



### LEGEND

PALEOZOIC	DEVONIAN	MIDDLE AND UPPER DEVONIAN	HARE INDIAN, CANON, AND BASAL IMPERIAL FORMATIONS	UNDIFFERENTIATED: shale, partly black, siliceous, bituminous; minor limestone and siltstone
	MIDDLE DEVONIAN	IRIHE FORMATION:	limestone, fossiliferous; minor shale; weathers dark grey to brown-grey	
	LOWER AND MIDDLE DEVONIAN	BEAR ROCK FORMATION:	limestone; limestone solution-breccia	
	SILURIAN AND DEVONIAN	UPPER SILURIAN AND LOWER DEVONIAN	DELOME FORMATION:	dolomite, light and dark grey or brownish, weathers buff to orange, very fine-grained, well-bedded
	ORDOVICIAN AND SILURIAN	UPPER ORDOVICIAN AND LOWER SILURIAN	MCINTYRE FORMATION:	dolomite, grey to brownish grey, weathers medium grey to light grey, finely crystalline, thick to massive bedded, vague, distinctive grey and white chert nodules throughout; distinctive fauna includes orthone cephala, stromatopora and corals (Halysites, Ctenopora)
	CAMBRIAN AND ORDOVICIAN	UPPER CAMBRIAN AND LOWER ORDOVICIAN	FRANKLIN MOUNTAIN FORMATION:	dolomite, partly sandy, silty, argillaceous, predominantly pink-grey; weathers light grey and buff to orange
	EDJACARAN AND CAMBRIAN	FRANKLIN MOUNTAIN FORMATION:	basal red beds:	sandstone, red shales, conglomeratic, dolomite, chert
	UPPER EDJACARAN AND LOWER CAMBRIAN	BACKBONE RANGES FORMATION:	quartz sandstone and siltstone, thin to thick-bedded, weathers yellowish grey	
	EDJACARAN	MIDDLE EDJACARAN	SHEEPED FORMATION:	shale, weathers dark brown and brown grey; minor siltstone, brown, laminated, typically coarsens upward, lower part contains thin beds of sandstone and pebbly conglomerate
	UPPER CRYOGENIAN AND LOWER EDJACARAN	KEELE FORMATION:	dolomite, limestone, quartz sandstone, shale, conglomeratic, weathers light grey to buff, varies compositionally from carbonate-rich to sandstone-rich	
NEOPROTEROZOIC	CRYOGENIAN	TWITYA FORMATION:	shale, grey-green to dark grey, weathers dark green to brownish grey, pyritic; minor siltstone, light grey; minor arenite, light green grey to brown, parallel laminations; limestone (in laminations and bands within upper part of formation), weathers buff-orange to brown, contains oolites of pale orange, oolitic dolomite; may include Rapitan Group	
	RAPITAN GROUP	SHEALZ FORMATION:	diamicitic (tillite), weathers to orange-brown; diamicitic, light green-grey to dark grey, stratified with mudstone, silty to sandy, unit contains pebbles, cobbles, and boulders of carbonate, altered basic volcanic rock, sandstone, chert, and mudstone, as well as rare metamorphic clasts transported from the Canadian shield	
	SAVUNEI FORMATION:	siltstone, weathers dark purple to brown, thin laminated; sandstone, argillite, maroon to grey-green, contains wedge-shaped conglomerate and tillite members; near the top is keratitic-jaspilite iron formation with dropstones		
	COATES LAKE GROUP	COPPER CAP FORMATION:	limestone, light grey to buff, elastic, laminated to massive, graded bedding; dolomite, weathers orange to dark grey; interbeds of fine shaly limestone, calcareous shale, and sandstone; in the upper portion, the dolomite contains layers of breccia, anhydrite, and conglomerate	
	REDFSTONE RIVER FORMATION:	siltstone, weathers pink, silty, recessive; minor shale, gypsum, and pyritic siltsone, at top is a tan weathering sequence of interbedded mudstone, evaporites, and carbonates (the Transition Zone) which hosts copper-bearing		
	Gabbro, greenish black, medium-grained; occurs as dykes cutting the Katherine and Little Dal groups			
	LITTLE DAL GROUP	LITTLE DAL UPPER CARBONATE FORMATION:	dolomite, orange brown and grey, thick-bedded, local domal stromatolites; oolitic limestone	
	LITTLE DAL RUSTY SHALE FORMATION:	siltstone and shale, red-brown, locally grey and green, pyritic and hematitic; sandstone at base		
	LITTLE DAL GYPSUM FORMATION:	gypsum and anhydrite, white; interbedded with shale, red, thin limestone marker bed in upper part		
	LITTLE DAL GRANSTONE FORMATION:	dolomite, light grey, thick-bedded, oolitic and pebbly; local columnar stromatolites		
LITTLE DAL BASINAL ASSEMBLAGE:	From base upward, dolomite, pale grey, oncoidal; limestone and shale, red-brown, mudcracked; dolomite containing small stromatolites and shale, red-brown, concretionary; prominent carbonate members; shale members			
LITTLE DAL MUDCRACKED FORMATION:	mudstone, dark grey, brown or red; rare interbeds of sandstone, fine-grained, mudcracked and evaporite casts on bedding surfaces; near top is regional member of mudstone, orange brown, contains oolites and intraclasts			
KATHERINE GROUP	KATHERINE UPPER DIVISION:	quartz sandstone, light reddish, cross-bedded, mudcracked		
KATHERINE MIDDLE DIVISION:	shale, siltstone and stromatolitic carbonate, weathers dark grey to yellow, capped by fine-grained sandstone; weathers maroon			
KATHERINE LOWER DIVISION:	quartz sandstone, weathers pink, purple, and white, thin-bedded and flaggy; minor dolomite, light grey to white, weathers orange, fine-grained, laminated and massive			

## Serial Cross-sections of the Ten Stone Ranges Structural Complex

NTS Sheet 106A  
Mackenzie Mountains, NT  
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