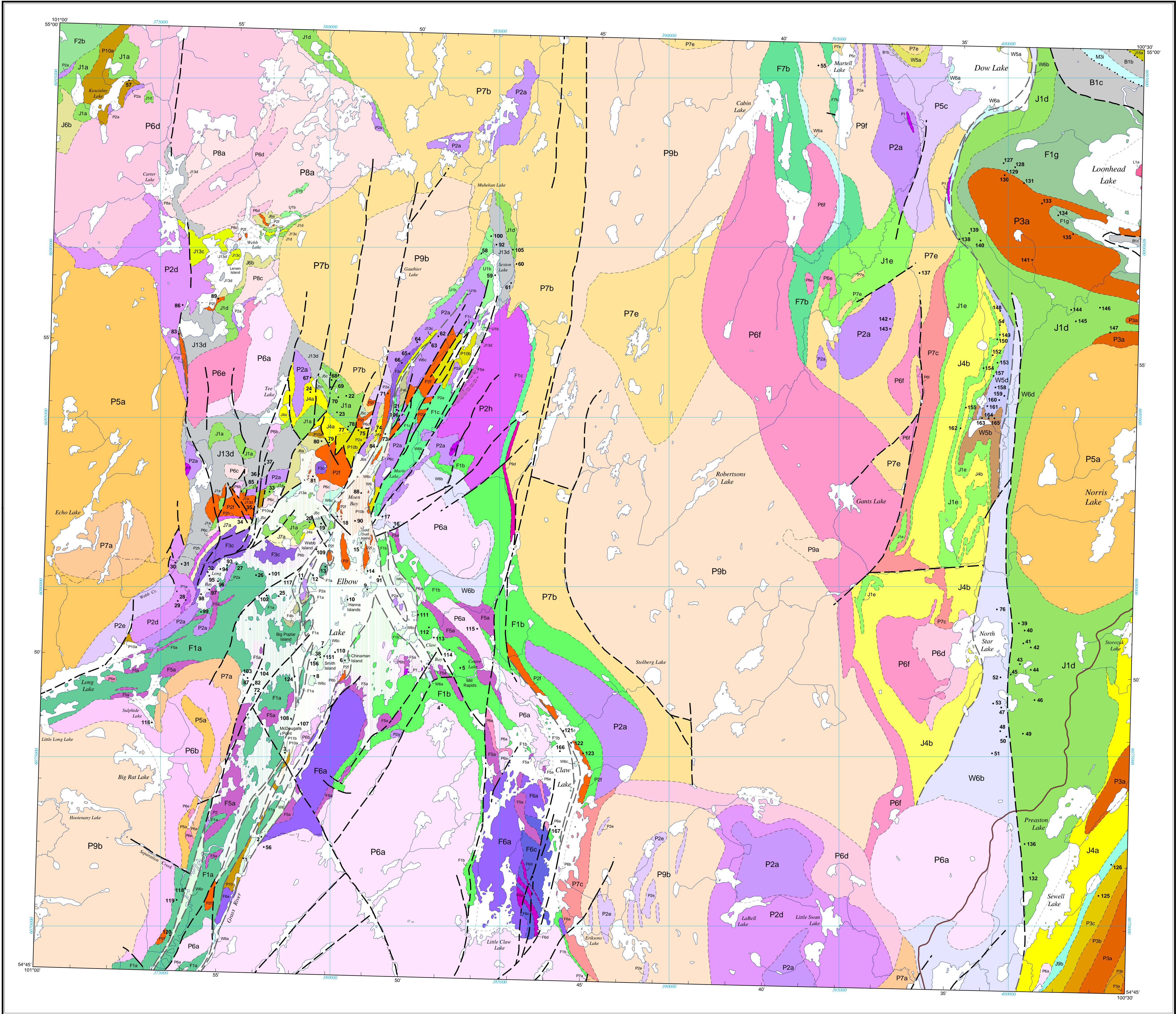


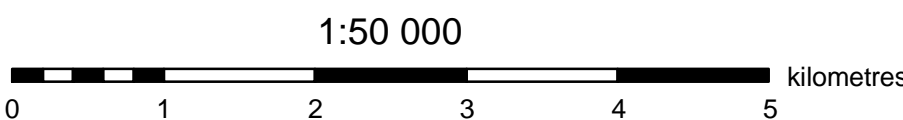


GEOLOGY AND MINERAL OCCURRENCES  
IN THE ELBOW LAKE AREA, MANITOBA  
(NTS 63K15)

To accompany Report No. 30 of the Mineral Deposit Series



UTM Zone 14 North American Datum 1983



LEGEND

Late Intrusive Rocks (<1.82 Ga)

L1a Biotite leucogranite to leucotonalite, ± garnet, ± sillimanite

1.87-1.83 Ga Sedimentary, Volcanic and Hypabyssal Intrusive Rocks

Missil Group (1.85-1.83 Ga)

M3i Quartzofeldspathic migmatite

Burntwood Group (1.85-1.84 Ga)

B1c Garnet-biotite gneiss and migmatite, ± cordierite, ± sillimanite

B1b Garnet-biotite gneiss ± sillimanite or andalusite, local staurolite, biotite gneiss

