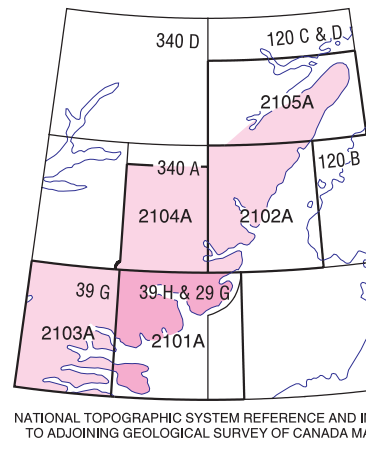




MAP 2101A
GEOLOGY
DOBBIN BAY
ELLESMERE ISLAND
NUNAVUT

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area.
Mean magnetic declination 2007, 62°16'W, decreasing 74.5' annually.
Readings vary from 60°28'W in the SE corner to 65°59'W in the NW corner of the map.

Elevations in feet above mean sea level.



LEGEND

BACHE PENINSULA AREA

PALEOCENE

TE **EUWEKA SOUND FORMATION:** poorly consolidated sandstone; medium-grained, cross-stratified; interbedded with coal.

BACHE PENINSULA AREA

DOBBIN BAY SYNGLINE AND AREA NORTH

UPPER OPHIODOLAN AND SELLURAN OR SELLURAN
ALLEN BAY CAPE STORM, DOUGRO AND GOOSE FORD FORMATIONS
undivided, near base. Stromatolites and dolomite developed; conchoidal
boundaries. Stromatolites, glauconitic, magnesian outcrops, stained granites,
includes reaslike debris, actinolite bodies and beds of their material; of
conchoidal boundaries interbedded with dark grey shale; reaslike debris facies
gradual in Cape Phillip Formation

UPPER OPHIODOLAN TO LOWER SELLURAN, OR SELLURAN
CAPE PHILLIPS FORMATION: stromatolites and shale interbedded; stromatolites
argillaceous, thin-to-thick bedded, dark grey; weathering light grey, platy.

UPPER OPHIODOLAN (ASHGILL)
ALLEN BAY FORMATION: thin-bedded stromatolites, grey, skeletal aculeation and

CAMBRIAN
strata formations

LOWER CAMBRIAN	
ERA	RAWINGS RAY FORMATION: thick-bedded sandstone; medium-grained; minor conglomerates; formation weathers white-rusty, hercynitic red and resistant.

GROUP

of approximately 1000, which is the same as the number of people in the sample.

NOTES

1. Ella Bay Formation is believed to be present intermittently at the base of the Parrish Glacier Thrust sheet. It is very thin and poorly exposed.
2. Immediately north of Dobbin Bay and of the big valley west of the head of Dobbin Bay is a large area where the shale of the Cape Phillips Formation and the reefal debris of unit O5ur interfinger. This

Some features on this map have been projected to surface through younger cover of Quaternary sediments, glacier ice, and bodies of water.

