



STRATIGRAPHIC CORRELATION CHART

TGI II: Williston Basin Architecture and Hydrocarbon Potential in Eastern Saskatchewan and Western Manitoba

ERA	PERIOD	EASTERN SASKATCHEWAN	MANITOBA SUBSURFACE	MANITOBA OUTCROP		
CENOZOIC	Quaternary	glacial drift	glacial drift	glacial drift		
	Tertiary	Wood Mountain Formation Ravenscrag Formation	Peace Garden Member Goodlands Member	Peace Garden Member Goodlands Member		
MESOZOIC	CRETACEOUS	MONTANA GROUP Frenchman Formation Whitemud Formation Eastend Formation Bearpaw Formation Belly River Formation Lea Park Formation Milk River Formation	Pierre Shale Boissevain Formation Coulter Member Odanah Member "lower" Odanah Member Millwood Member Pembina Member Gammon Ferruginous Member	Pierre Shale Boissevain Formation Coulter Member Odanah Member Millwood Member Pembina Member Gammon Ferruginous Member		
		COLORADO GROUP upper Niobrara Formation Boyer Member Morden Member Second White Specks	Carlile Formation Boyer Member Morden Member Assiniboine Member Keld Member	Carlile Formation Boyer Member Morden Member Assiniboine Member Keld Member		
		MANNVILLE GROUP lower Belle Fourche Formation Fish Scale Formation Westgate Formation Newcastle Formation Viking Sandstone Joli Fou Formation Pense Formation (P4) P2+P3 (lithological tops of sand) Cantuar Formation	Ashville Formation upper Belle Fourche Member Fish Scale Zone Westgate Member Newcastle Member Skull Creek Member Swan River Formation	Ashville Formation upper Belle Fourche Member Fish Scale Zone Westgate Member Skull Creek Member Swan River Formation		
		Success Fm S <sub>1</sub> S <sub>2</sub>	Success Formation (S <sub>1</sub> )	Success Formation (S <sub>1</sub> ) equivalent		
		Shannon Fm Gravel Bay Fm Upper Member Lower Member	Melita Formation Upper Melita Member Lower Melita Member Reston Formation Lower Gravelbourg "marker"	Reston Formation		
		Wainwright Formation Upper Member Lower Member	Amaranth Formation Upper (Evaporite) Member Lower (Red Beds) Member	Amaranth Formation Upper Evaporite Lower Red Beds		
		PERMIAN			St. Martin Igneous & Metamorphic Complex	
		PALEOZOIC	MISSISSIPPIAN	BIG SNOWY GROUP Greenpoint Anhydrite Oungre Evaporite Oungre Zone Midale Evaporite upper lower Frobisher Evaporite Hastings Evaporite Frobisher Beds Kisbey Interval Alida Beds Tilston Beds Souris Valley Beds Upper Member Middle Member Lower Member Big Valley Formation	Charles Formation MC-3b Dando Evaporite MC-3a upper MC-2 marker MC-1 Member Flossie Lake Member Slope facies (Daly Field) Shelf facies (Virden Field) upper middle lower Cruickshank Shale facies Cruickshank Crinoidal facies Cromer Shale facies Basal Limestone facies Scallion Member Routledge Shale facies Upper Member Middle Member Lower Member	
				THREE FORKS GROUP Torquay Formation Upper Birdbear Lower Birdbear Seward Member Flat Lake Evaporite Upper Middle Lower Elstow Member Saskatoon Member Hatfield Member Upper Harris Evaporite Harris Member Lower Harris Evaporite Davidson Evaporite Davidson Member First Red Bed Member Hubbard Evaporite Neely Member Burr Member Second Red Bed Member Patience Lake Member Belle Plaine Member White Bear Member Esterhazy Member Transitional Unit Upper Member Lower Member Ashern Formation	QU'APPELLE GROUP Three Forks Formation Upper (biohermal facies) Lower (platform facies) Seward Member Flat Lake Evaporite Upper Middle Lower Elstow Member Saskatoon Member Hatfield Member Harris Member Davidson Member First Red Bed Member Hubbard Evaporite Neely Member Burr Member Second Red Bed Member White Bear Member Esterhazy Member Transitional Beds Upper Member Lower Member Ashern Formation	Duperow Formation Hatfield/Minitonas Member Sagemace Member Basal Shale Dolomitic Limestone Beds Micritic Limestone Beds Argillaceous Limestone Beds First Red Beds Upper Member (D) Middle Member (C) Lower Member (B) Second Red Bed Member (A)
				SASKATCHEWAN GROUP Duperow Formation Wyman Member Upper Middle Lower Elstow Member Saskatoon Member	SASKATCHEWAN GROUP Duperow Formation Wyman Member Upper Middle Lower Elstow Member Saskatoon Member	
MANITOBA GROUP Souris River Formation Upper Harris Evaporite Harris Member Lower Harris Evaporite Davidson Evaporite Davidson Member First Red Bed Member Hubbard Evaporite Neely Member Burr Member Second Red Bed Member	MANITOBA GROUP Souris River Formation Harris Member Davidson Member First Red Bed Member Hubbard Evaporite Neely Member Burr Member Second Red Bed Member					
ELK POINT GROUP Winnipeg Fm Upper Member Lower Member Ashern Formation	ELK POINT GROUP Winnipeg Fm Upper Member Lower Member Ashern Formation					
DEVONIAN						
SILURIAN	INTERLAKE GROUP Upper Interlake Lower Interlake Lower Interlake Anhydrite Upper Stonewall Anhydrite Stonewall Anhydrite Basal Stonewall Anhydrite Williams Member Gunton Anhydrite Gunton Member Gunn Member Hartaven Member Redvers Unit Coronach Anhydrite Coronach Member Lake Alma Anhydrite Lake Alma Member Yeoman Formation Hecla Beds Icebox Member Black Island Member			INTERLAKE GROUP upper Interlake equivalent lower Interlake equivalent upper Stonewall t-marker lower Stonewall Basal Stonewall Anhydrite Williams Member Gunton Anhydrite Gunton Member Gunn Member / Penitentiary Member Hartaven Member Redvers Unit Coronach Unit Lake Alma Anhydrite Lake Alma Unit lower Red River (Yeoman equivalent) Hecla Beds upper unit Carman Sand lower unit basal sandstone unit	Cedar Lake Formation East Arm Formation Atikameg Formation Moose Lake Formation Fisher Branch Formation upper Stonewall t-marker lower Stonewall Williams Member Gunton Member Penitentiary Member Gunn Member Hartaven Member Fort Garry Member Unit C ? Selkirk Member Cat Head Member Dog Head Member Hecla Beds (Unit A) Winnipeg Formation	
	BIGHORN GROUP Stony Mountain Fm Upper Member Lower Member Ashern Formation			BIGHORN GROUP Stony Mountain Fm Upper Member Lower Member Ashern Formation		
	Winnipeg Fm Upper Member Lower Member Ashern Formation			Winnipeg Fm Upper Member Lower Member Ashern Formation		
	DEVONIAN					
	ORDOVICIAN	Winnipeg Fm Upper Member Lower Member Ashern Formation	Winnipeg Fm Upper Member Lower Member Ashern Formation			
		Winnipeg Fm Upper Member Lower Member Ashern Formation	Winnipeg Fm Upper Member Lower Member Ashern Formation			
	CAMBRIAN	Deadwood Formation	Deadwood Formation	Deadwood Formation		
	PRECAMBRIAN	Precambrian	Precambrian	Precambrian		