Rocks of Uncertain Age

W6c Mafic phyllonite ± carbonate, cataclaste

W6b Mafic tectonite with mafic-felsic intrusive sheets

W6a Mafic tectonite, phyllonite, mylonite

W6 Tectonite, phyllonite, mylonite: undifferentiated

W5d Interlayered hornblende and biotite gneiss

W5b Felsic to intermediate gneiss, ± garnet

W5a Felsic gneiss

Intrusive Rocks (1.88-1.83 Ga)

P11b Tectonite, mylonite felsic phyllonite, quartz-sericite ± carbonate schist

P10b Quartz porphyry, feldspar porphyry, quartz-feldspar porphyry

P10a Aphyric and porphyritic felsic-intermediate dykes

P10 Dykes and dyke complexes: undifferentiated

P9f Foliated to gneissic granite and granodiorite

P9d Pegmatite, apatite

P9b Granite to granodiorite

P9a Granite

P8c Quartz-rich tonalite gneiss ± garnet, local supracrustal rock

P8a Leucogranodiorite to tonalite

P7e Foliated and gneissic granodiorite to tonalite

P7c Quartz-rich tonalite gneiss ± garnet, local supracrustal rock

P7b Granodiorite to tonalite

P7a Granodiorite

P6f Foliated to gneissic tonalite to quartz diorite

P6e Xenolith-rich phase

P6d Tonalite to quartz diorite

P6c Leucotonalite

P6b Quartz diorite

P6a Tonalite

P5c Foliated to gneissic quartz diorite to diorite

P5a Quartz diorite to granodiorite

P3c Quartz ferrodiorite, ferrotonalite, leucotonalite

P3b Ferrogabbro

P3a Gabbronorite, gabbro

P2h Xenolith-rich phase

P2f Diabase, diabase dyke complex

P2e Diorite to quartz diorite

P2d Quartz diorite and gabbro

P2a Gabbro, diorite

P2 Gabbro, diorite, quartz diorite and derived amphibolite: undifferentiated

P1a Ultramafic rocks: pyroxenite, melagabbro

P1 Ultramafic rocks: undifferentiated

1.92-1.87 Ga Volcanic, Intrusive and Sedimentary Rocks

Juvenile Arc

J15a Undivided juvenile arc rocks

J13d Complex of felsic to mafic dykes

J13c Rhyolite, dacite; quartz porphyry, feldspar porphyry, quartz-feldspar porphyry

J13a Hypabyssal intrusions: basalt, mafic porphyry

J9b Greywacke, siltstone, mudstone

J7a Felsic tuff, lapilli tuff, breccia, heterolithic breccia

J6b Intermediate to felsic volcanoclastic rocks and flows, derived gneiss

J6a Intermediate tuff, lapilli tuff, breccia

J5c Heterolithic breccia, dominantly mafic fragments

J4b Felsic gneiss, ± garnet, ± amphibole

J4a Rhyolite to dacite flows, flow breccia

J1e Layered to uniform amphibolite (geochemical affinity unknown)

J1d Basalt, basaltic andesite (geochemical affinity unknown); derived amphibolite

J1a Tholeiitic basalt, basaltic andesite; gabbro; derived amphibolite

J1 Basalt, basaltic andesite (pillowed and massive flows): undifferentiated

Ocean Floor

F7b Amphibolite, mafic tectonite

F6d Layered pyroxenite, peridotite, subordinate gabbro

F6c Layered gabbro, leucogabbro, anorthosite

F6a Gabbro, gabbro pegmatite; leucogabbro; wispy-layered gabbro

F5a Gabbro, diabase

F4c Heterolithic breccia

F4b Mafic tuff, lapilli tuff, breccia

F3c Plume-related basalt: Long Bay ocean island basalt conglomerate, sandstone

F2b E-type basalts: pillow basalt, gabbro, derived amphibolite

F1g Basalt, diabase; derived amphibolite

F1c Moon Bay pillowed basalt and breccia

F1b Claw Bay pillowed and massive basalt, diabase, derived tectonite

F1a McDougalls Point pillowed and massive basalt, diabase

Unknown Geochemical Affinity

U1b Mafic volcanic, minor volcanoclastic and intrusive rocks: mafic gneiss

SYMBOLS

- Contact: approximate      — Shears  
- - - - - Contact: under water      • 95 Mineral occurrence location  
— Fault: defined      — Abandoned road  
· · · · · Fault: possible      - - - Trails

The geology and unit numbers for this map are derived from:  
NATMAP Shield Margin Project Working Group 1998: Geology, NATMAP Shield Margin Project Area  
(Fin Fin Belt), Manitoba - Saskatchewan, Geological Survey of Canada Map 1968A, Manitoba Energy  
and Mines Map A-98-2, sheets 1 to 7, Saskatchewan Energy and Mines Map 258A-2, scale 1:100 000.  
Note: Only those units relevant to the Elbow Lake area appear in the legend.

Mineral deposit interpretation and compilation by: T.H. Heine

Cartography by M.E. McFarlane

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Suggested reference:  
Heine, T.H. 2003: Mineral deposits and occurrences in the Elbow Lake area, Manitoba, NTS 63K15;  
Manitoba Industry, Trade and Mines, Manitoba Geological Survey, Mineral Deposit Series  
Report No. 30, 378 p. plus 2 maps at 1:50 000.