

MESOZOIC

- CRETACEOUS**
- 99 Alkaline intrusive rocks and associated diatreme breccias; skarns (Monteregian Intrusive Suite)

PLATFORM

(St. Lawrence and Hudson Bay Platforms)

PALEOZOIC

LOWER DEVONIAN

- 98 Sandstone and arkose (Sextant Formation)

SILURIAN

- 97 Encrinital limestone (Anticosti Group)
- 96 Limestone, shale and sandstone (Anticosti Group); limestone, dolostone, chert, gypsum and anhydrite (Rivière Ekwan, Rivière Severn and Kénoami formations)

UPPER ORDOVICIAN

- 95 Red shale and green sandstone (Queenston Group); limestone and shale (Jolliet Group); limestone (Red Head Rapids Formation)
- 94 Limestone, shale and sandstone (Lorraine and Jolliet groups)

MIDDLE ORDOVICIAN

- 93 Shale (Utica Shale)
- 92 Shale, slate, dolostone, mudstone, dolomitic siltstone and calcareous mudstone (Sainte-Rosalie Group)
- 91 Limestone and shale (Trenton Group); dolostone, limestone and sandstone (Black River Group); limestone, shale and sandstone (Chazy Group)
- 90 Limestone, sandstone, shale and siltstone (Mingan Formation)

LOWER ORDOVICIAN

- 89 Dolostone and sandstone (Beekmantown Group and Romaine Formation)

CAMBRIAN

- 88 Sandstone, conglomerate, limestone and dolostone (Potsdam Sandstone; Brador and Forteau formations)

APPALACHIAN PROVINCE

PALEOZOIC

PERMO-CARBONIFEROUS

- 87 Conglomerate, sandstone and red mudrock (Bonaventure and Cannes-de-Roches formations); sandstone, mudrock, salt, gypsum, limestone and mafic volcanic rocks (Windsor Group); red sandstone (Pictou Group)

DEVONIAN

- 86 Felsic and mafic intrusive rocks (Lemieux Intrusive Suite)

SILURIAN AND DEVONIAN

- 85 Feldspathic sandstone, conglomerate, green and red mudrock, and limestone (Gaspé Sandstone)
- 85a Basalt and rhyolite
- 84 Limestone, calcareous mudstone, sandstone, slate, basalt and rhyolite (Upper Gaspé Limestone)
- 83 Shale, sandstone, limestone and slate (Saint-Francis and Fortin groups; Témiscouata Formation)
- 82 Mudrock, sandstone, limestone and conglomerate (Chaleurs, Saint-Francis and Glenbrooke groups; Lac Aylmer, Cranbourne and Saint-Luc formations)
- 82a Basalt

ORDOVICIAN AND LOWER SILURIAN

- 81 Limestone, mudrock, sandstone and conglomerate (Matapédia and Honorat groups; Cabano Formation)
- 80 Granite (Stoke Mountains Granite)
- 79 Slate, limestone, siltstone, mudstone, sandstone, conglomerate and pyroclastic rocks (Stanbridge Group; Bourret, Bulstrode and Melbourne formations)
- 78 Blocky schist (Drummondville and Rivière Etchemin olistostromes; Citadelle Formation)
- 77 Slate, sandstone, mudrock and volcanoclastic rocks (Magog Group)
- 76 Mafic volcanic rocks and shale (Ascot Formation)
- 75 Shale, sandstone and basalt (Frontenac and Clinton formations)

CAMBRIAN AND ORDOVICIAN

- 74 Mélange containing lithologies from Rivière Ouelle, Tourelle and Deslandes formations in a matrix of green and black layered mudrock (Cap-Chat Mélange)
- 73 Lithic sandstone, limestone, mudrock, shale and chert (Deslandes and Cloridorme formations)
- 72 Lithic sandstone, mudrock, conglomerate and mélange (Mictaw Group)
- 71 Mudstone, conglomerate, shale, glauconitic sandstone, limestone and siltstone (Île d'Orléans Group; Lauzon and Lévis formations)
- 70 Sandstone, mudrock, conglomerate and limestone (Trois-Pistoles and Philipsburg groups; Romieu, Rivière Ouelle, Corner-of-the-beach, Murphy Creek, Tourelle and Sainte-Hénédine formations)
- 69 Blocks and slivers of sandstone, volcanic rocks, granite, gabbro and serpentinite (Saint-Daniel and Chesham mélanges)
- 68 Peridotite (Mont Albert Complex); amphibolite (Diable Amphibolite)
- 67 Quartzitic sandstone, mudrock, quartzite and slate (Rosaire Group)
- 66 Amphibolite, mafic volcanic rocks, peridotite, pyroxenite, gabbro and serpentinite (Thetford Mines and Asbestos ophiolitic complexes)
- 65 Mudrock, green and red slate, sandstone, limestone and basalt (Saint-Roch, Sillery, Shefford and Trinité groups; Ile-aux-Coudres and Saint-Bernard-sur-Mer formations)

