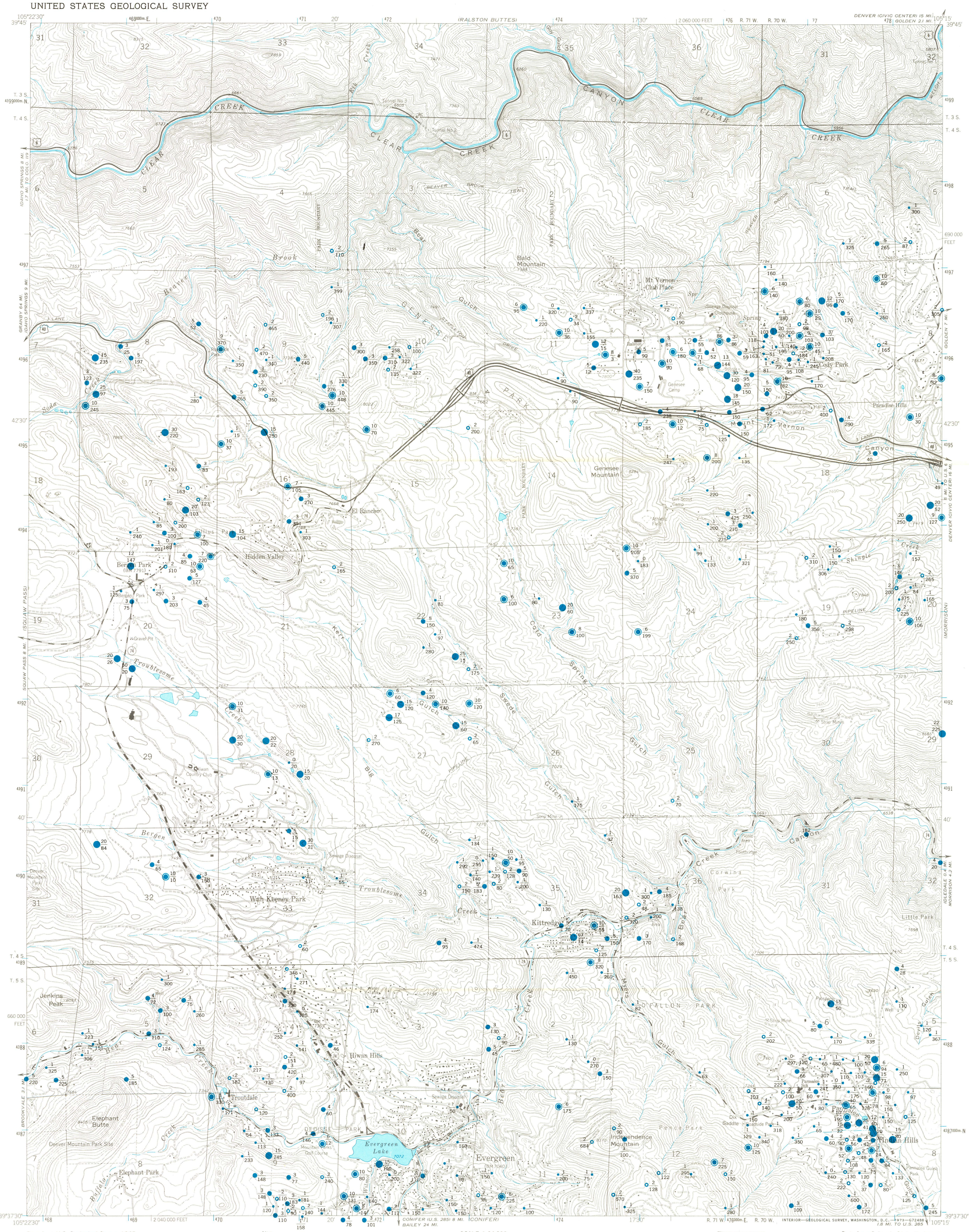
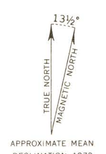
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

FOLIO OF THE
EVERGREEN QUADRANGLE, COLORADO
MAP I-786-E



Base from U.S. Geological Survey, 1965
Photorevised in 1971
10,000-foot grid based on Colorado coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue



