

LEGEND

- FLOWING WELL .....
- BEDROCK AQUIFER WELL .....
- SAND AND GRAVEL AQUIFER WELL .....
- SPRING .....
- POTENTIOMETRIC SURFACE, (metres above Sea Level) .....
- EQUIPOTENTIAL CONTOUR, (metres above Sea Level) .....
- GENERALIZED GROUNDWATER FLOW DIRECTION .....

CONTOUR INTERVAL 10m

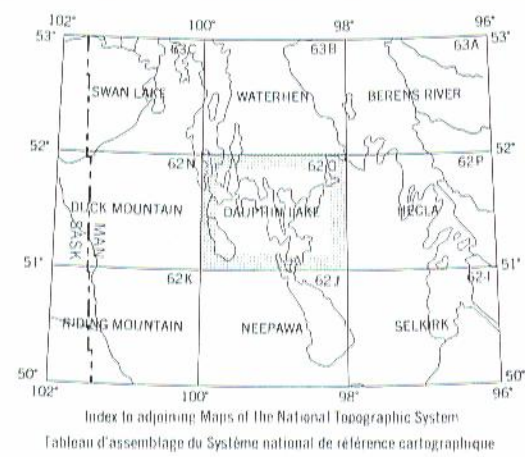
GROUNDWATER FLOW

South and west of Lakes Winnipegosis and Manitoba regional groundwater flow is generally from southwest to northeast. High groundwater heads (>300 m) are found associated with the Manitoba Escarpment in the southwest corner of the map sheet producing a steep hydraulic gradient toward Dauphin Lake. North and east of Dauphin Lake hydraulic gradients are very small ( $\sim 5 \times 10^{-4}$ ). Groundwater flows from poorly defined recharge areas and discharges into Lakes Winnipegosis and Manitoba. In the southeastern part of the map sheet a large potentiometric mound is found resulting from recharge into the thinly covered carbonate bedrock upland which occurs in this area. Groundwater flow is generally from east to west in this area with regional discharge taking place into Lake Manitoba and Lake St. Martin.

NOTE:  
The potentiometric surface on this Figure has been compiled from water level information gathered from wells of various depths and completed in various aquifers over the past several decades. It should therefore be viewed as providing only a generalized picture of regional scale groundwater flow within the map sheet area and should not be used to draw conclusions about local scale groundwater flow. The uncertainty associated with most potentiometric elevations presented is  $\pm 5$  m.

SOURCES OF INFORMATION:  
Manitoba Department of Natural Resources, 1985, Water Well File, Hydrochemical Services, Water Resources Branch, Winnipeg.

Prepared by: R.N. Betcher, 1986



Magnetic declination 1975 varies from 12°05' easterly at centre of west edge to 10°04' easterly at centre of east edge. Mean annual change decreasing 0.5° Westward.

Base Map by: Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa.

PROVINCE OF MANITOBA  
DEPARTMENT OF NATURAL RESOURCES  
WATER RESOURCES BRANCH

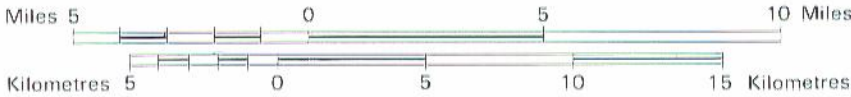
GROUNDWATER AVAILABILITY STUDY  
DAUPHIN LAKE AREA

POTENTIOMETRIC SURFACE  
FIGURE 7

MAP LEGEND

- Road .....
- Railway .....
- Town .....
- Village or Settlement .....
- Intermittent Lake and Stream .....
- Mud or Swamp .....

Scale 1:250 000



Cartography by: Water Resources Branch, Manitoba, 1986/87.

"A Canada- Manitoba Interim Subsidiary Agreement on Water Development for Regional Economic Expansion and Drought Proofing Project"