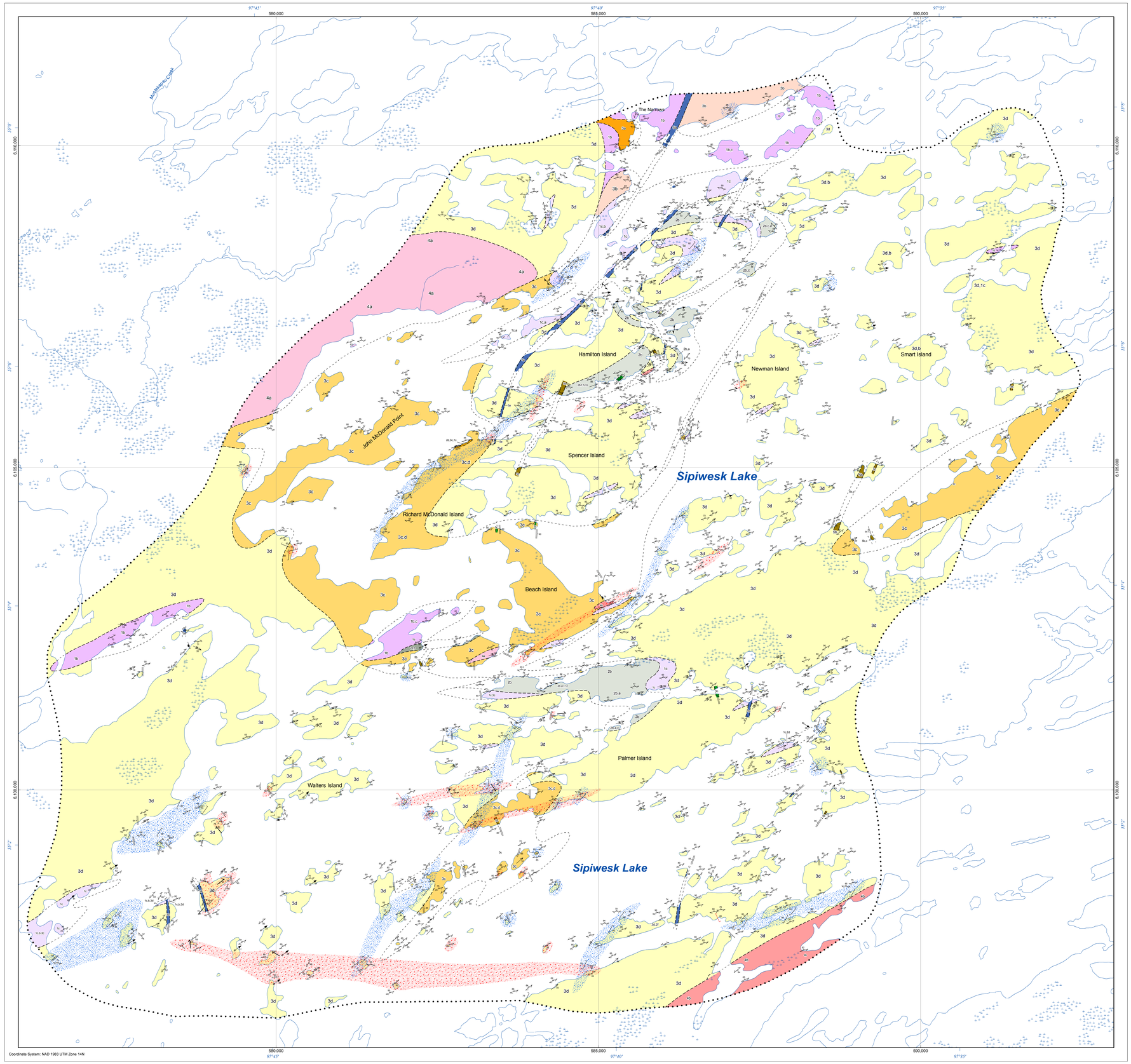
Preliminary Map PMAP2012-5

Bedrock geology of central Sipiwesk Lake, Pikwitonei Granulite Domain, central Manitoba (part of NTS 63P4)



Legend

Mafic and ultramafic dikes

- **5c** — Diabase: dark green to black, locally with chilled margins, typically <10 m thick
- **5b** — Gabbro: dark grey to black, typically >10 m thick, local pegmatitic segregations, local igneous layering
- **5a** — Ultramafic: dark green to black, typically >10 m thick, local gabbroic pegmatite segregations, local igneous layering

Late granitoids

- **4c** — Granitic pegmatite/aplite dikes: orange to pink, typically <3 m thick, typically massive, locally with weak foliation, mineralogically simple
- **4b** — Biotite granite: pink to red, medium to coarse grained, foliated, main exposures along southeast margin of map area, rare smaller intrusions 8–50 m wide in central map area
- **4a** — Biotite granodiorite: locally amphibole-bearing, foliated, local K-feldspar augen, main exposures along northwest margin of map area, rare smaller intrusions in central map area

