



- LEGEND**
- This legend is common to all maps in this project area. Not all map units appear on this map. Geological boundaries are in part determined on interpretation of aeromagnetic and available ground magnetic maps.
- Lithologies of rocks in the legend are provided; most rocks are foliated and where rich in phyllosilicates, have been transformed into slates. Slates may be composed of various degrees of crystallinity and different chemical compositions. The stratigraphic and tectonic relationships of the units are imperfectly understood because the original stratigraphic succession has in part been obscured by folding and faulting.
- CARBONIFEROUS**
 - C: Grey and red conglomerate, sandstone, and shale
 - DEVONIAN OR YOUNGER**
 - Ob: Diverse siltstone
 - SILURIAN AND/OR DEVONIAN**
 - SDs: Basic gneiss and gneiss (SDg) - pink to grey, massive, mainly medium-grained, equigranular to locally porphyroclastic, includes quartz and/or feldspar porphyry (SDp)
 - SDs: Sandstone, shale, minor conglomerate, limestone, and volcanic rocks
 - OROVICAN TO DEVONIAN**
 - OSb: Green to brown, generally subvolcanic to coarse-grained, mainly gabbro (OSb) and mafic gabbro (OSb), probably middle Orovicain or Silurian-Devonian. Some bodies may contain multiple strata of different ages.
 - ODg: Fine to medium-grained orthogneiss and gneiss, probably middle Orovicain or Silurian-Devonian
 - OROVICAN**
 - Or: Fine green to brownish-green, generally metamorphosed, mainly gabbro (Or) and mafic gabbro (Or), may locally include iron base. The gabbro phase includes olivine, and anorthitic phases
 - Of: Foliated to massive, mainly medium-grained, equigranular, pink, mafic-poor biotite monzonite gabbro
 - MIDDLE OROVICAN**
 - OF: FORTY BROOK (OF) - red
 - OF: MIDDLESTREAM FORMATION (OF) - undivided; mainly thin bedded fine- to felspathic siltstone and shale, includes lenses of black shale, calcareous siltstone, and silty limestone and calcareous siltstone (OF), and minor mylonite (OF)
 - OF: SOMERBY FORMATION (OF) - basal, mainly yellow and massive fine, minor foliolite, includes calcareous gabbro (OF) and mafic gabbro (OF) and silty (OF). The basal beds have been divided into two units on the basis of geochemistry: fine Mylonite (OF) and Armstrong Brook (OF), and minor mylonite (OF)
 - OF: TETAGOUCHE GROUP (OF) - red
 - OF: (Some formations are partly or completely foliated) mainly fine to medium-bedded grey and black shale, interbedded with fine-grained calcareous siltstone and siltstone (OF), black shale, calcareous siltstone, and calcareous siltstone (OF), and silty limestone (OF), and silty limestone (OF). The basal beds have been divided into two units on the basis of geochemistry: fine Mylonite (OF) and Armstrong Brook (OF), and minor mylonite (OF)
 - OF: CANOE LANDING (OF) - red
 - OF: (Some formations are partly or completely foliated) mainly fine to medium-bedded fine, minor yellow and black shale, interbedded with fine-grained calcareous siltstone and siltstone (OF), black shale, calcareous siltstone, and calcareous siltstone (OF), and silty limestone (OF), and silty limestone (OF). The basal beds have been divided into two units on the basis of geochemistry: fine Mylonite (OF) and Armstrong Brook (OF), and minor mylonite (OF)
 - OF: FORTY BROOK (OF) - red
 - OF: (Some formations are partly or completely foliated) mainly fine to medium-bedded fine, minor yellow and black shale, interbedded with fine-grained calcareous siltstone and siltstone (OF), black shale, calcareous siltstone, and calcareous siltstone (OF), and silty limestone (OF), and silty limestone (OF). The basal beds have been divided into two units on the basis of geochemistry: fine Mylonite (OF) and Armstrong Brook (OF), and minor mylonite (OF)
 - UPPER OROVICAN AND LOWER OROVICAN**
 - OF: KNIGHTS BROOK FORMATION (OF) - undivided; mainly fine to very fine bedded, mainly calcareous siltstone and shale, and calcareous siltstone and shale (OF), and calcareous siltstone and shale (OF), and calcareous siltstone and shale (OF). The basal beds have been divided into two units on the basis of geochemistry: fine Mylonite (OF) and Armstrong Brook (OF), and minor mylonite (OF)
 - OF: VALLEE LOURDES FORMATION - calcareous and calcareous with minor gabbro (OF) and calcareous siltstone, locally limestone
 - OF: PATRICK BROOK FORMATION - dark grey to black shale, interbedded with beds of green to black quartzite and/or felspathic sandstone characterized by abundant magnetite, locally limestone
 - CAMBRIAN AND OROVICAN**
 - OC: CHAIN OF ROCKS FORMATION - mainly greenish grey, very fine to fine grained, thin to very thin bedded, calcareous sandstone, interbedded with the levels of light greenish grey shale and siltstone
- Rock outcrop, area of rock outcrop mapped by author and assisted**
- Rock outcrop mapped by previous workers**
- Geological boundary (dashed, approximate, assumed)**
- Fault (dashed, approximate, assumed)**
- Folding S₁, top to bottom, top to bottom, inclined, overturned, generally parallel to S₁ or S₂**
- Direction of plunging of strike**
- Strike-slip and normal fault**
- Permeable joint or fracture set with dip**
- Foliation S₁ or S₂ in yellow line, inclined (trace known, overturned, top unknown)**
- Fold hinge, F₁**
- Trace of F₁ axial plane (antiform, synform)**
- Foliation S₁ and fold hinge F₁ or intersection lineation L₁**
- Trace of F₂ axial plane (antiform, synform)**
- Foliation S₂ and fold hinge F₂ or intersection lineation L₂**
- Trace of F₃ axial plane (antiform, synform)**
- Foliation S₃ and fold hinge F₃ or intersection lineation L₃**
- Trace of F₄ axial plane (antiform, synform)**
- Trace of bedding parallel lineation S₁ or S₂ with average dip**
- Asymmetry of F₁ or F₂ fold**
- Asymmetry of F₃ or F₄ fold**
- Conjugate F₁ kinkbands**
- Sense of slip**
- Layer-parallel thrust boundary generally characterized by phyllosilicates and mylonite and/or mélange and breccia**
- Zone of brecciation with associated mineral assemblages between**
- Line of symbols**
- Metamorphic mineral assemblage: cordierite-andalusite**
- Mineral assemblage: cordierite-andalusite**
- Massive sulphide deposit**
- Fossil locality (with GSC locality number)**
- Trench**
- Dike hole**
- Mine S₁ and F₁ complete more than one generation of structures, which commonly cannot be separated due to lack of overprinting relationships**

