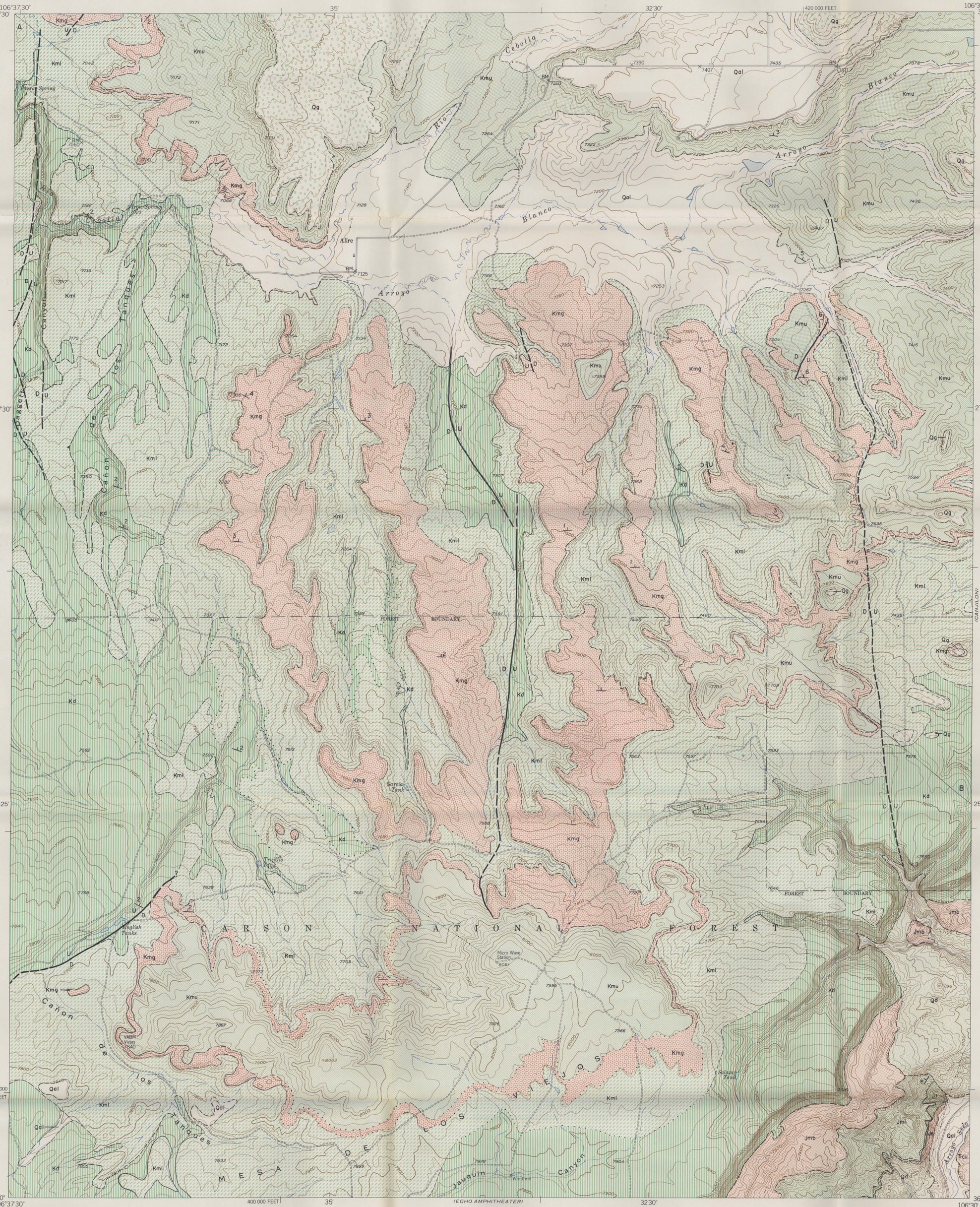
ALIRE QUAD



Base map from U.S. Geological Survey Alire Quadrangle

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

GEOLOGY OF ALIRE QUADRANGLE

Scale $\frac{1}{24000}$

1 0.5 0 1 Mile

EXPLANATION

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 olvine basalt

Not exposed in this quadrangle

Abiquiu Tuff Los Pinos Formation

Ta; *Tuffaceous sandstone and siltstone*
Tp; *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

CRETACEOUS

Kmu — Carlile and Niobrara(?) Members of the Mancos Formation

Gray, thin-bedded shale with local concretionary zones

Kmg — Greenhorn Member of the Mancos Formation

White-weathering, slabby limestone interbedded with gray calcareous shale

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

Variegated gray, green, and red mudstone with thin sandstone and conglomerate lenses

Jml — Lower member of Morrison Formation

Alternating thin-bedded sandstone, siltstone and mudstone, weathering gray to chocolate brown

Jt — Todilto Formation

Thin-bedded, fetid, gray limestone with thin shale partings, overlain locally by massive white gypsum

Je — Entrada Formation

Massive, crossbedded, fine-grained sandstone

TRIASSIC

Trcu — Upper shale member of Chinle Formation

Interbedded variegated red, chocolate brown, and purple mudstone, siltstone, and lenticular sandstone

Not exposed in this quadrangle

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 Poleo Members of the Chinle Formation

PERMIAN

Not exposed in this quadrangle

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

Contact — *Dashed where approximately located; dotted where concealed*

Fault, showing dip — *Dashed where approximately located*

Strike and dip of beds

Mine (abandoned)

Well