

NEVADA BUREAU OF MINES AND GEOLOGY

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NBMG OPEN-FILE REPORT 2002-1

Nevada Geologic Map Index Update 2001

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This information should be considered preliminary.

It has not been edited or checked for completeness or accuracy.

Nevada Geologic Map Index Update - 2001

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In cooperation with:

U.S. Geological Survey STATEMAP program

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This report updates and expands NBMG Open-File Report 97-2, "Interactive index of geologic mapping in Nevada" and its subsequent updates in 1999 and 2000. Geologic map references were added to the index, several references were deleted because of duplication, and approximately 800 records were edited to correct location errors and misspellings, to add missing information, or to standardize data content. These maps were published by the USGS, Nevada Bureau of Mines and Geology, Geological Society of Nevada, and the University of Nevada, Las Vegas. Approximately 15 records were deleted as duplicates. All of the records were edited to add data to the new Theme field.

The USGS Web site was searched for any new Geologic Quadrangle Maps, Digital Data Series Maps, Miscellaneous Investigations Series Maps, Miscellaneous Field Studies Maps, and Open-File Report maps. The USGS National Geologic Map Database was also searched for any geologic maps pertaining to Nevada published from 1995 to 2001. Publishers searched within the USGS National Geologic Map Database include USGS, Geological Society of America, and the Society of Economic Geologists. Several maps published as USGS Open-File Reports were added to the index.

The USGS Web site was also searched for information available in digital format. The entire digital database was searched for all geological map types. The search included all references on Nevada released up to December 2001. All maps listed in this database are now included in the index.

The GeoRef internet database and the DeLaMare Library files were searched for maps published during 1997-2001 by the Society of Economic Geologists, Geological Society of America, and for all theses and dissertations. Several theses and dissertations were added to the index from both GeoRef and the DeLaMare Library.

Several NBMG publications were searched to find new entries and to verify old ones. These include Bulletins, Reports, Maps, Urban Area Maps and Folios, Field Studies Maps, and Open-File Reports. Several publications from Maps, Bulletins and Open-File Reports were added to the index. The NBMG Publication Price List, May 2001, was used to make sure all available maps were in the index.

Publications of the Geological Society of Nevada were reviewed for any additional geologic maps. These publications include Symposium Proceedings, Field Trip Compendiums, Field Trip Guidebooks, and monthly newsletters. These references were published between 1988 and 2001. Several maps were added from Symposium Proceedings and Field Trip Compendiums.

The geologic map index data have been entered into a table stored in a dBase format. The geographic data, based on latitude and longitude coordinates contained within the database, are converted to ArcView shapefiles to provide a map showing the outline of areas covered by geological maps in the index. In ArcView these outlines can be selected by pointing to or by logical expression to obtain geologic mapping reference information for the area or areas of interest.

A Web-enabled interface has also been created by selecting geologic maps that fall within, cut, or bound 60- by 30-minute blocks (the same as 1:100,000-scale maps) in Nevada. This simple index allows web users to select their area of interest from a simple outline graphic of 60- by 30-minute blocks of Nevada and then be presented with a text listing of all geologic mapping in that quadrangle. This interface is available on the Nevada Bureau of Mines and Geology Web site at "<ftp://ftp.nbmng.unr.edu/NBMG/geoindex/geology.html>" and is also included in the 100k directory on this CD-ROM. To view it from the CD-ROM with your browser, select the /100k/index.html file.

The tabular data file geoindex.dbf, created in a dBase III+ file format, located in the dBase directory can also be imported into many spreadsheet and database programs which then allow searches by title, author, or location. A comma-delimited simple text file list of the database, named allmaps.txt, is included in the document directory and the same list in html format, named allmaps.html, is located in the 100k directory.

FIELD NAMES and DEFINITIONS of the full GEOINDEX Database:

UNIQUE_ID a field that lists an unique number for each entry.

STATE Lists the 2-character designation for state. (e.g., NV = Nevada, CA = California).

AUTHOR Lists all (or most) authors listed on map. Author format includes last name, first initial/s; (e.g., Harris, J.M.; Waldo, E.M.).

YEAR 4-digit designation for year of publication.

