



By
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1982

CORRELATION OF MAP UNITS

Qal	Qc	Qls				
	Qg		{	Holocene	{ QUATERNARY	
	Tw			Holocene and Pleistocene		
	Tke			Eocene		{ TERTIARY
	Keh			Paleocene		
	Kav		{	Upper Cretaceous	{ CRETACEOUS	
	Kal					
	Kh					
	Kfu					
	Kfl					
	Ka		{	Lower Cretaceous	{	
	Kbr					

DESCRIPTION OF MAP UNITS

SURFICIAL DEPOSITS (HOLOCENE)

Qal	Alluvium
Qc	Colluvium
Qls	Landslide deposits and mudflows
Qg	GRAVEL (HOLOCENE AND PLEISTOCENE)--Cobble-gravel to silt-size particles in lag concentrates overlying parts of the Billiard Shale and

Adaville Formation; derived predominantly from the Hans Fork Conglomerate Member of the Evanston Formation

Tw	WASATCH FORMATION (EOCENE AND PALEOCENE)--Red, maroon, yellow, and gray mudstone, and yellow, brown, and gray, fine- to coarse-grained sandstone. Sequence contains some stream-channel conglomerate beds containing boulders, cobbles, and pebbles of quartzite, chert, and limestone. As much as 2,000 ft thick
Tke	EVANSTON FORMATION (PALEOCENE AND UPPER CRETACEOUS)--Upper part, gray siltstone, carbonaceous claystone, shaly mudstone, quartzitic siltstone, gray carbonaceous sandstone, and some dark-brown conglomeratic ironstone. 200+ ft thick

Keh	Hans Fork Conglomerate Member (Upper Cretaceous)--Boulder-conglomerate beds containing small boulders, cobbles, and pebbles of well-rounded quartzite, chert, and limestone and interbedded white to brown calcareous sandstone; forms conspicuous boulder trains on topographic highs in west-central part of quadrangle. As much as 1,000 ft thick
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Kav	ADAVILLE FORMATION (UPPER CRETACEOUS)--Predominantly gray-brown weathering carbonaceous shale and mudstone containing beds of yellowish-brown sandstone and siltstone; contains workable coal beds as much as 70 ft thick in lower part (Dames and Moore, 1979). 2,000+ ft thick
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Kal	Lagazert Sandstone Member--Light-gray to white fine- to coarse-grained sandstone; basal part of formation. About 200-400 ft thick
Kh	HILLIARD SHALE (UPPER CRETACEOUS)--Dark-gray to dark-brown marine shale, siltstone, and sandy shale; contains a few conspicuous light-gray to light-tan fine-grained resistant sandstone beds in upper part. About 6,000 ft thick

Kfu	FRONTIER FORMATION (UPPER CRETACEOUS)
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Upper unit--Middle part consists of a prominent hogback of white to light-gray weathering, oyster-bearing sandstone (Oyster Ridge Sandstone Member) overlain by shale and thin beds of gray sandstone that contains the Kemmerer coal zone; underlain by a thick shale interval that contains the Willow Creek coal zone in the Kemmerer area. About 1,200 ft thick

Kfl	Lower unit--Dark-gray shale, tan siltstone and brown sandstone; sandstone beds less resistant than those in upper unit; contains the Spring Valley coal zone in lower part. About 1,000 ft thick
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Ka	ASPEN SHALE (LOWER CRETACEOUS)--Light- to dark-gray siltstone and shale, quartzitic sandstone, and porcelanite; forms prominent silver-gray hogbacks. About 900-1,000 ft thick
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Kbr	BEAR RIVER FORMATION (LOWER CRETACEOUS)--Black to dark-gray fissile shale and olive- to tan-weathering fine-grained sandstone; contains a few thin fossiliferous limestone beds. About 500-600 ft thick
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CONTACT--Approximately located

COAL BED--Long dashed where approximately located; short dashed where inferred. Thickness of coal, in feet, measured at triangle; V indicates coal thickness measured by Veach (1907). Number in circle refers to measured coal section

BAKED ROCKS--Showing areal extent of burned coal zone

FAULT--Dashed where approximately located; dotted where concealed. Arrows show relative horizontal movement. U, upthrown side; D, downthrown side

THRUST FAULT--Dashed where approximately located; dotted where concealed. Sawtooth on upper plate

ANTICLINE--Showing crestline; dotted where concealed

OVERTURNED ANTICLINE--Showing crestline; dotted where concealed

SYNCLINE--Showing troughline and plunges; dotted where concealed

OVERTURNED SYNCLINE--Showing troughline; dotted where concealed

STRIKE AND DIP OF BEDS

Inclined

Overturned

Vertical

COMPONENT OF DIP OF BEDS

COAL MINE--Inactive or abandoned

LINE OF MEASURED SECTION--Circled number refers to measured section

1 foot = 0.3048 meter

This report has not been edited for conformity with U.S. Geological Survey editorial standards.