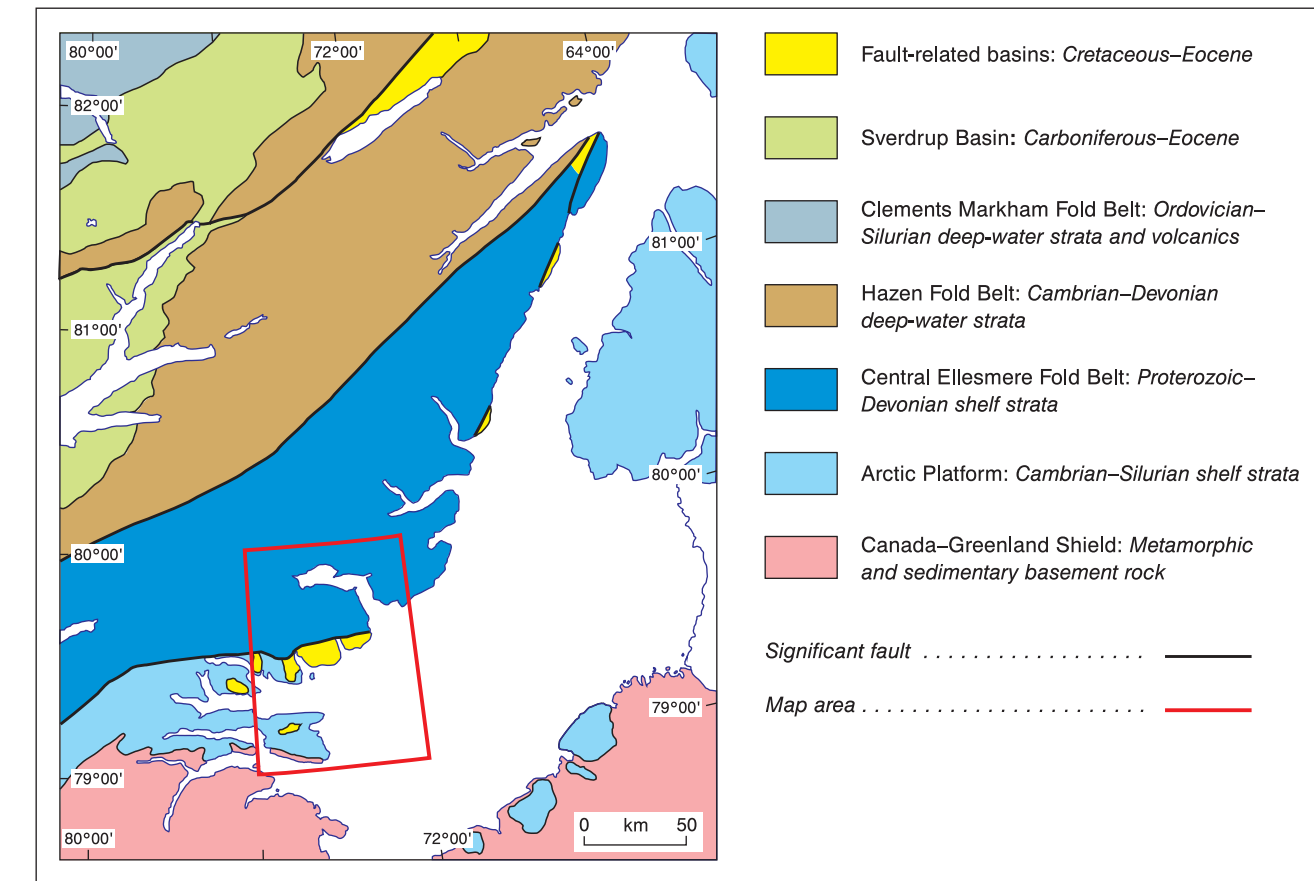
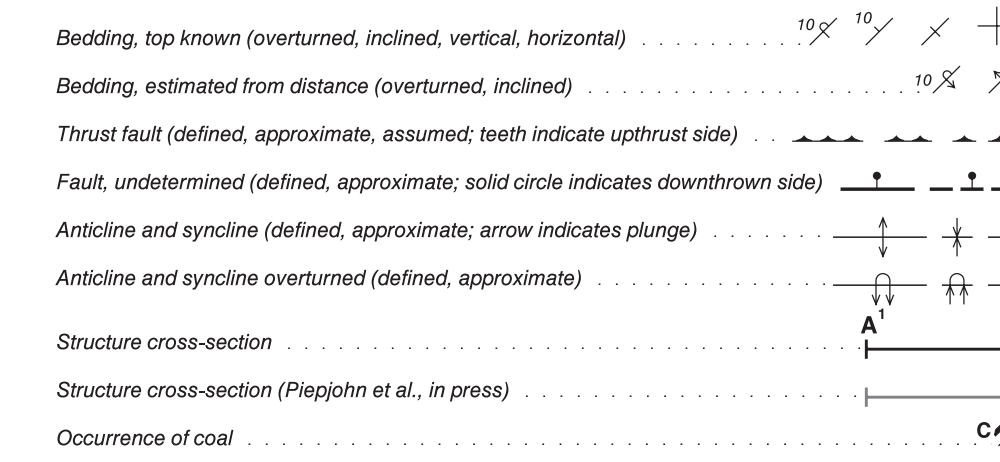


