



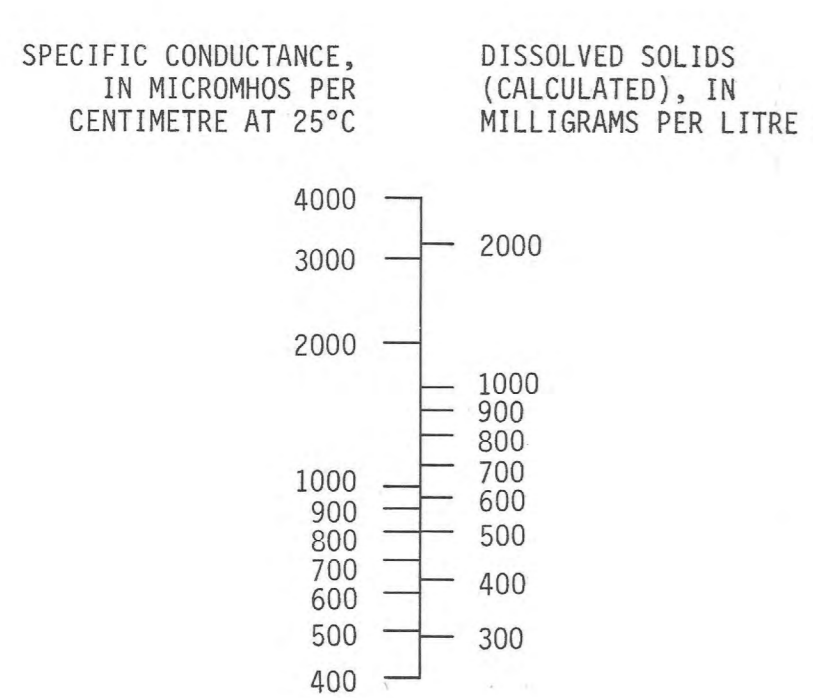
In the Ranegras Plain and Butler Valley areas the dissolved solids concentration in ground water ranges from less than 300 to more than 2,000 mg/l (milligrams per litre). In general, water that contains more than 1,000 mg/l of dissolved solids is not preferred for use as a public supply, but water that contains as much as 3,000 mg/l can be used for irrigation of salt-tolerant crops on well-drained soil. The recommended average optimum fluoride concentration for a water supply differs according to the annual average maximum daily air temperatures (U.S. Public Health Service, 1962). In the Ranegras Plain and Butler Valley areas the annual average maximum daily air temperature is about 84°F, and the optimum concentration of fluoride in drinking water is 0.7 mg/l. The presence of concentrations greater than 1.4 mg/l is grounds for rejection of the water for public supply.

EXPLANATION

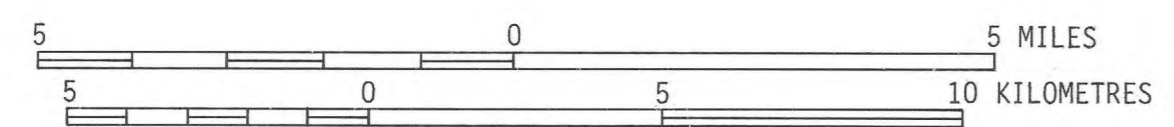
● 960
8.4 WELL FROM WHICH WATER SAMPLE WAS COLLECTED IN 1974—Upper number, 960, is specific conductance in micromhos per centimetre at 25°C; lower number, 8.4, is fluoride concentration in milligrams per litre

--- APPROXIMATE BOUNDARY BETWEEN SATURATED ROCKS OF HIGH PERMEABILITY AND STORAGE AND ROCKS OF LOW PERMEABILITY AND STORAGE—Rocks of high permeability are mainly silt, sand, and gravel; rocks of low permeability are mainly crystalline and well-cemented sedimentary rocks

— ARBITRARY BOUNDARY OF GROUND-WATER AREA



APPROXIMATE RELATION OF SPECIFIC CONDUCTANCE TO DISSOLVED SOLIDS



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100-FOOT INTERVALS
DATUM IS MEAN SEA LEVEL



BASE FROM U.S. GEOLOGICAL SURVEY
PHOENIX 1:250,000, 1954 AND
SALTON SEA 1:250,000, 1959

SPECIFIC CONDUCTANCE AND FLUORIDE CONCENTRATION, 1974

MAPS SHOWING GROUND-WATER CONDITIONS IN THE RANEGRAS PLAIN AND BUTLER VALLEY AREAS,
YUMA COUNTY, ARIZONA—1975

By
D. W. Wilkins and W. C. Webb

Arizona (Ranegras Plain & Butler Valley). Ground water. 1:130,000. 1976.



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