- LITHOLOGIES**
- | | | | |
|--------------|----|------------------------|----|
| Conglomerate | cg | Fill line | fl |
| Combed | c | Phyllite | ph |
| Dolomite | d | Sandstone and/or shale | s |
| Limestone | l | Tuffaceous | t |
- MINERALS**
- | | | | |
|--------|----|----------------------------------|----|
| Copper | Cu | Manganese | Mn |
| Gold | Au | Pyrite (massive or disseminated) | py |
| Iron | Fe | Sulfide | s |
| Lead | Pb | Zinc | Zn |
- Geology by C.R. van Staal, assisted (1985-1991) by C. Beaumont-Smith, A. Brewer, E. Hall, J.P. Langton, R. Rogers, and E. Trickey**
- Additional outcrop data compiled from Davies (1989), Fyfe (1972), Holmwood (1970), Jones (1967), Sinner (1946), and Tupper (1989)**
- Digital cartography by the Geological Survey of Canada**
- Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada**
- Base map assembled by the Geological Survey of Canada from part of map 27-69 (1976), published at 1:50 000 scale by the Survey and Mapping Branch. Assets were revised by the Geological Survey of Canada**
- Copies of the topographic edition of this map may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0G9**
- Mean magnetic declination 1984, 21°12' W; decreasing 4.2' annually.**
- Elevations in feet above mean sea level**

- REFERENCES**
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COOPERATION / ENTENTE DE COOPÉRATION

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Canada / Brunswick

MAP 1803A
GEOLOGY
WILDCAT BROOK
NEW BRUNSWICK

Scale 1:20 000 - Échelle 1/20 000

Universal Transverse Mercator Projection / Projection transversale universelle de Mercator

GEOLOGICAL SURVEY OF CANADA / COMMISSION GÉOLOGIQUE DU CANADA

2000 1995

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1803A

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