

TABLE OF GEOLOGICAL FORMATIONS - PEACE RIVER ARCH & NW WCSB REGION

EON	ERA	PERIOD	EPOCH/STAGE	ASTEROID EVENT	AGE mybp	TECTONICS	LITHOLOGIES	VOLCANICS		
CENOZOIC	QUATERNARY	RECENT	HOLOCENE		.01 - 0.1	F R A U L T I V A T I O N ?	Recent River Gravels			
		Pleistocene	PLEISTOCENE	Whitecourt	0.1 - 1.6		Pleistocene Glaciofluvial Gravels			
		TERTIARY	PLIOCENE		1.6 - 5.3		Unit 1 Late Pleistocene Saskatchewan Gravels	WHITESTONE MARKER (ash)		
			MIOCENE		5.3 - 23.7		Unit 2 Preglacial Quaternary Gravels	MONTNEY DIMS		
			OLIGOCENE		23.7 - 36.6		Unit 3 Tertiary Preglacial Fluvial	(Stapleton, 1998)		
			EOCENE		36.6 - 49-50		Unit 4 oldest Tertiaries			
	PALEOCENE			57.8 - 66.4	(Cowen, 1994; Edwards et al, 1996)					
	MESOZOIC	UPPER CRETACEOUS	FORMATIONS			PEACE RIVER	D O W N W A R P	WESTERN CANADIAN SEDIMENTARY BASIN		
			MONTANA GROUP			66.4-			Belly River bentonite	
			Wapiti		Notikewan Hill Surface Elevations			72 - 74		Mt. LAKE, Lac de GRAS
			SMOKY GROUP			80				
			Paskwaskau		Chinook					
			Nomad							
			Chungo							
			Hanson							
			Thistle							
			Dowling		Rambling Creek Surface Elevation					
		COLORADO GROUP			82	82+-				
		Bad Heart (Wapiabi/Marshybank equivalent?)				(Collum '98 85.5?)				
Muskiki		Doe Creek?								
Cardium (89-90 Bhattacharya)(85.5 Leckie'96)										
Kaskapau			85							
Opabin				>						
Haven				>						
Vimy			86 ± 3	86						
Sunkey (Coniacian Stage?-Collum'98)				- 88						
FORT ST. JOHN GROUP			88 ± 5	88-89						
Dunvegan (93.5-94.5 Bhattacharya, 1989)				90 - 92						
Upper Shaftsbury				94-101						
Fish Scales Marker			95 / 96							
FISH SCALES ZONE			95							
Steen River										
Lower Shaftesbury			97							
Peace River - Paddy/Cadotte/Harmon				97-98						
Spirit River - Notikewan/Falher/Wilrich										
Loon River										
MANNVILLE/BULLHEAD GROUP										
Bluesky			106							
Gething										
Cadomin		Hotchkiss								
Nikanassin		Jackpine	144							
JURASSIC										
FERNIE GROUP Rock Creek			208							
Nordeg										
SCHOOLER CREEK GROUP										
Baldonnel										
Charlie Lake/Boundary										
Halfway										
Doig										
Montney										
DIABER GROUP			245							
PERMIAN										
Belloy			320							
STODDART GROUP										
Taylor Flat										
Kiskatinaw										
Golata										
RUNDLE GROUP										
Debolt										
Shunda										
Pekisko			352							
Banff										
/ Exshaw			360							
WABAMUN GROUP										
WINTERBURN GROUP Jean Marie										
WOODBEND GROUP										
Ireton (NE)Grossmont										
Leduc										
Cooking Lake										
BEAVERHILL LAKE GROUP										
Swan Hills - Waterways										
Slave Point										
Ft. Vermillion										
ELK POINT GROUP Watt Mtn.										
Gilwood/ Sulphur Point										
Rainbow/Muskeg /Zama										
Keg River										
Contact Rapids										
Red Beds										
Ernestina Lake		Granite Wash								
Lotsberg										
Red Beds			395							
CAMBRIAN										
(MID CAMBRIAN)			510-544							
PROTEROZOIC										
PRECAMBRIAN			2500							
ARCHEAN		(Legend - West Peace Arch Formations Montagneuse shown bold/underlined)	4000							

- Oil
- ☀ Gas
- ☀ Astrobleme
- Clastics
- Carbonates
- Evaporites

TUL PETROLEUMS LTD.

(from: assessment report AGS MIN_19990025, Stapleton)

GEOLOGICAL TABLE OF FORMATIONS

ARRIBA Land & Minerals Corp.

Sources: Okulitch, GSC, 1995; Santiago, 1996; Leckie, 1997; Geological Atlas of the Western Canadian Sedimentary Basin, 1994 (Cross-section A-A' p.28; 7-8-87-6W6M) Hitchon et al.; CSPG Volume 38A, 1990; Dufresne et al '96; Alberta ERCB Table of Formations 2009 and Stapleton, 1999, figure 13, Table 3, p. 26; Stapleton press release, 2011