

Geology of the south western part of the Tonto National Forest

Arizona Geological Survey

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Geologic maps covering the southwestern part of Tonto National Forest were compiled at a resolution of 1:24000 from published geologic maps and photogeologic interpretation by the Arizona Geological Survey. The compiled data are presented in an ESRI ArcGIS v9.3 geodatabase. This final delivery package includes:

1. Document describing the geodatabase schema (Adobe Acrobat document NCGMP09_v1-0.pdf). This is a proposed standard data delivery schema from the National Cooperative Geologic mapping Program of the USGS>
2. A portrayal of the data designed for an E-size sheet (scale 1:130000) (Adobe Acrobat). Note that the layers in the ArcMap layout are preserved in the Acrobat document, so various map layers (structure data, labels, explanation of units...) can be turned on and off. This layout is mostly meant as an overview browse graphic, and the labeling and selection of structure data to display has not been manually cleaned up to produce a production-quality cartographic product.
3. Document with complete lithostratigraphic map legend (CompilationMapLegend.pdf). This legend includes about 450 units, defined lithostratigraphically, based on age, lithology, genesis, and spatial distribution. The units are intended to distinguish geologic units that are genetically and tectonically related, for instance volcanic rocks related to the same volcanic center, or metamorphic rocks
4. Document with simplified geologic unit legend with about 120 units, defined based on lithology, genesis, and age (SimplifiedMapLegend.pdf). The units on this map are intended to indicate materials with similar lithologic character and age.
5. LayerPackage directory containing ESRI layer package files for data from the database. These files bundle data and portrayal information in a single file, and may be opened in ArcExplorer or ArcMap to obtain a symbolized layer.
 - a. Line Features.lpk – open to add contacts, faults, dikes, and fold hinge surface traces.
 - b. Orientation Data.lpk – open to add structure symbols (bedding, foliation strike and dip)
 - c. SimplifiedGeologicUnits.lpk – open to add geologic unit polygons symbolized using the simplified geologic unit legend (see #4, above)
 - d. LithostratigraphicMapUnits.lpk – open to add geologic unit polygons symbolized using the lithostratigraphic geologic unit legend (see #3, above)
6. TontoNF Geodatabase (TontoNFGeology.mdb). Geodatabase with schema described in NCGMP09_v1-0.pdf). This is the full data repository.
7. ArcMap 9.3.1 project file (TontoNF_geology.mxd) with map layout.

8. Vocabulary directory contains several Microsoft Excel spreadsheets with lists of terms and definitions for vocabularies used in the dataset. For reference only; the terms should all be in the glossary table in the geodatabase as well.