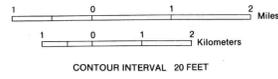


# Ground-Water Resources of FAYETTE COUNTY

by  
**James J. Schmidt**



- County Line
- Township Line
- Incorporated City Limit
- Location of Ancestral Buried Bedrock Channel

## Well Yields

AREAS IN WHICH YIELDS OF 100 TO 500 OR MORE GALLONS PER MINUTE MAY BE DEVELOPED.

Large diameter wells developed at depths of 250 to 350 feet in the limestone bedrock may yield as much as 500 gallons per minute. Domestic supplies are often available from the overlying glacial deposits at depths of 50 to 80 feet.

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

Niagaran limestone bedrock yields as much as 100 gallons per minute at depths of as much as 225 feet to larger diameter wells. Domestic wells are developed at depths of about 95 feet or from the overlying glacial deposits of sand and gravel at variable depths of 30 to 160 feet.

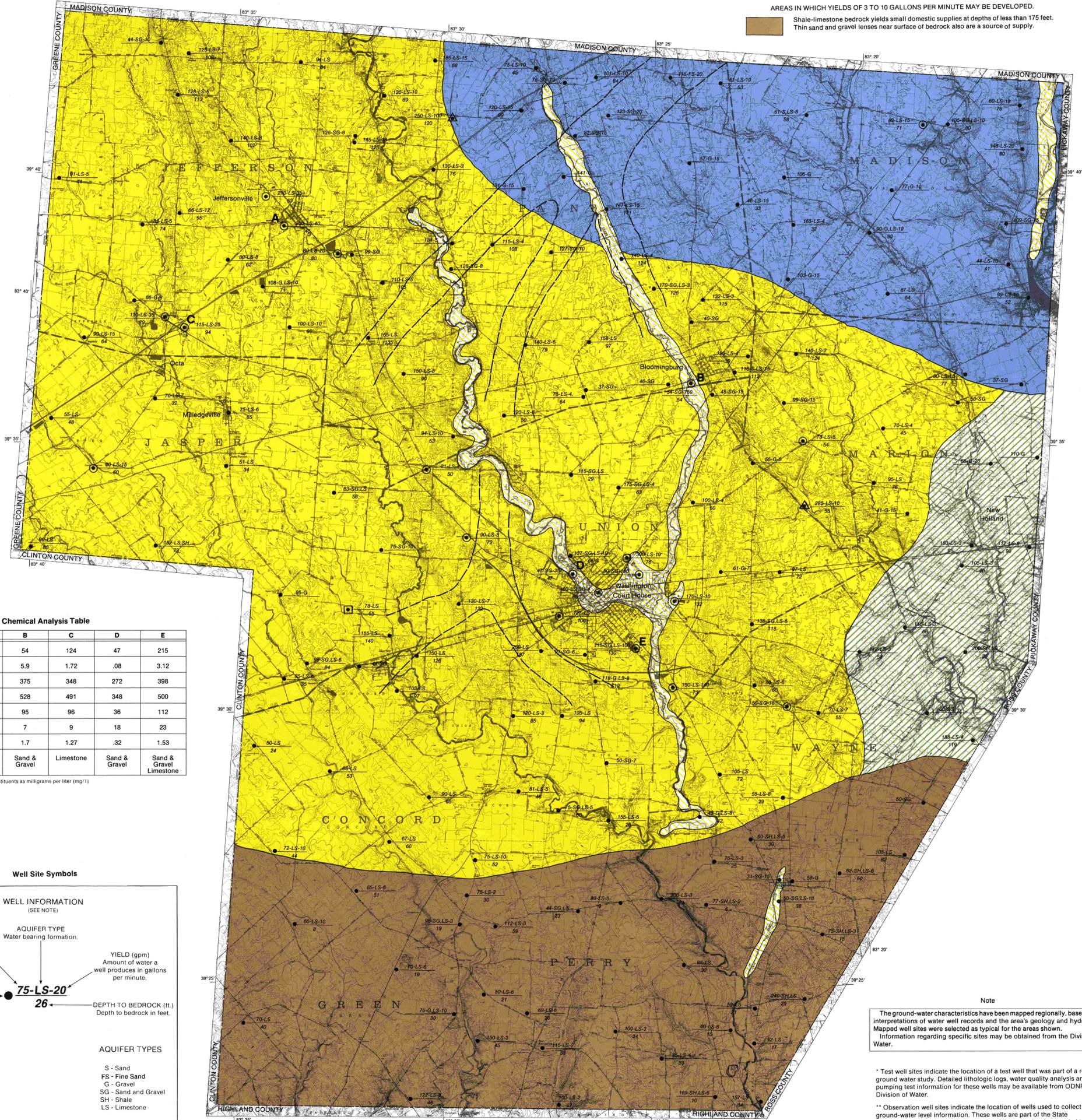
Thin to thick lenses of permeable sand and gravel interbedded in layers of clay deposited beneath the floodplain of the principal streams: Paint, Sugar, East Fork Paint, and Deer creeks. Properly constructed screened wells may yield in excess of 25 gallons per minute at depths of less than 55 feet. Isolated aquifers are noted and test wells are necessary to locate coarse deposits. If coarse deposits are not encountered wells are developed in the underlying carbonate aquifer.

AREAS IN WHICH YIELDS OF 10 TO 25 GALLONS PER MINUTE CAN BE DEVELOPED.

Relatively thick clay layers interbedded with water-bearing deposits of sand and gravel. Wells are usually developed at depths of less than 100 feet. Limestone bedrock is the principal aquifer at depths of less than 225 feet.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Shale-limestone bedrock yields small domestic supplies at depths of less than 175 feet. Thin sand and gravel lenses near surface of bedrock also are a source of supply.

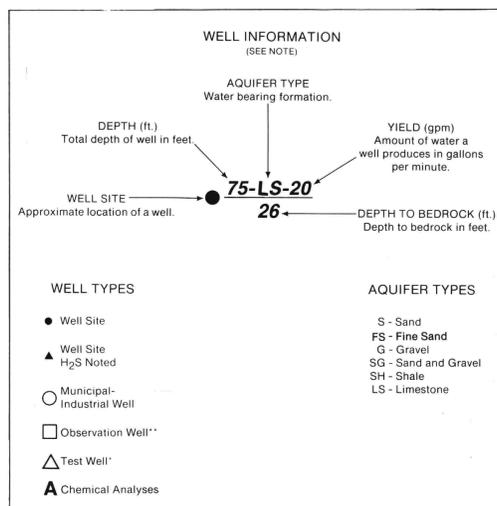


**Chemical Analysis Table**

Well Site	A	B	C	D	E
Depth (Feet)	200	54	124	47	215
Iron (Fe)	5.44	5.9	1.72	.08	3.12
Alkalinity Total as CaCO <sub>3</sub>	325	375	348	272	398
Dissolved Solids	574	528	491	348	500
Sulfates	145	95	96	36	112
Chloride	10	7	9	18	23
Fluoride	1.67	1.7	1.27	.32	1.53
Aquifer	Limestone	Sand & Gravel	Limestone	Sand & Gravel	Sand & Gravel Limestone

Chemical constituents as milligrams per liter (mg/l)

## Well Site Symbols



**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.