Maps of Alluvial Valley Floors and Strippable Coal in Forty-two 7 1/2-minute Quadrangles, Big Horn, Rosebud, and Powder River Counties, Southeast Montana

By
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INDEX TO QUADRANGLE MAPS OF THIS REPORT. Patterned quadrangles have no identified alluvial valley floors

INDEX TO AERIAL PHOTOGRAPHS USED IN FIELD MAPPING OF ALLUVIAL VALLEY FLOORS

This report is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards.
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EXPLANATION

Areas of alluvial valley floor where width along valley exceeds 25 ft (8 m)—Includes stream channel, flood plain, and low alluvial terrace deposits. May be sub-irrigated by underflow of near-surface water or irrigated by diversion of flood flow. Alluvial terraces generally not higher than 5 ft (1.5 m) above channel floor of small streams but as much as 8 ft (2.5 m) high along principal streams. Terraces have distinct boundaries along bordering alluvial fans and colluvium, either at a step a few feet (about 1 m) high or, less commonly, along a line at which the ground surface begins to slope upward. Vegetation dominantly grass; mixed with silver sagebrush (Artemisia cana) along small streams and in the upper reaches of large streams. Greasewood (Sarcobatus) and big sagebrush (A. tridentata) are absent or rare. Typically used for growing hay, in places with supplemental irrigation. Noncultivated areas currently used for pasturage have potential for hay production. Mapped within Crow Indian Reservation only where continuous with alluvial valley floor beyond reservation boundary.

Area of high alluvial valley floor incised by narrow sinuous channel as deep as 12 ft (4 m)—Forms nearly flat alluvial terrace of low gradient above lower alluvial valley floor mapped elsewhere along Mispah Creek in Stacey 4 SE quadrangle. Mostly used for growing hay, in places with supplemental irrigation.

Areas of strippable coal—Mapped where maximum overburden thickness is 150-250 ft (46-76 m), depending on thickness of underlying coal. Area commonly includes more than one bed of strippable coal. Straight lines across some valleys mark limits for calculating coal reserves. Not mapped on Indian lands. Mapped by Matson and Blumer (1973)

Fault—Dashed where inferred; dotted where concealed. U, upthrown side; D, downthrown side. Mapped by Matson and Blumer (1973)

REFERENCE