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Bedrock geology of north and central Wintering Lake, Manitoba (parts of NTS 63P5 and 12)

Paleoproterozoic intrusive rocks

Pegmatite and aplite dikes and sills; straight-walled and weakly foliated to undeformed except in late high strain zones where drag-folded or sheared; pegmatite dikes are dominantly leucogranite and likely related to the Wintering Lake granite (8).

Granite (Wintering Lake granite); massive, homogeneous, biotite leucogranite; ranges from K-feldspar porphyritic to pegmatitic and aplitic in texture.

Gabbro to diabase dikes; straight-walled; undeformed to variably deformed; general trend northeasterly (likely part of Molson dike swarm)

Felsic intrusive rocks of uncertain age

Schlieric layered granite and granodiorite; cm-dm wide schlieren and layers of pink to beige granite and light grey to beige granodiorite (comagmatic phases), leucocratic; weakly to moderately foliated and migmatitic; biotite (<15%) and hornblende bearing; locally diffuse pegmatitic patches and sheared amphibolite layers.

Archean supracrustal rocks

Semipelitic paragneiss; garnet-biotite-quartz-rich strongly layered and foliated gneiss interpreted as alumina-rich semipelitic paragneiss (metagreywacke); locally contains garnetiferous boudins or xenoliths possibly derived from silicate iron formation; quartz-rich lenses and layers are likely meta-arenite; amphibolite intercalations are interpreted as remnants of mafic to intermediate metavolcanic rocks.

Quartz-rich metasedimentary rock; quartz-rich (>50-60 %) granulite gneiss derived from quartzite, arkosic arenite and arkosic wacke; contain characteristic <2 cm aggregates of garnet-hornblende-biotite ±sillimanite ±cordierite forming 15-25% of the rock; leucocratic, locally blue quartz and <20%, waxy green to beige coloured feldspar aggregates; locally contain 'layers' of quartzite, banded (silicate, minor oxide and sulphide facies) iron formation and amphibolite.

Archean basement rocks

Foliated tonalite, granodiorite and granite and their gneissic equivalent; typically strongly layered with hornblende- and/or biotite-rich versus quartzo-feldspathic layers; highly strained and structurally intercalated with mafic rocks (1) and granitic

Enderbite and opdalite (felsic granulite) and their gneissic equivalent; variably migmatitic and foliated; typically contain agmatitic zones, layers and lenses of (1); <70% of neosome layers and patches; coarse granoblastic, equigranular recrystallized texture; up to 30% hornblende; garnet is common where enderbite interlayered with or in contact with mafic rocks (1).

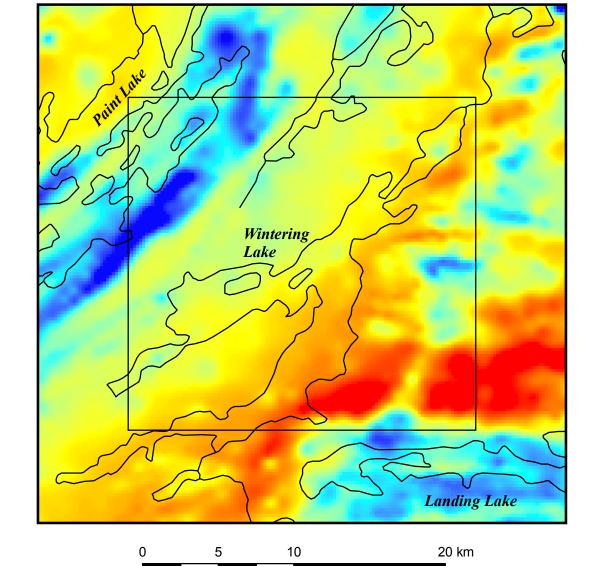
Mafic granulite ranging from gabbroic anorthosite to pyroxenite in composition; metamorphic banding subparallel to the main foliation; locally migmatitic with quartz-rich mobilizate layers and patches of dominantly fine grained pyroxene/amphibole and garnet-rich aggregates (silicate iron formation?); local sulphide mineralization in deformed metagabbro-metapyroxenite and along sheared contact with metasedimentary rocks (4+5).

Symbols

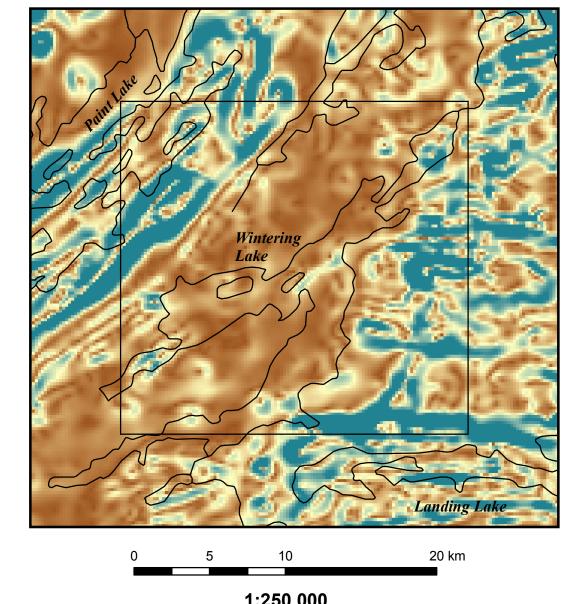
	Planar structure			Lineation	
~ ~ ~ ~	High strain zone	*	Crenulation cleavage	†	Fold axis; generation
	Geological contact	ŧ	Fold axial plane; generation: 3	‡	Fold axis; generation
	Limit of mapping	L	Fold axial plane	*	Fold axis; generation
	Road	1	Foliation; generation: 2	dn ch	Fold axis; sense: S
	Trail		Foliation; generation: 3		Fold axis; sense: syr
	Winter road	‡	Gneissosity	↑	Fold axis

L-fabric; mineral lineation

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First Horizontal Derivative



Fold axis; sense: Z

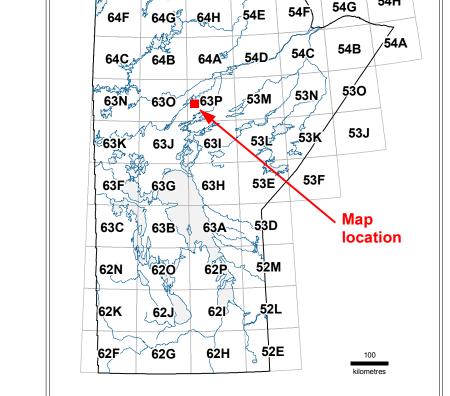
L-fabric; rodding

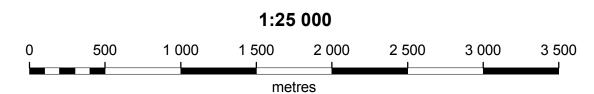
C.O. Böhm (2005)

Published by: Manitoba Industry, Economic Development and Mines Manitoba Geological Survey, 2005

This map is a provisional summary of work carried out during the summer field season and is produced directly from the geologist's manuscript. It is not to be regarded as a final interpretation of the geology of the area.

SUGGESTED REFERENCE
Böhm, C.O. 2005: Bedrock geology of north and central Wintering Lake, Manitoba
(parts of NTS 63P5 and 12), Manitoba Industry, Economic Development and Mines,
Manitoba Geological Survey, Preliminary Map PMAP2005-2, scale 1:25 000.







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