MAP OF PART OF THE NORTHERN PART OF THE CARBONADALE COAL MINING AREA, GARFIELD COUNTY, COLORADO

CATTLE CREEK, COLO.
N 3922-5, W 10715-15
1961