University of Minnesota, Minnesota Geological Survey, G.M. Schwartz, Director

MAP OF MINERAL RESOURCES OF MINNESOTA. 1954

Compiled by G.M. Schwartz and N. Prokopovich

Area: Minn. / Subject: Mineral Resources
Title: Map of mineral resources of Minnesota, 1954
Author: Compiled by G.M. Schwartz & N. Prokopovich
Scale: 1:1,000,000
Publisher, Date: MGS, 1954

Scale $\frac{1}{1000000}$

10 0 10 20 30 40 Miles

10 0 10 20 30 40 50 Kilometers

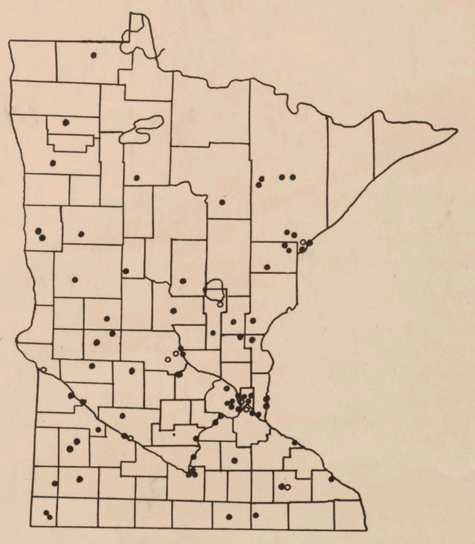
Base adapted from U.S. Geological Survey

EXPLANATION

- Important iron-bearing formations with names of the ranges. Ore bodies are not shown. The main area of magnetic taconite suitable for concentration occurs in eastern two-thirds of the Mesabi Range. (Some non-commercial iron formation are not shown).
- Iron-bearing formation, partially manganiferous
- Major magnetic belts in part caused by magnetic iron-bearing formations
- Major limonite deposits in Southeastern Minnesota
- V Titaniferous magnetite in gabbro (contains some vanadium)
- o Copper-nickel sulfides in gabbro
- + Iron sulfide deposits
- X Igneous rock quarries (granite, gabbro etc.)
- S Sandstone & quartzite quarries
- X Limestone & dolomite quarries
- ▲ Clay & shale pits (at Morton high alumina clay)
- Outline of Duluth gabbro complex
- Major productive areas of building stone
- Areas of major anorthosite bodies
- O Marl deposits
- Main area of limestone & dolomite close to surface
- Main area of Decorah shale close to surface

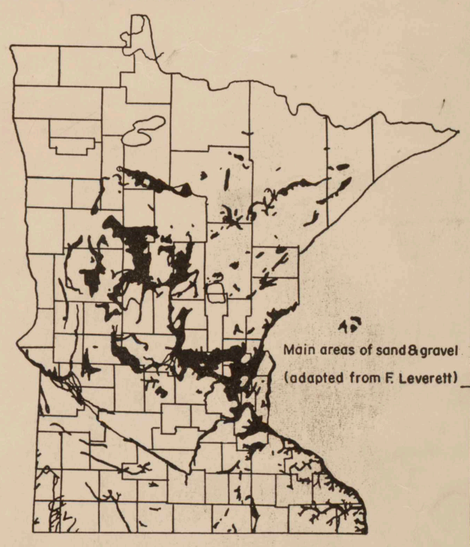
Small deposits of various materials of no commercial value such as gold etc. are not shown

Minnesota Geological Survey Bulletin 30 should be consulted for further information

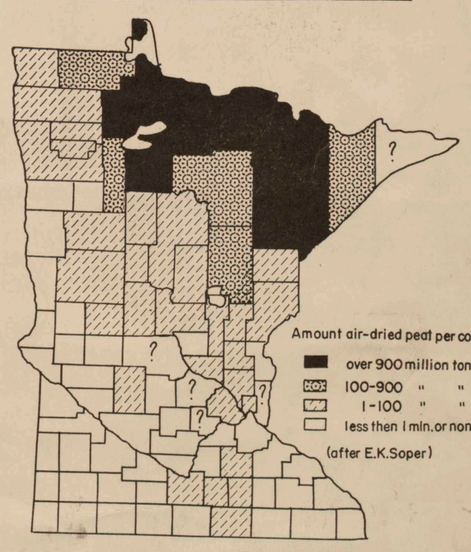


Main commercial sand & gravel plants (numerous small or temporary pits not shown)

Main commercial rock aggregate plants



Main areas of sand & gravel (adapted from F. Leverett)



Amount air-dried peat per county

- over 900 million tons
- 100-900 " "
- 1-100 " "
- less then 1 min. or none

(after E.K. Soper)

Lake of the Woods; Rainy River; Rainy Lake; Lake of the Woods; Upper Red Lake; Lower Red Lake; Leech Lake; Mesabi Range; Vermilion Range; Gunflint Range; Cuyuna North Range; Cuyuna South Range; Mille Lacs Lake; St. Louis R.; St. Croix R.; Red River; Minnesota River; Mississippi River; Lake Superior; Duluth Gabbro Lake; Duluth; Virginia; Hibbing; Bemidji; Moorhead; Fergus Falls; Brainerd; Emily; St. Cloud; Morton; Mankato; Faribault; Owatonna; Rochester; Winona; Red Wing; Minneapolis; St. Paul; Albert Lea; Austin