

STRATIGRAPHIC LEGEND

PENNSYLVANIAN

Lac à l'Eau Claire Complex

Plec Impactite, impact breccia, impact ignimbrite, impactite and mylonitic dykes; locally contains enclaves and boulders of Ordovician limestone; also includes minor Archean basement and Proterozoic diabase dykes

PROTEROZOIC

Richmond Gulf Group

pPgr Cross-bedded arkosic sandstone and red arkose; massive, vesicular or pillowed basalt flows and columnar basalt. Sandstone and red mudstone, grey sandstone and minor conglomerate; locally includes lacustrine sandstone and pebble

ARCHEAN

Bourdel Syenite

Abol Nepheline monzonite, homogeneous, whitish, medium to coarse-grained, displays a well-developed magmatic foliation

Quilinaaraak Suite

Aluk2 Hornblende + biotite + clinopyroxene ± orthopyroxene gabbro and gabbro-norite. These rocks are massive, medium to coarse-grained and contain 5 to 15% green hornblende phenocrysts from 1 to 3 cm long. They are cut by whitish granitic or tonalitic injections which give the rock a brecciated texture

Auluk1

Ultramafic rocks composed of hornblende, pyroxene and minor peridotite. These rocks are massive, medium to coarse-grained and dark green to blackish grey in weathered surface. The unit also includes massive gabbro and gabbro-norite. All these rock types contain 5 to 15% blackish hornblende phenocrysts from 1 to 3 cm long. They are cut by whitish granitic or tonalitic injections which give the rock a brecciated texture

Desbergères Suite

Biotite Unit (Adeb2)

Adeb2 Biotite granite and granodiorite, pinkish grey to light pink, massive to weakly foliated, medium to coarse-grained, locally weakly porphyritic, contains less than 8% mafic minerals. Presence of tonalitic restite in pockets or lenses with diffuse and transitional contacts

Adeb2a

Porphyritic biotite granite and granodiorite, characterized by the presence of 20 to 35% K-feldspar phenocrysts from 1 to 5 cm long. These rocks are massive or weakly foliated

Biotite-Hornblende Unit (Adeb1)

Adeb1 Biotite-hornblende granodiorite and granite, pinkish grey to light pink, massive to weakly foliated, medium to coarse-grained, locally weakly porphyritic, contains 2 to 15% mafic minerals in cm-scale aggregates. These rocks show a high magnetic susceptibility

Adeb1a

Porphyritic biotite-hornblende granodiorite and granite, characterized by the presence of 15 to 35% K-feldspar phenocrysts from 1 to 5 cm long. These rocks show a high magnetic susceptibility

Loups Marins Complex

Orthopyroxene Unit (Alma2)

Alma2 Enderbite, hypersthene quartz diorite and hypersthene diorite. These rocks are greenish, massive to foliated and fine to medium-grained. They contain 3 to 20% mafic minerals in aggregates and show a high magnetic susceptibility; also includes minor opalite and charnockite

Clinopyroxene Unit (Alma1)

Alma1c Clinopyroxene-bearing granodiorite, quartz monzodiorite and monzodiorite, characterized by a porphyritic texture due to the presence of 10 to 25% K-feldspar phenocrysts from 1 to 5 cm long; pinkish grey, brownish grey or greenish brown. These rocks show a high magnetic susceptibility

Alma1b

Clinopyroxene-bearing granodiorite, purplish grey to pinkish grey, massive to foliated, medium to coarse-grained, locally weakly porphyritic. Characterized by the presence of variable amounts of salmon pink or burgundy plagioclase crystals

Alma1a

Clinopyroxene-bearing tonalite, quartz diorite and diorite, massive to foliated, medium to coarse-grained, contains 5 to 25% mafic minerals in cm-scale aggregates. Characterized by the presence of variable amounts of salmon pink or burgundy plagioclase crystals. Shows a high magnetic susceptibility

Coursolles Suite

Acou2 Hornblende + biotite tonalite, light grey to slightly pinkish, strongly foliated, medium to coarse-grained, contains 10 to 20% mafic minerals in cm-scale aggregates. Shows a high magnetic susceptibility. Presence of granitic phases forming bands and pockets in diffuse and transitional contact with the tonalitic phase