PRECAMBRIAN OR CAMBRIAN

- 64 Sandstone, conglomerate, slate, dolostone and phyllite (Oak Hill and Caldwell groups); schist, red phyllite, green sandstone and green shale (Bennett Schists)
- 64a Basalt (Caldwell Group)
- 63 Metabasalt and metasedimentary rocks (sandstone, siltstone, conglomerate, and red and green mudrock) (Shickshock and Maquereau groups)

PROTEROZOIC

- 62 Paragneiss (Chain Lakes Massif)

GRENVILLE PROVINCE

MESOZOIC

TRIASSIC

- 61 Impactite (Manicouagan Reservoir)

PALEOZOIC

CAMBRIAN

- 60 Syenite (Baie des Moutons Syenite)

PROTEROZOIC

GRANITOIDS

- 59 Granite (Rigaud Granite)
- 58 Nepheline syenite and associated alkaline intrusions
- 57 Granite and pegmatite
- 56 Syenite, monzonite, granodiorite and diorite
- 55 Orthopyroxene bearing granitoids: charnockite, mangerite, jotunite and hypersthene syenite

MAFIC TO ULTRAMAFIC ROCKS

- 54 Gabbro, pyroxenite, troctolite and amphibolite
- 53 Anorthosite and gabbroonorite

SEDIMENTARY ROCKS

- 52 Quartzite and schist
- 51 Iron formation
- 50 Marble, quartzite and schist
- 49 Calc-silicate rocks, marble, dolostone, schist and quartzite
- 48 Paragneiss, quartzite and amphibolite

VOLCANIC ROCKS

- 47 Basalt, rhyolite, tuff and porphyry

ARCHEAN AND/OR PROTEROZOIC

- 46 Migmatite
- 45 Charnokitic gneiss and orthopyroxene bearing granitoids
- 44 Granodioritic and granitic gneisses; foliated or migmatized granitoids

ARCHEAN

- 43 Grey gneiss with quartz, plagioclase, biotite and/or hornblende, mafic gneiss with hornblende and/or biotite, and amphibolite

CHURCHILL PROVINCE

MESOPROTEROZOIC

- 42 Granite, quartz monzonite and syenite (Mistastin Batholith)
- 41 Anorthosite and associated intrusive rocks (Michikamau Anorthosite Suite)
- 40 Gabbroonorite and peridotite (Kyak Gabbro)

PALEOPROTEROZOIC

GRANITOIDS

- 39 Syn- to late-Hudsonian granitoids (mainly granitic): granite, granodiorite, quartz diorite and tonalite; undivided orthopyroxene bearing granitoids
- 38 Pre- to syn-Hudsonian orthopyroxene bearing granitoids: enderbite, opdalite, mangerite, charnockite and granulitic orthogneiss
- 37 Pre- to syn-Hudsonian granitoids (mainly tonalitic): foliated to gneissic tonalite, quartz diorite and granodiorite; undivided orthopyroxene bearing granitoids; minor paragneiss and ultramafic intrusive rocks

MAFIC TO ULTRAMAFIC INTRUSIONS

- 36 Carbonatite and associated potassic ultramafic rocks
- 35 Mafic intrusive rocks: gabbro, diorite, gabbroonorite and anorthosite; common presence of ultramafic intrusive rocks, mafic volcanic rocks and sedimentary rocks
- 34 Ultramafic intrusive rocks: peridotite and pyroxenite; common presence of mafic intrusive and extrusive rocks, and sedimentary rocks
- 33 Amphibolite and undivided mafic gneiss; minor metabasalt

SEDIMENTARY ROCKS

- 32 Iron formation and arenite; minor chert, conglomerate and mudrock
- 31 Stromatolitic dolostone, dolomitic sandstone and siltstone, and chert breccia; minor dolomitic marble

- 30 Fluvialite and marine platform environment sedimentary rocks: arenite, conglomerate, red mudrock and dolostone; minor iron formation, chert, wacke, mafic and felsic volcanic rocks, and mafic to ultramafic intrusive rocks;

- 29 Distal marine environment sedimentary rocks: mudrock and wacke; minor arenite, dolostone, conglomerate, chert, mafic volcanic rocks, and mafic to ultramafic intrusive rocks