TITLE	Displays the entire title, capitalizing each initial letter. (e.g., A Geologic Map of Lost Pass Quadrangle).
COUNTY	Displays all counties, in alphabetical order, that are covered in whole or part by the map.
PUBLISHER	The publisher of the map spelled out (e.g., United States Geological Survey)
SERIES	The individual series which the publisher catalogs the map (e.g., geologic quadrangle, miscellaneous information map)
EMPHASIS	This field was dropped. Information in this field was standardized and moved into the theme field.
THEME	abbreviation for type of mapping as defined in the National Geologic Map Database, see below:

geochem – Geochemical analysis shown on a map or spatially referenced in a database, such as:

- Geochemical anomaly
- Geochemical analysis
- Chemical composition
- Isotope geochemistry
- Igneous and metamorphic geochemistry
- Determinative geochemistry
- Petrologic composition

geochron – Isotopic age estimates, shown on a map or spatially referenced in a database, such as:

- Age determination
- Dating
- Isochron
- Isotope geochronology
- Potassium-argon dating
- Radiocarbon dating
- Radiometric dating

geoleng – Maps of soils or engineering properties of buried geologic units, such as:

- Engineering geology
- Engineering properties
- Environmental geology
- Military geology
- Geology for planning
- Rock mechanics
- Soil mechanics
- Urban geology
- Geotechnical properties
- Nuclear reactor or power plant siting

geolgenbed – Bedrock geologic maps, such as:

- Bedrock geologic map
- Petrofacies
- Petrology
- Structural geology
- Ophiolites
- Arc deposits
- Island arcs
- Precambrian geology

geolgensur – Surficial geologic maps, such as:

- Glacial deposits
- Surficial geologic map
- Quaternary geologic map
- Drift deposits

geolother – Other assorted map information.

geolstruc – Maps of structure or thickness of buried geologic units, such as:

- Structure contours
- Structure
- Isopach
- Thickness
- Paleotectonics
- Contours
- Depth to bedrock
- Basement map

geopgrav – Maps of variations in Earth's gravity field, such as:

- Bouguer gravity
- Free-air anomaly
- Gravimetric
- Gravity field
- Gravity potential
- Isanomalic map
- Isogal map
- Isogram map
- Isostatic anomaly

geopmag – Maps of the magnetic field induced in rocks, such as:

- Aeromagnetic
- Archaeomagnetism
- Filtered magnetic
- Geomagnetism
- Isodynamic line

Magnetic anomaly
Magnetic inclination
Remnant magnetism

geopother – Other assorted geophysical information.

hazenvir – Maps specifically noting environmental hazards, such as:

Contamination
Environmental geology
Environmental impact
Reclamation
Waste disposal
Nuclear plant hazards
Subsurface repositories

paleo – Fossil localities, descriptions and ages, shown on a map or spatially referenced in a database, such as:

Fossil plants, Fossil animals, Fossil record, Micropaleontology,
Conodonts, Calcareous microfossils, Foraminifera, Radiolarians, Ostracods, etc.
Palynology
Pollen record
Fossil spores
Paleobotany
Paleoecology
Trace fossils
Radiolarians
Dinosaurs

resergother-- Maps of energy resources that does not include petroleum or coal, such as:

Uranium resources
Radioactive energy resources
Geothermal resources map
Hot springs maps
Peat resources

resergpet – Petroleum-related maps, such as maps of fuel oil, natural gas, oil, oil shales, petroleum, oil wells, oilfields, shale, and tar sands.

resmet – Maps of metallic resource (e.g., copper), such as:

Economic geology
Mineral resources
Mineral deposits
Mines
Prospects
Resource appraisal assessment
Metals (actinide series, alkali metals, aluminum, antimony, barium, beryllium, bismuth, cadmium, calcium, cerium, cesium, chromium, cobalt, columbium, copper, dysprosium, erbium,

europium, francium, gallium, germanium, hafnium, gold, indium, iridium, iron, lanthanide series, lead, lithium, magnesium, magnetite, manganese, marble, mercury, metal ores, molybdenum, nickel, niobium, osmium, palladium, platinum, plutonium, protactinium, potassium, precious metals, quicksilver, radium, rare earth metals, rhenium, rhodium, rubidium, ruthenium, scandium, silver, sodium, steel, strontium, tantalum, technetium, thallium, thorium, tin, titanium, tungsten, uranium, vanadium, yttrium, zinc, zirconium, etc.)