Acou1

Hornblende + biotite diorite and quartz diorite, medium to light grey, slightly greenish, massive to strongly foliated and medium to coarse-grained. Contains 10 to 30% mafic minerals in cm-scale aggregates often stretched along the foliation. Shows a moderate to high magnetic susceptibility. Presence of granitic phases forming bands and pockets with diffuse and transitional contacts

Favard Suite

Afavi1 Biotite leucotonalite, light grey to slightly pinkish, massive to foliated, fine to medium-grained, contains less than 10% biotite in fine disseminated flakes or in aggregates; also includes minor hornblende-biotite tonalite and quartz diorite (10 to 25% mafic minerals). Presence of granitic phases forming bands and pockets in diffuse and transitional contact with the tonalitic phase

Afavi2

Biotite leucotonalite, purplish grey, massive to foliated, fine to medium-grained, contains less than 10% biotite in fine disseminated flakes or in aggregates. Characterized by the presence of 2 to 5% burgundy plagioclase crystals

Melvin Complex

Amel4 Diorite and gabbro, strongly foliated, medium grey, slightly greenish, fine to medium-grained, with a well-developed granoblastic texture. Generally shows a high magnetic susceptibility

Amel3

Migmatized biotite-garnet paragneiss, fine-grained, medium grey with a yellowish grey weathered surface. Migmatization is marked by the presence of cm-scale to m-scale bands (5 to 40%) of whitish granitic mobilizate

Amel2

Fine-grained amphibolite, massive or banded, strongly foliated, with a well-developed granoblastic texture

Amel1

Felsic volcanic rocks, light to medium grey, massive or flow-banded, fine-grained with or without quartz phenocrysts. These rocks are generally strongly deformed

Map RG 2004-06-C001 is an image produced with digital data extracted from Québec's geomatic information system (SIGÉOM) as of november 2005.

Geomatics products corresponding to NTS sheet 34B are available via the following website: www.mrf.gouv.qc.ca/produits-services/mines.jsp under the tab **e-sigeom atlas**.

This final map shows the results of a geological survey conducted in 2002 by the following geologists: Martin Simard, Martin Parent, Robert Thériault, Carl Bilodeau, Dominique Meilleur, Gabrielle Rioux and Julia Vallières, Ministère des Ressources naturelles et de la Faune. Explanatory notes for this map are provided in publication number RG 2004-06.

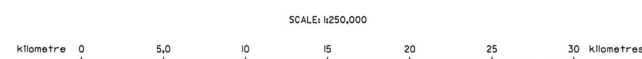
Technical assistance : Héléne Gagné
Pascale Martel

