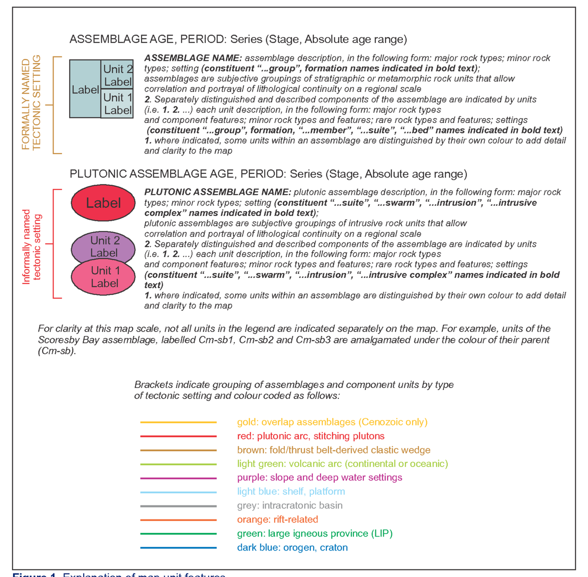
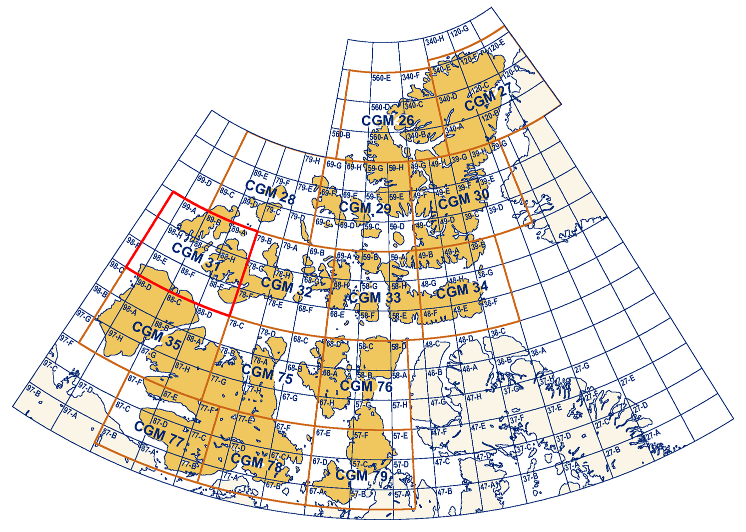
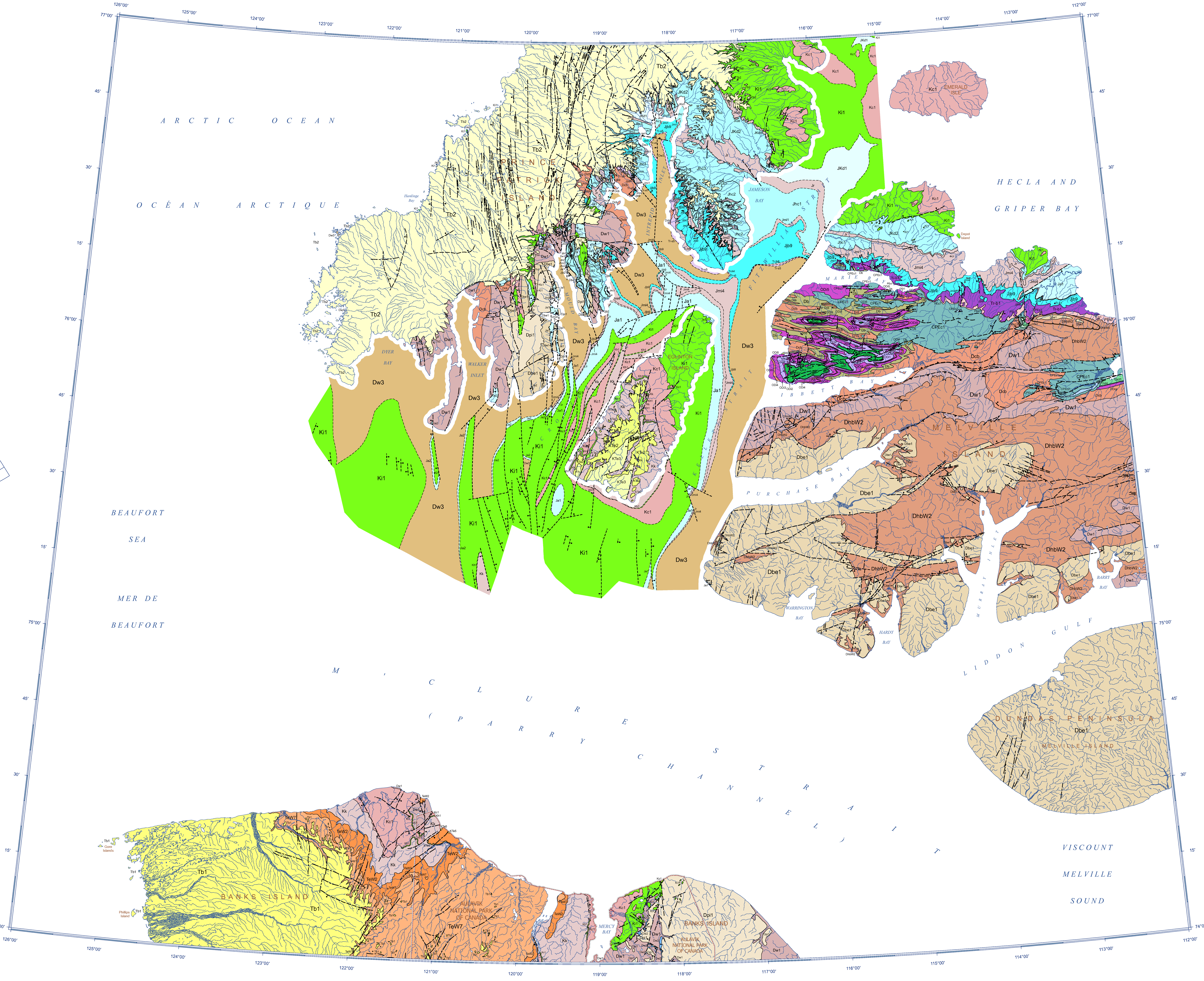


