STATE BUREAU OF MINES
AND MINERAL RESOURCES
A. J. THOMPSON, DIRECTOR

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY
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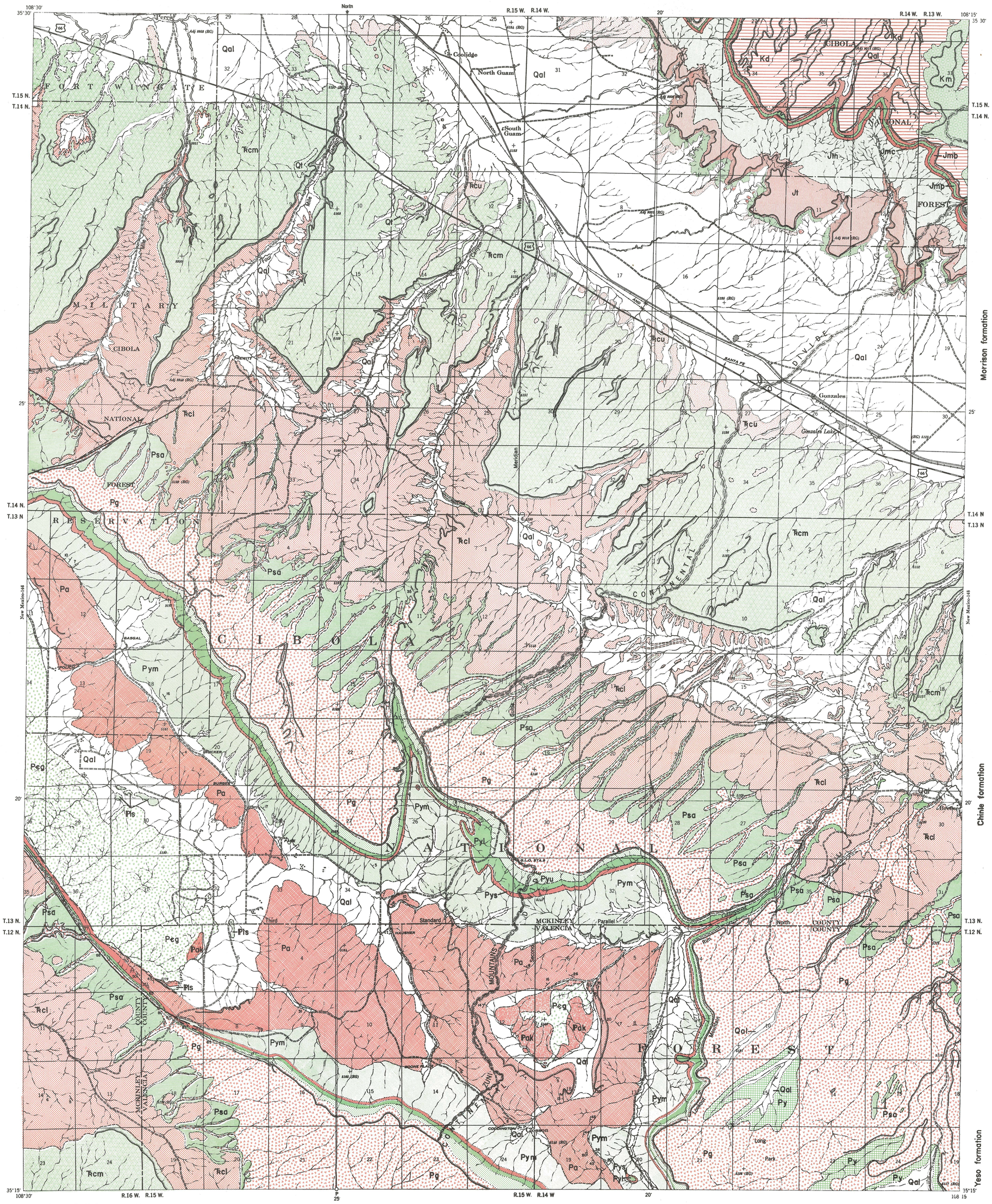
GEOLOGY
FOSTER CANYON QUADRANGLE
NEW MEXICO

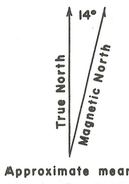
FIFTEEN-MINUTE QUADRANGLE

GEOLOGIC MAP NO. 9



Base from Soil Conservation Service quadrangle no. 147, Planimetric Map Series.

