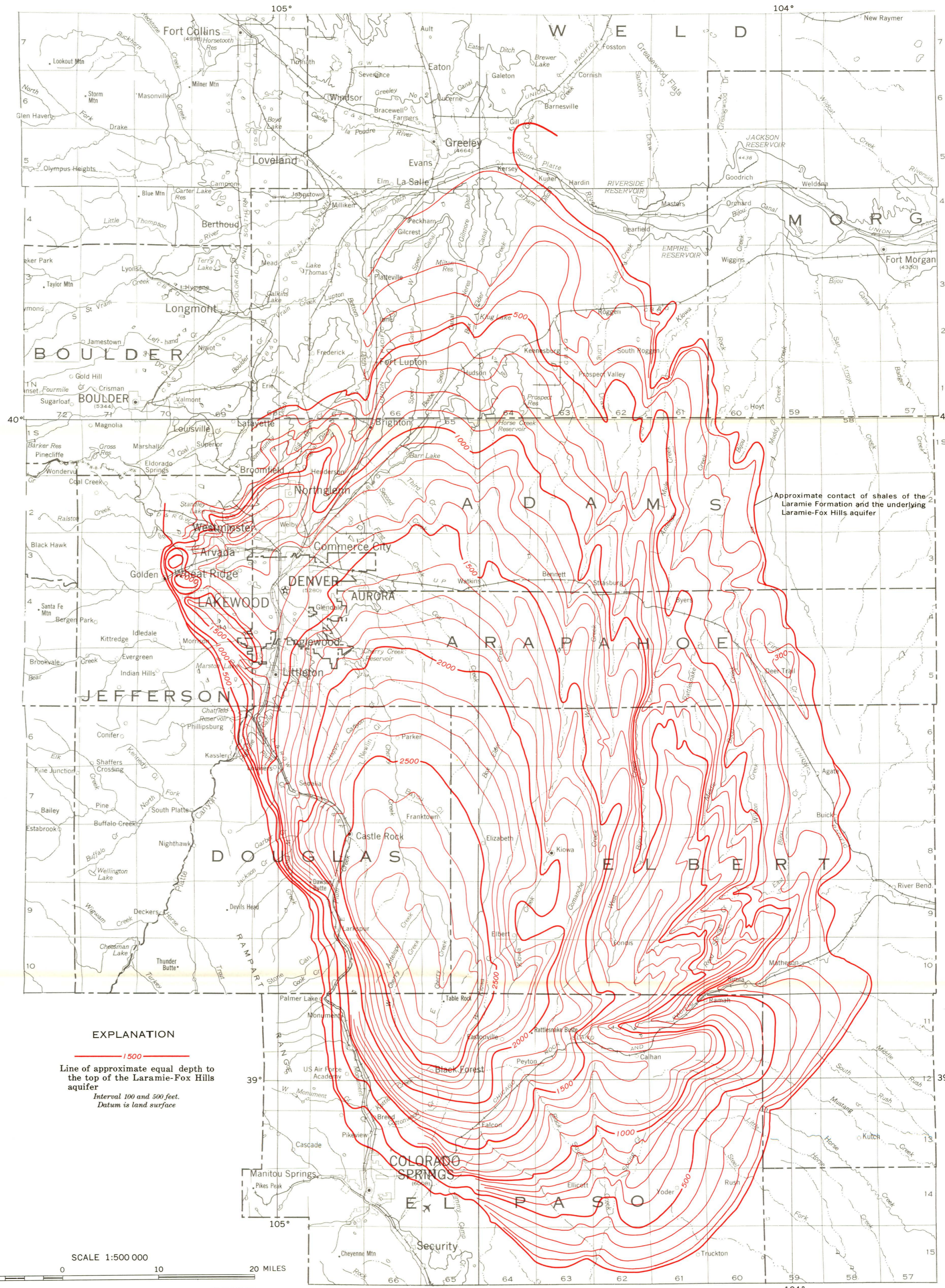


ALTITUDE AND CONFIGURATION OF THE TOP OF THE LARAMIE-FOX HILLS AQUIFER



DEPTH TO THE TOP OF THE LARAMIE-FOX HILLS AQUIFER

**INTRODUCTION**

The ever-increasing need for additional water in the Denver basin area to supply continuing growth of suburban communities emphasizes the need for better definition of available water resources. The accompanying maps showing the configuration and altitude, and the depth to the top of one of the most widespread and widely used aquifers in the Denver basin — the Laramie-Fox Hills aquifer — are a step in providing better definition. The maps were prepared by the Colorado Division of Water Resources in cooperation with the U.S. Geological Survey.

**THE LARAMIE-FOX HILLS AQUIFER**

One of the principal aquifers in the Denver basin area — here designated the Laramie-Fox Hills aquifer — includes the thick-bedded sandstones of the lower part of the Laramie Formation and the underlying Fox Hills Sandstone — both of Cretaceous age. Electric logs of about 275 water and oil-test wells were examined to determine the top of the aquifer. The locations of these wells are shown on the map showing the approximate altitude and configuration of the top of the Laramie-Fox Hills aquifer. The Laramie-Fox Hills aquifer consists of a medium-grained sandstone, 20 to 50 feet thick, overlying and grading downward into finer grained thin-bedded sandstone interbedded with siltstone and shale, 20 to 50 feet thick. This sequence overlies fine-grained quartzose sandstone, siltstone, and shale, 60 to 120 feet thick. Younger rocks, including thin-bedded sandstone, shale, and coal of the Laramie Formation, and sandstone and shale of the Dawson Formation, overlie the Laramie-Fox Hills aquifer in the mapped area and are as much as 2,400 feet thick southeast of Castle Rock as indicated by the map showing depth to the top of the Laramie-Fox Hills aquifer.

Wells that fully penetrate the Laramie-Fox Hills aquifer generally yield about 100 gallons per minute, and a few yield as much as 900 gallons per minute. Water in the aquifer, at places, contains objectionable amounts of methane, hydrogen sulfide, iron, and fluoride. In most places the aquifer contains water of suitable quality for domestic use.

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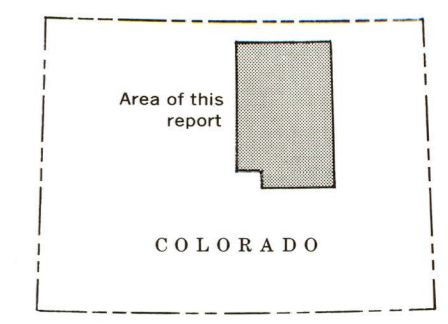
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