

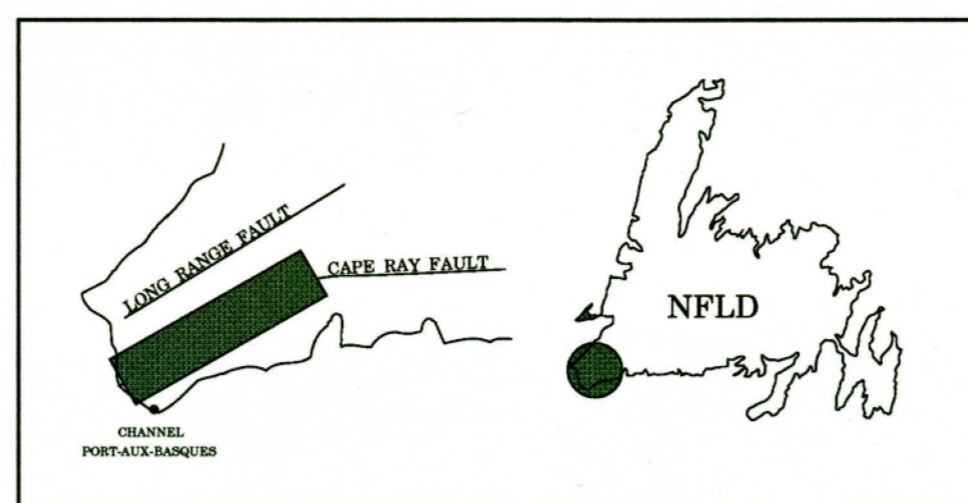
CAPE RAY FAULT ZONE SW NEWFOUNDLAND

Map produced by **Benoît Dubé and Kathleen Lauzière, 1995**

Base map digitized by L. Dubé from parts of 1:50 000 scale maps 11-O/10, 11-O/11, 11-O/14, 11-O/15

Computer graphics by M. Boutin

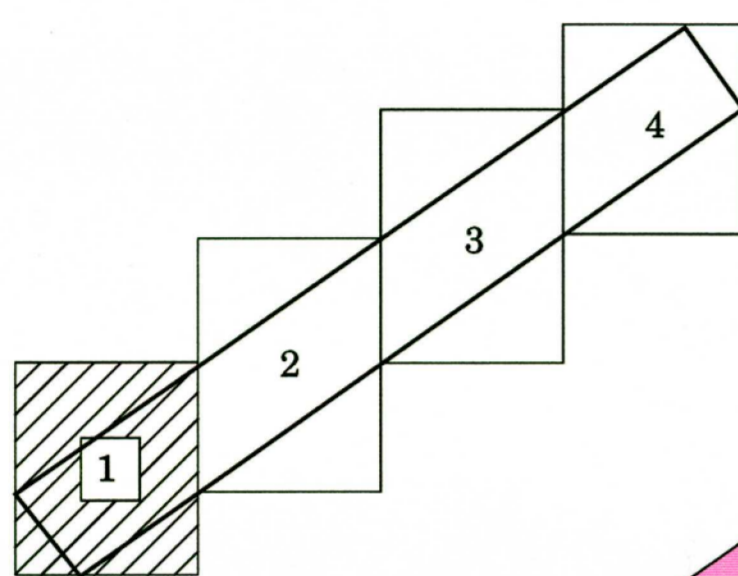
Quebec Geoscience Center (CGQ)



Location map



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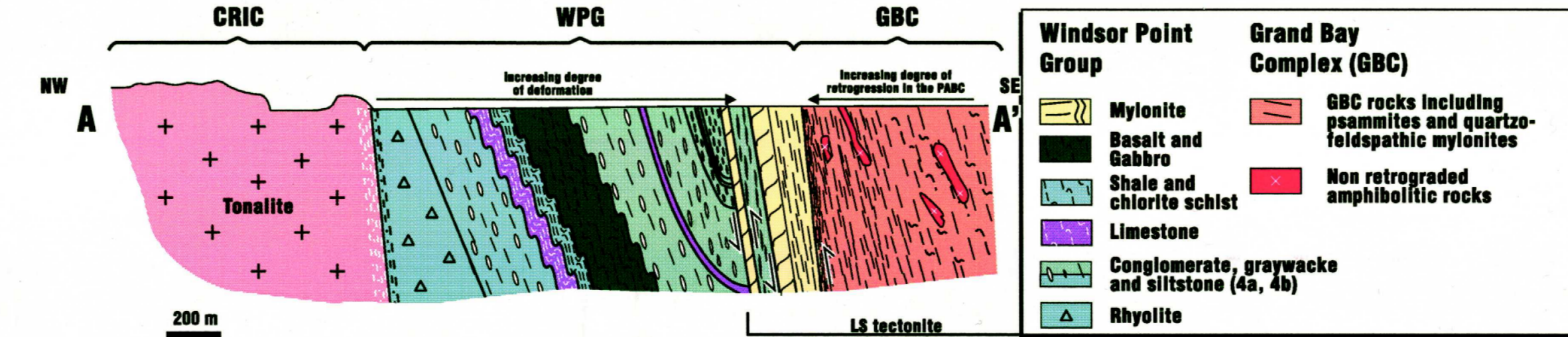
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Canada Newfoundland Terre-Neuve

(Uz)
488 ± 3Ma
(Uz)
453 ± 5/-4 Ma

Ar-Ar (Hb)
406 ± 4Ma
Ar-Ar (Bt)
403 ± 4Ma

Structural section along the coast (Cape Ray)



