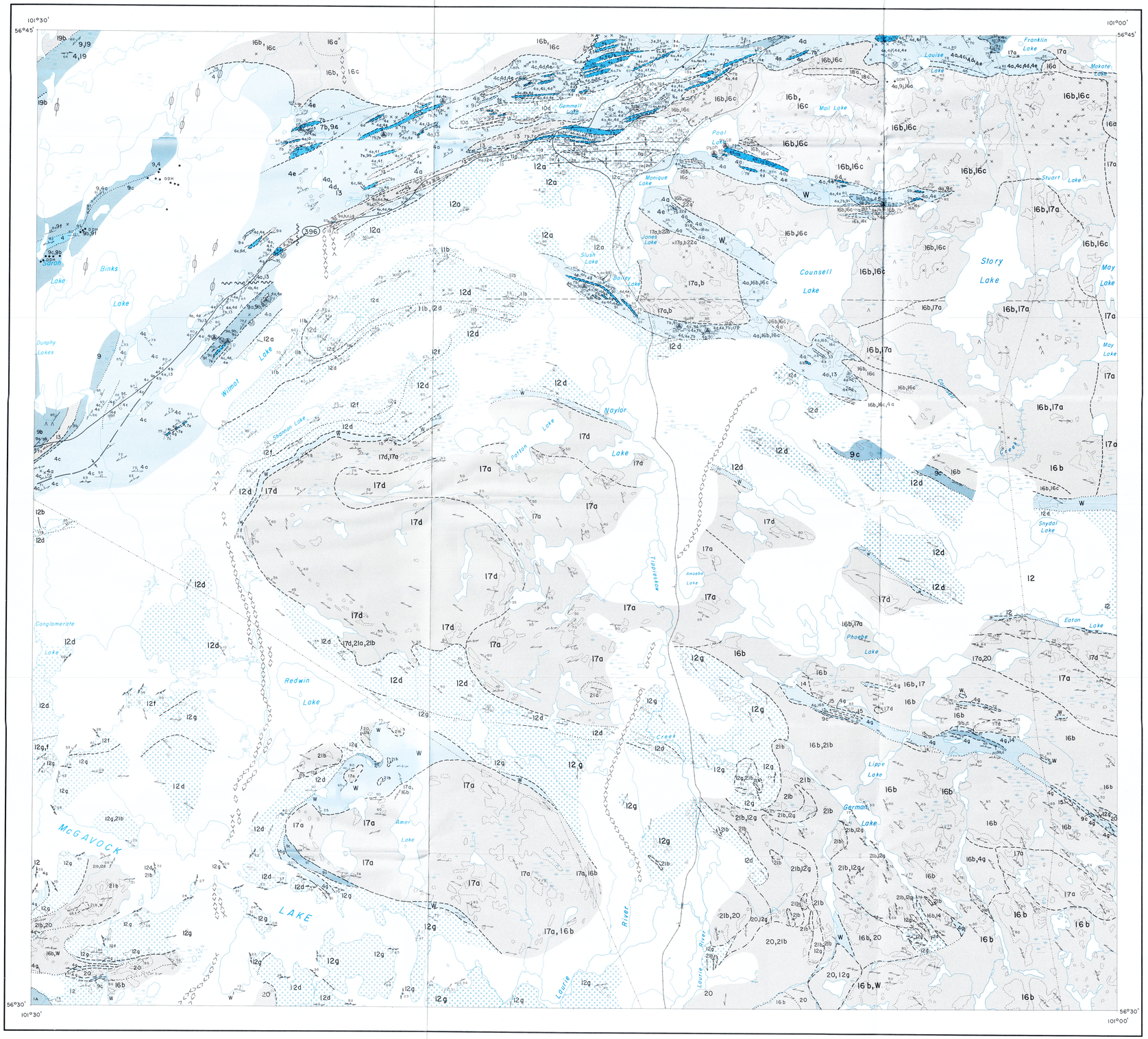
MANITOBA
DEPARTMENT OF ENERGY AND MINES
MINERAL RESOURCES DIVISION



MAP GP80-1-4

McGAVOCK LAKE

Scale 1:50 000

KILOMETRES 1 0 1 2 3 4 KILOMETRES
MILES 1 0 1 2 3 MILES

LEGEND

PRECAMBRIAN (APHEBIAN)