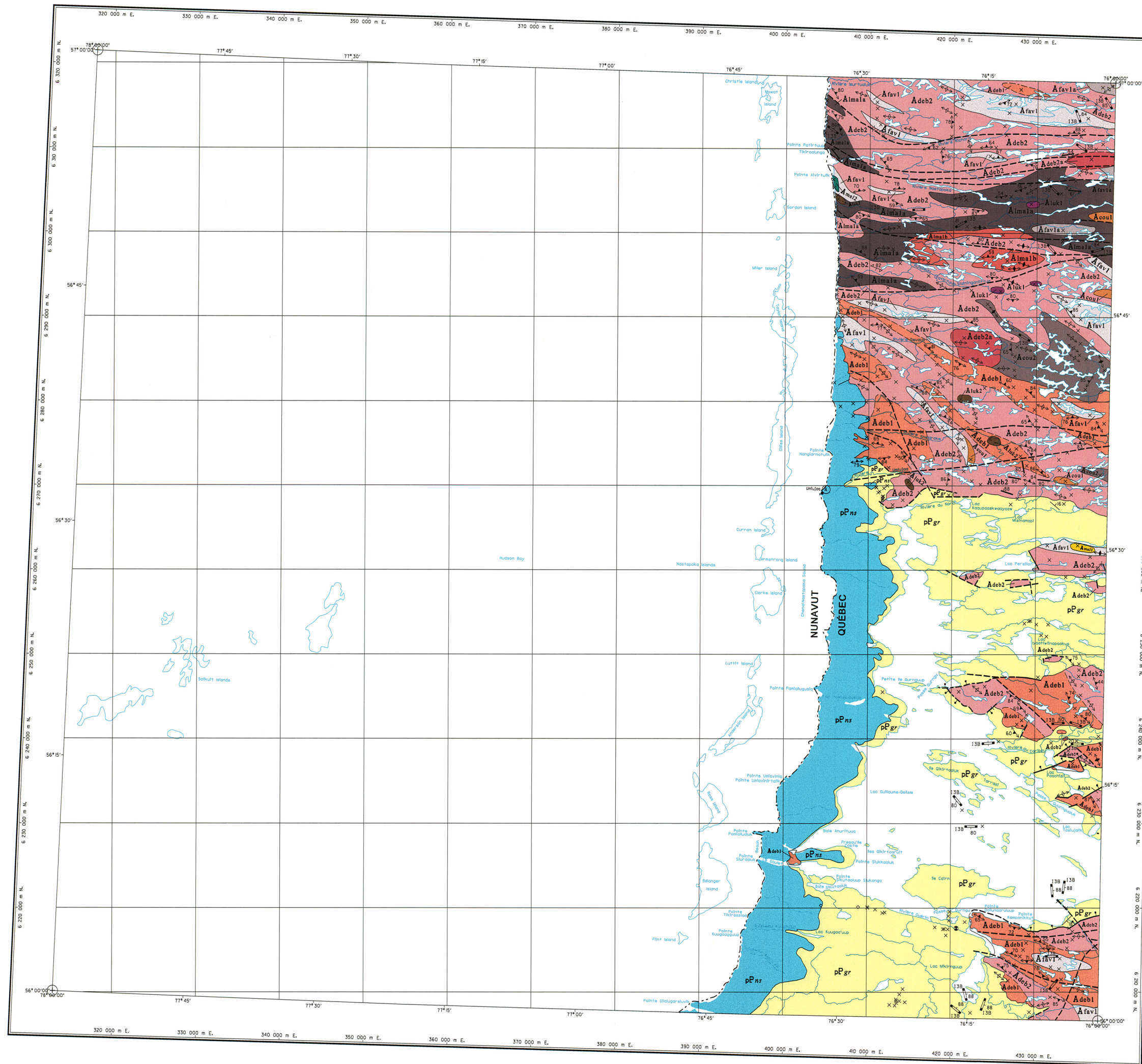
We suggest references to this map be made in the following form:
Simard, M. and Parent, M., 2005 - Geology 1:250,000, 34B - LAC À L'EAU CLAIRE.
Ministère des Ressources naturelles et de la Faune, Québec; map RG 2004-06-C001.

**LAC À L'EAU CLAIRE
34B**

34 F	34 G	34 H
34 C	34 B	34 A
33 N	33 O	33 P

Geoscience compilation - Geology 1:250,000
Codes and symbols used for this map comply with the general legend for geological maps (publication MB 98-28)