Strategic metals

resnonmet – Maps of nonmetallic resources (e.g. sand and gravel), such as:

Resource assessment

Economic geology

Mineral resources

Prospects

Resource appraisal

Strategic minerals

Nonmetals (abrasive materials, actinolite, agate, aggregates, alum, alunite, amber, amphiboles, apatite, argon, arsenic, asbestos, astatine, bauxite, bentonite, barites, biotite, boron, brick, bromine, building stone, carbonates, cement, ceramic materials, chlorine, chrysotile, clay, clay products, concrete, conglomerates, corundum, diamonds, diatomite, dolomite, emerald, emery, feldspar, fertilizers, fluorine, fluorite, fluorspar, fuller's earth, garnet, gems, gemstones, glass, granite, gravel, gypsum, halogens, helium, hydrogen, illite, iodine, inert gases, jade, kaolin, krypton, kyanite, laterite, lepidolite, lime, limestone, marble, margarite, mica, mineral paints, micaceous minerals, monazite, muscovite, onyx, neon, nitrates, nitrogen, ochre, opal, ornamental stone, oxygen, paragonite, pearls, phosphates, phosphorus, pigments, potash, potter's clay, potter's earth, pottery materials, porcelain, precious stones, pumice, quartz, quartzite, radon, refractory materials, ruby, salt, sand, sapphire, selenium, serpentinite, silicates, silicon, slate, smectite, soapstone, talc, tellurium, tripolite, vermiculite, volcanic ash, xenon, zeolite)

reswat – Maps of groundwater aquifers, water quality, etc, such as:

Artesan wells

Ground water resources

Hydrogeologic map

Hydrologic resources

Hydrology

Lakes

Mineral waters

Springs

Water resources

Water wells

MAP

This field combines an abbreviated combination of publisher and series information (e.g.,USGS_GQ10 would be “usgs geologic quadrangle 10”).

MAP field abbreviations:

AAPG_B	American Association of Petroleum Geologists Bulletin
AEG_B	Association of Engineering Geologists Bulletin
AGS_D	Arizona Geological Society Digest
AGU_T	American Geophysical Union Tectonics
AIMM_B	American Institute of Mineral and Metallurgical Engineering Bulletin
AJS	American Journal of Science
ASU_MS	Arizona State University Master's Thesis
BGSU_MS	Bowling Green State University Master's Thesis
BYU_GS	Brigham Young University Geology Studies
BYU_RSGS	Brigham Young University Research Studies Geology Studies
C	Compass
CG	California Geology
CIT_PhD	California Institute of Technology Ph.D. Dissertation
CSU_MS	Colorado School of Mines Master's Thesis
CSU_PhD	Colorado School of Mines Ph.D. Dissertation
CSUF_MS	California State University Fresno Master's Thesis
CSUH_BS	California State University Humboldt Bachelors Thesis
CSULB_MS	California State University Long Beach Master's Thesis
CSU_MS	Colorado State University Master's Thesis
CU_B	California University Bulletin
CU_MS	Columbia University Master's Thesis
CU_PGS	California University Pub. Geol. Sci.
CU_PhD	Columbia University PhD Dissertation
DOE	Earth Science Lab., Univ. of Utah
DOE_R	Department of Energy Report
DRI_TR	Desert Research Institute Technical Report
EG	Economic Geology
EWU_MS	Eastern Washington University Master's Thesis
GSA_B	Geological Society of America Bulletin
GSA_GS	Geological Society of America Geology Studies
GSA_MC	Geological Society of America Map and Chart Series
GSA_MM	Geological Society of America Memoir
GSA_SP	Geological Society of America Special Paper
GSN_FTC	Geological Society of Nevada Field Trip Compendium
GSN_SP	Geological Society of Nevada Symposium Proceedings
GSS	Geological Society of Sacramento
GTM	Global Tectonics and Metallogeny
IAPG	Intermountain Association of Petroleum Geologists Field Conference Guidebook
IBMG_B	Idaho Bureau of Mines and Geology Bulletin
IGC	International Geologic Conference
ISU_MS	Idaho State University Master's Thesis
JG	Journal of Geology
KAS_T	Kansas Academy of Science Transactions
LLU_MS	Loma Linda University Master's Thesis