Geology mapped in 1950-1954.
Geologic cartography by
Bob Price.



Approximate mean declination, 1952

GEOLOGIC MAP OF FOSTER CANYON QUADRANGLE VALENCIA AND McKINLEY COUNTIES, NEW MEXICO

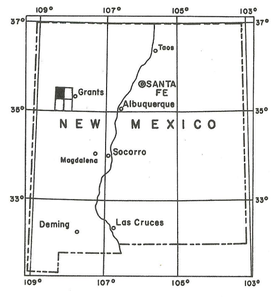
By Clay T. Smith and others

Scale: 1:48,000

1 0 1 2 3 Miles

Statute Miles

1958



INDEX MAP
OF
NEW MEXICO

EXPLANATION

QUATERNARY

Qal — Alluvium
Valley fill and terrace gravels related to present drainage.

Qt — High-level gravels
Poorly sorted terrace gravels, including some landslide debris not related to present drainage except locally.

UNCONFORMITY

CRETACEOUS

Km — Mancos shale
Gray-black platy calcareous marine shale; fossiliferous.

Kd — Dakota(?) formation
Massive cross-bedded buff-brown conglomeratic sandstone.

UNCONFORMITY

JURASSIC

Morrison formation

Jmb — Brushy basin member
Variegated green, gray, and yellow, thin bedded, calcareous siltstone and mudstone grading laterally into soft, silty sandstone with conglomeratic lenses.

Jmp — Prewitt member
Massive, coarse grained, cross-bedded, light pinkish-red conglomeratic sandstone.

Jmc — Chavez member
Variegated greenish siltstone, purplish-to-reddish sandy mudstone, and white-to-buff, coarse grained, conglomeratic sandstone.

Jth — Thoreau formation
Massive to thin-bedded red, brown, and white sandstone and siltstone; alternating even-bedded and cross-bedded layers.

Jt — Todilto Limestone
Thin bedded gray to black slabby limestone with thin black shale partings; locally sandy at base and top.

Je — Entrada sandstone
Massive well-sorted cross-bedded, medium-grained friable orange-red sandstone.

UNCONFORMITY

TRIASSIC

Rw — Wingate formation
Massive, friable, well-sorted, cross-bedded; brownish-orange sandstone.

Chinle formation

Rcu — Upper member
Red, brown, and purple siltstone interbedded with reddish-brown mudstone containing thin coarse-grained sandstone lenses. Lime-pebble conglomerate common in uppermost layers.

Rcm — Middle member
Medium-to thick-bedded hard yellow-gray cross-bedded sandstone and pebble conglomerate with thin partings of purple-gray siltstone and mudstone.

Rcl — Lower member
Thin-bedded fine-grained purple-white silty sandstone with interbedded massive purple and chocolate-brown siltstone and mudstone.

UNCONFORMITY

PERMIAN

Psa — San Andres formation
Lower: blue-gray to white fossiliferous limestone; middle: gray-yellow moderately well-sorted calcareous sandstone; upper: massive gray-pink fossiliferous limestone.

Pg — Glorieta formation
Massive white-buff coarse-grained well-sorted cross-bedded pure quartz sandstone.

Yeso formation

Pyu — Upper member
Pink poorly-sorted sandstone and siltstone with well-sorted medium-grained white-buff sandstone.

Pyl — Limestone member
Three beds of blue-gray fetid thin-bedded limestone separated by variegated sandstone, siltstone, and mudstone.

Pys — Second member
Variegated thin-bedded calcareous poorly-sorted alternating sandstone and siltstone.

Pym — Meseta Blanca member
Cross-bedded and thin-bedded well-sorted very fine-grained orange sandstone.

Py — Yeso formation, undifferentiated

Pa — Abo formation
Cross-bedded and even-bedded layers of chocolate-brown sandstone, siltstone, and conglomerate.

PENNSYLVANIAN

Pak / Pls — Arkose and limestone
Conglomerate and arkose composed principally of fragments of the underlying Precambrian(?) schist, gneiss, and other metamorphic rocks (Pak); thin sparsely fossiliferous limestone lenses are interbedded with the arkose (Pls).

UNCONFORMITY

PRECAMBRIAN

Peg — Precambrian(?) rocks
Granite gneiss with aplitic facies and quartz veins.

Contact
Dashed where approximately located; dotted where concealed.

Fault
Dashed where approximately located; dotted where concealed.