ERATHEM	SYSTEM AND SERIES		Lithostratigraphic units of Love and others (1993)[1]		Hydrogeologic role/unit inferred from groundwater potential evaluation of Wyoming Water Planning Program (1972, Table III-2)[2] [Snake and Salt River Basins]		Hydrogeologic unit of Wyoming Framework Water Plan (WWC Engineering and others, 2007, Figure 4-9) [All of Wyoming]		Hydrogeologic unit of Bartos and others, 2012 (Plate II, text, and references therein) [Wind River Basin]		Hydrogeologic unit of Bartos and others, 2012 (Plate III, text, and references therein) [Bighorn Basin]		Hydrogeologic unit used in this report for Snake/Salt River Basin	
			A Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges	*A* Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges	*A* Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges	*A* Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges	*A* Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges	*A* Yellowstone Volcanic Area	*B* Absaroka and Washakie Ranges
CENOZOIC	QUATERNARY	Holocene	Sediments[1]	Alluvium, terrace, and glacial deposits[1]	Good aquifer		Major aquifer–alluvial		Quaternary unconsolidated-deposit aquifers		Quaternary unconsolidated-deposit aquifers		Quaternary unconsolidated-deposit aquifers	
		Pleistocene	Plateau Rhyolite: Osprey Basalt; Madison River Basalt; Basalts; Sediments interlayered with members of the Plateau Rhyolite; Yellowstone Group: Undine Falls Basalt; Mount Jackson Rhyolite; Sediments and basalts of the Narrows; Lewis Canyon Rhyolite; Lava Creek Tuff; Huckleberry Ridge Tuff	Basalt; Lava Creek B ash	Poor aquifer	Poor aquifer	Marginal aquifer	Marginal aquifer	Not discussed/not present in Wind River Basin	Not discussed/not present in Wind River Basin	Quaternary and Tertiary volcanic-rock aquifers		Quaternary and Tertiary volcanic rocks	
	TERTIARY	Pliocene	Andesite, rhyolite, basalt, and gravel; Heart Lake conglomerate, intrusive rocks, and basalt; Conant Creek Tuff	Basalt and vogesite; ? Caldwell Canyon Volcanics										
		Miocene	Colter Formation		Fair to poor aquifer		Marginal aquifer		Not discussed		Not discussed		Hydrogeologic role/unit not defined	
		Oligocene	White River Formation		Not discussed		Marginal aquifer		White River aquifer		White River aquifer		White River aquifer	
		Eocene	Intrusive igneous rocks; Absaroka Volcanic Supergroup; Hominy Peak Formation; Thorpe Creek Member; Sunlight Group; Weathern Group: Wiggins Formation; Two Ocean Formation; Langford Formation; Trout Peak Trachyandesite; Crescent Hill Basalt; Wapiti Formation; Mount Wallace Formation; Sepulcher Formation; Lamar River Formation; Cathedral Cliffs Formation; Tepee Trail Formation; Aycross Formation; Crandall Conglomerate; Wind River Formation	Intrusive igneous rocks	Poor aquifer; Not discussed; Not discussed; Not discussed; Poor to good aquifer	Not discussed; Not discussed; Not discussed; Major aquifer–sandstone	Not discussed/not present in Wind River Basin; Not discussed	Not discussed/not present in Wind River Basin; Aycross-Wagon Bed confining unit; Aycross-Wagon Bed confining unit; Wind River Aquifer	Quaternary and Tertiary volcanic rock aquifers (Absaroka Volcanic Supergroup aquifers); Not discussed; Not discussed; Not discussed	Not discussed; Not discussed; Not discussed	Quaternary and Tertiary volcanic rocks; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Wind River Aquifer	Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined
		Paleocene	Pinyon Conglomerate	Pinyon Conglomerate	Fair to poor aquifer	Fair to poor aquifer	Not discussed	Not discussed	Not discussed	Not discussed	Not discussed	Not discussed	Hydrogeologic role/unit not defined	
MESOZOIC	CRETACEOUS	Upper Cretaceous	Landslide Creek Formation; Harebell Formation	Cretaceous (?) intrusive igneous rocks; Harebell Formation	Poor aquifer (?); Good aquifer	Poor aquifer; Good aquifer	Marginal aquifer	Marginal aquifer	Not discussed; Not discussed	Not discussed; Not discussed	Not discussed; Not discussed	Not discussed; Not discussed	Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined	
