

Ground-Water Resources of RICHLAND COUNTY

by James J. Schmidt

AREAS IN WHICH YIELDS OF MORE THAN 100 GALLONS PER MINUTE MAY BE DEVELOPED.

Area having greatest potential for the development of municipal and industrial ground-water supplies. Thick permeable deposits of sand and gravel yield 400 to more than 1000 gallons per minute at depths ranging from 65 to 105 feet.

Yields ranging from 200 to more than 500 gallons per minute are developed from permeable sand and gravel encountered at depths of about 120 to 275 feet. Test drilling patterns are necessary to locate the more permeable deposits which partially fill these ancestral drainage channels.

AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE MAY BE DEVELOPED.

Water-bearing-deposits of sand and gravel may be encountered at depths of 105 to 130 feet. Yields for farm and household supplies are readily available. Extensive drilling may be necessary to develop small public supplies. Deep drilling through as much as 335 feet of sandy clay may only encounter small domestic supplies from the underlying shaly-sandstone bedrock.

AREAS IN WHICH YIELDS OF AS MUCH AS 25, OR MORE, GALLONS PER MINUTE MAY BE DEVELOPED.

Ground-water supplies developed from the sandstone and shale formations of the Cuyahoga Group. Yields of 5 to more than 20 gallons per minute are readily available. Drilling contractors may encounter thick deposits of clayey till interbedded with thin lenses of permeable sand and gravel in the moraine areas. Small supplies for domestic use are available, although most wells are developed in the sandstone-shale bedrock at depths of 50 to 275 feet. Industrial and municipal supplies of more than 250 gallons per minute have been reported for properly constructed large diameter wells at depths of as much as 350 feet.

Thin lenses of sand and gravel interbedded in thick layers of clayey till may yield less than 15 gallons per minute and at depths of less than 150 feet. If water bearing deposits are not encountered wells may be developed in the underlying shaly-sandstone bedrock, although dry wells are noted.

AREAS IN WHICH YIELD OF LESS THAN 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Relatively shallow wells developed in the glacial deposits yield 3 to 8 gallons per minute at depths of 35 to 80 feet. Deeper drilling into the underlying shale and shaly-sandstone bedrock yields very meager supplies of brackish water. Dry wells are not uncommon.

Depth(ft.)-Water bearing Formation-Yield(gpm)
Depth to Bedrock(ft.)

SS-Sandstone SH-Shale G-Gravel

S-Sand CL-Clay

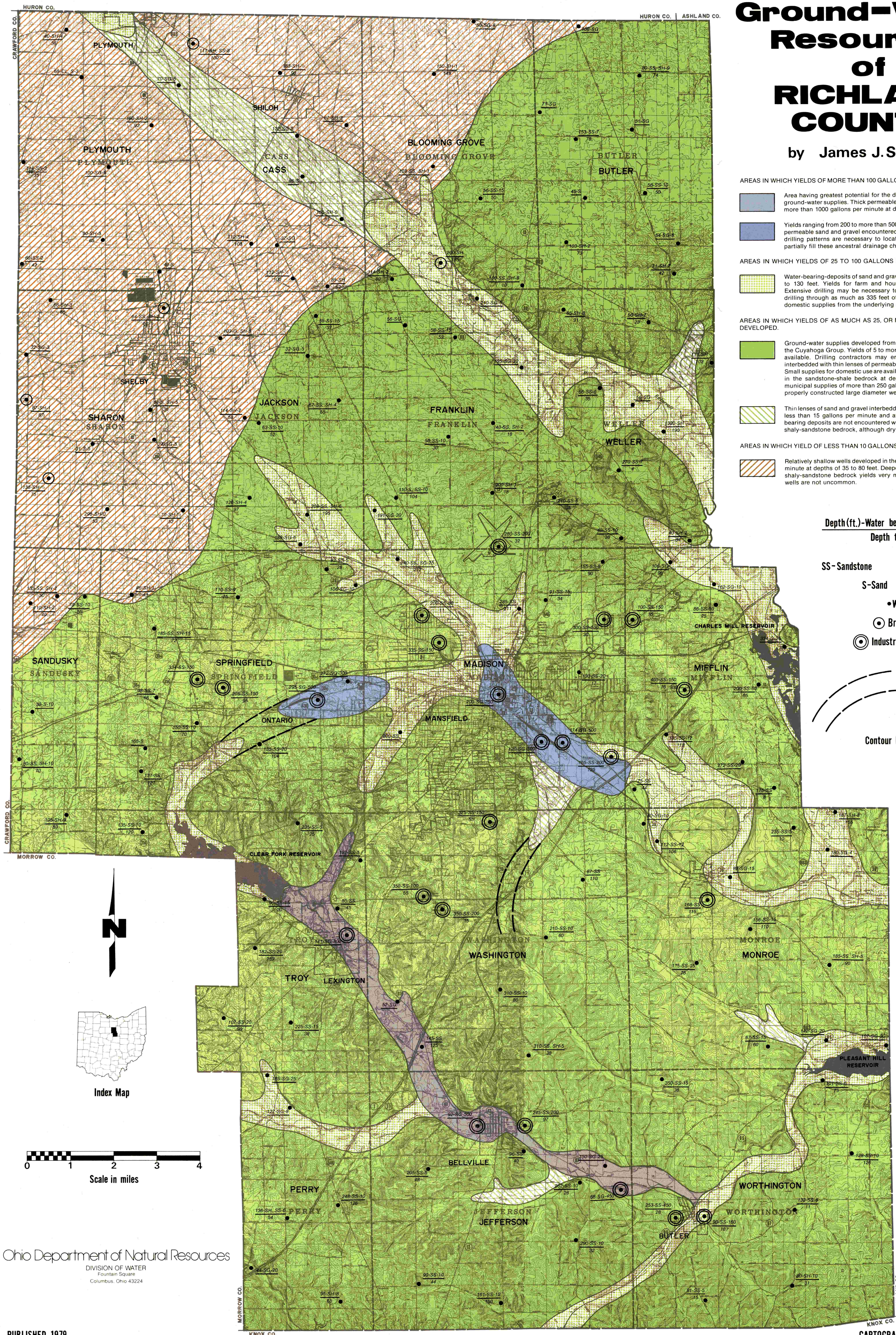
•Water Well

⊙ Brackish Water

⊙ Industrial-Municipal Well

Location of Ancestral Buried Bedrock Channel

Contour Interval: 10 feet



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