

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES MAP MF-2352

Version 1.0

Pamphlet accompanies map

GEOLOGIC MAP OF THE TETILLA PEAK QUADRANGLE, SANTA FE AND
SANDOVAL COUNTIES, NEW MEXICO

By

David A. Sawyer, Ralph R. Shroba, Scott A. Minor, and Ren A. Thompson

Digital compilation by Jeffrey C. Blossom, Thomas R. Fisher, Ronald R. Wahl,
and D. Paco Van Sistine

2002

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base from U.S. Geological Survey, 1953; photorevised 1993.

North American Datum of 1927 (NAD 27). Projection and
10,000-foot grid ticks: New Mexico coordinate system, central zone
(Transverse Mercator). 1,000-meter Universal Transverse Mercator
grid ticks, zone 13.

Bedrock geology by David Sawyer, Scott Minor, and

Ren Thompson, 1996–1999; surficial geology by

Ralph Shroba, 1996–1998, assisted by Aaron Pecos, 1996.

Editing and digital cartography by Alessandro J. Donatich

Manuscript approved for publication December 13, 2000

LIST OF MAP UNITS

SURFICIAL DEPOSITS

Artificial fill deposits (latest Holocene)

Flood plain and stream channel deposits (Holocene and late(?) Pleistocene)

Alluvium and colluvium, undivided (Holocene and late Pleistocene)

Fan alluvium and debris-flow deposits (Holocene to middle(?) Pleistocene)

Fan alluvium (Holocene to middle Pleistocene)

Colluvium, undivided (Holocene to middle(?) Pleistocene)

Debris-flow deposits (Holocene to middle(?) Pleistocene)

Sheetwash deposits (Holocene to middle (?) Pleistocene)

Landslide deposits (Holocene to early Pleistocene)

Terrace alluvium (late and middle(?) Pleistocene)

Ancha Formation (late or middle Pleistocene to Pliocene)

Pediment deposits (middle Pleistocene)

Upper Santa Fe Group sediments (middle or early Pleistocene to late(?) Pliocene)

TERTIARY ROCKS

Volcanic rocks of the Cerros de Rio volcanic field

Younger basalt of Caja del Rio (Pliocene)
Basaltic dikes (Pliocene and Miocene)
Basalt of Caja del Rio (Pliocene)
Dacite of Tetilla Peak (Pliocene)
Andesite of Tetilla Peak (Pliocene)
Basalt of Tsinat Mesa (Pliocene)
Basalt of La Bajada (Pliocene)
Basalt of Mesita de Juana (Pliocene)

Miocene to Eocene igneous and sedimentary rocks

Santa Fe Group—eastern piedmont facies (Miocene?)
Abiquiu Formation (Miocene to Oligocene)
Cieneguilla Basanite (Miocene to Oligocene)
Espinazo Formation (Miocene or Oligocene)
Monzonite and monzonite porphyry intrusions (Oligocene)
Hornblende monzonite porphyry (Oligocene)
Galisteo Formation (Oligocene and Eocene)
MESOZOIC SEDIMENTARY ROCKS

Mancos Shale (Upper Cretaceous)
Niobrara Member
Juana Lopez Member, and Blue Hill and Fairport Members of the Carlile Shale, undivided
Bridge Creek Limestone and Graneros Members, undivided
Mancos Shale and Dakota Sandstone, undivided (Upper Cretaceous)
Dakota Sandstone (Upper Cretaceous)
Cubero Tongue
Oak Canyon Member
Morrison Formation (Upper Jurassic)
Jackpile Sandstone Member
Brushy Basin Member
Westwater Canyon Member
Wanakah Formation, Beclabito Member (Middle Jurassic)
Todilto Formation (Middle Jurassic)
Entrada Sandstone (Middle Jurassic)
Chinle Formation (Upper Triassic)

Contact

Lava-flow contact—Concealed or uncertain internal flow contact
Fault—Showing dip where known. Dotted where concealed. Bar and ball on downthrown side. Opposed arrows show strike-slip movement. Diamond

indicates slip lineation bearing and plunge. Arrowhead indicates dip of fault plane at lineation site

Anticline

Syncline

Cinder deposits in units Tby, Tbr, Tbs, Tbj, Tbb

Strike and dip of bedding

Joint

Inclined

Vertical or near vertical—Showing strike

Geochronologic analysis sample locality—Showing isotopic age (in Ma) where available. See table 4

Geochemical analysis sample locality—See table 3

Pit or quarry

Audio-magneto-telluric (or high-frequency magnetotelluric) station

Subregional simplified geologic map of the northeastern Santo Domingo basin and part of the western Española basin showing the location and regional geologic context of the Tetilla Peak 7.5' quadrangle

Shaded-illumination Digital Elevation Model (DEM) of the Tetilla Peak quadrangle

Any use of trade names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey

This map was produced on request, directly from digital files, on an electronic plotter

For sale by U.S. Geological Survey Information Services
Box 25286, Federal Center, Denver, CO 80225
1-888-ASK-USGS

ARC/INFO coverages and a PDF for this map are available at
<http://geology.cr.usgs.gov/pub/mf-maps/mf-2352>