MIT_MS	Massachusetts Institute of Technology Master's Thesis
MIT_PhD	Massachusetts Institute of Technology Ph.D. Dissertation
MM	Mines and Mining
MSC_MS	Montclair State College Master's Thesis
MSM	Mackay School of Mines
MSM_CRP	Mackay School of Mines Curtiss-Wright Project
MSM_G	Mackay School of Mines Guidebook
MU_MS	Miami University Master's Thesis
NAU_MS	Northern Arizona University Master's Thesis
NBMG_B	Nevada Bureau of Mines and Geology Bulletin
NBMG_FS	Nevada Bureau of Mines and Geology Field Studies
NBMG_M	Nevada Bureau of Mines and Geology Map
NBMG_OF	Nevada Bureau of Mines and Geology Open-File Report
NBMG_R	Nevada Bureau of Mines and Geology Report
NBMG_U	Nevada Bureau of Mines and Geology Urban Map
NDCNR_WRB	Nevada Department of Conservation and Natural Resources Water Resources Bulletin
NDCNR_WRRR	Nevada Department of Conservation and Natural Resources Water Resources Reconnaissance Services Report
NDWR_WRB	Nevada Division of Water Resources Water Resources Bulletin
NPS	Nevada Petroleum Society
NSE_B	Nevada State Engineer Water Resources Bulletin
NSE_R	Nevada State Engineer Report
NSE_WRB	Nevada State Engineer Water Resources Bulletin
NURE	Department of Energy
NU_MS	Northwestern University Master's Thesis
OSU_MS	Oregon State University Master's Thesis
OhSU_MS	Ohio State University Master's Thesis
OhU	Ohio University Master's Thesis
PSU_MS	Pennsylvania State University Master's Thesis
PU_PhD	Purdue University Ph.D. Dissertation
RU_MS	Rice University Master's Thesis
SDSU_MS	San Diego State University Master's Thesis
SEPM	Society of Economic Paleontologists and Mineralogists
SGS	Stanford Geological Survey
SGS_M	Stanford Geological Survey Map
SJSU_MS	San Jose State University Master's Thesis
SM_Q	School of Mines Quarterly
SP_MS	Southern Pacific Mineral Survey
SUGS	Stanford University Geological Sciences
SU_MS	Stanford University Master's Thesis
SU_PhD	Stanford University PhD Dissertation
SU_SR	Stanford University Student Report
TAM_MS	Texas A & M Master's Thesis
TERRA	Terrascan Group
TTU_MS	Texas Tech. University Master's Thesis
TU_MS	Tulane University Master's Thesis