Figure 1. Explanation of map unit features.



National Topographic System reference and index to adjoining published Geological Survey of Canada maps



Abstract

This map and the related geodatabase illustrate the bedrock geology of central and southern Prince Patrick Island, Eglinton Island, northernmost Banks Island, and western Melville Island. Major features of the area include the western facies of the Middle and Upper Devonian clastic wedge associated with the Ellesmerian Orogeny, and unconformable Permo-Carboniferous strata which accumulated during rifting and subsequent inversion tectonics. The Mesozoic record includes the Middle and Upper Jurassic evolution of (a second phase of) rift tectonic events aligned with Eglinton Basin and the ancestral margin of the Arctic Ocean. Post-tectonic Neogene is widespread in the western part of the map area.

Résumé

Cette carte et la géodatabase qui s'y rapporte documentent la géologie du substratum rocheux dans le centre et le sud de l'île Prince Patrick, l'île Eglinton, la partie la plus septentrionale de l'île Banks et l'ouest de l'île Melville. Les principales entités géologiques de la région comprennent le faciès occidental du prisme de roches clastiques du Dévonien moyen et supérieur associé à l'orogène ellesmérien, et les strates permo-carbonifères discordantes qui se sont accumulées pendant le rifting et l'inversion tectonique subséquente. La stratigraphie du Mésozoïque témoigne d'une deuxième phase de rifting (Jurassique moyen et supérieur), selon la même orientation que le bassin d'Eglinton et la protomarge de l'océan Arctique. Les

Cover illustration
Hoodoos in Callovian sandstone, Northwest Melville Island, Northwest Territories.
Photograph by J.C. Harrison. 2013-067

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CANADIAN GEOSCIENCE MAP 31

GEOLOGY

TECTONIC ASSEMBLAGE MAP OF M'CLURE STRAIT

Prince Patrick, Eglinton, and surrounding islands, Northwest Territories

1:500 000

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Authors: J.C. Harrison, T. Lynds, A. Ford, and A.D. Miall

Geological compilation by J.C. Harrison

Source map geology (senior authors) by J.C. Harrison and A.D. Miall

GIS development by T. Lynds

Spatial data capture by Geotech Ltd.

Cartography by M.J. Baldock

Critical review by K. Dewing

Initiative of the Geological Survey of Canada, conducted under the auspices of the Tri-Territorial Project as part of Natural Resources Canada's Geo-mapping for Energy and Minerals (GEM) program.

CANADIAN GEOSCIENCE MAP 31

GEOLOGY

TECTONIC ASSEMBLAGE MAP OF M'CLURE STRAIT

Prince Patrick, Eglinton, and surrounding islands, Northwest Territories

1:500 000

10 0 10 20 30 40 km

Map projection Lambert Conformal Conic, standard parallels 74°30'N and 76°30'N. North American Datum 1983

Base map at the scale of 1:250 000 from Natural Resources Canada, with modifications.

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area.
Mean magnetic declination 2014, 21°20'E, decreasing 78' annually.
Readings vary from 25°25'E in the SW corner to 8°17'E in the NE corner of the map.

The Geological Survey of Canada welcomes corrections or additional information from users.

Data may include additional observations not portrayed on this map. *See* documentation accompanying the data.

This publication is available for free download through GEOSCAN (http://geoscan.nrcan.gc.ca/).

This map is not to be used for navigational purposes

Preliminary publications in this series have not been scientifically edited.

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