

LEGEND

MESOPROTEROZOIC

PALEOPROTEROZOIC

ARCHEAN

PHANEROZOIC

Geological boundary (defined, approximate, assumed)

Limit of geological mapping

Bedding, top known (inclined, vertical, overturned, dip unknown)

Bedding, top unknown (inclined, vertical, dip unknown)

Foliation (inclined, vertical, dip unknown)

Geosyncline (inclined, vertical, dip unknown)

Stretching lineation

Mineral lineation

Glacial strike (direction of ice movement assumed)

Archean

Antiform (defined, assumed)

Fault, Proterozoic (defined, assumed)

Catastrophic shear zone, Proterozoic (defined, assumed)

Shear zone, Archean (defined, assumed)

Metamorphic mineral zone boundaries (symbol on high-grade side)

Biotite

Chlorite

Sillimanite

Migmatite

Migmatite with K-feldspar

Migmatite with garnet

Orthopyroxene

Diatreme iron formation

Silica iron formation

U-Pb radiometric ages: Zr - Th/U, Zr - Hf, Mn - Mn

Economic mineral showing

Goosman

Gold

Chalcopyrite

Pyrite

Pyrrhotite

Note on map unit codes:

The map unit codes represent temporal, lithostratigraphic or lithologic, lithological and metamorphic terms where relevant. The first, largest letters in the code designate the age of the unit (Proterozoic (P) or Archean (A)). The second, smaller font, upper-case letter designates a lithostratigraphic or lithologic unit where appropriate (Yellowknife (Y), Hinscliffe (H)). Lower-case letters of the third group represent the dominant lithology present in the unit, in some cases with an appropriate modifier (granite (G), gneiss (Gn), orthopyroxene-bearing (O), megacrystic granite (MG), etc.). If the unit consists of more than one lithology that cannot be separated at the present scale of mapping, the appropriate letter codes are separated by a hyphen (Yg-U). Metamorphic information for metamorphic rocks or for plutonic rocks that crystallized under high metamorphic grade conditions is given by the zone mineral abbreviation following a dot at the end of the code (C).

Geographical names in single quotation marks are unofficial names that are considered important in the history of the area.

PHANEROZOIC

PALEOPROTEROZOIC

ARCHEAN

Geological map of the Wijinndi Lake area, Northwest Territories, showing various geological units and their spatial distribution.

MAP 2023A

GEOLOGY

WIJINNDI LAKE AREA

NORTHWEST TERRITORIES

Scale 1:50 000 / Échelle 1:50 000

Geological compilation by J.B. Henderson, 1997 and 2000

Digital cartography by M. Proulx, Earth Sciences Sector Information Division (ESS-Inf)

This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001:2000 standard

Geology by F.G. Smith, 1920, G.M. Wright, 1949, J.B. Henderson, 1992-1993, S.E. Schaen, 1992

Geological Survey of Canada

Universal Transverse Mercator Projection / Projection transversale universelle de Mercator

North American Datum 1927 / Système de référence géodésique nord-américain, 1927

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Some geographical names subject to revision

Mean magnetic declination 2003, 24°28', decreasing 25.5' annually

Digital base map from data compiled by Geomatics Canada, modified by ESS-Inf

Some geographical names subject to revision

88 84 88 90 88 92

85 013 85 014 85 015

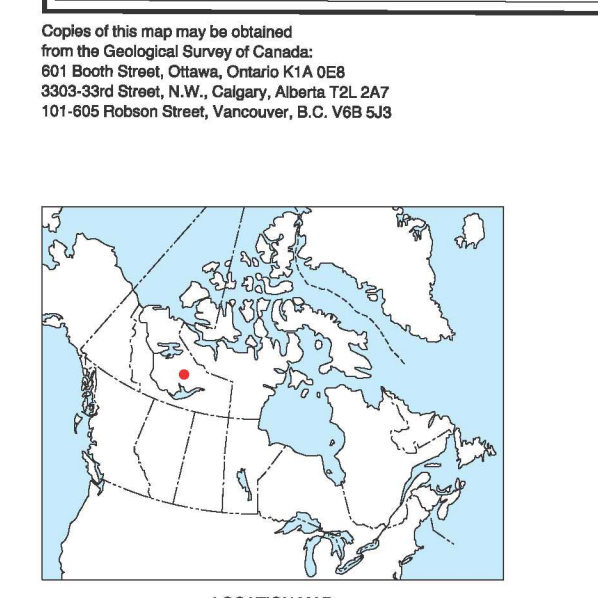
253A

85 012 85 011 85 010

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

Figure 1. Geology of the southern Slave Province showing the location of the Wijinndi Lake map area at the boundary between an area, to the south, of Archean high-grade metamorphic rocks and granitoid intrusions, in large part at granulite grade, and, to the north, low-grade metamorphic rocks, both of which are part of a major Paleoproterozoic gulf.

Figure 2. The map area is divided into four domains of which the western three represent successively deeper structural levels. They are bounded by Archean shear zones at the ambient metamorphic grade that have juxtaposed the domains to their present relative positions. The Wijinndi domain is composed by relatively low-grade Yellowknife Supergroup supracrustal rocks that rise to upper amphibolite grade to the east. The Hinscliffe domain consists of a metamorphosed tonalitic to granodioritic gneiss complex. The Ghost domain is made up of foliated granitoid rocks, granitoid intrusions, and Yellowknife Supergroup supracrustal rocks most of which were metamorphosed at or crystallized under granulite-grade conditions. The Dauphinee domain to the east consists largely of massive granitoid rocks with minor metasedimentary migmatite. It is separated from the Ghost domain by a low metamorphic grade, catastrophic shear zone across which the three domains to the west were uplifted during the Paleoproterozoic.



Geology by F.G. Smith, 1920, G.M. Wright, 1949, J.B. Henderson, 1992-1993, S.E. Schaen, 1992

MAP 2023A GEOLOGY WIJINNDI LAKE AREA NORTHWEST TERRITORIES Scale 1:50 000 / Échelle 1:50 000

Geological compilation by J.B. Henderson, 1997 and 2000

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