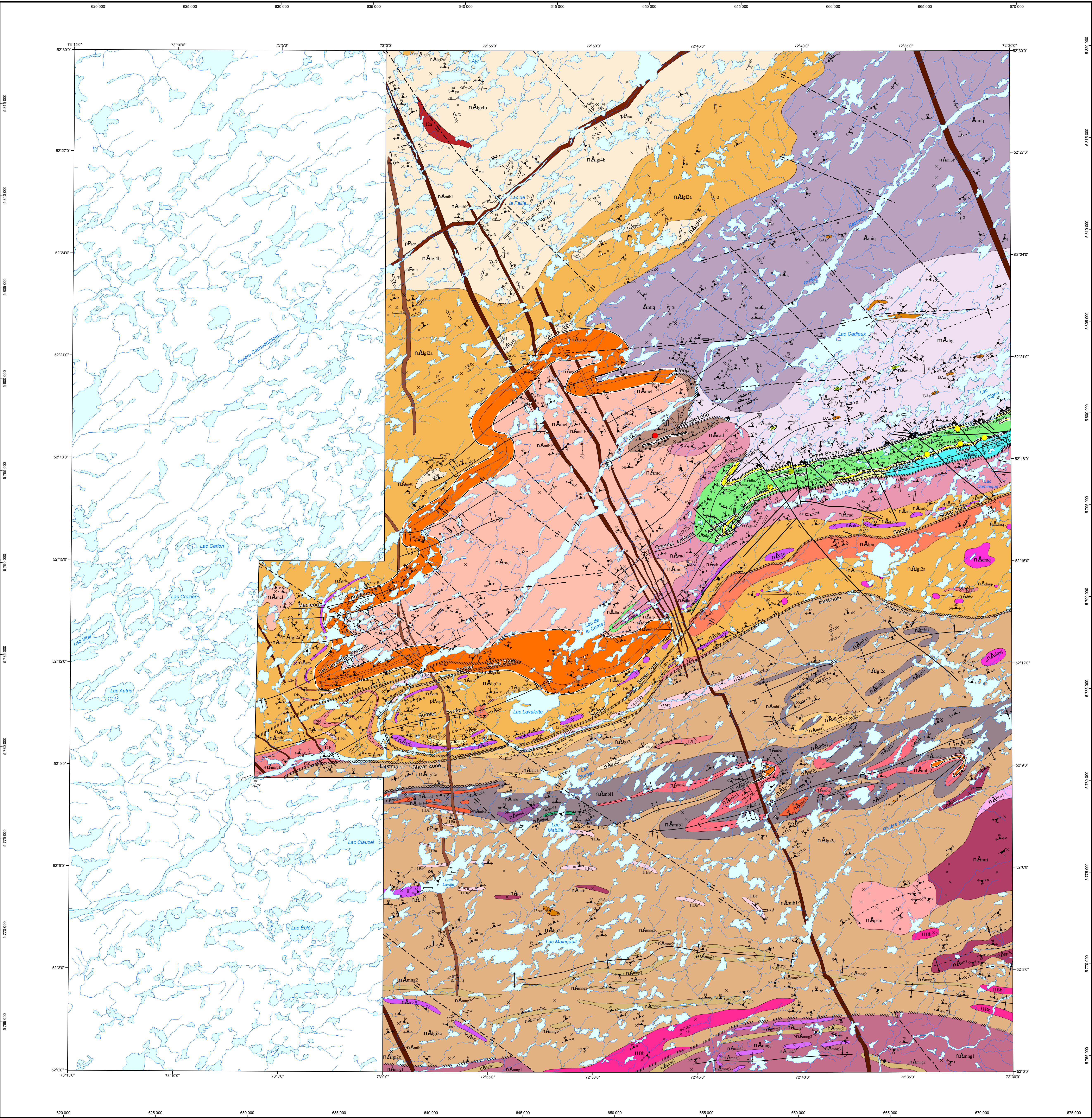


Geology of the Cadieux Lake Area, Opatica and Opinaca Subprovinces, Eeyou Istchee James Bay, Quebec, Canada



STRATIGRAPHIC LEGEND

SUPERIOR PROVINCE

PALEOPROTEROZOIC

Lac Esprit Dykes (2069 ±1 Ma, Hamilton et al., 2001)

Diabase: gabbro to gabbronorite

Senneterre Dykes (224.3 ±12.4 Ma, Buchan et al., 1993; 2216 ±6.4 Ma, Mortensen in Buchan et al., 1996; 2221 ±4 Ma, Davis et al., 2018)

Diabase: magnetite ± olivine gabbronorite and gabbro

NEOARCHAIC

Mistassini Dyke Swarm (2515 ±3 Ma, Hamilton, 2009; 2503 ±2 Ma, Davis et al., 2018)

Diabase: aphyric magnetite gabbronorite

Wahemau Suite (2640 ±10 Ma, Davis and Sutcliffe, 2018a)

Muscovite-biotite-garnet ± spodumene granite and pegmatite

Dominique Ultramafic Suite

Peridotite and pyroxenite

Cadieux Suite (2702 ±3 Ma, 2699 ±5 Ma, Davis, 2019; Davis and Sutcliffe, 2018b)

Foliated K-feldspar porphyrocrystic biotite-hornblende-magnetite quartz monzonite and granodiorite

MacLeod Batholith (2704 ±2 Ma, Davis, 2019)

Foliated hornblende-biotite-magnetite-sphene granodiorite and quartz monzonite

OPINACA SUBPROVINCE

Martel Suite

Banded muscovite-garnet granite

Pisim Pluton

Foliated biotite-magnetite ± hornblende tonalite and granodiorite

Barou Intrusion

Massive biotite-magnetite granite, locally heterogeneous, paragneiss enclaves

Sorbiere Mafic-Ultramafic Suite

Foliated peridotite, pyroxenite, hornblende and gabbro

Léopante Suite

Foliated hornblende-biotite quartz monzonite, diorite and granodiorite

Mobile Complex (2705 ±4 Ma, Davis, 2019)