Figure 1: Tectonic index

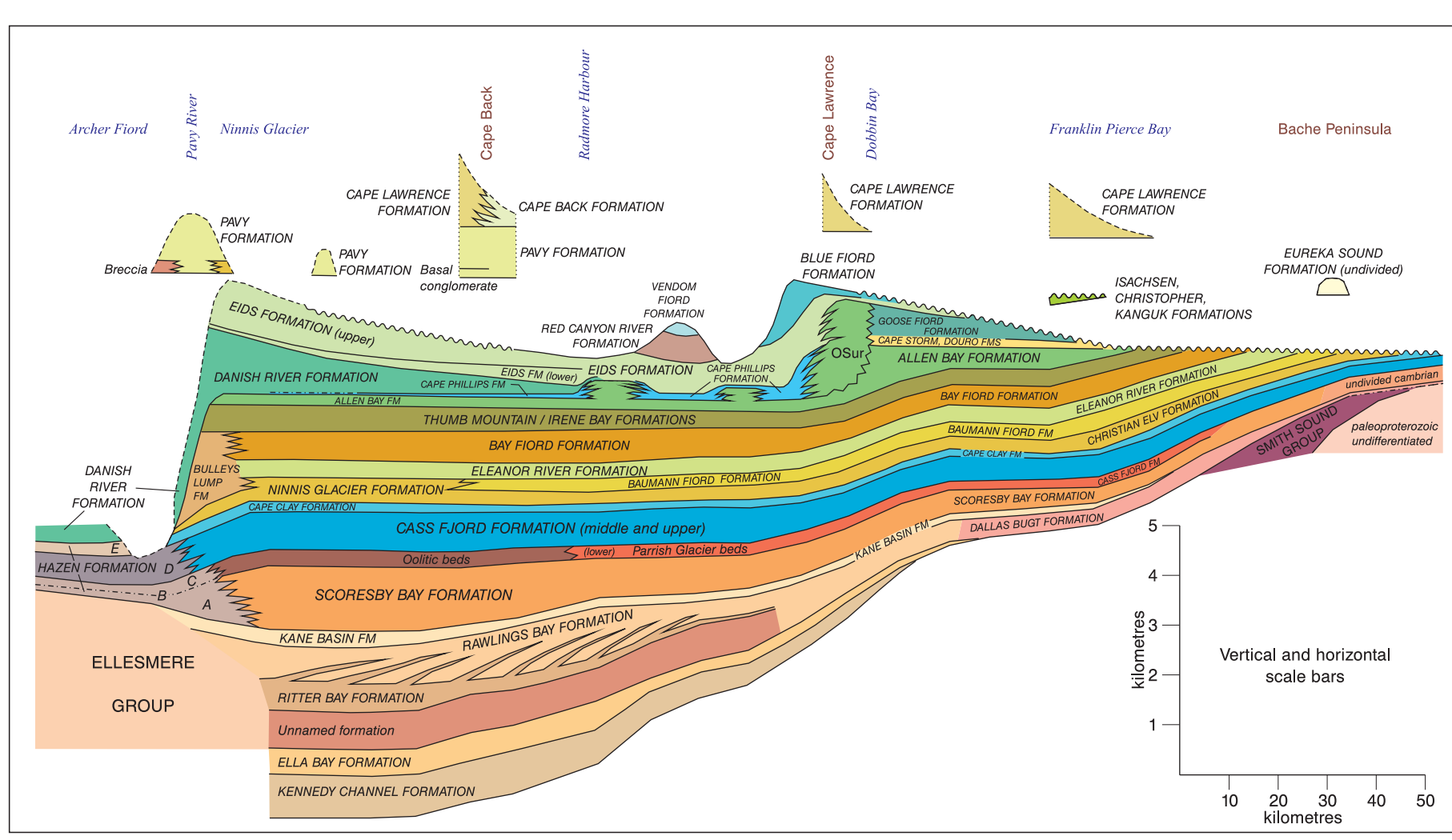
