





Quadrangle Location

New Mexico Bureau of Geology and Mineral Resources New Mexico Tech 801 Leroy Place Socorro, New Mexico

87801-4796

[575] 835-5490

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Magnetic Declination 1970 12° East At Map Center



New Mexico Bureau of Geology and Mineral Resources Geologic Map 52

Geologic Map of the Florida Gap 7.5-Minute Quadrangle, Luna County, New Mexico

1982

Russell E. Clemons

Digital layout and cartography by the NMBGMR Map Production Group

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This draft geologic map is preliminary and will undergo revision. It was produced from either scans of hand-drafted originals or from digitally drafted original maps and figures using a wide variety of software, and is currently in cartographic production. It is being distributed in this draft form as part of the bureau's Open-file map series (OFGM), due to high demand for current geologic map data in these areas where STATEMAP quadrangles are located, and it is the bureau's policy to disseminate geologic data to the public as soon as possible. After this map has undergone review, editing, and final cartographic production adhering to bureau map standards, it will be released in our Geologic Map (GM) series. This final version will receive a new GM number and will supercede



Comments to Map Users

irregular surfaces that form boundaries between different types or ages of units. Data depicted on this geologic quadrangle map may be based on any of the following: reconnaissance field geologic mapping, compilation of published and unpublished work, and photogeologic interpretation. Locations of contacts are not surveyed, but are plotted by interpretation of the position of a given contact onto a topographic base map; therefore, the accuracy of contact locations depends on the scale of mapping and the interpretation of the geologist(s). Any enlargement of this map could cause misunderstanding in the detail of mapping and may result in erroneous interpretations. Site-specific conditions should be verified by detailed surface mapping or subsurface exploration. Topographic and cultural changes may not be shown due to recent development. Cross sections are constructed based upon the interpretations of the author made from geologic

A geologic map displays information on the distribution, nature, orientation, and age relationships of rock and deposits and the occurrence of structural features. Geologic and fault contacts are

mapping, and available geophysical, and subsurface (drillhole) data. Cross sections should be used as an aid to understanding the general geologic framework of the map area, and not be the sole source of information for use in locating or designing wells, buildings, roads, or other man-made structures.

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Description of Map

01-01-01–Unit–Qs–Windblown sand–Unconsolidated dunes up to 10 ft high; mostly underlain by caliche horizon; forms cover over map unit shown by symbol under the line (for example, Qs/Qbf).

01-01-02–Unit–Qbf–Basin-floor sediments–Predominately nongravelly to slightly gravelly alluvium in the Mimbres Basin unaffected by arroyo incision; main part of unit appears to grade to Qpo unit in piedmont toeslopes.

01-01-03–Unit–Qca–Undifferentiated colluvium-alluvium–Thin, talus-slope veneers and colluvial and alluvial fills on arroyo-valley sideslopes; found in mountain canyons on piedmont slopes.

01-01-03–Unit–Qpa–Undifferentiated piedmont-slope alluvium–Complexly intermixed, older piedmont-slope alluvium and younger piedmont-slope alluvium (Qpo and Qpy).

01-01-04–Unit–Qpy–Younger piedmont-slope arroyo alluvium –Fills (silty to gravelly) of shallow drainageways cut below older fan and erosion surfaces graded to closed basins

01-01-05–Unit–Qpo–Older piedmont-slope alluvium–Unconsolidated fan deposits, piedmont-valley fills, and erosion-surface veneers, associated with surfaces graded to closed basins; uppermost beds often cemented with pedogenic

01-01-06–Unit–Qm–Mimbres formation–Fan gravel and interbedded, sandy lenses representing piedmont-slope facies; includes thin, erosion-surface veneers near mountain fronts; upper layers contain carbonate accumulations (caliche) up to several feet thick;*

01-01-07–Unit–QTm–Mimbres formation–Similar to Qm but found on higher terrace remnants; igneous rock clasts are much more intensely weathered; thickness to 200 ft; not exposed in Florida Gap quadrangle but probably is partly equivalent to Qm in cross se*

01-02-01–Unit–Tld–Dacite of Little Florida Mountains–Grayish-red to dusky-red intrusive; microcrystalline to partly glassy, nonporphyritic

01-02-02–Unit–Tlf–Fanglomerate of Little Florida Mountains–Dark reddishbrown, rhyolite-boulder breccias, sandy and muddy conglomeratic sandstones; lower, coarser beds are well indurated; upper, finer beds are well indurated; fault zones cutting these s*

01-02-03–Unit–Tlb–Basaltic-andesite flow(s)–Dark reddish-brown to black, vesicular and amygdaloidal flows; hydrothermally altered; plagioclase laths in an intersertal matrix; only exposed at southeast end of Little Florida Mountains 01-02-04–Unit–Tlr–Rhyolite of Little Florida Mountains–Irregular, domal to dikelike intrusions and short flows of pale-red to dark grayish-red, flow banded rhyolite; much of unit has a distinctive autobreccia texture, phenocrysts are very rare; unit fo*

Explanation of Map

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accurate

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Inclined flow banding, lamination, layering, or foliation in igneous

Vertical flow banding, lamination, layering, or foliation in igneous

01-02-05–Unit–Tlt–Rhyolite tuff of Little Florida Mounatins–Pale-greenish to orange-gray, lithic tuff and minor interbedded, volcaniclastic mudstone and sandstone; poorly indurated and poorly exposed in small slope gullies; black perlitic obsidian occur*

01-02-06–Unit–Tr–Rhyolite dikes in Florida Mountains–White dikes ranging from 6 to 18 ft thick; holocrystalline, non-porphyritic; fractures commonly stained wih manganese oxides

01-02-07–Unit–Tlaf–Ash-flow tuff–Grayish-pink, vitric-crystal to crystal-vitric ash-flow tuff; contains 7-30 percent phenocrysts of plagioclase, anidine, quartz, biotite, and sparse hornblende and sphene; abundant, white, flattenedpumice fragments in ou*

01-02-08-Unit-Tla-Andesite of Little Florida Mountains-Undifferentiated flows and intrusives of medium-gray to brownish-gray andesite to dacite; finely crystalline, non-porphyritic hyalopilitic, pilotaxitic texture; provisionally correlated with Rubio P*

01-03-01–Unit–^s–Starvation Draw member of Rubio Peak Formation–Grayishpurple and reddish breccias of polylithicvolcanic clasts grading upward into greenish-gray breccias and conglomeratic sandstone; basal beds contain abundant granite and limestone cl*

01-04-01–Unit–Kl–Lobo Formation–Interbedded, reddish shale and nodular, shaly limestone, gray siltstone, sandstone, and pebble to cobble conglomerates; this unit is Darton's (1916) LoboFormation: not exposed in Florida Gap quadrangle, but underlies Trs *

Fault (generic; vertical, subvertical, or high-angle; or unknown or ecified orientation or sense of slip)—Identity and existence certain, location roximate

' Fault (generic; vertical, subvertical, or high-angle; or unknown or pecified orientation or sense of slip)—Identity and existence certain, location ealed

Normal fault–Identity and existence certain, location accurate

Thrust fault (1st option)—Identity and existence certain, location accurate