



LEGEND

Note: This legend is common for Regional Geochemical Reconnaissance Map 71-1904, Open File 1106

NEOHELICIAN/HADRONIAN

- dd **Dikes and dykes:** fine to coarse grained, massive to weakly foliated, diverse in texture - hypocrystic

PALEOHELICIAN

- MF **Mafic Felsic Facies:** sandstone and conglomerate
MFC: mafic sandstone matrix, locally pebbly
MFC-conglomerate matrix

ATLABASCA GROUP

- X **Calcite:** mylonite and shear rocks of the Neale Falls Shear Zone, derived from rocks of the Wollaston and Peter Lake Belts

LATE ARCHEAN (HUDSONIAN)

- Wp **Dioritic gneiss:** variable grain size, generally massive, foliated to granitic, locally contact with megacrystic granitic gneiss commonly granofoliated
- Wg **Granite and quartzite:** fine to coarse grained, massive to weakly foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Wm **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

WOLLASTON DOMAIN

- Wp **Dioritic gneiss:** variable grain size, generally massive, foliated to granitic, locally contact with megacrystic granitic gneiss commonly granofoliated
- Wg **Granite and quartzite:** fine to coarse grained, massive to weakly foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Wm **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

ROTTENSTONE DOMAIN

- Rg **Megacrystic gneiss:** medium to coarse grained, massive to foliated, with local granitic to biotitic, micaceous megacrysts, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rm **Megacrystic gneiss:** medium to coarse grained, massive to foliated, with local granitic to biotitic, micaceous megacrysts, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rd **Dioritic gneiss:** fine to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rpg **Dioritic gneiss:** medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rgr **Tonalite, granodiorite and troctolite:** compositionally variable, generally medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

LA RONDE DOMAIN

- Lg **Granite and quartzite:** fine to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Lm **Dioritic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

EARLY TO MIDDLE ARCHEAN

- Wah **Dioritic gneiss:** medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Wm **Calcic gneiss:** medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Wm **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

PROBABLY EARLY ARCHEAN (LATE ARCHEAN?)

- Ww **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Ww **Amphibolite:** fine grained, massive to poorly foliated, locally foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

ARCHAIC DEFORMED AND METAMORPHOSED WITH ARCHEAN SUPRACRUSTAL ROCKS DURING THE HUDSONIAN OROGENY

- Wh **Felsic gneiss:** fine to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Wh **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

UNCONFORMITY

- U **Unconformity:** surface of erosion, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

PROBABLY EARLY ARCHEAN

- Ww **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Ww **Amphibolite:** fine grained, massive to poorly foliated, locally foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

CONTINENTAL LAKE BELT

- Pg **Felsic gneiss:** generally medium to coarse grained, locally massive, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Pg **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

HUDSONIAN WITH POSSIBLE ARCHEAN ELEMENTS

- Pg **Felsic gneiss:** generally medium to coarse grained, locally massive, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Pg **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

PETER LAKE DOMAIN

- Pp **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Pp **Amphibolite:** fine grained, massive to poorly foliated, locally foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

FAIRBANKS LAKE BELT

- Pf **Felsic gneiss:** generally medium to coarse grained, locally massive, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Pf **Mafic gneiss:** fine to medium grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

ROTTENSTONE MONOCLINE COMPLEX

- Rm **Megacrystic gneiss:** medium to coarse grained, massive to foliated, with local granitic to biotitic, micaceous megacrysts, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rd **Dioritic gneiss:** fine to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rpg **Dioritic gneiss:** medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss
- Rgr **Tonalite, granodiorite and troctolite:** compositionally variable, generally medium to coarse grained, massive to foliated, locally contact with megacrystic granitic gneiss, locally contact with amphibolite, megacrystic granitic gneiss

MEAN MAGNETIC DECLINATION 1995, 19°06' East, decreasing 23.1' annually. Readings vary from 13°05' in the SE corner to 17°06' in the NW corner of the map area

Geological Survey of Canada
Resource Geophysics and Geochemistry Division
and
Saskatchewan Energy and Mines
Saskatchewan Geological Survey

CONTRACTORS
Sample collection by Marshall Macklin Monaghan Ltd., Toronto
Sample preparation by Golder Associates, Ottawa
Sediment chemical analysis by Barringer Magenta Ltd., Rexdale, Ontario
Water chemical analyses by Barringer Magenta Laboratories (Alberta) Ltd., Calgary

Copies of map material and listings of field observations and analytical data, from which the material was prepared, may be available at users expense by application to:
K.G. Campbell Corporation
880 Wellington St.
Bay 230
Ottawa, Ontario
K1R 6K7

The data are also available in digital form. For further information please contact:
The Director
Computer Science Centre
Department of Energy, Mines and Resources
Ottawa, Ontario
K1A 0E4

This map has been reprinted from a
hard copy version of the original map.
Reproduction by rasterization of data
cells on paper.

This legend was modified and the geology derived for these geochemical maps from Compilation Bedrock Geology Series 2204, 2208 and 2228, Saskatchewan Energy and Mines, Saskatchewan Geological Survey

This map forms one of a series of maps released by the Geological Survey of Canada, Open File 1106. The Open File consists of maps of various geochemical variables: 16 for lake sediment, 3 for lake water and 1 sample site location

FLUORINE in water (ppb)
GSC OPEN FILE 1106
NORTHEASTERN SASKATCHEWAN, 1984

Complexes: where two or more classes of terrain are interspersed in a mosaic or repeating pattern the proportion of each component in the combination is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example, "Mv/O/R" means that at least 60% of the area is underlain by thin till, with up to 40% boggy areas, and less than 15% scattered rock outcrops. "Rc/R" indicates more than 60% bedrock concealed by vegetation and less than 15% outcrop.