

Table 1.--Stratigraphic and hydrologic units in the Moab-Monticello area

[Based in part on Hite and Lohman (1973), Andrews and Hunt (1956), Sanborn (1958), Hintze and Stokes (1964), Hanshaw and Hill (1969), Hinrichs, Krummel, Connor, and Moore (1971)]

System	Series	Stratigraphic Unit		Thickness (Meters)	Lithologic Characteristics	Principal Water-bearing Characteristics	Hydrologic Unit	Aquifer System	
CENOZOIC	Quaternary	Holocene and Pleistocene		Alluvium		0-110+	Alluvium--silt, sand, and gravel	Compose the principal water-bearing material and source of ground water in the larger valleys	Alluvial aquifer
	Tertiary	Pliocene (?) and Miocene (?)		Intrusive laccoliths, stocks dikes, and sills			Igneous rocks; mostly diorite, monzonite, and syenite porphyry	Precipitation may enter these rocks where they are intensely fractured and subsequently recharge adjacent permeable sedimentary rocks	Tertiary aquifer
MESOZOIC	Cretaceous	Upper Cretaceous		Mancos Shale		0-30 ⁺	Dark-grey fissile marine shale	Not water bearing	Cretaceous confining beds
				Dakota Sandstone		24-61	Interbedded sandstone and conglomerate, carbonaceous shale, and impure coal	Yields water to numerous, small freshwater springs, particularly those high on the flanks of the La Sal and Abajo Mountains	Mesozoic sandstone aquifer
	Lower Cretaceous		Burro Canyon Formation		15-76	Sandstone and conglomerate, green and reddish-purple shale	Not water bearing		
	Jurassic	Upper Jurassic	Morrison Formation	Brushy Basin Member		61-134	Variegated bentonitic mudstone, siltstone, red sandstone, and conglomerate, thin limestone beds	Not water bearing	
				Salt Wash Member		15-152	Lenticular sandstone, mudstone, few thin limestones	Sandstones yield small supplies of water locally	
			Rafael Group	Summerville Formation		6-61	Thin-bedded sandstone, sandy shale, and mudstone	Not water bearing	
				Entrada Sandstone	Moab Member	15-55	White cross-bedded fine grained sandstone	Yield small supplies of water where fractured	
		Slick Rock Member	73-110		Cross-bedded buff, orange, and white fine-grained sandstone	Yields little or no water			
			Dewey Bridge Member	18-55	Red earthy sandstone and siltstone. Contorted bedding. Called Carmel Formation in old reports	Yields little or no water			
	Triassic (?)	Upper Triassic (?)	Glen Canyon Group	Navajo Sandstone		46-122	Buff and gray cross-bedded fine-grained sandstone	Yields small to moderate supplies of water where fractured	
Kayenta Formation				43-79	Lenticular channel sandstone, siltstone, and mudstone	Yields little or no water			
Wingate Sandstone			46-107	Fine-grained reddish-brown, thick-bedded, massive and cross-bedded cliff forming sandstone	Yields small supplies of water where fractured				
Triassic	Upper Triassic	Chinle Formation		30-134	Reddish siltstone, sandstone, and mudstone; some conglomerate	Not water-bearing			
		Middle (?) and Lower Triassic		Moenkopi Formation		0-143	Brown shale, mudstone, arkosic sandstone and conglomerate. Thin beds of gypsum locally near base		
Permian	Lower Permian	Cutler Formation	Arkosic Member	114-183	Red arkosic sandstone and conglomerate, some red sandy siltstone and mudstone	Yields small supplies of water where fractured	Mesozoic-upper Paleozoic confining beds		
			Cedar Mesa Sandstone Member	0-365	Pale-orange and yellowish-gray fine-grained, calcareous sandstone				
PALEOZOIC	Upper and Middle Pennsylvanian	Rico Formation		61-175	Similar to Cutler but contains few beds of marine limestone	Yield not well known, but probably very small	Salt confining beds		
		Hermosa Formation	Upper member (Honaker Trail Formation, Hermosa Group, of Wengerd and Matheny, 1958)		30-670	Fossiliferous gray limestone, some shale and lenticular sandstones			
	Middle Pennsylvanian		Paradox Member		0-4,265	Salt, with interbeds of gypsum, carbonaceous shale, sandstone, and dolomite	Rarely transmits water; interbeds locally contain gas, oil, salt water		
		Lower member (Pinkerton Trail Formation, Hermosa Group, of Wengerd and Strickland, 1954)		0-61	Interbedded limestone, dolomite, shale and anhydrite	Yields little or no water			
	Lower Pennsylvanian	Molas Formation		0-61	Interbedded red siltstone, sandstone, limestone, and shale				
Mississippian		Leadville Limestone equivalent		76-213	Dolomite and limestone		Lower Paleozoic aquifer		
Devonian	Upper Devonian	Ouray Formation		0-61	Limestone and shale	Transmit salt water through fractures, karst zones, and dolomitized intervals. Leadville Formation equivalent is the most permeable of the group			
		Elbert Formation		30-76	Dolomite and limestone				
		McCracken Sandstone Member equivalent		15	Sandstone, limestone, and dolomite				
Cambrian	Upper Cambrian	Lynch Dolomite		122-183	Dolomite				
		Ignacio Quartzite equivalent		152-274	Sandstone, siltstone, and shale	Lower Paleozoic and Proterozoic confining beds			
Proterozoic		Undifferentiated			Granite and other igneous and metamorphic rocks	Water-bearing characteristics not known, but probably yields no water	Lower ground-water system		

Upper ground-water system

Lower ground-water system