Amphibolized basalt, garnet amphibolite and tuff

Foliated peridotite having a cumulate texture

Foliated hornblende-magnetite gabbro and diorite

Foliated biotite-magnetite granite and granodiorite

Foliated, granoblastic biotite-magnetite tonalite and quartz diorite

Lagouche Complex (2694 ±10 Ma, Davis, 2019)

Migmatized polygenic conglomerate

Datexite derived from paragneiss and metasedimentary rocks, containing >50% mobilisate; commonly intruded by anatectic granite

Metakelite derived from biotite ± garnet ± amphibole paragneiss, containing 10-50% mobilisate; commonly intruded by anatectic granite

Paragneiss and metakelite derived from biotite ± garnet ± cordierite wacke and anorthite, containing <10% mobilisate

Paragneiss derived from biotite ± garnet ± cordierite wacke, containing <10% mobilisate

OPATICA SUBPROVINCE

Bohier Group (<2768 ±3 Ma, <2712 ±5 Ma, Davis and Sutcliffe, 2018a)

Felsic to mafic tuff

Conglomerate

Rensselaire Group

Dolent Formation (2751 ±5 Ma, Davis, 2019)

Felsic tuff

Sulphidic chert and iron formation

Ultramafic sill and volcanic rock (komatiite)

Mafic-ultramafic sill

Amphibolite and gabbro

Amphibolized basalt, pillowed and massive flow; gabbro in lesser amounts

Maingault Complex

Foliated peridotite having a cumulate texture

Foliated pyroxene-hornblende gabbro, diorite and amphibolite

Foliated, banded to gneissic biotite-hornblende tonalite and quartz diorite

MESOARCHAIC

Digne Pluton (2814 ±7 Ma, Davis, 2019)

Foliated, leucocratic quartz porphyritic biotite-muscovite tonalite and granodiorite

ARCHAIC

Misassagou Complex (3024-2895 Ma, Davis, 2019; Davis and Sutcliffe, 2018a)

Variably migmatized tonalitic, dioritic and granitic gneiss; homogeneous and foliated tonalite, granite

LITHOLOGIC LEGEND

ARCHAIC

11Ba Foliated biotite ± magnetite granite

11Bb Massive biotite-magnetite granite, paragneiss enclaves

12a Foliated hornblende-biotite-magnetite quartz monzonite and quartz syenite

12b Foliated, locally gneissic and migmatized, biotite-hornblende ± magnetite quartz diorite, tonalite and diorite, intruded by granite

11Aa Gabbro and pyroxenite

PROSPECTIVE ZONE FOR MINERAL EXPLORATION

Copper

Lithium

Gold

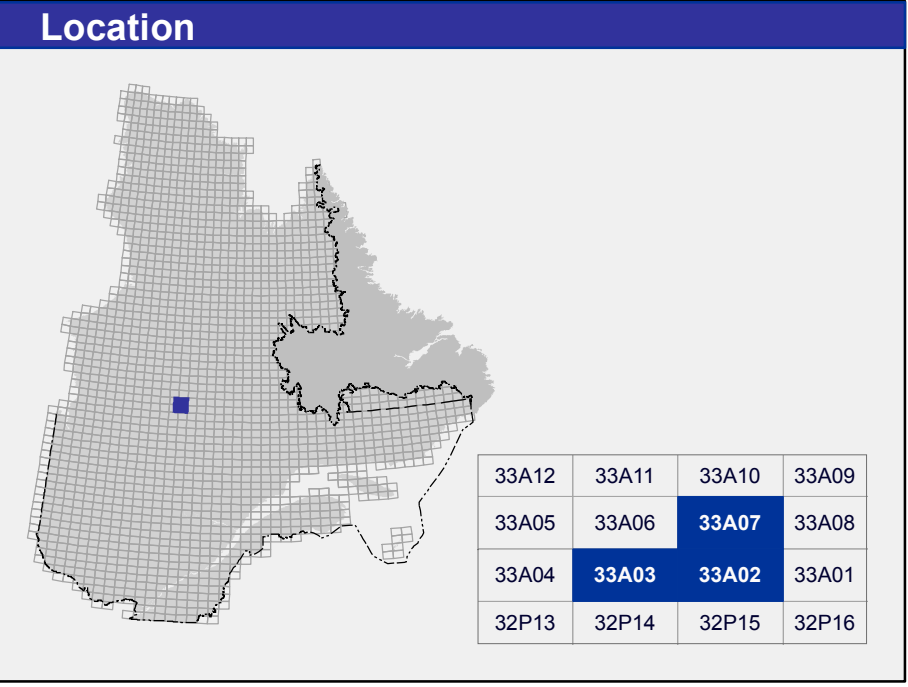
Zinc

SHOWING AND DEPOSIT

Silver, copper

Lithium, gold

Zinc



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 : 72°49'

Original latitude : 0°

Sources

Base de données pour l'aménagement du territoire (BDAT 1000)

Organization

Ministère de l'Énergie et des Ressources naturelles

Realization

Geology : Anne-Marie Beauchamp, Frédéric Massé (2018)

References : Buchan, K. L., Mortensen, J. K., Card, K. D. (1993) - Canadian Journal of Earth Sciences, Vol.30, N°6, juin, p.1286-1296

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Technical assistance : Karine Allard

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BG 2019-02-C01

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To obtain the most recent data for this region, we suggest that you consult the geomatics products of Quebec's Geomatics Information System (SIGEQM)

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