Metaplutonic rocks

- **3d** — Leucocratic enderbite (metatrondhjemite): white to pink, medium to coarse grained; <10% mafic minerals including orthopyroxene, clinopyroxene and magnetite; contains up to 30% leucosome
- **3c** — Mesocratic enderbite (metatonalite): light grey to pink, medium to coarse grained, locally gneissic; >10% mafic minerals including orthopyroxene, clinopyroxene and magnetite; contains up to 30% leucosome
- **3b** — Leucocratic monzodiorite: light pink to pinkish grey, medium to coarse grained; <20% mafic minerals including clinopyroxene, orthopyroxene and hornblende
- **3a** — Mesocratic monzodiorite: grey brown, medium to coarse grained; biotite-rich, subordinate clinopyroxene and magnetite

Supracrustal rocks

- **2f** — Ca–Al rock: pale yellowish bands, 0.4–1.0 m thick, associated with mafic and intermediate granulite (unit 1), and typically hosted in enderbite (units 3c, d); plagioclase- and garnet-rich with subordinate deep green clinopyroxene
- **2e** — Mg–Al rock: yellow to brownish grey bands, <2.5 m thick, associated with metapsammite (unit 2b) and mafic granulite (unit 1b); cordierite-rich with variable proportions of orthopyroxene, sapphirine and quartz
- **2d** — Banded iron formation: gossanous layers and lenses, <1.5 m thick, commonly associated with intermediate and mafic granulite (unit 1); rich in magnetite, orthopyroxene, quartz and pyrrhotite; metachert laminations common
- **2c** — Metawacke: light grey to rusty weathering and banded on a cm-scale, bands are typically plagioclase-rich with variable proportions of quartz, orthopyroxene, clinopyroxene, garnet, biotite and magnetite; commonly interbanded with metapsammite (unit 2b) and pelitic layers (unit 2a)
- **2b** — Metapsammite: white to light pink, gradationally layered on a cm-scale; quartz- and plagioclase-rich with <15% mafic minerals including pink garnet, biotite, orthopyroxene and magnetite
- **2a** — Metapelite: pinkish orange to light grey to rusty weathering, gradationally banded; contain quartz, plagioclase, and K-feldspar with variable proportions of pink garnet, biotite, orthopyroxene, sillimanite and rutile ± cordierite; commonly interbanded and compositionally gradational into metapsammite (unit 2b) and metawacke (unit 2c)

Mafic and intermediate granulite

- **1c** — Intermediate granulite: light green-grey, commonly banded; plagioclase-rich with <30% mafic minerals including clinopyroxene and orthopyroxene, subordinate magnetite, local hornblende, garnet, biotite, pyrrhotite; commonly interbanded with mafic granulite (unit 1b)
- **1b** — Mafic granulite: dark green to black, commonly banded; consists of plagioclase, orthopyroxene and clinopyroxene, subordinate hornblende and magnetite; typically >50% mafic minerals present; commonly interbanded with intermediate granulite (unit 1c)
- **1a** — Ultramafic granulite: dark brown to black, typically as boudins <3 m thick within mafic and intermediate granulite (units 1b, c) and rarely in enderbite (unit 3c, d); composed of clinopyroxene and orthopyroxene with subordinate hornblende, minor plagioclase and magnetite

- Hematitized fracture zone
- Zones of pseudotachylite veining

Symbols

Layering
- Igneous layering: top unknown

Foliation
- Generation: 1, 2, unknown

Gneissosity
- Generation: 1, unknown

Cleavage
- Spaced cleavage

Fractures
- Fracture: hematitized
- Pseudotachylite

Fault
- Dextral, sinistral, sense unknown

Geologic contact
- Approximate
- Assumed (under water)

Shear
- Dextral, sinistral

Lineations
- Lineation: generation unknown
- Mineral lineation
- Rodding
- Slickenstriae

Minor fold axis (generation unknown)
- S-asymmetric, symmetric, Z-asymmetric

Axial plane of minor fold
- Generation 2, generation unknown

Other
- Dike

0 1,000 2,000 3,000 metres

Scale: 1:20 000

Geology by: C.G. Couëslan, C.O. Böhm and T. Martins

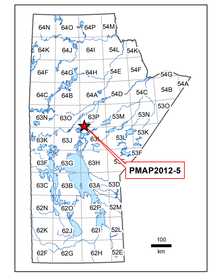
Cartography by: P. Lenton

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.

Published by:
Manitoba Innovation, Energy and Mines
Manitoba Geological Survey, 2012

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

SUGGESTED REFERENCE:
Couëslan, C.G., Böhm, C.O. and Martins, T. 2012: Bedrock geology of central Sipiwesk Lake, Pikwitonei Granulite Domain, central Manitoba (part of NTS 63P4); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2012-5, scale 1:20 000.



Manitoba