STRATIGRAPHIC LEGEND

- PROTEROZOIC**
- Nastapoka Group**
- pPns** Laminar, oolitic and stromatolitic limestone; quartz arenite, rhythmic sequence of calcareous turbidites, quartzitic or feldspathic sandstone, minor conglomerate, columnar basalt flows conformably overlying the sedimentary sequence
- Richmond Gulf Group**
- pPgr** Cross-bedded arkosic sandstone and red arkose; massive, vesicular or pillowed basalt flows and columnar basalt. Sandstone and red mudstone, grey sandstone and minor conglomerate, locally includes lacustrine sandstone and pelite
- ARCHEAN**
- Quillnaaraalik Suite**
- Adeb2** Hornblende + biotite + clinopyroxene + orthopyroxene gabbro and gabbro-norite. These rocks are massive, medium to coarse-grained and contain 5 to 15% green hornblende phenocrysts from 1 to 3 cm long. They are cut by whitish granitic or tonalitic injections which give the rock a brecciated texture
 - Afak1** Ultramafic rocks composed of hornblende, pyroxene and minor peridotite. These rocks are massive, medium to coarse-grained and dark green to blackish grey. The unit also includes massive gabbro and gabbro-norite. All these rock types contain 5 to 15% green hornblende phenocrysts from 1 to 3 cm long. They are cut by whitish granitic or tonalitic injections which give the rock a brecciated texture
- Desbergères Suite**
- Biotite Unit (Adeb2)**
 - Adeb2** Biotite granite and granodiorite, pinkish grey to light pink, massive to weakly foliated, medium to coarse-grained, locally weakly porphyritic, contains less than 8% mafic minerals. Presence of tonalitic restite in pockets or lenses with diffuse and transitional contacts
 - Adeb2a** Porphyritic biotite granite and granodiorite characterized by the presence of 20 to 35% K-feldspar phenocrysts from 1 to 5 cm long. These rocks are massive or weakly foliated
 - Biotite-Hornblende Unit (Adeb1)**
 - Adeb1** Biotite + hornblende granodiorite and granite, pinkish grey to light pink, massive to weakly foliated, medium to coarse-grained, locally weakly porphyritic, contains 2 to 15% mafic minerals in cm-scale aggregates. These rocks show a high magnetic susceptibility
- Loups Marins Complex**
- Clinopyroxene Unit (Alma1)**
 - Alma1b** Clinopyroxene-bearing granodiorite, purplish grey to pinkish grey, massive to foliated, medium to coarse-grained, locally weakly porphyritic. Characterized by the presence of variable amounts of salmon pink or burgundy plagioclase crystals
 - Alma1a** Clinopyroxene-bearing tonalite, quartz diorite and diorite, massive to foliated, medium to coarse-grained, contains 5 to 25% mafic minerals in cm-scale aggregates. Characterized by the presence of variable amounts of salmon pink or burgundy plagioclase crystals. Shows a high magnetic susceptibility
- Coursolles Suite**
- Accu2** Hornblende + biotite tonalite, light grey to slightly pinkish, strongly foliated, medium to coarse-grained, contains 10 to 20% mafic minerals in cm-scale aggregates. Shows a high magnetic susceptibility. Presence of granitic phases forming bands and pockets in diffuse and transitional contact with the tonalitic phase
 - Accu1** Hornblende + biotite diorite and quartz diorite, medium to light grey, slightly greenish, massive to strongly foliated and medium to coarse-grained. Contains 10 to 30% mafic minerals in cm-scale aggregates often stretched along the foliation. Shows a moderate to high magnetic susceptibility. Presence of granitic phases forming bands and pockets with diffuse and transitional contacts
- Favard Suite**
- Afa1** Biotite leucotonalite, light grey to slightly pinkish, massive to foliated, fine to medium-grained, contains less than 10% biotite in fine disseminated flakes or in aggregates; also includes minor hornblende-biotite tonalite and quartz diorite (15 to 25% mafic minerals). Presence of granitic phases forming bands and pockets in diffuse and transitional contact with the tonalitic phase
 - Afa1a** Biotite leucotonalite, purplish grey, massive to foliated, fine to medium-grained, contains less than 10% biotite in fine disseminated flakes or in aggregates. Characterized by the presence of 2 to 5% burgundy plagioclase crystals
- Melvin Complex**
- Ame12** Fine-grained amphibolite, massive or banded, strongly foliated, with a well-developed granoblastic texture
 - Ame11** Felsic volcanic rocks, light to medium grey, massive or flow-banded, fine-grained with or without quartz phenocrysts. These rocks are generally strongly deformed

Map RG 2004-06-C002 is an image produced with digital data extracted from Québec's geomatics information system (SIGÉOM) as of November 2005.

Geomatics products corresponding to NTS sheet 34C are available via the following website: www.mmf.gouv.qc.ca/produits-services/mines.jsp under the tab **a-igeom atlas**.

This final map shows the results of a geological survey conducted in 2002 by the following geologists: Martin Simard, Martin Parent, Robert Thériault, Carl Bilodeau, Dominique Meilleur, Gabrielle Rioux and Julie Vallières, Ministère des Ressources naturelles et de la Faune. Explanatory notes for this map are provided in publication number RG 2004-06.

Technical assistance : Héliane Gagné
Pascale Martel

We suggest references to this map be made in the following form:
Simard, M. and Parent, M., 2005 - Geology 1:250,000, 34C - LAC GUILLAUME-DELISLE.
Ministère des Ressources naturelles et de la Faune, Québec; map RG 2004-06-C002.

**LAC GUILLAUME-DELISLE
34C**

34 E	34 F	34 G
34 D	34 C	34 B
33 M	33 N	33 O

