Introduction

To most geologists, geologic maps are the single most useful type of information for understanding the geology of the land surface. As a result, geologic mapping has a long history, with over two thousand geologic maps produced in Arizona since about 1900. This index identifies only those maps that are available from the Arizona Geological Survey through the online Document Repository (http://repository.azgs.az.gov/). Approximately 720 maps of various areas within Arizona are available from approximately 500 publications.

The Geologic Map of Arizona (2000) (Fig. 1) is used as background to the map indexes. Figures 2 and 3 identify regional maps with scale ranging from 1:100,000 to 1:1,000,000. Figures 4-10 identify detailed geologic maps with scale ranging from 1:200 to 1:99,000. Each of these maps is labeled with a publication number, for example “OFR 95-1”.

The map indexes are followed by a list of citations to the maps that is organized alphabetically by publication number (pubNum). Generally, a user of this index would locate an area of interest on a map index, identify the publication numbers for maps in the area of interest, and then find the relevant citation or citations. With the citations one can then retrieve the desired maps from the document repository at the Arizona Geological Survey web site (www.azgs.az.gov).

Following the list of citations are three maps (Figures 11-13) that show the locations of geologic mapping areas with the map areas colored according to the program that at least partially funded the mapping. The most important of these funding programs has been STATEMAP (1993-present) and its predecessor COGEOMAP (1984-1993). STATEMAP was established by the National Geologic Mapping Act of 1992 in order to promote production of new geologic maps, and is directed specifically at State geological surveys. States participating in this program are required to provide matching State funds at least equal to the requested or granted Federal funds. Map areas are determined following annual recommendations from the Geologic Mapping Advisory Committee, which is composed of about a dozen individuals from government, industry, and academia. This program has brought over $3.7 million in Federal funding to the Arizona Geological Survey for new geologic mapping.

Note also that the Arizona Geological Survey was officially the Arizona Bureau of Geology and Mineral Technology (AZBGMT) at the University of Arizona during 1977-1988 (before that it was the Arizona Bureau of Mines). Western Arizona maps released during 1980-1994 and not funded by COGEOMAP (Figure 12) reflect scientific interest in this part of Arizona because of the extreme Cenozoic crustal extension that had affected the area and because a newly recognized class of mineral deposits is associated with the tectonic extension. Mapping was supported by the AZBGMT and the AZGS and this support was used to match requested COGEOMAP funds.

Figures 14 and 15 show areas of geologic mapping broken down by authorship. The 17 authors represented have done most of the STATEMAP and much of the COGEOMAP mapping in Arizona, as well as other mapping with different funding sources.

The Arizona Geological Survey has had a strong geologic mapping program since about 1980, and continues to both produce new maps and solicit contributions of geologic maps to the AZGS Contributed Map Series. These maps reflect the work of non-AZGS employees, commonly for thesis or dissertation projects, and are considered of sufficient quality to warrant release through the AZGS map repository.
<table>
<thead>
<tr>
<th>pubNum</th>
<th>FullCitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM-10-B</td>
<td>Zelazinski, Mallory, 2010, Geologic map of the First Flat Mesa area, First Flat Mesa, Na Ah Tee Canyon, and Hawke Mesa 7.5' Quadrangles, Hopi Buttes (Tsezhin Bii), Navajo Nation, Arizona: Arizona Geological Survey, Contributed Map CM-10-B, Plate 1, with 10 page text.</td>
</tr>
</tbody>
</table>
Contributed Map CM-91-H, 2 sheets, scales 1:10,000 and 1:24,000.

[15 min] - Gila County, Arizona [Oxbow Mtn., and Young 7.5 min]: Arizona Geological Survey

Sierra Anchas, and geologic map of the Marsh Creek area; Diamond Butte and Young quadrangles

Labrenz, M.E., 1991, Geologic map of the western half of the Young quadrangle [15 min], northern Sierra Anchas, and geologic map of the Marsh Creek area; Diamond Butte and Young quadrangles [15 min] - Gila County, Arizona [Oxbow Mtn., and Young 7.5 min]: Arizona Geological Survey Contributed Map CM-91-H, 2 sheets, scales 1:10,000 and 1:24,000.


CM-91-J

Doe, M.F., 1991, Geologic map of the northern Mazatzal Mountains and geologic cross-sections of the South Fork of Deadman Creek and Barnhardt - Shake Tree Canyon, central Arizona [North Peak, Mazatzal Peak, Table Mountain, and Cypress Butte 7.5 min]: Arizona Geological Survey Contributed Map CM-91-J, 2 sheets, scale 1:24,000.

CM-91-K


CM-91-L


CM-92-A


CM-92-B


CM-92-C


CM-92-D


CM-93-A


CM-93-B


CM-93-C


CM-93-D


CM-93-E


CM-93-F


CM-94-A


DGM-02

DGM-03

DGM-04

DGM-05

DGM-06

DGM-08

DGM-09

DGM-10

DGM-100

DGM-102

DGM-103

DGM-104

DGM-105

DGM-106

DGM-107

DGM-108

DGM-109
Ferguson, C.A., and Johnson, B.J., 2013, Geologic map of the western half of the Columbia 7.5' Quadrangle and the eastern half of the Copperopolis 7.5' Quadrangle, Yavapai County, Arizona: Arizona Geological Survey Digital Geologic Map DGM-109, version 1.0, 1 sheet, scale 1:24,000.

DGM-11

DGM-12

DGM-13

DGM-14

DGM-15

DGM-16

DGM-17

DGM-18

DGM-19

DGM-20

DGM-21
DGM-22, v. 1.1, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-23, v. 2.0, 1 CD-ROM (1 sheet, scale 1:24,000).