				Mesaverde Formation		Poor aquifer		Minor aquifer						Mesaverde aquifer
			Everts Formation; Eagle Sandstone; Telegraph Creek Formation	Sohare Formation; Bacon Ridge Sandstone; Bacon Ridge Sandstone	Fair to poor aquifer (?); Probably fair aquifer; Fair to poor aquifer	Not discussed; Good aquifer; Good aquifer	Not discussed; Not discussed; Not discussed	Marginal aquifer; Marginal aquifer; Marginal aquifer	Not discussed; Not discussed; Not discussed	Not discussed; Not discussed	Not discussed; Not discussed; Not discussed	Not discussed; Not discussed	Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined; Hydrogeologic role/unit not defined	Hydrogeologic role/unit not defined
			Cody Shale	Cody Shale	Poor aquifer	Poor aquifer	Major aquitard	Major aquitard	Cody confining unit	Cody confining unit	Cody confining unit	Cody confining unit	Cody confining unit	
			Frontier Formation	Frontier Formation	Probably poor aquifer	Probably poor aquifer	Minor aquifer	Minor aquifer	Frontier aquifer	Frontier aquifer	Frontier aquifer	Frontier aquifer	Frontier aquifer	
			Mowry Shale	Mowry Shale	Confining unit	Confining unit	Major aquitard	Major aquitard	Mowry confining unit	Mowry confining unit	Mowry confining unit	Mowry confining unit	Mowry confining unit	
		Lower Cretaceous	Muddy Sandstone	Muddy Sandstone	Probably poor aquifer	Probably poor aquifer	Not discussed	Not discussed	Muddy Sandstone aquifer	Muddy Sandstone aquifer	Muddy Sandstone aquifer	Muddy Sandstone aquifer	Muddy Sandstone aquifer	
			Thermopolis Shale	Thermopolis Shale	Confining unit	Confining unit	Major aquitard	Major aquitard	Thermopolis confining unit	Thermopolis confining unit	Thermopolis confining unit	Thermopolis confining unit	Thermopolis confining unit	
			Kootenai Formation	Cloverly Formation	Fair to poor aquifer	Fair to poor aquifer	Minor aquifer	Minor aquifer	Not discussed	Not discussed	Not discussed	Not discussed	Cloverly aquifer	
	JURASSIC	Upper Jurassic	Morrison Formation	Morrison Formation	Probably poor aquifer	Probably poor aquifer	Minor aquifer	Minor aquifer	Morrison confining unit	Morrison confining unit	Morrison confining unit	Morrison confining unit and aquifer	Morrison confining unit and aquifer	
		Middle Jurassic	Ellis Group: Swift Formation; Rierdon Formation; Sawtooth Formation; Gypsum Spring Formation	Sundance Formation; Sundance Formation; Gypsum Spring Formation	Fair to poor aquifer; Confining unit; Poor aquifer	Fair to poor aquifer; Poor aquifer	Not discussed	Marginal aquifer; Marginal aquifer; Marginal aquifer	Not discussed	Sundance aquifer; Gypsum Spring confining unit	Sundance aquifer; Gypsum Spring confining unit	Not discussed	Sundance confining unit and aquifer; Gypsum Spring confining unit and aquifer	Sundance confining unit and aquifer; Gypsum Spring confining unit and aquifer
	JURASSIC (?) AND TRIASSIC (?)			Nugget Sandstone		Fair to good aquifer		Major aquifer–sandstone		Nugget aquifer			Nugget aquifer	Nugget aquifer
	TRIASSIC	Upper Triassic												
		Lower Triassic	Chugwater Formation	Chugwater Formation	Fair to poor aquifer	Fair to poor aquifer	Marginal aquifer	Marginal aquifer	Chugwater aquifer and confining unit	Chugwater aquifer and confining unit	Chugwater aquifer and confining unit	Chugwater aquifer	Chugwater aquifer	Chugwater aquifer and confining unit
			Dinwoody Formation	Dinwoody Formation	Confining unit	Confining unit	Marginal aquifer	Marginal aquifer	Dinwoody confining unit	Dinwoody confining unit	Dinwoody confining unit	Dinwoody confining unit	Dinwoody confining unit	Dinwoody aquifer and confining unit
PALEOZOIC	PERMIAN	Upper Pennsylvanian	Phosphoria Formation and related rocks	Phosphoria Formation and related rocks	Poor aquifer	Poor aquifer	Minor aquifer	Minor aquifer	Phosphoria aquifer and confining unit	Phosphoria aquifer and confining unit	Phosphoria aquifer and confining unit	Phosphoria aquifer and confining unit	Phosphoria aquifer and confining unit	Phosphoria aquifer and confining unit
