

SYSTEM	SERIES AND EUROPEAN STAGE	WESTERN MONTANA	CENTRAL MONTANA	WESTERN POWDER RIVER BASIN—WYOMING	BLACK HILLS—SOUTH DAKOTA	EASTERN MONTANA — WESTERN NORTH DAKOTA	EASTERN NORTH DAKOTA — EASTERN SOUTH DAKOTA	SIMULATION-MODEL UNIT	
TERTIARY	PLIOCENE							Upper boundary aquifer layer AQ 5	
	MIOCENE				Ogallala Formation				
					Anikaree Formation				
	OLIGOCENE	Volcanic rocks	Volcanic rocks	White River Formation	White River Formation	White River Formation (Western North Dakota only)			
	EOCENE			Wasatch Formation		Golden Valley (Western North Dakota only)			
CRETACEOUS	PALEOCENE	Willow Creek Formation	Fort Union Formation Tongue River Member Lebo Shale Member Tullock Member	Tongue River Member Lebo Shale Member Tullock Member	Fort Union Formation Tongue River Member Cannonball Member Ludlow Member	Fort Union Formation Sentinel Butte Member Tongue River Member Lebo Shale Member Cannonball Member Ludlow Member		Confining unit TK 4	
	MAESTRICHTIAN	St. Mary River Formation	Hell Creek Formation	Lance Formation	Hell Creek Formation	Hell Creek Formation			
		Horsethief Sandstone	Fox Hills Sandstone	Fox Hills Sandstone	Fox Hills Sandstone	Fox Hills Sandstone			
	CAMPANIAN	Bearpaw Shale	Bearpaw Shale	Mesaverde Formation Teapot Sandstone Member Unnamed Parkman Sandstone Member	Pierre Shale	Pierre Shale	Pierre Shale		
		Two Medicine Formation	Judith River Formation	Cody Shale or Steele Shale Unnamed					
		Virgelle Sandstone	Eagle Sandstone	Sussex Sandstone Member	Mitten Black Shale Member	Pembina Member	Sharon Springs Member		
		SANTONIAN	Telegraph Creek Formation	Telegraph Creek Formation	Fishtoosh sandstone	Niobrara Formation	Niobrara Formation		Niobrara Formation
	CONIACIAN	Marias River Shale	Niobrara Formation	Niobrara Formation					
	TURONIAN		* Bowdoin sandstone Carlile Shale	Carlile Shale	Carlile Shale	Carlile Shale	Carlile Shale		
	CENOMANIAN		Greenhorn Formation	Frontier Formation	Greenhorn Formation	Greenhorn Formation	Greenhorn Formation		
			Mosby Sandstone Member		Belle Fourche Shale	Belle Fourche Shale	Belle Fourche Shale		
	ALBIAN	Blackleaf Formation Bootlegger Member Vaughn Member * Bow Island sandstone	Mowry Shale	Mowry Shale	Mowry Shale	Mowry Shale	Mowry Shale		
		Taft Hill Member	Muddy Sandstone	Muddy Sandstone	Newcastle Sandstone	Muddy Sandstone	Newcastle Sandstone		Dakota Sandstone/Formation (part)
		Flood Member	Skull Creek Shale * Basal silt	Skull Creek or Thermopolis Shale	Skull Creek Shale * Basal silt	Skull Creek Shale * Basal silt	Skull Creek Shale * Basal silt		
			* First Cat Creek sandstone	Fall River equivalent	Fall River Sandstone	Fall River Sandstone	Fall River Sandstone		
	APTIAN	Kootenai Formation Sunburst Member	Kootenai Formation * Second Cat Creek sandstone * Third Cat Creek sandstone	Fuson equivalent Lakota Formation	Inyan Kara Group Fuson Member Lakota Formation	Fuson Formation Lakota Formation	Fuson Formation Lakota Formation		
		Cutbank Sandstone Member							
	NEOCOMIAN								
	JURASSIC	UPPER JURASSIC							
TITHONIAN									
KIMMERIDGIAN		Morrison Formation	Morrison Formation	Morrison Formation	Morrison Formation	Morrison Formation			
OXFORDIAN		Swift Formation	Swift Formation	Upper part	Upper part	Swift Formation	Swift Formation		
MIDDLE JURASSIC		CALLOVIAN		Sundance Formation Lower part	Sundance Formation Lower part	Rierdon Formation	Rierdon Formation		
		BATHONIAN	Rierdon Formation	Rierdon Formation		Piper Formation	Piper Formation		
	BAJOCIAN	Sawtooth Formation	Piper Formation	Gypsum Spring Formation	Gypsum Spring Formation	Nesson Formation	Nesson Formation		

\*Of informal or subsurface usage

Compiled by L.O. Anna, 1982.  
Modified from Balster (1971)  
Imlay (1980), and Rice (1976).

**GENERALIZED CORRELATION CHART OF JURASSIC AND CRETACEOUS (MESOZOIC) AND TERTIARY ROCKS OF THE NORTHERN GREAT PLAINS IN PARTS OF MONTANA,**