DGM-24, v. 1.0, 1 CD-ROM, (29p., 2 sheets, scale 1:100,000).

DGM-25, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-26, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-27, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:50,000).

DGM-29, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:12,000).

DGM-30, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:12,000).

DGM-31, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-32, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-33, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-34, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-35, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-36, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).

DGM-37, v. 1.0, 1 CD-ROM, (1 sheet, scale 1:24,000).
<table>
<thead>
<tr>
<th>pubNum</th>
<th>FullCitation</th>
</tr>
</thead>
</table>


MM-78-A

MM-81-A
Johnson, G.S., 1981, Geologic maps and sample location map of the northern Picacho Mountains, Pinal County, Arizona: Arizona Bureau of Geology and Mineral Technology Miscellaneous Map MM-81-A, 3 sheets, scales 1:24,000 and 1:6,000.

MM-83-A

MM-84-A

MM-85-A
Riggs, Nancy, 1985, Geologic map of the Pajarito Mountains, Santa Cruz County, Arizona [Alamo Springs, Pajarito Peak, Pena Blanca Lake, and Ruby 7.5' min]: Arizona Bureau of Geology and Mineral Technology Miscellaneous Map MM-85-A, 1 sheet, scale 1:12,000.

MM-85-B

MM-85-C

MM-85-D

MM-86-A

MM-86-B

MM-86-C

MM-87-A

MM-87-B

MM-87-C

MM-87-D

MM-88-A

MM-88-B

NP-1 a

NP-1 b

NP-13

NP-15
Lysorski, J.C., Sumner, J.S., Aiken, C.L.V., and Schmidt, J.S., 1980, Residual Bouguer gravity anomaly map of Arizona (IGSN 71): Tucson, University of Arizona, Department of Geosciences, Laboratory of Geophysics, 1 sheet, scale 1:1,000,000. [Available from AZGS as NP-15].

OFR 00-01

OFR 00-03

OFR 00-04

OFR 00-05

OFR 00-06

OFR 00-11

OFR 00-13


OFR B3-02  Morrison, R.B., 1977, Soil associations, western half of the Tucson 1o x 20 quadrangle (a) northern half, (b) southern half: Arizona Bureau of Geology and Mineral Technology Open-File Report B3-02, 5 p., 2 sheets, scale 1:120,000.

OFR B3-03  Morrison, R.B., 1975, Tucson 1o x 20 quadrangle, ease of excavation and potential erodibility, phases 4 and 5: Arizona Bureau of Geology and Mineral Technology Open-File Report B3-03, 3 p., 1 sheet, scale 1:250,000.

OFR B3-04  Morrison, R.B., 1977, Tucson metropolitan area, (a) ease of excavation and potential erodibility, (b) flood hazards, (c) slope relief: Arizona Bureau of Geology and Mineral Technology Open-File Report B3-04, 4 p., 3 sheets, scale 1:120,000.

OFR B3-14  Keith, Stan, 1983, Results of mapping project near Ray, Pinal County, Arizona: Arizona Geological Survey Open-File Report B3-14, 12 sheets, scales 1:12,000 and 1:6,000, with 74 p. text.


Scott, Paul, 1994, Basic geologic and hydrologic information, Bradshaw Mountains, Yavapai County, Arizona: Arizona Geological Survey Open-File Report 94-02, [70 p., including 2 appendices], 12 sheets, scale 1:100,000.


FullCitation
SP-1

SP-2 a

SP-2 b

SP-2 c

SP-2 d

SP-2 e

SP-2 f

SP-2 g

SP-2 h

SP-2 i

FullCitation
SP-5 b

SP-5 c

SP-7 a

SP-7 b

SP-7 c

SP-7 d

SP-7 e

SP-7 f

SP-7 g

SP-7 h


409 citations
Database procedures

The maps and tables in this Open-File Report were derived from two separate databases that are maintained and updated at irregular intervals by the Arizona Geological Survey. One is a bibliographic database (AZGeoBib) that contains approximately 13,000 citations to publications relevant to Arizona geology. Most citations are associated with key words or geographic areas. This database is searchable online at www.azgs.az.gov under Publications – Bibliography of Arizona Geology. The other database is an ArcGIS geodatabase (AZindex) of geologic-map areas in Arizona, or in a few cases, directly adjacent to Arizona. AZindex contains the locations of approximately 2000 geologic maps as well as other information such as map scale, publisher, and authors. To create this Open-File Report, all geologic maps in AZindex that are available from the Arizona Geological Survey were given an abbreviated publication number in the PubNum field. All of these maps are represented in the map figures with PubNum displayed in figures 2-10.

Each citation record in AZGeoBib includes a unique identifier (field name SysGUID). Each map record in AZindex contains a foreign key entry (CitationSysGuid) that is the unique identifier for the related bibliographic citation. The two databases were joined using Microsoft Access (SysGUID joined to CitationSysGuid) with a Query (named “AZ_map_list_Query_no_duplicate_pubNums”). In the Query Properties Sheet the property Unique Values is set to YES. This eliminates all duplicate citations where individual publications contained more than one map (approximately map 700 citations, with duplicates, were reduced to 500 unique citations). Setting the Unique Values to YES also truncates all fields with more than 255 characters, so a large fraction of citations were truncated. To address this problem, the Query “AZ_map_list_Query_no_duplicate_pubNums” was joined to AZGeoBib (SysGuid joined to SysGuid) to create a Query named “AZ_map_list_Query_no_truncated_citations” that has no duplicates and no truncated fields. This query is the source of the Access table that is included here as the list of citations.
Figure 14. Some bedrock mapper map-areas by authorship.
Figure 15. Some surficial (Quaternary) mapper map-areas by authorship.