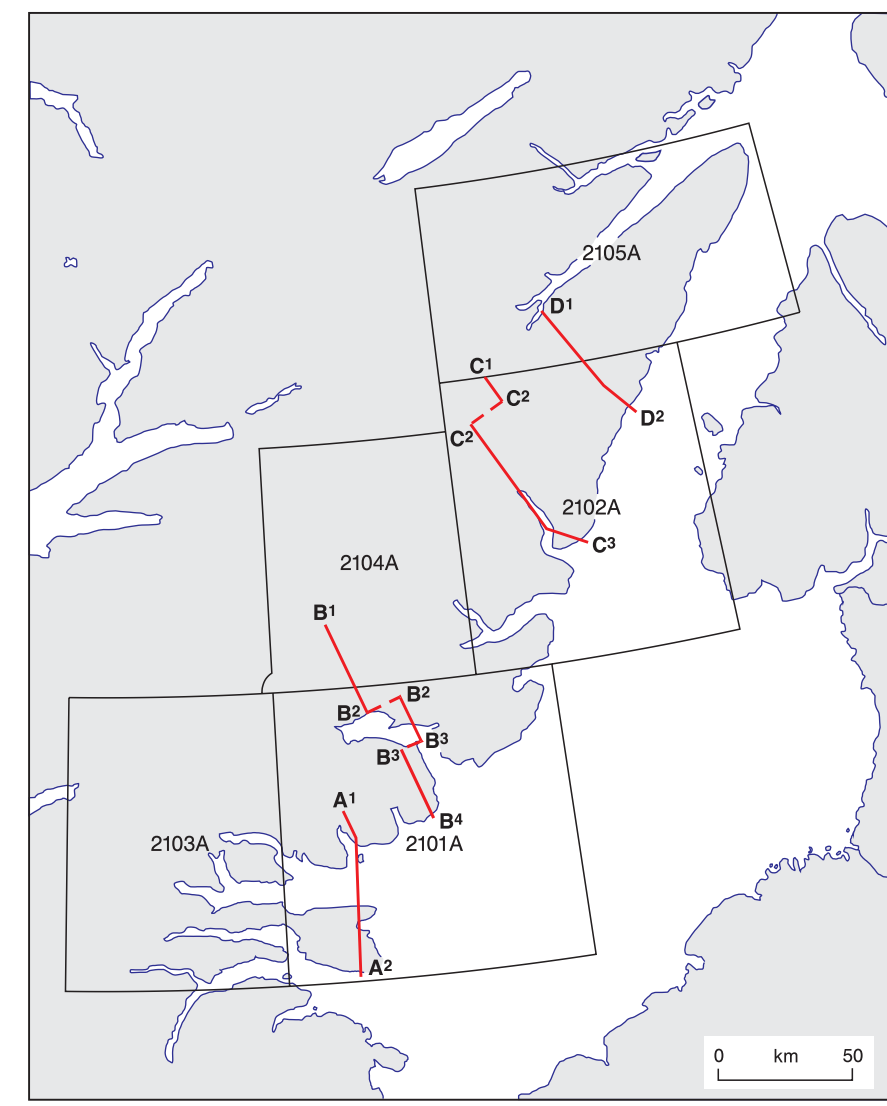
