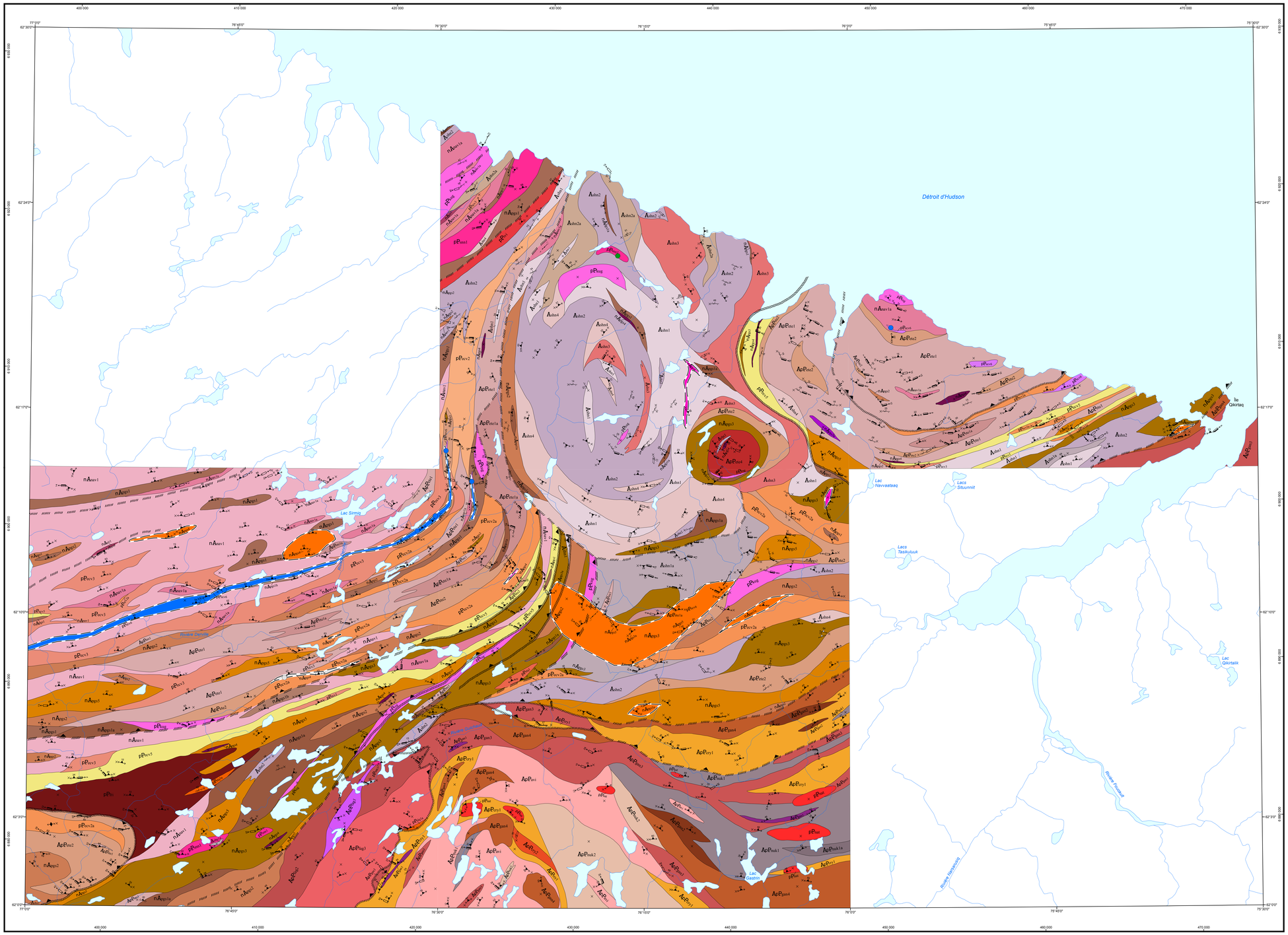
Geology of the Sirmiq Lake Area, Ungava Orogen, Nunavik, Quebec, Canada