- 28 Metasedimentary rocks: paragneiss and schist with biotite, muscovite, chlorite, garnet, sillimanite, hornblende, graphite and/or hematite; quartzite; minor iron formation, marble, calc-silicate rocks and amphibolite

- 28a Quartzite

VOLCANIC ROCKS

- 27 Mafic volcanic rocks: basalt and pyroclastic rocks; common presence of mafic to ultramafic intrusive rocks, and sedimentary rocks; minor felsic and intermediate volcanic rocks

ARCHEAN AND/OR PALEOPROTEROZOIC

- 26 Intrusive granitic rocks: granite, granodiorite and granitic gneiss; minor tonalitic rocks

- 25 Intrusive tonalitic rocks: tonalite and tonalitic gneiss; minor granitic rocks
- 24 Orthopyroxene bearing granitoids: granulitic orthogneiss
- 23 Undivided granitoids (mainly orthogneiss)
- 22 Metasedimentary rocks: paragneiss, minor quartzite, marble and calc-silicate rocks

SUPERIOR PROVINCE

PALEOZOIC

PERMIAN

- 21 Impactite (Lac à l'Eau Claire)

PROTEROZOIC

- 19 Diabase and gabbro dykes
- 19 Arenite, stromatolitic dolostone and basalt (Richmond Gulf and Nastapoka groups)
- 18 Arenite, conglomerate and mudrock (Sakami Formation)
- 17 Stromatolitic dolostone, arenite, conglomerate and shale (Otish Supergroup and Mistassini Group)
- 17a Jaspilite iron formation (Mistassini Group)
- 16 Argillite, wacke, conglomerate and tillite (Cobalt Group and Chibougamau Formation)

ARCHEAN

GRANITOIDS

- 15 Post-tectonic granitic rocks: alkalic granite with fluorite, and monzogranite
- 14 Syn- to late-tectonic granitic rocks: granite, granodiorite, monzonite and syenite; minor diatexite
- 13 Syn- to late-tectonic tonalitic rocks: tonalite, trondhjemite and granodiorite; minor diorite and monzodiorite
- 12 Syn- to late-tectonic orthopyroxene bearing granitoids: enderbite, opdalite, charnockite and granulitic orthogneiss; minor orthopyroxene bearing diatexite, metasedimentary rocks and mafic to ultramafic intrusions
- 11 Syn- to late-tectonic diatexitic granitoids: diatexite with biotite, orthopyroxene, clinopyroxene, hornblende, garnet, cordierite, sillimanite and/or andalusite; containing <= 50 % xenoliths of paragneiss and/or mafic gneiss
- 10 Syn- to late-tectonic undivided granitoids
- 9 Pre- to syn-tectonic granitoids: tonalitic and trondhjemitic gneisses; undivided gneiss; minor diorite

MAFIC TO ULTRAMAFIC INTRUSIONS

- 8 Stratiform complexes: anorthosite, gabbro and pyroxenite
- 7 Mafic intrusive rocks: gabbro, gabbroonorite, diorite, and carbonatite complex; minor intrusive and extrusive ultramafic rocks
- 6 Ultramafic intrusive rocks: pyroxenite, peridotite, hornblende, serpentinite, and ultramafic and mafic sills

SEDIMENTARY ROCKS

- 5 Sedimentary rocks: wacke, mudrock, conglomerate and iron formation
- 5a Iron formation
- 4 Metasedimentary rocks: paragneiss and schist with biotite, garnet, orthopyroxene, sillimanite, andalusite, cordierite, staurolite and/or kyanite; iron formation, marble and white anatectic granite associated with the metasedimentary rocks; common presence of intrusive and volcanic rocks

VOLCANIC ROCKS

- 3 Felsic volcanic rocks: rhyolite, rhyodacite, dacite, pyroclastic rocks, and felsic porphyry intrusions; minor intermediate to mafic volcanic rocks and sedimentary rocks
- 2 Mafic and intermediate volcanic rocks: basalt, andesite and pyroclastic rocks; minor amphibolite, felsic and ultramafic volcanic rocks, mafic intrusions and sedimentary rocks
- 2a Amphibolite, metabasalt and mafic gneiss
- 1 Ultramafic volcanic rocks: komatiite, magnesian basalt and ultramafic rocks of indeterminate origin; minor mafic volcanic rocks and sedimentary rocks

SYMBOLS

- Unconformity (the older rocks are on the side with the teeth)
- Thrust fault (the upthrown block is on the side with the triangles)
- Indeterminate fault
- Boundary of major geological divisions