

ERATHEM	SYSTEM AND SERIES		Lithostratigraphic units of Love and others (1993) <sup>1</sup>		Hydrogeologic role/unit inferred from groundwater potential evaluation of Wyoming Water Planning Program (1972, Table III-2) <sup>3</sup> [Snake and Salt River Basins]		Hydrogeologic divisions of Lines and Glass (1975, Sheet 1) <sup>4</sup> [Overthrust Belt]		Hydrogeologic role/unit of Ahern and others (1981, Figure II-7, Table IV-1, and text) [Overthrust Belt and Green River Basin]		Hydrogeologic unit of Mills (1989) and Mills and Huntoon (1989) [eastern Gros Ventre Range]		Hydrogeologic unit of Wyoming Framework Water Plan (WWC Engineering and others, 2007, Figure 4-9) [All of Wyoming]		Hydrogeologic unit of Bartos and Hallberg, (2010, Figures 5-2, 5-3, 5-4, text, and references therein) [Green River Basin]		Hydrogeologic unit of Bartos and others, (2012, Plate II, text, and references therein) [Wind River Basin]		Hydrogeologic unit used in this report for Snake/Salt River Basin				
CENOZOIC	QUATERNARY	Holocene	Alluvium, terrace, and glacial deposits <sup>1</sup>		Good aquifers		8–Quaternary sand and gravel		Major aquifer–Quaternary aquifer				Major aquifer–alluvial		Quaternary aquifers/hydrogeologic units		Quaternary unconsolidated-deposit aquifers		Quaternary unconsolidated-deposit aquifers				
		Pleistocene																					
		Pliocene	Intrusive igneous rocks	Huckleberry Ridge Tuff	Poor aquifer	Not discussed/not defined at time of study		1–Igneous and metamorphic rocks	7–Tertiary conglomerate and tuffs; Tertiary siltstones and sandstones		Major aquifer		Major aquifer		Marginal aquifer	Not present in investigators’ study area		Not discussed/not present in investigators’ study area		Quaternary and Tertiary volcanic rocks			
				Shooting Iron Formation																			
				Conant Creek Tuff																			
				Camp Davis Formation																			
		Miocene	Teewinot Formation	Poor aquifer	Fair to good aquifer																		
			Colter Formation	Fair to poor aquifer																			
	TERTIARY	Oligocene	White River Formation		Not discussed						Not discussed/not present or not defined in investigators’ study area at time of study				White River aquifer		White River aquifer		White River aquifer				
			Intrusive igneous rocks		Poor aquifer		1–Igneous and metamorphic rocks																
Eocene		Tepee Trail Formation		Not discussed																			
		Hominy Peak Formation	Aycross Formation	Not discussed																			
		Wind River Formation <sup>2</sup>		Poor to good aquifer		7–Tertiary conglomerate and tuffs; Tertiary siltstones and sandstones																	
		Paleocene	Devils Basin Formation		Not discussed																		
MESOZOIC	CRETACEOUS	Upper Cretaceous	Pinyon Conglomerate		Fair to poor aquifer																		
			Harebell Formation		Good aquifer																		
			Meeteetse Formation		Poor aquifer																		
			Mesaverde Formation		Poor aquifer																		
			Sohare Formation		Not discussed																		
			Bacon Ridge Sandstone		Good aquifer																		
			Cody Shale		Poor aquifer																		
			Frontier Formation		Probably poor aquifer																		
		Lower Cretaceous	Mowry Shale		Confining unit																		
			Muddy Sandstone		Probably poor aquifer																		
			Thermopolis Shale		Confining unit																		
			Cloverly Formation		Fair to poor aquifer																		
			JURASSIC		Upper Jurassic	Morrison Formation		Probably poor aquifer															
			Middle Jurassic		Sundance Formation		Poor aquifer (?)																
			Gypsum Spring Formation		Poor aquifer																		
	JURASSIC (?) AND TRIASSIC (?)		Nugget Sandstone		Fair to good aquifer																		
