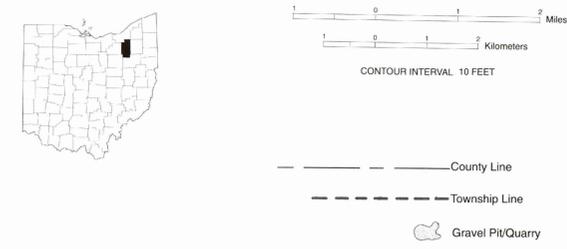
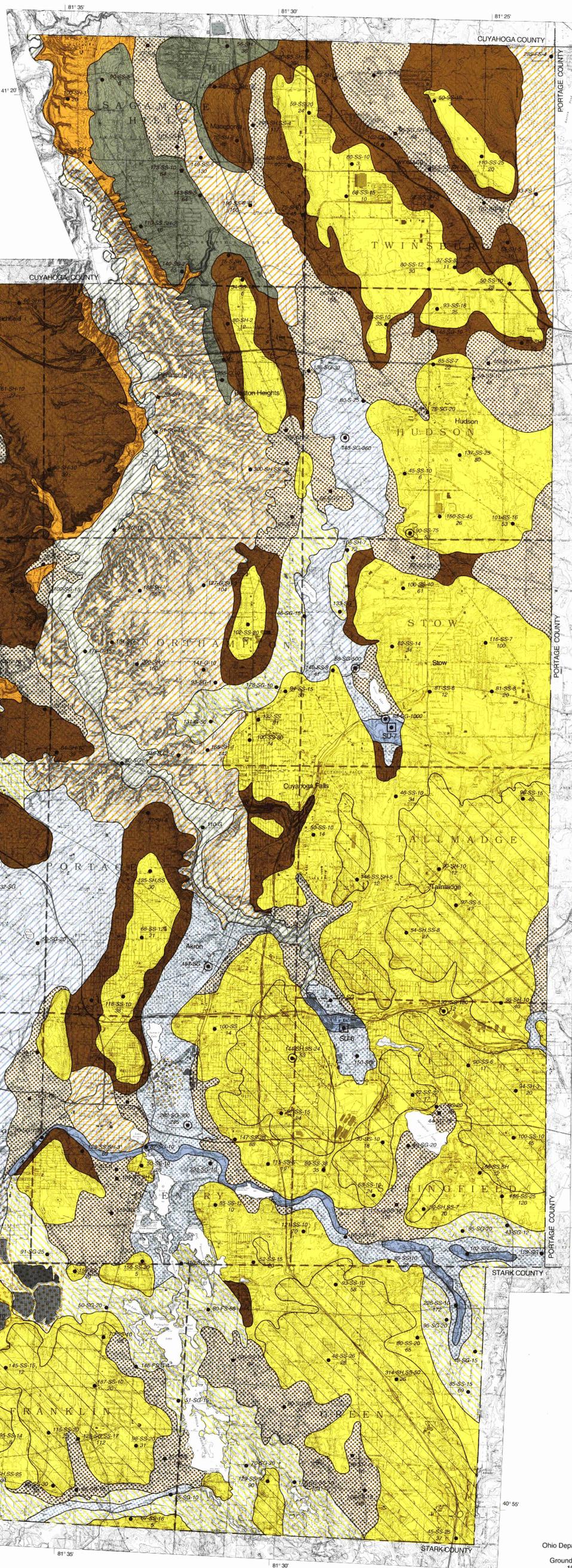


