

LEGEND

ARCHEAN
(EARLY PRECAMBRIAN)

- 2 Granite, granite-gneiss, pegmatite, apfite
- 1 Diorite, diorite-gneiss, amphibolite
- A Biotite gneiss and hornblende gneiss (C and B); numerous small bodies of (2)
- B Hornblende gneiss (locally garnetiferous); minor amounts of hornblende schist; small bodies of (2)
- C Biotite gneiss, garnetiferous biotite gneiss, quartzite, greywacke; small bodies of (2)

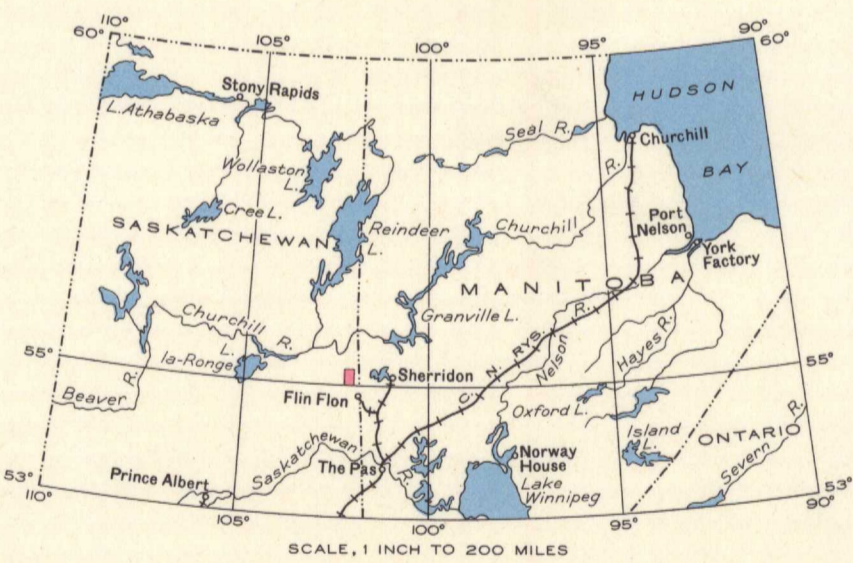
- Schistosity (inclined, vertical).....
- Glacial striae.....
- Mineral occurrence..... X
- Cabin.....
- Portage.....
- Meridian line (surveyed).....
- Township line (unsurveyed).....
- Power transmission line.....
- Lake (position approximate).....
- Reef.....
- Marsh.....
- Height in feet above Mean sea-level..... 1050'

Geology by C. C. Allen, 1939.

Base-map prepared by the Topographical Survey, 1940, from Federal Government map published in 1929. Cartography by the Drafting and Reproducing Division, 1941.

MINERAL OCCURRENCES

- Pyrite..... Py
- Pyrrhotite..... Pr
- Gossan..... G



DESCRIPTIVE NOTES

The southeast corner of the map-area lies about 17 miles north-northwest of Flin Flon and 37 miles westerly from Sheridan, Manitoba, important mining communities at the northern termini of branch lines of railway. Canoe routes from them afford access to Mari Lake.

The rocks of the map-area are mainly intrusive and metamorphic types. Banded, biotite and garnetiferous biotite gneisses (C) predominate and at a few places were observed to contain relics of beds of quartzite and greywacke that show every gradation into the surrounding gneiss. In most places the original nature of the rock from which the gneiss was formed is not known. Hornblende gneisses (B) are commonly interbanded with the micaceous gneisses. Their origin is not known. In places they are well banded and may be altered sedimentary beds; in other places they might be regarded by some geologists as altered volcanic rocks. Granite-gneiss and massive granitic rocks of various textures and colours (2) are intimately associated with the metamorphic rocks and in places (A) make up a large proportion of the rock assemblage. Where they are separately mapped the observed outcrops are mainly of granite and granite-gneiss. There are no sharply defined boundaries between the several assemblages of gneisses; the contacts as mapped are along arbitrarily selected lines within merging contact zones.

Pyrite and pyrrhotite have been found at different places. The principal occurrence is about 1 mile east of the north end of Patton Lake. Here graphite-bearing biotite gneiss dipping easterly at about 15 degrees is cut parallel to the foliation by several pegmatite dykes. In an area 1,400 feet long and 50 feet wide these rocks are irregularly and, at places, heavily mineralized with pyrrhotite and pyrite. It is reported that chalcocopyrite in small amount has been found in this deposit.

In the belt of hornblende gneiss that lies east of the narrows on Mari Lake, occurrences of chalcocopyrite and gold have been found beyond the boundary of the map-area.

MAP 639A
MARI LAKE
SASKATCHEWAN

Scale, 63,360 or 1 Inch to 1 Mile

Approximate magnetic declination, 17° East.

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