South Park Laramide									
Geologic Period	Phase	St	Hydrogeologic Unit						
Quaternary	Modern- Glaciation		Alluvial Aquifers						
Neogene	Extension	Wagontongue/ Trump Formations		Wagontongue/ Trump Aquifer					
Paleogene	Transition	Antero Formation		Antero Aquifer					
		Thirtynine Mile Volcanics		Volcanics					
		Tallahassee Creek Conglomerate		Tallahassee Creek Aquifer					
		Wall Mountain Tuff and Buffalo Peaks volcanics		Volcanics					
	Laramide	Echo Park Alluvium		Echo Park Aquifer					
		South Park Formation	Arkosic Member	Upper South Park Aquifer					
			Link Spring Tuff Member	Link Spring confining unit					
			Conglomerate Member	Lower South Park Aquifer					
			Reinecker Ridge Volcanic Member	Volcanics					
	Interior Seaway	Laramie Formation	Upper	Laramie confining unit					
		Lara Form	Lower	Laramie- Fox Hills					
Cretaceous		Fox Hills Sandstone		Aquifer					
		Pierre Shale		Pierre confining unit					
		Regional Cretaceous Seaway shale- dominated formations form multiple hydrogeologic units, most are confining units							
Jurassic	Massasia	in the stable continent interior may		Colorado					
Triassic	Mesozoic Sandstones								
Permian		Ancestral Ro	ocky Mountains event	Piedomont Regional and					
Pennsylvanian	Ancestral Rocky Mountains	marine and formations f hydrogeolog Colorado tro depending o	Eagle-Central Colorado Trough hydrogeologic units of the South Park Mountainous Valley						
Mississippian		Lower Paleozoic sedimentary							
Devonian		formations t limestone ar							
Silurian	Paleozoic Carbonates	multiple aqu							
Ordovician	Carbonates	Central Colo Basin may b							
Cambrian		location							
Precambrian	Precambrian	Crystalline ro metamorphi region	Crystalline bedrock						
Table 11b-02-07-01. South Park Laramide Basin stratigraphic chart.									

South Park Laramide									
Geologic Period	Phase	Stratigraphic Unit		Unit Thickness (ft)	Physical Characteristics		Hydrologic Characteristics		
Quaternary	Modern- Glaciation				Alluvium	Alluvial Aquifers			
Neogene	Extension	Wagontongue/ Trump Formations		50-1,400	-1,400 Conglomerate, sandstone and siltstone				
Paleogene		Antero Formation		up to 2,000	Tuffaceous conglomerate, sandstone, siltstone, ash-flow tuff.	Antero Aquifer			
	Transition	Thirtynine Mile Volcanics		up to 2,600	Andesite and basalt flows, flow breccias, conglomerates, and ash-flow tuff	Volcanics			
		Tallahassee Creek Conglomerate		up to 800	Conglomerate with sandstone, siltstone and some limestone	Tallahassee Creek Aquifer			
		Wall Mountain Tuff and Buffalo Peaks volcanics		up to 1,200	Welded ash flow tuff	Volcanics			
		Echo Park Alluvium		50 -1,000	Conglomerate, sandstone, siltstone and mudstone	Echo Park Aquifer			
		South Park Formation	Arkosic Member	up to 3,000	Arkosic sandstone, conglomerate and mudstone	Upper South Park Aquifer			
	Laramide		Link Spring Tuff Member	700	Laminated tuff, sandstone and conglomerate	Link Spring confining unit			
			Conglomerate Member	1,200-5,100	Conglomerate, sandstone, siltstone and mudstone; predominately andesitic	Lower South Park Aquifer			
			Reinecker Ridge Volcanic Member	300-900	Conglomerate, sandstone, andesite flows and volcanic breccia	Volcanics			
Cretaceous	Interior	Laramie Formation	Upper	up to 375	Shale, silty shale, siltstone, and interbedded fine sandstone. Bituminous coal seams common	Laramie confining unit			
					Sandstone, shale and coal	Laramie- Fox Hills Aquifer			
	Seaway	Fox Hills Sandstone		up to 350	Sandstone and siltstone interbedded with shale	Pierre confining			
		Pierre Shale		~6000	~6000 Shale, siltstone with interbedded sandstone		Sandstone layers might yield limited water		
		Regional Cretaceous Seaway shale-dominated formations form multiple hydrogeologic units, most are confining units			ons form multiple hydrogeologic units, most are confining units				
Jurassic	Mesozoic	Multinla sad	Multiple sedimentary units deposited in the stable continent interior may be present that may form aquifers						
Triassic	Sandstones	viuluple sealmentary units deposited in the stable continent interior ma			timent interior may be present that may form aquilers	Colorado Piedomont			
Permian	Ancestral Rocky	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple hydrogeologic units in the Centra Colorado trough and may be present, depending on location				Regional and Eagle			
Pennsylvanian	Mountains					Central Colorado Trough			
Mississippian						hydrogeologic			
Devonian	Paleozoic	lower Paleozaic codimentary formations that are deminantly limestone and delemits form resulting a swifere research to the			nantly limestone and delemite form multiple aguifore processed in the	units of the South Park Mountainous			
Silurian	Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Central Colorado trough and Paradox Basin may be present depending on location				Valley			
Ordovician									
Cambrian									
Precambrian	Precambrian	Crystalline ro	Crystalline rocks of igneous and metamorphic origin in mountainous region						
	Table 11b-02-07-01. South Park Laramide Basin stratigraphic chart, detailed. Colorado Geological Survey ON-010 Colorado Groundwater Atlas.								
Sources: Stark (1949); Chronic (1964); Leroy (1964); Barker and Wyant (1976); Klein and others (1978); Jehn Water Consultants (1997); Barkmann and others (2015); Raynolds and Hagadorn (2017)									