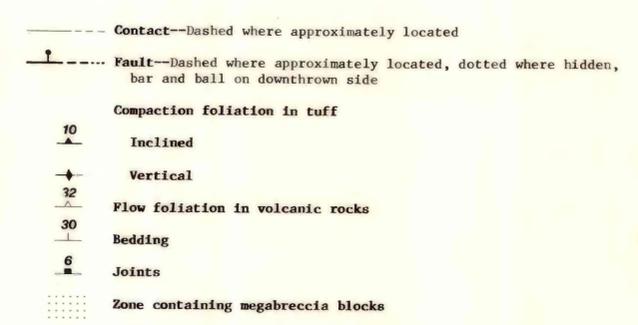


- DESCRIPTION OF MAP UNITS**
- Qal** Alluvium (Quaternary)—Well-sorted alluvium. Locally includes alluvial fan deposits
 - Qvf** Valley fill (Quaternary)—Undifferentiated alluvial and colluvial deposits, poorly to moderately sorted. Locally includes landslide debris
 - Tsw** Tuff of Saalsbury Wash (Miocene)—Red-brown to purple rhyolitic ash-flow tuff containing crystal fragments of plagioclase, quartz, alkali feldspar, biotite, and hornblende. None of unit is intra caldera, although it is genetically related to the caldera rhyolite (Tr)
 - Tr** Rhyolite (Miocene)—White to red to gray crystal-poor rhyolite flow-dome complexes. Contains phenocrysts of plagioclase, alkali feldspar, biotite, and quartz in a high potassium devitrified ground-mass
 - Tsp** Shingle Pass Tuff (Oligocene)—Pink to red to purple crystal-poor non welded to densely welded ash-flow tuff. Generally contains less than 10 percent phenocrysts of plagioclase, alkali feldspar, biotite, quartz, opaques, orthopyroxene and clinopyroxene
 - Tkc** Tuff of Kiln Canyon (Oligocene)—Gray to purple rhyolitic to quartz latitic ash-flow tuff. Contains one to ten percent lithic inclusions similar to those in the tuff of Big Ten Peak (Tbt). Some lithic fragments are 10 cm in long dimension. Phenocrysts consist of plagioclase, quartz, alkali feldspar, biotite, and hornblende
 - Tap** Ash and pumice (Oligocene)—White to gray to buff rhyolitic airfall tuff and waterlaid tuffaceous sediments. Tuff consists of ash, shards, pumice, and minor crystals of quartz, plagioclase, alkali feldspar, biotite, and contains fragments of igneous rocks and conglomerate lenses composed of latite cobbles. In depositional contact with all younger units
 - TI** Latitic lava flows (Oligocene)—Purple latitic lava flows intruded into and interfingering with the ash and pumice unit (Tap)
 - Tbt** Tuff of Big Ten Peak (Oligocene)—White to buff to orange nonwelded lithic-rich ash-flow tuff containing crystal fragments of plagioclase, alkali feldspar, and biotite. Contains up to 50 percent lithic fragments of shale, limestone, quartzite, granitic rock, volcanic flow rock, and exotic welded tuffs which are typically up to 2 cm in large dimension. Lithic fragments tend to decrease in size stratigraphically upward. Mega-breccia blocks (up to 500 m in long dimension) that consist largely of Paleozoic limestone and quartzite, and exotic tuffs and lavas form a partial ring around the Big Ten Peak caldera and mark the approximate boundary of the caldera
 - Tbto** Older tuff of Big Ten Peak (Oligocene?)—Gray-green lithic ash-flow tuff and associated lava flows. Tuff contains varying amounts of fragmented crystals of plagioclase, alkali-feldspar, quartz, biotite, and hornblende. Lithic fragments consist of shale, and plutonic rocks, and minor limestone, quartzite, and volcanic rock fragments. Mega-breccia blocks similar to those in tuff of Big Ten Peak (Tbt) consist mainly of plutonic and sedimentary rocks.
 - Kg** Granite of Pipe Springs (Cretaceous)—Gray to buff coarse-grained equigranular granite



Base from U.S. Geological Survey, 1:24,000, Antelope Spring, Big Ten Peak East, Big Ten Peak West, Saalsbury Basin, 1971

SCALE 1:62,500

CONTOUR INTERVAL 40 FEET

Geology mapped in 1982-85

AREA OF MAP

APPROXIMATE MEAN DECLINATION, 1986

**PRELIMINARY GEOLOGIC MAP OF THE BIG TEN PEAK QUADRANGLE,
NYE COUNTY, NEVADA**

By
William J. Keith

1986

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.