LEGEND

- Post-Early to Mid Devonian**
- Hydrothermal breccia, and cataclastic rocks.
 - Strike-slip mylonite (in Strawberry Granite)
- Early to Mid Devonian**
- Devonian granites
 - Isle aux Morts Granite
 - Strawberry Granite
- medium- to coarse-grained, equigranular to alkali feldspar-porphyratic, white to red biotite granite to granodiorite
- Late-Silurian to Early Devonian**
- Strike-slip mylonite (in the WPG, and/or in CRIC)
 - Mylonite (in the WPG)
- Early Silurian**
- Windowglass Hill Granite (WGH)
- Ordovician and Silurian**
- Windsor Point Group: Bimodal volcanic and volcanoclastic rocks with associated sedimentary rocks (WPG)
 - Windsor Point Group (Silurian)
- 4b1 Quartz-feldspar porphyry, felsic volcanoclastics
 - 4b2 Mafic volcanoclastics
 - 4b3 Conglomerate, polygenic to monogenic
 - 4b4 Greywacke, shale and pebbly sandstone
 - 4b5 Black shale and/or graphitic shale
 - 4b6 Limestone
 - 4b7 Gabbro
 - 4b8 Chlorite-sericite schist and chlorite schist
 - 4b9 Quartz-sericite schist
- 4a Ordovician to Silurian (Little Barachois Formation)
- 4a1 Rhyolite and associated pyroclastic and epiclastic rocks, locally quartz-feldspar-phyric
 - 4a2 Polygenic conglomerate with abundant felsic volcanic clasts, typically magnetic
 - 4a3 Greywacke and siltstone
 - 4a4 Black shale and graphitic shale
 - 4a5 Mafic volcanic, mostly massive, locally pillowed and brecciated with magnetic jasper fragments
 - 4a6 Limestone
 - 4a7 Sericite and/or chlorite schist
- Silurian and older**
- Rose Blanche phase (Silurian)
 - Schistose to gneissic granitoid including tonalite, granodiorite and minor granite containing biotite and subordinate muscovite. Locally pegmatitic. Containing many country rock screens.
 - Port aux Basques Gneiss (Ordovician and older)
 - Grand Bay Complex (GBC)
 - Port aux Basques Complex (PBC)
- Mainly semi-pelitic and pelitic schists, psammite and quartzo-feldspathic gneiss and mylonite, with minor amphibolite and pegmatitic intrusions
- 2a Semi-pelitic schist, mostly biotite-muscovite schist, locally gneissic, minor amphibolite and pegmatitic intrusions
 - 2b Pelitic to semi-pelitic schist, psammite and phyllonite
 - 2c Granitic gneiss
 - 2d Quartzo-feldspathic gneiss, commonly mylonitic, includes muscovite-sericite schist
 - 2e Amphibolite and retrograde chlorite schist
 - 2f Chlorite and chlorite-sericite schist
- Ordovician**
- Cape Ray Igneous Complex (CRIC)
 - Tonalite and other granitoid rocks with gabbroic enclaves

SYMBOLS

- | | |
|---------------------------|--|
| a) b) Geological boundary | bedding (WPG) |
| High-strain contact | S ₁₋₂ fabric (GBC) |
| High-angle thrust fault | a) b) S _{3a} fabric |
| Interpreted thrust fault | a) WPG b) CRIC |
| Transitional boundary | a) b) S _{3b} fabric |
| Strike-slip fault | a) GBC, b) WPG |
| Fault | mylonitic foliation (S ₄) |
| x outcrop visited | crenulation cleavage (S ₅ -S ₆) |
| trench | stretching lineation, measured on foliation surface |
| mineral showing | mineral lineation, measured on foliation surface |
| carbonate alteration zone | intersection lineation, measured on foliation surface |
| Ar-Ar (Hb) 406 ± 4Ma | crenulation lineation, measured on foliation surface |
| Ar-Ar (Bt) 403 ± 4Ma | a) b) shear with displacement a) unknown |
| | c) d) e) dextral, c) sinistral, d) reverse, e) normal |
| | a) b) fault with displacement a) unknown |
| | c) dextral, c) sinistral. |
| | striations on fault surface |
| | a) b) minor fold with axial plane a) S-shaped |
| | b) Z-shaped and c) M shaped |
| | a) b) c) minor fold with axial plane and fold axis |
| | a) S-shaped b) Z-shaped and c) M-shaped |
| | a) b) axial plane surface a) without and |
| | b) with fold axis |
| | a) b) c) kink bands a) dextral b) sinistral |
| | c) and plunge |
| | Vein |
| | a) b) c) SC mylonitic fabric |
| | a) dextral, b) sinistral, c) reverse |
| | a) b) c) shearbands |
| | a) dextral, b) sinistral, c) reverse |
- Abbreviations:
- | | |
|-----|--------------------|
| And | andalusite |
| ank | ankerite |
| Bt | biotite |
| Ct | calcite |
| Cp | chalcopyrite |
| Chl | chlorite |
| Ep | epidote |
| Fl | fluorite |
| Ga | galena |
| Gr | garnet |
| Gp | graphite |
| Au | gold |
| Hem | hematite |
| Hb | hornblende |
| ja | jasper |
| ICb | Iron carbonate |
| Mag | magnetite |
| Mu | muscovite |
| Py | pyrite |
| P | retrograded |
| PR | partly retrograded |