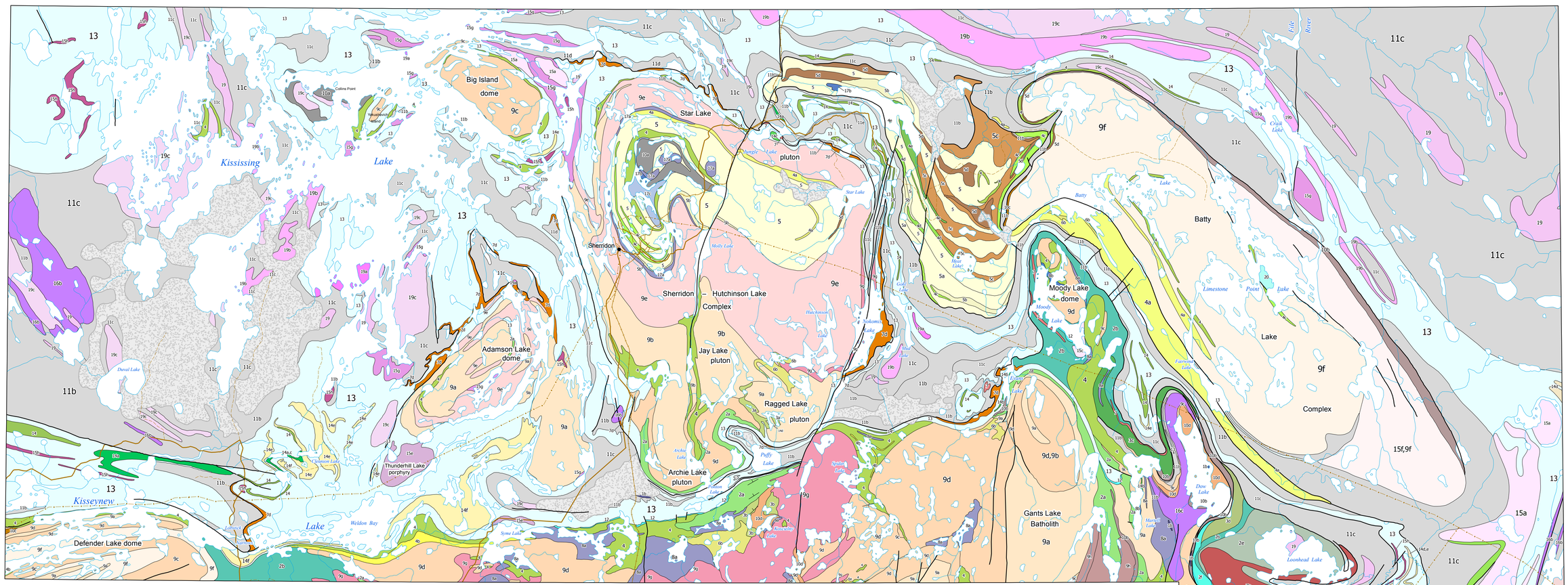

ORDOVICIAN

- 20 — Dolomitic limestone

PALEOPROTEROZOIC

- 19 — Synkinematic leucogranite–tonalite
- 19a — Granitic pegmatite
- 19b — Leucogranite
- 19c — Foliated to gneissic granodiorite–tonalite

Central Kisseynew intrusions

- 18 — Burntwood Lake tonalite
- 18a — Highrock Lake Batholith: foliated to gneissic granodiorite–tonalite
- 18b — Flatrock Lake granite: foliated to gneissic granite–granodiorite

Mafic to ultramafic rocks (E-MORB)

- 17 — High-Ti amphibolite, undivided
- 17a — Gabbro, diabase
- 17b — Pyroxenite
- 17c — Mafic-calcsilicate gneiss (age unknown)

Intermediate to ultramafic intrusions

- 16a — Touchbourne suite: hypersthene quartz diorite, pyroxenite
- 16b — Duval Lake sills: quartz diorite–gabbro
- 16c — Dow Lake quartz diorite

Late successor-arc intrusions (Missi age)

- 15a — Foliated granite–granodiorite
- 15b — Quartz diorite, tonalite, granodiorite
- 15c — Porphyritic granite
- 15d — Granodiorite
- 15e — Quartz porphyry
- 15f — Trondhjemite gneiss
- 15g — Quartz diorite–tonalite, hornblende-biotite gneiss
- 15h — East Big Island gabbro–quartz diorite, amphibolite