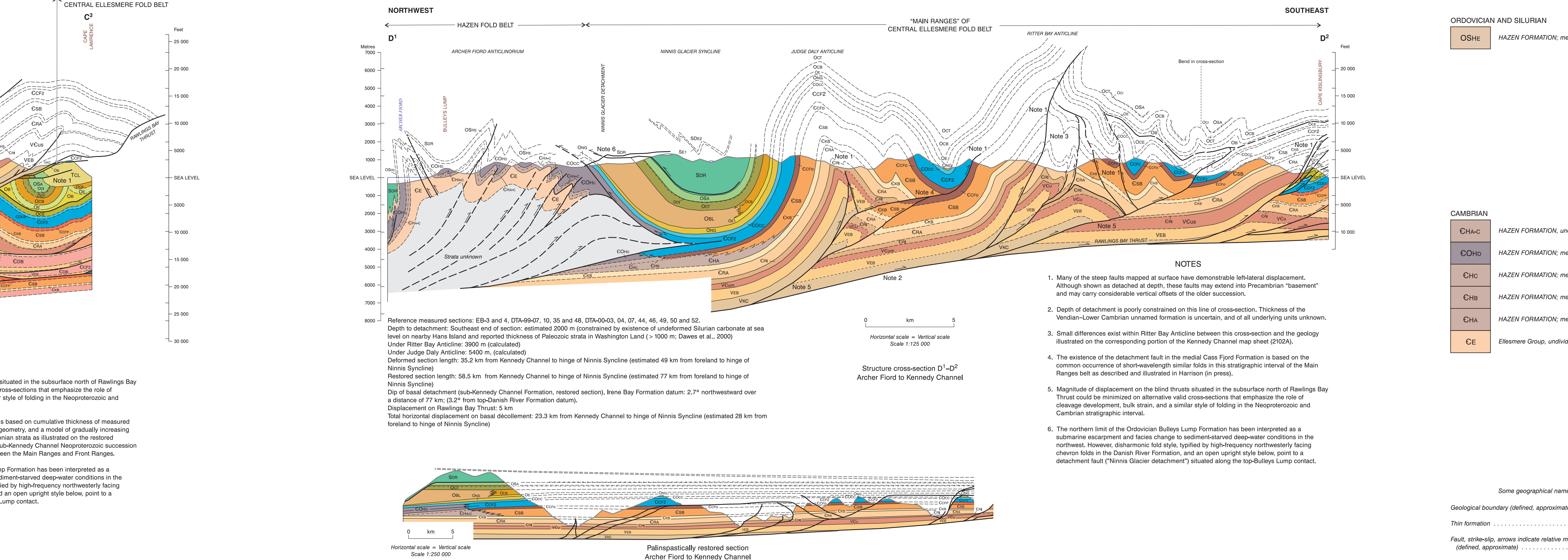
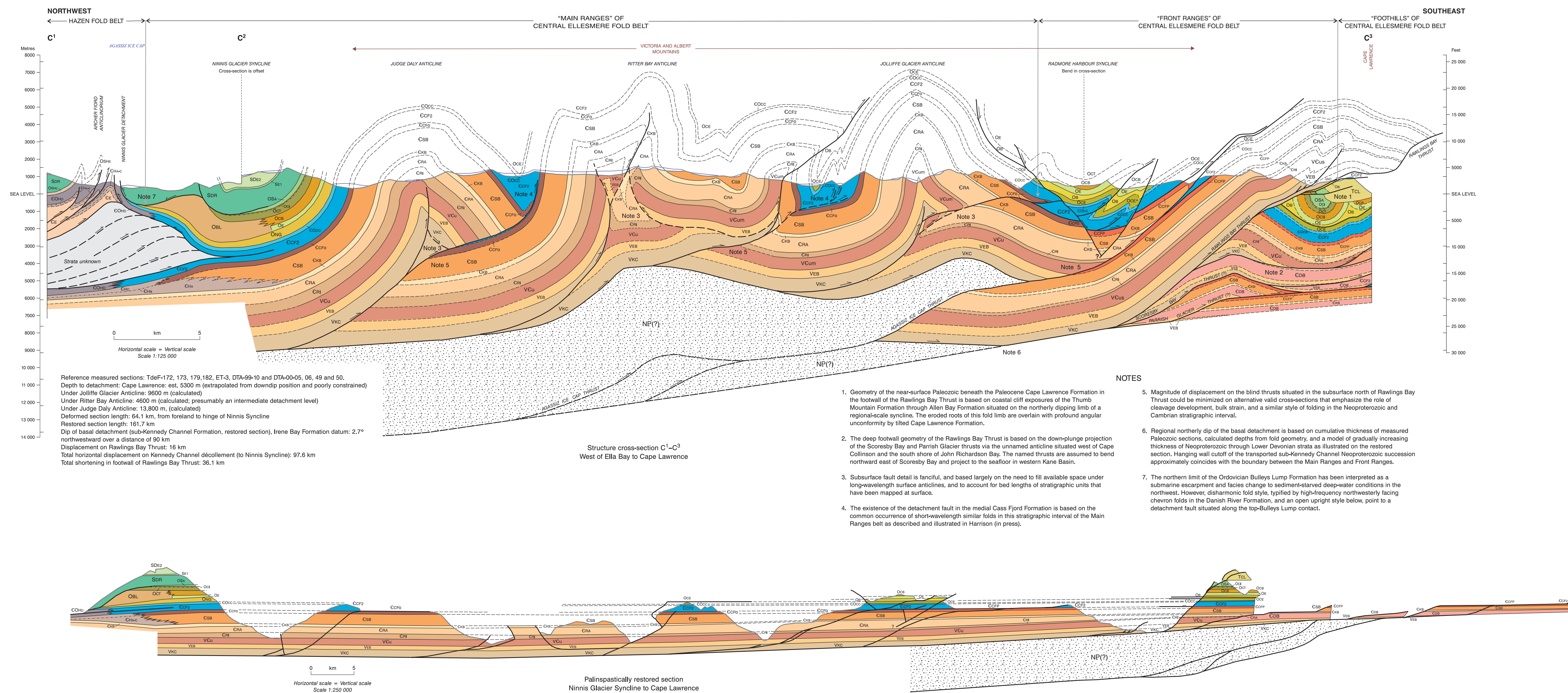


