

Raton Basin				
Geologic Period	Geologic Phase	Stratigraphic Unit	Hydrogeologic Unit	
Quaternary	Modern-Glaciation	Alluvium associated with present rivers	Alluvial Aquifers	
Neogene	Extension	Basalt flows	Volcanics	
		Santa Fe/Dry Union Formation	Valley-fill aquifer	
	Transition	Intrusive igneous rocks	Crystalline bedrock	
Devils Hole Formation		Valley-fill aquifer		
Paleogene	Laramide	Farista Conglomerate	Farista Aquifer	
		Huerfano Formation	Huerfano Aquifer	
		Cuchara Formation	Cuchara-Poison Canyon Aquifer	
		Poison Canyon Formation		
		Raton Formation	Raton-Vermejo-Trinidad Aquifer	
Vermejo Formation				
Cretaceous	Interior Seaway	Trinidad Sandstone	Pierre confining unit	
		Pierre Shale		
		Regional Cretaceous Seaway shale-dominated formations form multiple hydrogeologic units, most are confining units		Colorado Piedmont Regional and Ancestral Denver Basin hydrogeologic units
		Multiple sedimentary units deposited		
Jurassic	Mesozoic Sandstones	Multiple sedimentary units deposited	Colorado Piedmont Regional and Ancestral Denver Basin hydrogeologic units	
Triassic				
Permian	Ancestral Rocky Mountains	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple hydrogeologic units in the Eagle Basin-Central Colorado Trough and may be present, depending on location	Colorado Piedmont Regional and Ancestral Denver Basin hydrogeologic units	
Pennsylvanian				
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough may be present depending on location	Colorado Piedmont Regional and Ancestral Denver Basin hydrogeologic units	
Devonian				
Silurian				
Ordovician				
Cambrian				
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in mountainous region	Crystalline bedrock	

Table 11b-02-03-01. Raton Basin stratigraphic chart.

Raton Basin						
Geologic Period	Geologic Phase	Stratigraphic Unit	Unit Thickness (ft)	Physical Characteristics	Hydrogeologic Unit	Hydrologic Characteristics
Quaternary	Modern-Glaciation	Alluvium associated with present rivers			Alluvial Aquifers	
Neogene	Extension	Basalt flows		Basalt flows	Volcanics	
		Santa Fe/Dry Union Formation		Poorly stratified sandy silt with conglomerate lenses	Valley-fill aquifer	Found in the Wet Mountain Valley extension of the Raton Basin as part of the valley fill aquifer
Paleogene	Transition	Intrusive igneous rocks		Igneous stocks and dikes of gabbroic to granitic composition	Crystalline bedrock	
		Devils Hole Formation	25-1,300	Conglomerate and conglomeratic tuff	Valley-fill aquifer	Found in the Wet Mountain Valley extension of the Raton Basin as part of the valley fill aquifer
	Laramide	Farista Conglomerate	0-1,200	Conglomerate and sandstone	Farista Aquifer	Found in the Wet Mountain Valley extension of the Raton Basin as part of the valley fill aquifer
		Huerfano Formation	0-2,000	Variegated mudstone with red, white and tan sandstone	Huerfano Aquifer	Found in the Wet Mountain Valley extension of the Raton Basin as part of the valley fill aquifer
		Cuchara Formation	5,000	Pink, white and yellow-gray sandstone, conglomerate and mudstone	Cuchara-Poison Canyon Aquifer	
Poison Canyon Formation	2,500	Tan, gray, and olive sandstone, conglomerate and shale				
Cretaceous	Interior Seaway	Raton Formation	1,000-1,600	Gray, green and black shale, siltstone with sandstone and coal, and conglomerate	Raton-Vermejo-Trinidad Aquifer	Target formations for coalbed methane
		Vermejo Formation	80-550	Sandstone with interbedded shale and coal		
		Trinidad Sandstone	45-310	Tan and gray sandstone with shale partings		
		Pierre Shale	1,600-2,300	Shale with interbedded sandstone in the upper 100-300 feet	Pierre confining unit	
Jurassic	Mesozoic Sandstones	Multiple sedimentary units deposited in the stable continent interior may be present that may form aquifers			Colorado Piedmont Regional and Ancestral Denver Basin hydrogeologic units	
Triassic						
Permian	Ancestral Rocky Mountains	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple hydrogeologic units in the Eagle Basin-Central Colorado Trough and may be present, depending on location				
Pennsylvanian						
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough may be present depending on location				
Devonian						
Silurian						
Ordovician						
Cambrian						
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in mountainous region			Crystalline bedrock	

Table 11b-02-03-01. Raton Basin stratigraphic chart, detailed. Colorado Geological Survey ON-010 Colorado Groundwater Atlas.

Sources: Johnson (1959); Vine (1974); Lindsey and others (1986); Geldon (1989); Topper and others (2011); Raynolds and Hagadorn (2017)