



Bedrock geology west of Reed Lake, Flin Flon greenstone belt, Manitoba (part of 63K10)

Legend

PALEOPROTEROZOIC

Late-tectonic intrusions

Felsic intrusive rocks

16 Granodiorite: equigranular, medium to coarse grained, homogeneous, occurs as small dikes and regular dikes

Intermediate intrusive rocks

15 Diorite: fine to medium grained, aphyric to sparsely amphibole phyrlic; massive; occurs as narrow dikes (<50 cm)

Mafic intrusive rocks

14 Diabase: aphyric to sparsely plagioclase phyrlic; homogeneous, fine grained, massive; occurs as dikes (1-2.5 m) and north of Lake A

Intratectonic intrusions

Mafic intrusive rocks

13 Diorite: aphyric to plagioclase phyrlic; fine to medium grained, homogeneous; locally grades to more gabbroic or quartz-dioritic compositions

Little Swan Lake pluton (1844 ±10 Ma)

12 Granodiorite: biotite (hornblende), homogeneous, medium to coarse grained; quartz porphyritic; weak to moderate foliation

West Reed Pluton

11 Gabbro: quartz gabbro; groundmass: fine to medium grained; minor granodiorite along the margins; local zones of mafic breccia

Tectonite of uncertain precursor

10 Southern extension of West Reed-North Star shear zone; strongly layered; related to mylonitic tectonite; interbedded mafic tectonite and granodiorite sheets

Synvolcanic to early-tectonic intrusions

Felsic intrusive rocks

9a Tonalite-granodiorite

9b Gabbro batholith (1876 ±7.6 Ma): medium to coarse-grained; magmatic; moderate to strongly foliated granodiorite

9c Gabbro batholith: subordinate rhyolite and xenoliths of gneissic tonalite

9d Homogeneous, fine- to medium-grained, equigranular to sparsely plagioclase phyrlic, granodiorite

Reed Lake complex

8 Gabbro, pyroxenite

8a Magnetite, ilmenite-bearing; weak magnetic signature; homogeneous to layered to patchy heterogeneous

8b Magnetite, pyroxenite and olivine gabbro; strong magnetic signature; homogeneous to layered to patchy heterogeneous

Jostland Lake sills (1896 ±3 Ma)

7 Differentiated gabbro sill: varies from gabbro to ferrogabbro to granophyric to porphyritic quartz ferrodiorite and tonalite; homogeneous, medium to coarse grained

Felsic to intermediate intrusive rocks

6 Felsic to intermediate porphyry: quartz, plagioclase or quartz; plagioclase-phyric, aphyric to very fine-grained groundmass, occurs as dikes in the western volcanic package

Mafic to ultramafic intrusive rocks

5 Equigranular to porphyritic (plagioclase)-pyroxene or plagioclase-pyroxene-phyric mafic to ultramafic rocks; minor layered gabbro and medium to coarse grained pyroxenite; occur as dikes and sills that intrude the western volcanic package

Volcanic and volcanoclastic rocks

Eastern volcanic package

4 Rhyolite, dacite

Aphyric to locally plagioclase-phyric dacite flows, plagioclase and quartz-phyric rhyolite flows; minor tuff and lapilli tuff

Basaltic andesite, andesite

1 Pileowed flows, lesser amounts of massive flows; mafic volcanoclastic rocks aphyric to plagioclase phyrlic, amygdaloidal

Western volcanic package

2 Rhyolite, dacite

Reserve to crudely stratified crystal tuff (quartz, plagioclase), lapilli tuff and tuff breccia (up to 30% fragments of quartz-phyric rhyolite); minor quartz-plagioclase-phyric dacite to rhyolite flows

Basalt

1 Volcanoclastic rocks (tuff breccia, lapilli tuff and tuff), minor massive and pileowed basaltic flows; aphyric to locally plagioclase phyrlic

Symbols

Planar structure

Foliation: generation unknown, 1, 2

Bedding: overturned

Flow contact

Igneous layering

Crenulation cleavage: generation unknown, sense unknown

Crenulation cleavage (sinistral): 2nd generation

Gneissosity: generation unknown, 1

Fault: sense unknown

Fold axial plane: generation unknown, 2

Shear zone: sense unknown, dextral, sinistral

Joint

Dike

Linear structure

Stretching lineation: generation unknown, 1

Mineral lineation: generation unknown

Fold axis: 2nd generation

Fold axis (S asymmetry): 3rd generation

Fold axis (Z asymmetry): generation unknown, 2

Geological contacts

Geological contact

Fault

Northern limit of Phanerozoic cover

Limit of mapping

Mineral occurrence

Au - gold

Co - cobalt

Cpy - chalcopyrite

Cu - copper

Ni - nickel

PGE - platinum group-elements

Po - pyrrhotite

Cultural features

Provincial road

Road: gravel

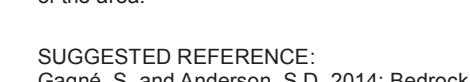
Trail

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Zwarg, H.V., Bales, A.H. and Böhm, C.O. 2001. Jostland Lake sills: U-Pb age and tectonostratigraphic implications (parts of NTS 63K and 63N); in Report of Activities 2001, Manitoba Industry, Trade and Mines, Manitoba Geological Survey, p. 29-32.

Location map



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This map is available to download free of charge at www.manitoba.ca/minerals; to purchase a print copy contact Publication Sales at 1-800-223-5215 or (204) 945-4154 or minresinfo@gov.mb.ca.

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.

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