

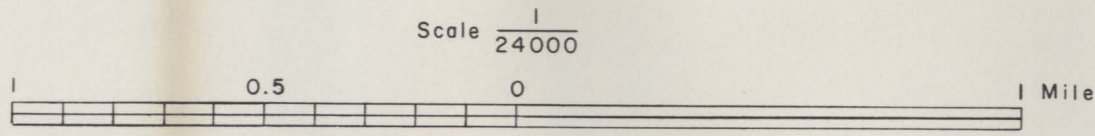


- QUATERNARY**
 - Qal**
Alluvium
Stream deposits and recent terrace gravels
 - Qd**
Landslide debris
In part incised by recent drainage
 - Qg**
Terrace gravel
Local terraces and extensive sheets of coarse gravel deposits, not related to present drainage pattern
- TERTIARY**
 - Not exposed in this quadrangle*
Sierra Negra Basalt Member of the Hinsdale Formation
Dikes and flows of olive basalt
 - Not exposed in this quadrangle*
Abiquiu Tuff Los Pinos Formation
Tuffaceous sandstone and siltstone
Tuffaceous sandstone and siltstone with interbedded volcanic boulder conglomerate
 - Not exposed in this quadrangle*
El Rito Formation
Coarse sandstone and conglomerate with Precambrian rock fragments
 - Not exposed in this quadrangle*
Carlile and Niobrara(?) Members of the Mancos Formation
Gray, thin-bedded shale with local concretionary zones
 - Not exposed in this quadrangle*
Greenhorn Member of the Mancos Formation
White-weathering, shaly limestone interbedded with gray calcareous shale
- CRETACEOUS**
 - Kml**
Graneros Member of the Mancos Formation
Light-gray to dark-gray calcareous shale, somewhat concretionary, with thin sandstone beds and brownish arenaceous zones
 - Kd**
Dakota(?) Formation
Massive, coarse-grained crossbedded sandstone with local interbedded shale and coal layers; may contain equivalents of Purgatoire and Burro Canyon Formations in lower part
- JURASSIC**
 - Jmb**
Brushy Basin Shale Member of Morrison Formation
Variogated gray, green, and red mudstone with thin sandstone and conglomerate lenses
 - Jmi**
Lower member of Morrison Formation
Alternating thin-bedded sandstone, siltstone and mudstone, weathering gray to chocolate brown
 - Jl**
Todiito Formation
Thin-bedded, fetid, gray limestone with thin shale partings, overlain locally by massive white gypsum
- TRIASSIC**
 - Je**
Entrada Formation
Massive, crossbedded, fine-grained sandstone
 - Rcu**
Upper shale member of Chinle Formation
Interbedded variegated red, chocolate brown, and purple mudstone, siltstone, and lenticular sandstone
 - Rcl**
Lower sandstone member of Chinle Formation
Coarse-grained, conglomeratic, lenticular sandstone interbedded with siltstone and mudstone; probably contains correlatives of the Agua Zarca, Salitral, and Paleo Members of the Chinle Formation
- PERMIAN**
 - Pc**
Cutler Formation
Alternating red-purple crossbedded arkosic sandstone and purple-orange mudstone
- PENNSYLVANIAN**
 - Not exposed in this quadrangle*
Pennsylvanian undifferentiated
Thin-bedded, carbonaceous siltstone of probable Desmoinesian Age

Base map from U.S. Geological Survey Echo Amphitheater Quadrangle

Geology by Clay T. Smith, A.J. Budding, Charles W. Pitrat, and others.

GEOLOGY OF ECHO AMPHITHEATER QUADRANGLE



Contact Fault, showing dip
Dashed where approximately located; dotted where concealed

Strike and dip of beds Mine (abandoned)

Well