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Figure 8. A low relief ridge comprising Goldenville Group exhibits a tighter and orthogonal

joint pattern than the flanking rock which has a more rhythmic bedding.



(some inferred)

– "U" –

\ case-



Dredae limits



Canada

Figure 7. Tight folding and jointing in Halifax Group metasedimentary rocks.









64°20'

Authors: E.L. King, S. Hynes, and G.D.M. Cameron This map was produced by Natural Resources Canada in co-operation with Canadian Hydrographic Service Geology by E.L. King, S. Hynes, and G.D.M. Cameron Cartography by P. O'Regan, Natural Resources Canada

Any revisions or additional information known to the user would be welcomed by the Geological Survey of Canada

OPEN FILE 8138 GEOLOGY AND SHADED SEAFLOOR RELIEF LUNENBURG BAY SCOTIAN SHELF

OFFSHORE NOVA SCOTIA Scale 1:25 000/Échelle 1/25 000

Universal Transverse Mercator Projection Projection transverse universelle de Mercator North American Datum 1983 Système de référence géodésique nord-américain, 1983 This map is not to be used for navigational purposes Cette carte ne doit pas être utilisée aux fins de navigation Digital topographic data from Natural Resources Canada, modified by GSC (Atlantic) Digital bathymetric contours in metres supplied by the Canadian Hydrographic Service and Geological Survey of Canada (Atlantic)

Magnetic declination 2017, 17°14.7'W, decreasing 6.9' annually



64°07'







Derived in a littoral environment from thick, heavily washed/modified till in a slow













metasandstones and slates (O'Brien and White 2012).

OVERNMENT POINT FORMATION: metasiltstones interbedded with

oloaic evidenc







Table 1: summarizes the Quaternary setting and events in relation to the map units.					
Stratigraphic/ chronologic estimate		Setting or Event	Map unit		
Holocene	7 ka to present	continued transgression, slow progression and more complete reworking in shallowest 4 m; fine derivatives deposit in harbour and approaches	PGg, PGs, PGgp, PGm		
	7.1 ka*	isostatic uplift outpaces eustatic sea-level rise, emergence in Lunenburg Bay at -26 m present elevation (salt marsh in core) and very narrow bay mouth followed by submergence	PGsm		
Late Wisconsinan	ca. 14 to 7 ka	Scenario 1: last glacigenic input in Lunenburg Bay occured prior to transgression and the ca. 14 to 8 ka record was removed. Scenario 2: isostatic and eustaic sea-level rise in tandem (minor RSL fluctuations) resulting in protected bay	various PGtst facies		
	ca. 14.1*	final retreat of marine-ending glacier at least to near present coast, probably forced by continued eustatic rise; short-lived waterlain glacial input to Lunenburg Bay (base of core, Fig. 14); continued transgressive systems tract evolution with reworking	Gm and various PGtst facies		
	ca. 15 to 14 ka*	glacier readvance to several km south of map area, ice-marginal deposition and renewed basinal glacimarine deposition (1-4 m) on inner shelf	Gic and Gm		
	begins ca. 15 ka	transgression from about 75 m with wave base erosion to over 100 m present water depth, marine incursion to near present coast, unconformity "U" horizon and superimposed deposition of early transgressive systems tract	"U" horizon and overlying PGtst		
	ca. 16? to 15? ka	glacier retreat, proximal glacimarine deposition in bedrock basins	Gm		
	22? to 16? ka	glacial cover, drumlinization, mid-to inner shelf margin moraines and blanket deposition	Gt		
	28 ka*	no glacial cover; living molluscs; bounding events not well constrained in time	not represented		
*14C	dating combined w	ith stratigraphic evidence			

pattern to the present.

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