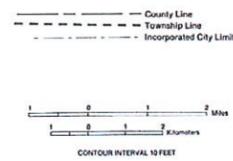
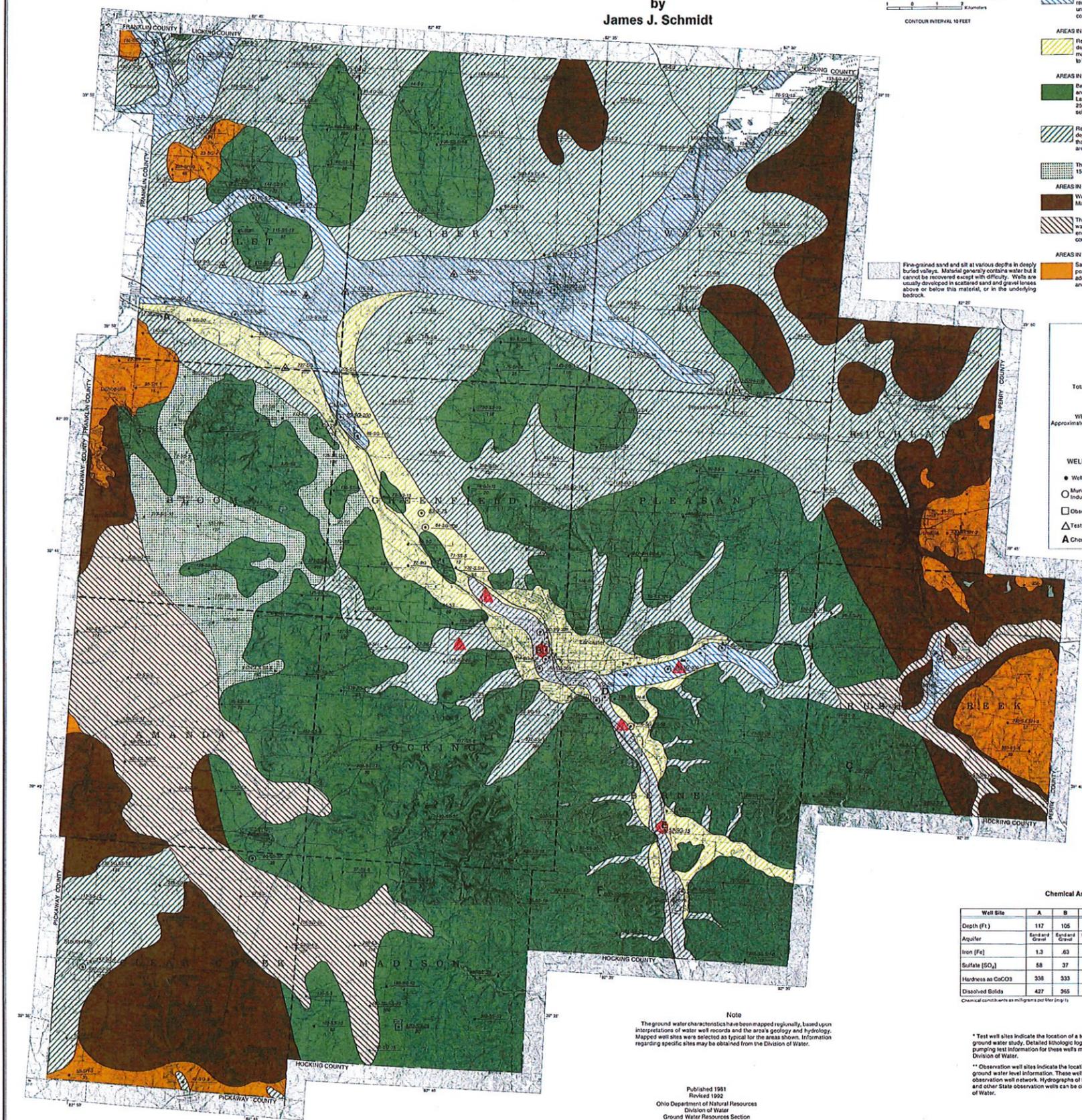