SCALE 1:24 000
1 ½ 0 1 MILE
1 .5 0 1 KILOMETER
CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

QUADRANGLE LOCATION

Data from Colorado State Engineer's records, 1972

EXPLANATION

WATER WELLS – Showing estimated yield. Located to within nearest 1/16th section. Upper figure is estimated yield in gallons per minute (gpm); lower figure is depth in feet

- 1/300 Yield 1 gpm or less
- 2/305 Yield 1 to 2.5 gpm
- 4/120 Yield 2.5 to 5 gpm
- 6/140 Yield 5 to 10 gpm
- 13/144 Yield more than 10 gpm

LIMITATIONS OF THE MAP

This map shows approximate locations, yields, and depths of 440 water wells registered with the Colorado State Engineers Office as of January 1972. Wells are plotted on the map in arbitrary positions within the 1/16 section (a square about 1,320 feet on a side) recorded on the State Engineers Well Record form. The first well in the record is plotted at the center of the 1/16th section; the next four are placed at the centers of the quarters of the 1/16th section and any additional wells are arranged in between as space permits. Several erroneous locations have been corrected, but no systematic field check has been made.

Yields of the wells are those reported by the driller, except that those reported as a fraction of a gallon per minute are shown as 1. Yields of a few wells were obviously reported in gallons per hour rather than gallons per minute. Those detected have been corrected, but others may have been overlooked.

DEPTHS AND YIELDS OF WELLS

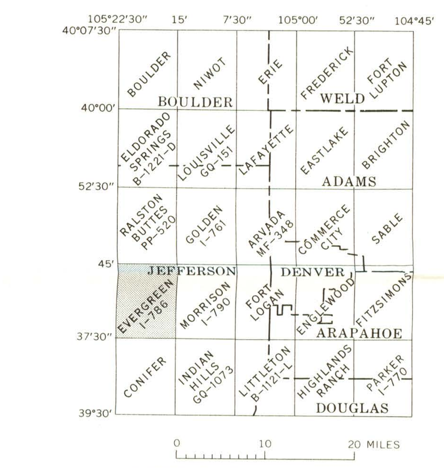
No correlation has been established between type of rock penetrated (Sheridan and others, 1972) and average yield of the wells. If such a correlation exists, more precise well locations and more detailed data on rock types penetrated will be necessary to establish it.

No obvious correlation between depth and yield was found, except that many shallow wells in surficial deposits or saturated weathered bedrock have relatively high yields. These shallow wells may be more subject to contamination from surface runoff and septic systems. The lack of correlation between depth and yield of deeper wells is at least partly due to the fact that drilling of most wells is terminated as soon as the yield is sufficient for household use. Thus the water-supply potential in some areas may be greater than that indicated by the yields reported. Data on well depths and reported yields are summarized in the table below; figures are percentage of total wells (440).

		YIELD (GALLONS PER MINUTE)					
		1 or less	> 1-2.5	> 2.5-5	> 5-10	More than 10	Total
DEPTH (FEET)	Less than 50	0.3	1.6	2.5	3.5	2.9	10.8
	> 50-150	0.7	26	12	7.4	5.3	51.4
	> 150-250	2.1	12	4.1	1.8	1.1	21.1
	> 250-350	1.6	8	2.3	0.5	0	12.4
	> 350-450	0.2	0.9	0.9	0.7	0	2.7
	More than 450	0.5	1.1	0	0	0	1.6
Total		5.4	49.6	21.8	13.9	9.3	100

REFERENCE

Sheridan, D. M., Reed, J. C., Jr., and Bryant, Bruce, 1972, Geologic map of the Evergreen quadrangle, Jefferson County, Colorado: U.S. Geol. Survey Misc. Geol. Inv. Map I-786-A.



INDEX SHOWING LOCATION OF EVERGREEN QUADRANGLE

MAP SHOWING APPROXIMATE LOCATIONS, DEPTHS, AND ESTIMATED YIELDS OF WATER WELLS IN THE EVERGREEN QUADRANGLE, JEFFERSON COUNTY, COLORADO

By
Paul W. Schmidt and John C. Reed, Jr.
1972

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1973—G72488