



Base from U.S. Geological Survey digital data, 1:100,000, 1983  
Universal Transverse Mercator Projection  
Zone 11

SCALE 1:500 000



Geology modified from Winograd and Thordarson (1975),  
Jennings (1977), Stewart and Carlson (1978), and  
Plume and Carlton (1988)

EXPLANATION

Correlation of map units

Quaternary	Cenozoic	
Tertiary		
Cretaceous	Mesozoic	
Jurassic		
Triassic	Paleozoic	
Permian		
Pennsylvanian		
Mississippian		
Devonian		
Silurian		
Ordovician		
Cambrian		
		Precambrian

Description of map units

- Basin-fill deposits (Holocene to Pliocene)**—Alluvial-fan, fluvial, fanglomerate, lakebed, and mudflow deposits
- Noncarbonate rock (Holocene to Middle Triassic)**—Chiefly volcanic rock consisting of welded to nonwelded ash-flow and ash-fall tuff, basalt, and rhyolite flows; includes some sandstone, siltstone, and conglomerate and small areas of intrusive rock
- Carbonate rock (Upper Permian to Lower Mississippian)**—Chiefly limestone
- Noncarbonate rock (Upper Mississippian to Middle Devonian)**—Chiefly argillite, quartzite, and conglomerate
- Carbonate rock (Middle Devonian to Middle Cambrian)**—Chiefly limestone and dolomite
- Noncarbonate rock (Lower Cambrian to Precambrian)**—Chiefly siltstone, quartzite, shale, and sandstone in the northern and western parts of the study area; and gneiss, schist, and granite in the southern and eastern parts of the study area
- Area where wells are too numerous to show**

- Potentiometric contour**—Shows altitude of potentiometric surface, in feet. Modified from Thomas and others (1986, sheets 1 and 2), and Winograd and Thordarson (1975, plate 1). Dashed where inferred. Contour interval is variable. Datum is sea level
- Well completed in valley fill**—Number, when shown, is altitude of static water level, in feet above sea level
- Well completed in rocks of pre-Tertiary age**—Primarily carbonate rock. Number, when shown, is altitude of static water level, in feet above sea level
- Well completed in rocks of Tertiary age**—Primarily volcanic rocks. Number, when shown, is altitude of static water level, in feet above sea level
- Rock sample site**—Site designation is indicated
- Spring fed primarily by Paleozoic carbonate aquifers**—Number, when shown, is altitude of land surface at spring, in feet above sea level



MAP SHOWING GEOLOGY AND POTENTIOMETRIC SURFACE IN CARBONATE-ROCK AQUIFERS AND  
ROCK-SAMPLE SITES IN SOUTHERN NEVADA AND SOUTHEASTERN CALIFORNIA

By  
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