

Legend

APHERIAN

INTRUSIVE ROCKS (I.U.G.S. CLASSIFICATION)

Post-Sickle and similar rocks of unknown age

- 21 Quartz feldspar porphyry
- 20 Granodiorite, granite
- 19 Tonalite, granodiorite
- 18 Gabbro, diabase diorite, minor ultramafic rocks

Pre-Sickle and similar rocks of unknown age

- 17 Granite, granodiorite, aplite, pegmatite, gneiss
- 16 a) Diorite, quartz diorite
- b) Tonalite, granodiorite
- 15 Gabbro, norite, diorite, pyroxenite, peridotite
- 14 Hornblende diorite, quartz diorite
- 13 Gabbro, diabase

METASSEDIMENTARY ROCKS

Sickle Group and Sickle Metamorphic Suite

- 12 Sandstones and derived gneisses
 - a) arkose, pebbly arkose, muscovite schist, sillimanite gneiss
 - b) feldspathic greywacke, siltstone, biotite gneiss
 - c) hornblende-biotite-blastic arkose and siltstone, hornblende-biotite gneiss
- 11 Polymictic conglomerate

Rocks of uncertain age: late Wasewon or Sickle

- 10 a) Polymictic conglomerate
- b) Staurolite schist, greywacke

Wasewon Group

- 9 Fine grained sedimentary rocks
 - a) hornblende-blastic greywacke, siltstone, pebbly greywacke
 - b) biotite-blastic greywacke, siltstone, schist
 - c) siltstone and amphibolite
 - d) mafic sandstone, mudstone, amphibolite
- 8 Conglomerate

METAVOLCANIC ROCKS

Wasewon Group

- 7 Rhyolite: a) massive and brecciated flows; b) tuff
- 6 Dacite: a) flows; b) breccia and tuff
- 5 Intermediate and felsic rocks: a) andesite; b) dacite; c) pyroclastic breccia; d) tuff
- 4 Mafic and intermediate rocks: a) porphyritic and aphyric basalt, flows and breccias; b) interlayered mafic and intermediate flows and breccias; c) tuff; d) mafic schist
- 3 Mafic and minor ultramafic rocks, predominantly porphyritic (hornblende after pyroxene + plagioclase): a) massive and brecciated porphyritic flows, minor tuff; b) interlayered porphyritic and aphyric flows
- 2 Aphyric basalt: a) flows, commonly pillowed, pillow breccia; b) tuff

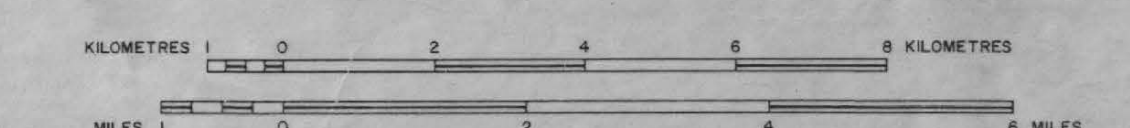
METASSEDIMENTARY ROCKS, VOLCANIC ROCKS AND DERIVED GNEISSES AND MIGMATITES (Probable Wasewon age, Burntwood River Metamorphic Suite, in part)

- 1 B) Layered and massive amphibolite, minor felsic tuff, greywacke, ultramafic rocks, marble
- A) Greywacke, mudstone, paragneiss, migmatite

Symbols

- Area of no outcrop
- Geological contact
- Fault (approximate or inferred)
- Metamorphic gradient lines:
 - a) approximate limit of sillimanite in greywacke, mudstone
 - b) approximate limit of anatexis
 - c) approximate limit of extensive anatexis
- Axial trace of anticline (approximate, overturned)
- Axial trace of syncline (approximate, overturned)
- Road
- Iron formation

Scale 1:100 000



Geology by H. Paul Gilbert, Eric C. Syme and Herman V. Zwanis, with additional mapping by J.P. Kazy and M.W. Thomas; revised 1978, 1981

Reference: Zwanis, H.V. 1978: Lynn Lake Project; Man. Min. Res. Div., Geol. Surv. Report of Field Activities 1978 GS-2.

Notes on Legend

Intrusive rocks were subdivided after the mapping of J.D. Allan, G.P. Crombie, A.P. Fawley, G.C. Milligan, T.A. Oliver and M.S. Stanton. See Milligan, 1960, for references. Additional data on mafic plutons are after R.H. Piment, 1977.

Unit 12a: Sickle arkose occurs as muscovite schist and paragneiss north of the line (b) marking the northern limit of anatexis on Tod Lake and McAvock Lake. Primary textures prevail 2 km north of line (b). Massive and veined gneisses with egg-shaped, quartz-sillimanite faserkiessel occur to the south. Poorly preserved flattened faserkiessel occur in the area of extensive anatexis, south of line (c).

Unit 12c: Mafic schists include anthophyllite-cordierite schist and anthophyllite-cordierite-garnet schist interpreted as altered dacite and basalt near Fox Mine and Snake Lake.

Unit 1a: Metagreywacke contains biotite and only minor garnet northwest and northeast of Lynn Lake; these rocks are gradational to biotite-gneiss towards the margins of major granitoid intrusions.

West of Fox Mine sillimanite and muscovite are common in some beds of greywacke. On Laurie Lake there is a gradual increase of granitic vein material from line (a) south. Vein material exceeds 50% of exposures in the area of extensive anatexis, south of line (c). The restite is rich in garnet and locally in cordierite with lesser sillimanite.