INTRUSIVE ROCKS

Post-Sickle and similar rocks of unknown age

- 22 — 22a quartz porphyry, quartz-feldspar porphyry; 22b diabase
- 21 — 21a aplite, aplitic granite; 21b pegmatite, graphic granite
- 20 — Granite, granodiorite
- 19 — 19a hornblende-biotite granodiorite; 19b tonalite
- 18 — 18a gabbro, minor ultramafic rock; 18b diabase; 18c diorite; 18d plutonic breccia

Pre-Sickle and similar rocks of unknown age

- 17 — 17a granite, granodiorite; 17b pegmatite, aplite; 17c syenite; 17d aplitic granite
- 16 — 16a diorite, quartz diorite; 16b hornblende-biotite tonalite, quartz diorite; 16c granodiorite, tonalite
- 15 — Gabbro, norite, diorite, ultramafic rock
- 14 — Hornblende diorite, quartz diorite
- 13 — Gabbro, diabase

SICKLE GROUP (11a, 12a) and SICKLE METAMORPHIC SUITE (11, 12b-12g)

- 12 — Sandstone, derived schist and gneiss; 12a arkosic sandstone, pebbly sandstone; 12b muscovite-bearing arkose, pebbly arkose; 12c greywacke; 12d hornblende-bearing psammitic gneiss, calcareous sandstone; 12e biotite-bearing psammitic gneiss; 12f quartz-feldspar-muscovite schist, arkosic sandstone; 12g sillimanite-bearing arkosic gneiss
- 11 — Conglomerate with quartz-feldspar porphyry, sedimentary, volcanic and granitoid clasts; 11a conglomerate, arkose matrix; 11b conglomerate, greywacke matrix ± hornblende

SICKLE OR WASEKWAN GROUP

- 10 — Conglomerate with sedimentary, volcanic and granitoid clasts, greywacke; 10a conglomerate, hornblende greywacke matrix; 10b conglomerate, biotite greywacke matrix; 10c staurolite schist, greywacke; 10d biotite greywacke, siltstone, minor argillite

WASEKWAN GROUP

- 9 — Sedimentary rocks, coarse- to fine-grained, paragneiss: 9a pebbly greywacke, paraconglomerate; 9b hornblende greywacke, siltstone; 9c biotite greywacke, siltstone, mudstone; 9d quartz-rich greywacke; 9e siltstone and mafic mudstone; 9f mafic mudstone, tuff, greywacke; 9g argillite; 9h chert; 9i porphyroblastic schist; 9j iron formation
- 8 — Conglomerate: 8a quartz-pebble conglomerate; 8b conglomerate with volcanic and sedimentary clasts; 8c pebbly mudstone; 8d polymictic volcanic breccia, conglomerate
- 7 — Rhyolite, felsic gneiss: 7a massive aphyric rhyolite; 7b massive porphyritic rhyolite; 7c porphyritic breccia; 7d hyaloclastite; 7e tuff
- 6 — Dacite: 6a massive aphyric dacite; 6b massive porphyritic dacite; 6c breccia; 6d tuff; 6e altered dacite, schist
- 5a,c,d / 5b — Intermediate and felsic volcanic rocks: 5a andesite; 5b porphyritic dacite; 5c intermediate tuff, lapilli tuff; 5d pyroclastic breccia
- 4 — Mafic and intermediate volcanic rocks, amphibolite: 4a massive porphyritic and aphyric basalt and andesite; 4b pillowed basalt and andesite; 4c autoclastic breccia; 4d polymictic breccia; 4e mafic tuff; 4f intermediate tuff; 4g garnetiferous amphibolite; 4h andesite
- 3 — Porphyritic basalt: 3a massive basalt; 3b pillowed basalt; 3c autoclastic breccia; 3d porphyritic and aphyric basalt; 3e tuff; 3f banded amphibolite, breccia; 3g mafic porphyry
- 2 — Aphyric basalt: 2a massive basalt; 2b pillowed basalt; 2c pillow breccia, hyaloclastite; 2d tuff; 2e plagioclase-phyric basalt; 2f high-magnesia basalt; tuff, ultramafic rock, amphibolite
- 1 — Greywacke, siltstone, mudstone, minor volcanic rocks
- W — Wasekwan Group undivided

ROCKS OF PROBABLE WASEKWAN AGE: Burntwood River Metamorphic Suite, Zed Lake Greywacke

- 1A–E — 1A biotite ± garnet-bearing metagreywacke, migmatite; 1B biotite- sillimanite-garnet-bearing metagreywacke-metamudstone, migmatite; 1C layered and massive amphibolite; 1D quartzite; 1E marble

Intrusive rocks are subdivided after the mapping of J. D. Allan, G. P. Crombie, A. P. Fawley, G. C. Milligan, T. A. Oliver and M. S. Stanton. Additional data are after R. H. Pinsent.

