Abstract
The U.S. Geological Survey (USGS) developed hydrogeologic-unit maps, contour maps for the bases of the four hydrogeologic aquifers. As a first step of this ongoing hydrologic investigation, the USGS, in cooperation with the Oklahoma Water Resource Board (OWRB), completed the investigation for 2010 to 2060. This report provides an overview of the hydrogeology of northeastern Oklahoma.

Introduction
The Boone and Roubidoux aquifers (or their hydrogeologic-unit equivalents, figs. 1 and 2) were included in the study area. The study area is the intersection of the counties of Beaver, Creek, Delaware, Logan, Osage, Rogers, Shawnee, and Wagoner, Oklahoma. The USGS completed contour maps for the ten water-resource regions in northeastern Oklahoma in 2012 as part of a project to develop a hydrogeologic framework for the region (Westerman and others, 2016b; Westerman and others, 2016c; Westerman and others, 2016d). The project was intended to provide hydrogeologic unit boundaries and well-yield data for water-resource investigations and assessments of the hydrogeologic framework in the region.

Paper and Source
The purpose of this report is to provide an overview of the hydrogeology of northeastern Oklahoma. This report is a first step of an ongoing hydrologic investigation in the study area. Contour maps for the bases of the four hydrogeologic aquifers were produced (figs. 3 and 4). The regional map (fig. 1) shows the study area boundary as defined by the OWRB (2012). The map is oriented so that true north is oriented toward the top of the page, not the left. The study area boundary is shown in red and the county lines are shown in gray. The study area includes approximately 17,000 square miles (43,911 square kilometers).

Description of Hydrogeologic Units
The largest hydrogeologic unit is the groundwater system. The groundwater system consists of four major hydrogeologic units (Boone aquifer, Roubidoux aquifer, Neosho aquifer, and St. Francois aquifer) and four minor hydrogeologic units (Davis Formation, Powell Dolomite, Reagan Sandstone, and Davis Formation). The groundwater system in northeastern Oklahoma consists of the groundwater system in the study area (fig. 1). The groundwater system is divided into four major hydrogeologic units (Boone aquifer, Roubidoux aquifer, Neosho aquifer, and St. Francois aquifer). The groundwater system is divided into four major hydrogeologic units (Boone aquifer, Roubidoux aquifer, Neosho aquifer, and St. Francois aquifer).

Cone of Depression
The cone of depression is the area within which the groundwater level is lower than the surface of the water body. The cone of depression is the area within which the groundwater level is lower than the surface of the water body. The cone of depression is the area within which the groundwater level is lower than the surface of the water body. The cone of depression is the area within which the groundwater level is lower than the surface of the water body.

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