MAP SHOWING SURFICIAL GEOLOGY, LOCATION OF WELLS AND TEST HOLES, CROSS SECTIONS, AND DIAGRAMS OF GROUND-WATER CHEMICAL ANALYSES

AVAILABILITY OF GROUND WATER FROM THE ALLUVIUM ALONG THE MISSOURI RIVER IN NORTHEASTERN MONTANA

By

W. B. Hopkins and J. R. Tilstra

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For sale by U.S. Geological Survey, price 75 cents

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SCALE 1:96 000

Geologic mapping adapted from U.S. Geological Survey Water-Supply Paper 1263

Base compiled from county maps and from aerial photographs

MAP CONTINUED FROM ABOVE

MAP CONTINUED BELOW

MAP EXPLANATION

Quaternary ridge of ground moraine

Alluvial valley

Gravel pit

Lake or marshy area

SECTION EXPLANATION

Water level at time of drilling

Clay

Silt

Sand

(Gravel)

Peat, coal, or wood

Bedrock

VERTICAL EXAGGERATION X 66

0 ½ 1 MILE

CHEMICAL ANALYSIS DIAGRAM EXPLANATION

Constituent

Dashed where approximately located

Average water quality could yield more than 900 gpm

Area where water probably could yield more than 90 gpm

Test hole or well

(Number beside well symbol indicates number of mile E (or W) of section line)

● 1,500

Well that produces 900 gpm or more

(Figures are reported yield)

● 450

Well that produces between 200 and 900 gpm

(Figures are reported yield)

EQUIVALENTS PER MILLION

40 — $Na+K$

30 — SO_4, Cl, F, NO_3

20 — $Ca+Mg$

10 — HCO_3+CO_3

0

N

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1 ½ 0 1 2 3 4 5 MILES

1 1 5 0 1 2 3 4 5 KILOMETERS

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED AS PART OF THE PROGRAM OF THE DEPARTMENT OF THE INTERIOR FOR THE DEVELOPMENT OF THE MISSOURI RIVER BASIN

HYDROLOGIC INVESTIGATIONS ATLAS HA-224