



**Legend**

**SILURIAN**

Severn River Formation: limestone, dolomitic limestone and dolomite, very fine grained, fucoidal

**ORDOVICIAN**

Churchill River Group: Caution Creek Formation: microcrystalline calcitic dolomite; Red Head Rapids Formation: dolomite, thin-bedded, in part argillaceous  
Bad Cache Rapids Group: Portage Chute Formation: basal quartz sandstone overlain by microcrystalline limestone

**PROTEROZOIC**

gabbro-norite; layered gabbro, leucogabbro, anorthosite  
polymictic metaconglomerate, magnetite bearing; quartzose conglomeratic paragneiss  
felsic intrusive rocks: tonalite, granodiorite, quartz diorite, rhyolite, pegmatite, aplite  
granite, granite gneiss, hybrid granite, pegmatitic granite, aplite, porphyritic granite

granodiorite, granodiorite diatexite  
anorthositic gabbro  
calc-silicate rock  
semipelitic paragneiss to metatexite  
conglomerate, volcanic derived (probably Archean); grey to grey-green phyllite  
"Churchill" quartzite, phyllite, schist  
quartz porphyry  
sandstone, psammitic gneiss, meta-arkose, metasiltsstone  
grey tonalitic to granodioritic gneiss, hypersthene tonalite, quartz diorite  
ultramafic rocks  
pyroclastic rocks; volcanoclastic rocks and derived schist

migmatite derived from greywacke  
pegmatite  
diorite, leucodiorite, quartz diorite, gabbro, tonalite, locally porphyroblastic  
felsic volcanic rocks  
andesite and minor basalt, interlayered tuff and pillowed andesite  
amphibolite  
**ARCHEAN**  
enderbitic gneiss, garnet bearing, with mafic/ultramafic inclusions; minor opdalitic gneiss  
hypersthene granite (monzocharnockite) with hybrid granite

**Lake Sediment Reanalysis Sites**

**Analytical Method**

ICP-ES/MS only  
ICP-ES/MS and INAA

**Geological contacts**

geological contact; approximate  
geological contact; assumed  
geological contact; gradational  
fault  
shear zone



Figure 1. Map of northeast Manitoba with geology background and legend showing locations of lake sediment samples collected and analyzed in 1976 and reanalyzed for this report. Bedrock geology is modified after Schledewitz (1986).

Citation  
McCurdy, M.W., Böhm, C.O., Campbell, J.E., Day, S.J.A. and McNeil, R.J. 2010. Regional Lake Sediment Geochemical Data, Great Island-Seal River Area, Manitoba (NTS 54L, 54M, 64I, 64P), Geological Survey of Canada, Open File 6671, Manitoba Geological Survey, Open File 2010-3, CD-ROM.

**References**

Schledewitz, D.C.P., 1986. Geology of the Cochrane and Seal rivers area; Manitoba Energy and Mines, Geological Services, Geological Report 80-9, 139 p.