STRATIGRAPHIC LEGEND

CHURCHILL PROVINCE
NARSAJUAQ LITHOTECTONIC DOMAIN
PALEOPROTEROZOIC

Ivitaruq Suite

- pPiv1 — Homogeneous, massive to foliated, coarse-grained monzodiorite and monzonite

Sanninajaualuk Suite (1758.2 ±1.2 Ma, Parish, 1989)

- pPsan1 — Foliated to massive, medium to coarse-grained, pink-red syenogranite and monzogranite; pegmatite intrusions

Suluraaq Suite

- pPslq1 — Foliated, fine to medium-grained, speckled hornblende-biotite quartz monzodiorite and monzodiorite
- pPslq1b — Alternating foliated porphyraceous hornblende-biotite-magnetite-clinopyroxene quartz monzonite and monzodiorite

Kuugaq Suite

- pPkug — Foliated to gneissic, even-grained, fine to medium-grained biotite ± hornblende ± magnetite granite

Frichet Suite

- pPfri — Foliated porphyraceous hornblende-biotite-clinopyroxene jotunite, mangerite, hypersthene diorite and monzodiorite

Erik Cove Complex (>1830 Ma; Parish, 1989)

- pPecv6 — Foliated magnetite-quartz ± pyroxene ± garnet ± apatite ± ilmenite ± sulphides ± graphite iron formation
- pPecv5 — Garnet ± feldspar ± biotite ± sillimanite quartzite
- pPecv3 — Biotite-garnet diatexite containing paragneiss schlierens or rafts; garnet anatectic granite
- pPecv2 — Biotite-garnet ± sillimanite metatexite
- pPecv2a — Biotite-orthopyroxene-garnet ± sillimanite stromatic metatexite and migmatized paragneiss

NEOARCHEAN

Narvaataaq Suite (2560 ±26 Ma, Davis and Sutcliffe, 2018)

- nAnav1 — Enderbite and opdalite containing biotite-hypersthene ± hornblende schlierens or clusters
- nAnav1a — Charnockite containing biotite-hypersthene ± hornblende schlierens

ARCHEAN TO PALEOPROTEROZOIC

Fargues Suite

- ApPfag1 — Monzonite et syénite foliées, à phénocristaux de plagioclase, à hornblende-biotite-clinopyroxène-magnétite ± orthopyroxène
- ApPfag2 — Foliated, fine-grained pyroxene-magnetite ± hornblende syenite and mangerite
- ApPfag1 — Clinopyroxene-hornblende-magnetite ± biotite clinopyroxenite and melanocratic gabbro

Sluiartuuq Suite

- nAsli1 — Foliated to gneissic, banded, granoblastic, fine-grained, brownish to pinkish charnockite containing biotite-hypersthene ± magnetite laminae

Pingasuksiuit Complex (2609-2773 Ma, Davis and Sutcliffe, 2018)

- nApgs5 — Foliated, speckled clinopyroxe-hornblende ± orthopyroxene ± biotite gabbro and gabbronorite
- nApgs4 — Foliated olivine websterite, websterite and therzolite
- nApgs3 — Migmatized garnet-clinopyroxene-hornblende-magnetite ± orthopyroxene gabbro and gabbronorite
- nApgs3t — Metasomatic rocks and garnetite
- nApgs2 — Variably migmatized hypersthene quartz diorite
- nApgs1 — Fine to medium-grained, mesocratic hornblende-clinopyroxene-orthopyroxene-biotite gabbronorite and hypersthene diorite
- nApgs1b — Fine-grained, granoblastic pyroxene-magnetite gabbronorite
- nApgs1a — Fine to medium-grained gabbro and diorite; small amount of ultramafic rocks

Estre Complex

- ApPest4 — Foliated, medium-grained clinopyroxene-biotite jotunite and hypersthene diorite
- ApPest2 — Variably migmatized, gneissic biotite-hornblende ± clinopyroxene ± garnet hypersthene quartz diorite
- ApPest1 — Foliated, fine-grained biotite ± hornblende ± garnet tonalitic to dioritic granulitic gneiss; gabbronorite and charnockite layers
- ApPest1a — Migmatized granulitic gneiss