Missi Group

- 14 — Undivided volcanic rocks (14a–f)
- 14a — Kississing River basalt, gabbro
- 14b — Evans Lake basalt
- 14c — Jungle Lake basaltic andesite
- 14d — Puffy Lake dacite, minor rhyolite
- 14e — Cleunion rhyolite
- 14f — Lobstick rhyolite
- 13 — Arenite, locally includes units 14a–f
- 12 — Conglomerate

Burntwood Group

- 11a — Greywacke-mudstone
- 11b — Greywacke gneiss
- 11c — Greywacke-derived migmatite
- 11d — Biotite±garnet±hornblende gneiss
- 11e — Quartzite and pelite

Age and/or geochemistry unknown

- 10a — Biotite±garnet±hornblende gneiss
- 10b — Tectonite, mafic±felsic sheets
- 10c — Interlayered felsic and mafic rocks
- 10d — Felsic rock ±garnet
- 10e — Quartz-feldspar porphyry

Early successor-arc intrusions

- 9a — Foliated to gneissic granite–granodiorite
- 9b — Foliated leucogranite–granodiorite
- 9c — Foliated to gneissic granodiorite
- 9d — Tonalite–granodiorite
- 9e — Gneissic tonalite
- 9f — Trondhjemite gneiss
- 9g — Foliated tonalite, granodiorite–quartz diorite
- 9h — Gneissic quartz diorite–tonalite

Intermediate, mafic–ultramafic intrusions

- 8a — Gabbro, mircrodiorite, quartz diorite (includes Martell Lake gabbro)
- 8b — Hornblendite to melagabbro, ultramafic rock

Josland Lake sills (arc rift)

- 7 — Layered gabbro (7a–c)
- 7a — Gabbro–melagrabbro
- 7b — Ferrogabbro
- 7c — Quartz diorite–trondhjemite
- 7d — Layered amphibolite (7a–c, 2b)

Volcaniclastic rocks

- 6a — Volcanic wacke-mudstone, breccia
- 6b — Felsic–intermediate paragneiss, wacke

Sherridon gneiss (felsic volcanogenic/altered)

- 5 — Fine- to medium-grained felsic rock ±garnet
- 5a — Felsic gneiss, metarhyolite ±quartz eyes
- 5b — Interlayered felsic and calcsilicate gneiss
- 5c — Biotite-garnet±hornblende (alteration) gneiss
- 5d — Biotite-garnet±sillimanite±cordierite± gedrite/anthophyllite (alteration) gneiss

Arc-volcanic rocks (undivided)

- 4 — Amphibolite, mafic tectonite
- 4a — Layered amphibolite, mafic to felsic gneiss
- 4b — Felsic flows, tuff, tectonite

Arc tholeiite (Sherridon–Meat Lake assemblage)

- 4c — Meat Lake amphibolite
- 4d — Walton Lake amphibolite
- 4e — Walton Lake gabbro

Arc tholeiite (Amisk Collage)

- 3a — Puffy Mine andesite
- 3b — Koscielny andesite
- 3c — Martell Lake basalt
- 3d — Dow Lake andesite

Tholeiite with weak arc signature

- 2a — Ponton Lake basalt
- 2b — Moody and Dismal lakes basalt
- 2c — Preaston andesite
- 2d — Dickstone rhyolite
- 2e — Storozuk mafic, minor felsic volcanic rocks
- 2f — SE Dow porphyritic basalt

MORB-like rocks (back-arc basin floor)

- 1a — Fussey Lake basalt
- 1b — Ultramafic intrusions

Symbols

- Contact
- Fault
- Road
- Logging track
- Power line
- Stratigraphic tops
- Overburden

Units in blank boxes are not on this map.

Map GR2010-1-1
Geology of the Kississing–File lakes area, Manitoba

(parts of NTS 63K13–16, 63N1–4)

0 2 4 6 8 10 Kilometres

1:100,000

Geology by H.V. Zwanzig, modified after:
NATMAP Shield Margin Project Working Group 1998: Geology, NATMAP Shield Margin Project area, Flin Flon Belt, Manitoba/Saskatchewan; Geological Survey of Canada, Map 1968A, scale 1:100 000.

Cartography and GIS processing by L.E. Chackowsky and M. Timcoe

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Suggested reference for Map GR2010-1-1:
Zwanzig, H.V. 2010: Geology of the Kississing–File lakes area, Manitoba (parts of NTS 63K13–16, 63N1–4); in Geology and geochemical evolution of the northern Flin Flon and southern Kisseynew domains, Kississing–File lakes area, Manitoba (parts of NTS 63K, N), Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Geoscientific Report GR2010-1, Map GR2010-1-1, scale 1:100 000.

Manitoba