Ground Water Resources of Fairfield County

by James J. Schmidt



- ### Well Site Symbols
- AREAS IN WHICH YIELDS OF AS MUCH AS 500, OR MORE, GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Permeable sand and gravel deposits beneath the Hocking River floodplain. Yields in excess of 500 gallons per minute developed from properly constructed, large diameter wells.
 - AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Sand and gravel deposits, which partially fill ancestral drainage channels, may yield as much as 500 gallons per minute at depths of 65-165 feet. Extensive test drilling is recommended to locate the coarse deposits. Test wells reveal more than 300 feet of unconsolidated deposits that fill the ancestral channel in the northern portion of the county.
 - AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Relatively thin to thick layers of sand and gravel interbedded with thick clay layers deposited in ancestral valleys. Potential yields of as much as 100 gallons per minute may be developed. Isolated permeable zones are noted and test wells are necessary to locate coarse deposits for maximum yield.
 - AREAS IN WHICH YIELDS OF 10 TO 25 GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Berea sandstone in the northern portion and the Black Hand sandstone in the central and southern portion of the county are the principal water-bearing bedrock formations. Larger diameter wells developed in the Black Hand sandstone at depths in excess of 250 feet may yield more than 75 gallons per minute. Average depth for domestic wells seldom exceeds 140 feet.
 - AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Wells are developed at depths of 30 to more than 250 feet in the underlying Mississippian shaly sandstone bedrock. Average depths seldom exceed 135 feet.
 - AREAS IN WHICH YIELDS OF LESS THAN 3 GALLONS PER MINUTE MAY BE DEVELOPED.**
 - Sandy shale and shale bedrock beneath thin glacial drift yields less than two gallons per minute. Supplemental storage and use of cisterns often necessary to assure adequate domestic supplies. Deeper drilling may encounter salt water in Rush Creek and Rockland Townships.



Well Site Symbols

WELL INFORMATION (SEE NOTES)

AQUIFER TYPE
Water bearing formation.

DEPTH (ft.)
Total depth of well in feet.

YIELD (gpm)
Amount of water a well produces in gallons per minute.

WELL SITE
Approximate location of a well.

DEPTH TO BEDROCK (ft.)
Depth to bedrock in feet.

WELL TYPES

- Well Site
- Municipal Well
- Industrial Well
- Observation Well**
- Test Well*
- Chemical Analyses

AQUIFER TYPES

- S - Sand
- G - Gravel
- SG - Sand and Gravel
- SS - Sandstone
- SH - Shale
- Cl - Clay
- SSH - Sandy Shale

● Existing Plants
▲ Proposed Wellfields

Chemical Analysis Table

Well Site	A	B	C	D	E	F
Depth (ft.)	117	105	110	57	248	300
Aquifer	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sand and Gravel	Sandstone	Sandstone
Iron (Fe)	1.3	.63	3.7	2.1	6.2	1.1
Sulfate (SO ₄)	58	37	138	27	68	14
Hardness as CaCO ₃	358	333	459	255	300	120
Dissolved Solids	427	365	663	283	381	150

Chemical constituents in milligrams per liter (mg/l).

Note
The ground water characteristics have been mapped regionally, based upon interpretations of water well records and the area's geology and hydrology. Mapped well sites were selected as typical for the areas shown. Information regarding specific sites may be obtained from the Division of Water.

* Test well sites indicate the location of a test well that was part of a regional ground water study. Detailed lithologic logs, water quality analysis and pumping test information for these wells may be available from ODNR-Division of Water.

** Observation well sites indicate the location of wells used to collect ground water level information. These wells are part of the State observation well network. Hydrographs of the water levels recorded in these and other State observation wells can be obtained through ODNR-Division of Water.