	PENNSYLVANIAN	Middle Pennsylvanian	Quadrant Sandstone	Tensleep Sandstone	Tensleep Sandstone	Fair to poor aquifer (?)	Poor to good aquifer	Poor to good aquifer	Not discussed	Major aquifer–limestone[3]	Major aquifer–limestone[3]	Not discussed	Tensleep aquifer	Tensleep aquifer	Not discussed	Tensleep aquifer	Tensleep aquifer	Tensleep aquifer
		Lower Pennsylvanian	Amsden Formation	Amsden Formation	Amsden Formation	Fair to poor aquifer	Fair to poor aquifer	Fair to poor aquifer	Marginal aquifer	Marginal aquifer	Marginal aquifer	Amsden aquifer	Amsden aquifer	Amsden aquifer	Amsden confining unit	Amsden confining unit	Amsden confining unit	Amsden aquifer
	MISSISSIPPIAN	Upper Mississippian												
		Lower Mississippian	Madison Group: Mission Canyon Limestone; Lodgepole Limestone	Madison Limestone	Madison Limestone	Fair to good aquifer	Fair to good aquifer	Fair to good aquifer	Major aquifer–limestone	Major aquifer–limestone	Major aquifer–limestone	Madison aquifer	Madison aquifer	Madison aquifer	Madison aquifer	Madison aquifer	Madison aquifer	Madison aquifer
	DEVONIAN	Upper Devonian	Three Forks Formation; Jefferson Formation	Darby Formation	Darby Formation	Confining unit; Fair to poor aquifer	Fair to poor aquifer	Fair to poor aquifer	Major aquifer–limestone	Major aquifer–limestone	Major aquifer–limestone	Not discussed	Darby aquifer	Darby aquifer	Not discussed	Darby aquifer	Darby aquifer	Darby aquifer
		Lower Devonian												
	SILURIAN	Upper and middle Silurian												
	ORDOVICIAN	Upper Ordovician	Bighorn Dolomite	Bighorn Dolomite	Bighorn Dolomite	Fair to poor aquifer	Fair to poor aquifer	Fair to poor aquifer	Major aquifer–limestone	Major aquifer–limestone	Major aquifer–limestone	Bighorn aquifer	Bighorn aquifer	Bighorn aquifer	Bighorn aquifer	Bighorn aquifer	Bighorn aquifer	Bighorn aquifer
		Middle Ordovician												
		Lower Ordovician												
	CAMBRIAN	Upper Cambrian	Gallatin Group: Snowy Range Formation; Pilgrim Limestone; Gallatin Limestone	Gallatin Limestone	Gallatin Group: Snowy Range Formation; Pilgrim Limestone; Gallatin Limestone	Poor aquifer; Not discussed	Probably poor aquifer	Poor aquifer; Not discussed; Probably poor aquifer	Minor aquifer	Minor aquifer	Minor aquifer	Gallatin confining unit	Gallatin confining unit	Gallatin confining unit	Gallatin confining unit	Gallatin confining unit	Gallatin confining unit	Gallatin aquifer and confining unit
		Middle Cambrian	Park Shale; Meagher Limestone; Wolsey Shale	Gros Ventre Formation	Gros Ventre Formation	Confining unit; Poor aquifer; Confining unit	Probably poor aquifer	Probably poor aquifer	Not discussed	Minor aquifer	Minor aquifer	Not discussed	Gros Ventre confining unit	Gros Ventre confining unit	Gros Ventre confining unit	Gros Ventre confining unit	Gros Ventre confining unit	Gros Ventre aquifer and confining unit
			Flathead Sandstone	Flathead Sandstone	Flathead Sandstone	Poor to good aquifer	Poor to good aquifer	Poor to good aquifer	Major aquifer–sandstone	Major aquifer–sandstone	Major aquifer–sandstone	Flathead aquifer	Flathead aquifer	Flathead aquifer	Flathead aquifer	Flathead aquifer	Flathead aquifer	Flathead aquifer
PRECAMBRIAN			Precambrian rocks	Precambrian rocks	Precambrian rocks	Recharge areas	Recharge areas	Recharge areas	Major aquitard	Major aquitard	Major aquitard	Precambrian basal confining unit	Precambrian basal confining unit	Precambrian basal confining unit	Precambrian basal confining unit	Precambrian basal confining unit	Precambrian basal confining unit	Precambrian basal confining unit

[1]Alluvium, terrace deposits, and glacial deposits of Quaternary age not included in Love and others (1993). Includes deposits of Holocene and Pleistocene age.
[2]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).
[3]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 6. Relation of lithostratigraphic units to hydrogeologic units, Yellowstone Volcanic Area and Absaroka and Washakie Ranges, Snake/Salt River Basin, Wyoming.