	TRIASSIC	Upper Triassic	Chugwater Formation		Fair to poor aquifer (?)																		
			Dinwoody Formation		Confining unit																		
	PERMIAN	Phosphoria Formation and related rocks		Poor aquifer				3–Triassic and Permian siltstones and limestones				Phosphoria–Dinwoody–Chugwater confining unit		Major aquifer–sandstone		Nugget aquifer		Nugget aquifer		Nugget aquifer			
	PALEOZOIC	PENNSYLVANIAN	Upper Pennsylvanian	Tensleep Sandstone		Poor to good aquifer				Major aquifer		Tensleep aquifer (includes lower sandstones of Phosphoria Formation)		Major aquifer		Tensleep aquifer		Tensleep aquifer		Tensleep aquifer			
			Middle Pennsylvanian	Amsden Formation		Fair to poor aquifer				Minor aquifer–locally confining		Amsden confining unit		Marginal aquifer		Amsden aquifer and(or) confining unit		Amsden aquifer		Amsden aquifer			
			Lower Pennsylvanian																				
MISSISSIPPIAN		Upper Mississippian	Madison Limestone		Fair to good aquifer				Major aquifer		Madison aquifer/subaquifer		Major aquifer–limestone		Madison aquifer		Madison aquifer		Madison aquifer				
		Lower Mississippian																					
DEVONIAN		Upper Devonian	Darby Formation		Fair to poor aquifer				Major aquifer		Darby aquifer/subaquifer		Major aquifer–limestone		Darby confining unit		Darby aquifer		Darby aquifer				
		Lower Devonian																					
SILURIAN		Upper and Middle Silurian					2–Paleozoic limestones and sandstones																
ORDOVICIAN		Upper Ordovician	Bighorn Dolomite		Fair to poor aquifer				Major aquifer		Bighorn aquifer/subaquifer		Major aquifer–limestone		Bighorn aquifer				Bighorn aquifer				
		Middle Ordovician																					
	Lower Ordovician																						
CAMBRIAN	Upper Cambrian	Gallatin Limestone	Gallatin Group	Snowy Range Formation	Probably poor aquifer				Minor aquifer		Gallatin aquifer/subaquifer		Minor aquifer		Gallatin confining unit		Gallatin aquifer and confining unit						
		Pilgrim Limestone																					
	Middle Cambrian	Gros Ventre Formation		Probably poor aquifer				Aquitard/regional aquitard		Park Shale confining unit Death Canyon aquifer Wolsey Shale confining unit		Minor aquifer		Gros Ventre confining unit		Gros Ventre confining unit		Gros Ventre aquifer and confining unit					
		Flathead Sandstone		Poor to good aquifer				Minor aquifer–Flathead aquifer				Major aquifer–limestone <sup>5</sup>		Flathead aquifer		Flathead aquifer		Flathead aquifer					
PRECAMBRIAN			Precambrian rocks		Recharge areas		1–Igneous and metamorphic rocks		Minor aquifer–Precambrian aquifer		Not discussed		Major aquitard		Precambrian basal confining unit		Precambrian basal confining unit		Precambrian basal confining unit				

<sup>1</sup>Alluvium, terrace deposits, and glacial deposits of Quaternary age not included in Love and others (1993).

<sup>2</sup>Includes upper variegated sequence, coal sequence, and lower variegated sequence.

<sup>3</sup>Poor aquifer is defined as potential well yield less than or equal to 50 gallons per minute (gal/min); fair aquifer is defined as potential well yield greater than 50 gal/min and less than or equal to 350 gal/min; and good aquifer is defined as potential well yield greater than 350 gal/min (Wyoming Water Planning Program, 1972, Table III-2, p. 60).

<sup>4</sup>Lithostratigraphic units grouped into eight hydrogeologic divisions based on “somewhat similar origins, lithologies, and water-bearing properties” (Lines and Glass, 1975, Sheet 1).

<sup>5</sup>Predominant lithology is sandstone, and it is unknown why formation is defined as “Major aquifer–limestone” in WWC Engineering and others (2007, Figure 4-9).

**Plate 5. Relation of lithostratigraphic units to hydrogeologic units, Teton and Gros Ventre Ranges, Snake/Salt River Basin, Wyoming.**