Figure 2: Stratigraphic In



























REFERENCE

- | | |
|---|---|
| Varley, J.C. | Regional variation in structural style, deformation kinematics, and summary of tectonic history, northeast Elsmere Island; in: <i>Geology of Northeast Elsmere Island Adjacent to Kane Basin and Nares Strait, Nunavut</i> , ed. L.J. May, Geological Survey of Canada, Bulletin 592. |
| Wophsch, K., van Gosen, W., Tassan-Schep, F., and Sackheim, K. | Elsmerean Fold-and-Thrust Belt, northeast Elsmere Island, and its Eureka overprint, in: <i>Geology of Northeast Elsmere Island Adjacent to Kane Basin and Nares Strait, Nunavut</i> , ed. L.J. May, Geological Survey of Canada, Bulletin 592. |


Recommended citation:
de Freitas, T.A., Mayr, U., Harrison, J.C., Piepjohn, K., and
Teessenschn, F.
2007: Geology, Dobbin Bay, Ellesmere Island, Nunavut Geological
Survey of Canada, Map 2101A, scale 1:125 000.




LEGEND

		PALEOCEANE	
		TCL	CAPE LAWRENCE FORMATION
		CRETACEOUS	
		Ki	(BACHEN, CHRISTOPHER, and KANGKUK FORMATIONS (undivided))
SILURIAN		SDE	<i>EIDS FORMATION (undivided)</i>
	SE1		<i>EIDS FORMATION (lower part)</i>
		SILURIAN AND DEVONIAN	
		SDg	GOOSE FIORD FORMATION
SILURIAN		SDu	DOURO FORMATION
	OSCP	SCS	CAPE STORM FORMATION
		ORDOVICIAN AND SILURIAN	
		OSA	ALLEN BAY FORMATION
		ORDOVICIAN	
ORDOVICIAN		OCi	IRENE BAY FORMATION
	OHg	OCt	THUMB MOUNTAIN FORMATION
		OCb	BAF FIORD FORMATION
		OE	ELEANOR RIVER FORMATION
		OB	BAUMANN FIORD FORMATION
		OCe	CHRISTIAN ELV FORMATION
		CAMBRIAN	
CAMBRIAN		CCof	CASS FIORD FORMATION (upper part)
	CCPf	CCOf2	CASS FIORD FORMATION (Perrish Glacier beds)
	CCFb	Cu	Lower-Middle Cambrian shelf carbonate (undivided)
	Csb	CDB	DALLAS BUGT FORMATION
	CKb		
	KAB		
	CRA		
	CRt		
		NEOPROTEROZOIC(?) - CAMBRIAN	
	VCu		
	VCus		
	VCum		
			NEP(?) <i>Neoproterozoic (assumed)</i>
		MESOPROTEROZOIC	
		VEB	ELLA BAY FORMATION
		VVC	KENNEDY CHANNEL FORMATION
		MPSS	Smith Sound group
		PALEOPROTEROZOIC	
		Pg	Unmetamorphosed granulite (Ingrifjord Supergroup (Caradoc–Glenland shales))

Some geographical names subject to revision

Geological boundary (defined, approximate, assumed) . . . 

Thin formation . . . 

Fault, strike-slip, arrows indicate relative movement (defined, approximate) . . .

Davies, P.R., Frislich, T., Gaudin, A.A., et al.
2000: Kane Basin 1999: mapping stratigraphic structures and economic assessment of Precambrian and Lower Paleozoic provinces in north-western Greenland; *Geology of Greenland Survey, Bulletin 186*, p. 11–26.

Harrison, J.C.
in press: Regional variation in structural style, deformation kinematics, and summary of tectonic history, northeast Ellesmere Island, in *Geological Notes: Ellesmere Island Adjacent to Kane Basin and Nares Strait*, Nunavut, (ed.) U. May, Geological Survey of Canada, Bulletin 592.