

ERA	PERIOD	FORMATION	MEMBER	MAXIMUM THICKNESS (m)	BASIC LITHOLOGY		
CENOZOIC	QUATERNARY	(Recent)			Top soil, dune sands, lake clays, peat		
		Glacial Drift		140	Clay, sand, gravel, boulders, till		
	TERTIARY						
MESOZOIC	CRETACEOUS	Boissevain	Peace Garden Goodlands	45	Sand, sandstone, greenish grey		
		Pierre Shale (First White Specks)	Couter Odanah Millwood Penzance Gammon Ferruginous	400	Grey shales, non-calcareous, local ironstone, bentonitic, carbonaceous		
		Niobrara		75	Grey speckled shale, calcareous, bentonitic		
		Morden Shale		55	Dark grey shale, non-calcareous, concretions, local sand and silt		
		Favel (Second White Specks)	Assiniboine Keld	45	Grey shale with calcareous specks, bands of limestone and bentonite		
		Ashville	Belle Fourche Shale Wapatoke Newcastle Skull Creek	80	Dark grey shale, non-calcareous, silty, Newcastle (sand zone)-quartz sandstone		
		Swan River		150	Sandstone and sand, quartzose, pyritic shale, non-calcareous		
	JURASSIC	Waskada		60	Banded green shale and calcareous sandstone, bands of limestone, varicoloured shale		
		Melita		145			
		Reston		45	Limestone, buff, and grey shales		
		Amaranth	Evaporite	55	White anhydrite and/or gypsum and banded dolomite and shale		
	TRIASSIC		Red Beds	45	Red shale to siltstone, dolomitic		
	PALEOZOIC	PERMIAN	St. Martin Complex		265(+)	Carbonate breccia, trachyandesite (crypto-explosion structure?)	
		PENNSYLVANIAN					
MISSISSIPPIAN		Madison Group	Charles		20	Massive anhydrite and dolomite	
			Mission Canyon	MC-5 MC-4 MC-3 MC-2 MC-1	120	Light buff limestone, oolitic, fossiliferous, fragmental, cherty, bands of shale and anhydrite	
			Lodgepole	Flossie Lake Whitewater Lake Virden Scallion Daly	185	Limestone and argillaceous limestone, light brown and reddish mottled, zones of shaley, oolitic, crinoidal and cherty limestone	
		Bakken	Upper Middle Lower	20	Two black shale zones separated by siltstone		
		DEVONIAN	Qu'Appelle Group	Three Forks		55	Red siltstone and shale, dolomitic
				Birdbear		40	Limestone and dolomite, yellow-grey, fossiliferous, porous, some anhydrite
				Duperow		120	Limestone and dolomite, argillaceous and anhydritic in places
Erie-Elzevir Group			Sours River (First Red)		90	Cyclical shale, limestone and dolomite, anhydritic	
			Dawson Bay (Second Red)		50	Limestone and dolomite, porous, anhydritic, local red and green shale	
			Winnipegosis	Prairie Evap.	120	Halite, potash and anhydrite, interbedded dolomite	
SILURIAN		Elzevir Group	Elm Point		75	Dolomite, yellow brown, reefy	
			Ashern		12	Dolomite and shale, brick red	
		Interlake Group		110	Dolomite, yellow buff, fossiliferous, several argillaceous marker beds		
		ORDOVICIAN	Stonewall	t-marker zone Williams Guntton	25	Dolomite, sparsely fossiliferous, t-marker defines Ordovician-Silurian boundary	
			Stony Mountain	Penitentiary Gunn	45	Dolomite, yellow buff Dolomite, dusky yellow, fossiliferous, red shale, green fossiliferous limestone bands (Gunn)	
			Red River	Fort Garry Selkirk Cat Head Dog Head	170	Dolomitic limestone and dolomite, mottled (Tyndall Stone within Selkirk)	
			Winnipeg	Upper Unit Lower Unit	65	Green shale, waxy, interbedded sandstone Sand, sandstone and quartzose	
	Deadwood			25	Black to green grey sand, waxy, glauconitic siltstone and shale		
	PRECAMBRIAN				Metamorphic and crystalline rock		