# Ground Water Resources of SUMMIT COUNTY

by James J. Schmidt  
after Smith, R.C., 1952



- Well Yields**
- AREAS IN WHICH YIELDS OF MORE THAN 100 GALLONS PER MINUTE CAN BE DEVELOPED**
- Best ground water areas in Summit County. Permeable sand and gravel deposits traversed by major streams. Wells may yield 500 to 1000, or more, gallons per minute, adequate for municipal and industrial well field deposits.
  - Good ground water areas. Permeable sand and gravel deposits not traversed by major streams. Infiltration supplies cannot be developed, and sustained yields may range from 200 to 500 gallons per minute. Seasonal yields (short term pumping) in excess of 500 gallons per minute may be available, as for example, from the buried valley deposits beneath south-central Akron.
  - Interbedded and interlensing sand and gravel, silt, and clay or till in buried valleys. Farm and domestic (5 to 20 gallons per minute) wells readily available at depths of less than 65 feet. Large industrial (more than 500 gallons per minute) supplies are more difficult to develop and extensive test drilling is necessary to locate coarse material.
- AREAS IN WHICH YIELDS OF 25 TO 100 GALLONS PER MINUTE CAN BE DEVELOPED**
- Ground water obtained from deposits of sand and gravel beneath thick clay and/or silt and fine sand. Adequate domestic (3 to 10 gallons per minute) supplies may be available from relatively shallow wells less than 150 feet deep. However, coarse permeable deposits are known to exist at depths ranging from 240 to 460. Properly designed and managed well fields may supply satisfactory requirements for small subdivision (less than 100 homes) developments.
  - Ground water obtained from Sharon conglomerate, encountered at depths of less than 100 feet beneath the land surface. Drilled wells yield as much as 50 gallons per minute. Greater yields, in excess of 250 gallons per minute, may be available during short periods of intermittent pumping.
  - Ground water obtained from sandstone and shale in the Pottsville formation. Yields of 3 to 10 gallons per minute, adequate for farm and domestic use, are available at depths of less than 95 feet. The Sharon conglomerate member is more than 100 feet beneath the surface, and yields as much as 50 gallons per minute.
- AREAS IN WHICH YIELDS OF LESS THAN 25 GALLONS PER MINUTE CAN BE DEVELOPED**
- Ground water obtained from the Berea sandstone. Drilled wells yield 5 to 20 gallons per minute.
  - Buried valley beneath Little Cuyahoga and Cuyahoga Rivers. Farm and domestic (3 to 5 gallons per minute) supplies may be available from dug or drilled wells at depths of less than 50 feet. Physical characteristics of the glacial deposits at depths greater than 200 feet are unknown. However, wells developed near Jate have reported yields of more than 400 gallons per minute, which may be indicative that large ground water supplies may be available.
- AREAS IN WHICH YIELDS OF LESS THAN 10 GALLONS PER MINUTE CAN BE DEVELOPED**
- Ground water obtained from sandstone and shale of the Cuyahoga group. Drilled wells yield 3 to 10 gallons per minute.
  - Ground water obtained from thin, not extensive, sand and gravel deposits interbedded with thick clayey till. Wells must be drilled below the level of the adjacent drainage to obtain 3 to 10 gallons per minute. If sand and/or gravel deposits are not encountered wells are developed in the underlying bedrock to obtain private domestic supplies.
- AREAS IN WHICH YIELDS SELDOM EXCEED 3 GALLONS PER MINUTE**
- Fine sand, silt, lacustrine clay and very thick clayey till deposited near surface of shale bedrock. Although some thin deposits of sand and gravel may be present, yields are minimal, dry wells are not uncommon, and cisterns and storage may be necessary to maintain domestic requirements.
  - Ohio and Bedford shale form bedrock surface. Drilled wells seldom yield more than 1 gallon per minute from weathered bedrock surface.
  - Areas in which ground water contains a large amount of salt, therefore not suitable for consumptive purposes. Caution should be exercised in the construction of bedrock wells within the immediate vicinity of salt wells, as well as disposal pits south of Barberton.
- \*Excessive sodium noted.

**Well Site Symbols**

**WELL INFORMATION**  
(SEE NOTE)

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

AQUIFER TYPE  
Water-bearing formation

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

WELL SITE  
Approximate well location

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

**WELL TYPES**

- Well Site
- Well Site H<sub>2</sub>S Noted
- Municipal-Industrial Well
- Observation Well Site \*

**AQUIFER TYPES**

- CL - Clay
- FS - Fine Sand
- S - Sand
- G - Gravel
- SS - Sand & Gravel
- SH - Shale

\*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.

**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 ODNR-Division of Water.