Units 1 to 9 (Wasekwan Group) are not in stratigraphic order; unit 10 overlies or is equivalent to the upper part of the Wasekwan Group; units 1A, 1B and 1C are in stratigraphic order but units 1D and 1E are interlayered with 1C.

Units 11a and 12a (Sickle Group) unconformably overlie the Wasekwan Group and early plutons (units 13 to 17); units 11 and 12b to 12g (Sickle Metamorphic Suite) conformably or disconformably overlie units 1A to 1E (Burntwood River Metamorphic Suite and Zed Lake greywacke).

The terminology used in this map is that of primary rock types wherever the metamorphic grade ranges from low to medium. However, certain metamorphic mineral names are used to modify the primary terms to indicate distinctions in composition. Metamorphic terms are used for the highest grade rocks.

Geology by

H. P. GILBERT, H. V. ZWANZIG, B. McGILL, H. D. M. CAMERON, and after MILLIGAN (1960), OLIVER (1952)

Cartography by

C. SANDY

SYMBOLS

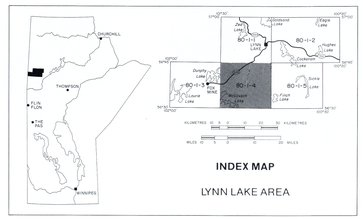
- Area of outcrop
- Outcrop of bedrock
- Probable outcrop
- Frost-heaved blocks
- Magnetic anomaly
- Geological contact (approximate, assumed, gradational, underwater)
- Geological contact inferred from aeromagnetic trends, signature, and nearest measured structural attitude
- Limit of drift-covered area
- Limit of geological mapping
- Fault (defined, approximate, inferred; dip)
- Shear zone
- Axial trace of anticline (approximate, overturned)
- Axial trace of syncline (approximate, overturned)
- Minor fold axis (horizontal, inclined, vertical)
- Minor fold axial plane (inclined, vertical)
- Minor fold symmetry (symmetrical, asymmetrical S-shaped, asymmetrical Z-shaped)
- Minor fold, e.g., asymmetric S-fold with axis plunging 45 degrees and axial plane dipping 60 degrees
- Bedding tops known (inclined, vertical, overturned)
- Bedding tops unknown (inclined, vertical, dip unknown)
- Igneous layering, tops unknown (inclined, vertical, dip unknown)
- Pillows, tops known (inclined, overturned, dip unknown)
- Pillows, tops unknown (inclined, vertical, dip unknown)
- Volcanic flow contact, tops known (inclined)
- Volcanic flow contact, tops unknown (inclined)
- Inclusion layering (inclined, vertical, dip unknown)
- Foliation (inclined, vertical, dip unknown)
- Second generation foliation (inclined, vertical, dip unknown)
- Cataclastic foliation (inclined, vertical, dip unknown)
- Foliation and parallel primary layering (inclined, vertical, dip unknown)
- Foliation and parallel layering (inclined, vertical, dip unknown)
- Fracture cleavage (inclined, vertical, dip unknown)
- Pillow flattening (inclined, amount of dip unknown)
- Mineral lineation (inclined, vertical)
- Microcrenulation (inclined, vertical)
- Deformed clasts (inclined, vertical)
- Mineralization
- Underground mine
- Underground mine, abandoned
- Selected diamond drill hole
- Swamp
- Eskers, direction of flow unknown
- Drumlinoid ridge
- Winter road
- Provincial road

MINERALS AND ELEMENTS

PY	Pyrite	Au	Gold
PH	Pyrrhotite	MG	Magnetite
CP	Chalcopyrite	BN	Bornite
SH	Sphalerite	GL	Galena

The corresponding sheet of the National Topographic Series is 64C-11

The magnetic declination at the centre of the map is approximately 12°49' East (1981) and is decreasing by 16.7' annually.



INDEX MAP

LYNN LAKE AREA