



#### LEGEND

##### PHANEROZOIC

###### PALEOZOIC

###### HUDSON BAY BASIN

- 22 Ordovician limestone and sandstone of the Portage Chute Formation - Bad Cache Rapids Group

##### PRECAMBRIAN

###### PROTEROZOIC

###### CHURCHILL/SUPERIOR BOUNDARY

- 21 Cataclastic rocks and mylonites of unknown origin derived from rocks of both Superior and Churchill Provinces
- 21a Layered mylonites
- 21b Cataclastic granitic to tonalitic gneisses of unknown origin
- 21c Cataclastic amphibolite and garnet amphibolite of unknown origin

###### CHURCHILL PROVINCE

###### Intrusive Rocks

- 20 Diabase dykes
- 19 Granite; massive, white to pink, biotite-bearing
- 18 Tonalite to granite; 18a) tonalite-granodiorite; massive to foliated; 18b) granodiorite-granite

###### Sickle Metamorphic Suite

- 17 Arkosic metatextite; units 13, 14 and 15 undivided
- 16 Metagreywacke; garnet-cordierite-sillimanite-magnetite gneiss
- 15 Meta-arkose; massive to well layered, sillimanite-bearing gneiss; 15a) migmatite arkose derived
- 14 Feldspathic greywacke-psammite gneiss; biotite-magnetite gneiss; 14a) delicately layered feldspathic greywacke gneiss, locally iron-rich; 14b) migmatite, greywacke derived
- 13 Hornblende-plagioclase metagreywacke; massive to well layered; 13a) polymictic metaconglomerate; 13b) hornblende-plagioclase migmatite, greywacke derived

##### Burntwood River Metamorphic Suite

- 12 Psammitic gneiss; layered, magnetite-garnet-biotite gneiss
- 11 Amphibolite; 11a) layered hornblende-diopside amphibolite; 11b) massively layered amphibolite
- 10 Greywacke gneiss and migmatites; units 10a, 10c and 10d undivided
- 10a Psammitic gneiss, with minor semi-pelitic to pelitic gneiss layers; locally sillimanite-bearing
- 10b Arkosic gneiss; interlayered with 10a
- 10c Greywacke gneiss; interlayered psammitic to pelitic metasedimentary rocks
- 10d Pelitic greywacke gneiss

##### SUPERIOR PROVINCE

###### PROTEROZOIC (INCLUDING HUDSONIAN TECTONITES)

- 9 Tectonic complex; well foliated and discontinuously layered gneiss, comprising reworked Kenoran migmatites and early intrusive rocks.
- 9a Granodiorite gneiss; highly foliated, and thinly laminated gneiss derived from unit 5
- 8 Granite; 8a) dykes, sills and small irregular bodies of pink biotite granite, pegmatite and apatite; 8b) Fox Lake granite
- 7 Diabase dykes
- 6 Granite, granodiorite; 6a) dykes, sills and irregular bodies of massive to foliated grey granite; 6b) Gull Lake granite
- 5 Hornblende and hornblende-biotite gneiss; comprising mobilized and injected layered gneiss and amphibolites (derived from units 1, 2 and 3) with 10 to 75% tonalite to granodiorite
- 4 Tonalite-granodiorite, with hornblende clots, containing 0 to 25% inclusions of units 1 and 3
- 3 Mafic to ultramafic dykes; trains of recrystallized, tremolite-chlorite-talc-biotite bearing ultramafic boudins within units 1, 4, 5 and 8
- 2 Anorthosite complex
- 2a Anorthosite
- 2b Anorthositic gabbro gneiss
- 1 Amphibolite and metagabbro; 1a) garnet amphibolite and garnet-diopside-hornblende-plagioclase granofels; 1b) amphibolite and hornblende-diopside-plagioclase ± (hypersthene) granofels; 1c) mesocratic to leucocratic plagioclase-hornblende-quartz (±biotite) granofels and gneiss

#### SYMBOLS

- Original shoreline
- Present shoreline (limit of Kettle Rapids Generating Station Forebay (1972), Long Spruce Generating Station forebay (1978))
- Hydro dam axis
- Earth fill dykes

##### To accompany Geological Report GR82-1

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##### STRATIGRAPHIC NOTE

Metasedimentary rocks of the Sickle and Burntwood Metamorphic Suites, units 10 through 16, are in stratigraphic order; however, sub-units within each group may not represent a stratigraphic sequence.

The age relationship of Churchill Province intrusive rocks, units 18 and 19, is not certain.

The approximate magnetic declination at the centre of the area is 2°48'E (1982) and is decreasing by 13.8' annually.

##### INDEX MAP