ARCHEAN

Sainte-Hélène Complex (2794 ±21 Ma, Davis and Sutcliffe, 2018)

- Ashn4 — Medium-grained, speckled quartz diorite and quartz monzodiorite
- Ashn3 — Tonalitic diatexite containing biotite schlierens and rafts
- Ashn2 — Foliated to gneissic, banded, migmatized biotite tonalite
- Ashn2a — Migmatized tonalitic gneiss
- Ashn1 — Foliated, fine to medium-grained, migmatized horblende-biotite gneissic quartz diorite
- Ashn1a — Heterogeneous and protomylonitic diorite and quartz diorite

KOVIK LITHOTECTONIC DOMAIN
ARCHEAN AND PALEOPROTEROZOIC

Nunatak Suite

- pPnun — Massive to slightly foliated, even-grained, medium-grained, homogeneous biotite-chlorite-muscovite granite; pegmatite

Arviq Suite

- ApPav1 — Foliated, medium-grained biotite ± hornblende granodiorite

Gastrin Suite

- ApPgas4 — Medium-grained, speckled hornblende-clinopyroxene-sphene quartz monzodiorite and quartz monzonite
- ApPgas3 — Fine to medium-grained hornblende-biotite-sphene monzodiorite and monzonite
- ApPgas2 — Foliated, even-grained, homogeneous hornblende-clinopyroxene amphibolitized gabbro
- ApPgas1 — Amphibolitized pyroxenite; minor amount of garnet melanocratic gabbro

Crony Suite

- ApPcry2 — Biotite-garnet ± sillimanite schlieren diatexite derived from partial melting of paragneiss; biotite-garnet-muscovite anatectic granite
- ApPcry1 — Biotite-garnet migmatized paragneiss and stromatic metatexite

Nantuk Complex

- ApPnak2 — Biotite ± hornblende stromatic metatexite and schlieren diatexite
- ApPnak1 — Foliated to gneissic, medium to fine-grained, banded biotite ± hornblende tonalite and quartz diorite
- ApPnak1a — Fine-grained, homogeneous biotite ± hornblende tonalite and quartz diorite

PROSPECTIVE ZONE FOR MINERAL EXPLORATION

- Chrome
- Copper
- Platinum group elements
- Iron

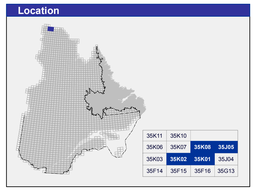
SHOWING AND DEPOSIT

- Platinum group elements, iron, zirconium

This geological map in PDF format contains layers that group the various elements of the document (geological zones, hydrography, geofiche outcrops, etc.). These layers can be displayed or hidden in the "Layers" section of the "Browser Pane" in Adobe Acrobat Reader©.

Symbols and abbreviations used on this map are described in the DV 2014-06 publication of the Ministère de l'Énergie et des Ressources naturelles.

Location



Metadata

Geodetic reference frame :	GRS 80 ellipsoid
Geodetic reference system :	NAD 83 compatible with the world geodetic system WGS 84
Cartographic projection :	Universal Transverse Mercator (UTM), zone 18
Original longitude :	76°15'
Original latitude :	0°

0 2 4 6 8 10km

1/85 000

Sources

Data

Base de données topographiques et administratives (BDTA 250k)

Organization

Ministère de l'Énergie et des Ressources naturelles

Realization

Geology :	Isabelle Lafrance et Marc-Antoine Vanier (2019)
References :	Charette, B., Beaudette, M. (2018) - BG 2018-03 Davis, D. W., Sutcliffe, C. N. (2018) - MB 2018-01 Parrish, R. R., (1989) - Geoscience Canada; volume 16, number 3; pages 126-130 Scott, D. J., St-Onge, M. R., (1995) - Geology; volume 23, n°12; pages 1123-1126
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To obtain the most recent data for this region, we suggest that you consult the geomatics products of Québec's Geomining Information System (SIGÉOM)

Bulletin géologiQUE

SIGÉOM
Système d'information géominière du Québec

Énergie et Ressources naturelles
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