UA_MS	University of Arizona Master's Thesis
UCD_MS	University of California, Davis Master's Thesis
UCLASL_R	University of California Las Alamos Scientific Lab. Report
UCLA_MS	University of California, Los Angeles Master's Thesis
UCLA_PhD	University of California, Los Angeles Ph.D. Dissertation
UCR_MS	University of California, Riverside Master's Thesis
UCSB_MS	University of California, Santa Barbara Master's Thesis
UC_MS	University of California Master's Thesis
UCo_MS	University of Colorado Master's Thesis
UDNR_TP	Utah Department of Natural Resources Technical Publication
UGMS_G	Utah Geological and Mineralogical Survey Guidebook
UGMS_M	Utah Geological and Mineralogical Survey Map
UGMS_SS	Utah Geological and Mineralogical Survey Special Studies
UGS_P	Utah Geological Society Publication
UI_MS	University of Idaho Master's Thesis
UI_PhD	University of Idaho Ph.D. Dissertation
UIo_MS	University of Iowa Master's Thesis
UMi_MS	University of Missouri Master's Thesis
UNC_MS	University of North Carolina Master's Thesis
UNLV_MS	University of Nevada, Las Vegas Master's Thesis
UNM_MS	University of New Mexico Master's Thesis
UNO_MS	University of New Orleans Master's Thesis
UNR_MS	University of Nevada, Reno Master's Thesis
UNR_PhD	University of Nevada, Reno Ph.D. Dissertation
UNM_MS	University of Nebraska Master's Thesis
UNO_MS	University of Oregon Master's Thesis
USAEC_R	United States Atomic Energy Commission Report
USBM_RI	United States Bureau of Mines Report of Investigations
USBM_TP	United States Bureau of Mines Technical Paper
USBR	United States Bureau of Reclamation
USGS(AR)®)	United States Geological Survey Annual Report
USGSE	United States Geological Exploration
USGS_PM	United States Geological Survey Preliminary Map
USGS_B	United States Geological Survey Bulletin
USGS_C	United States Geological Survey Circular
USGS_DDS	United States Geological Survey Digital Data Series
USGS_GP	United States Geological Survey Geophysical Investigations Map
USGS_GQ	United States Geological Survey Geologic Quadrangle Map
USGS_HMD	United States Geological Survey House Miscellaneous Document
USGS_I	United States Geological Survey Miscellaneous Investigations Map
USGS_M	United States Geological Survey Monograph
USGS_MF	United States Geological Survey Misc. Field Studies Map
USGS_MG	United States Geological Survey Monograph
USGS_NTS	United States Geological Survey Technical Letter
USGS_OFR	United States Geological Survey Open-File Report
USGS_PP	United States Geological Survey Professional Paper

USGS_R-TEI	United States Geological Survey Report TEI
USGS_R-TEM	United States Geological Survey Report TEM
USGS_SM	United States Geological Survey Special Map Monograph
USGS_SMI-PM	United States Geological Survey SMI-Preliminary Map
USGS_TEI	United States Geological Survey Report TEI
USGS_WS	United States Geological Survey Water Supply Paper
USGS_WSP	United States Geological Survey Water Supply Paper
UT_MS	University of Texas Master's Thesis
UURI_R	University of Utah Research Institute Report
UU_MS	University of Utah Master's Thesis
UWa_MS	University of Washington Master's Thesis
UWi_MS	University of Wisconsin Master's Thesis
UWy_MS	University of Wyoming Master's Thesis
WGA_ESB	Wyoming Geological Association Earth Science Bulletin
WSU_MS	Washington State University Master's Thesis
YU_PhD	Yale University Ph.D. Dissertation

NLAT	North bounding Latitude in degrees, minutes, seconds
SLAT	South bounding Latitude in degrees, minutes, seconds
WLONG	West bounding Longitude in degrees, minutes, seconds
ELONG	East bounding Longitude in degrees, minutes, seconds
CLAT	Center Latitude in degrees, minutes, seconds
CLONG	Center Longitude in degrees, minutes, seconds
PLATE	Plate or figure number, if assigned.

DIGITAL_FORMAT

r-- report online as a pdf or html file may have links to jpeg's or gif's
g-- georeferenced image online such as geotiff image
x-- full GIS online
The field is empty if the map is not available digitally.

SCALE	The scale of the map as 1:xxxxxxx. Some scales were measured off reproduced maps and may be approximate.
DEPOSITORY	The physical location of the reference may be noted.
REMARKS	Any additional remarks about the map or publication.
MAP_CHECK	This field includes an "x" if the map and its coordinates have been checked, or it contains a "z" if the map has not yet been looked at.

NBMGSALE	This field contains an "x" if the map is available from the NBMG Publication Sales Office.
NBMGINFO	This field contains an "x" if the map is available for examination at the NBMG Information Office.
C_Date	This field indicates the year the reference was first entered into the index or substantially edited.
CLAT	Center Latitude in degrees and decimal degrees
CLONG	Center Longitude in degrees and decimal degrees (negative in western hemisphere)

The geoindex database was updated and edited using Arcview GIS software. Contained on this CD-ROM is the master geoindex database and a series subset files divided out by scale. The master and subset files are in shape file format and can be directly viewed using Arcview GIS software or ArcExplorer.

ArcExplorer is a free viewing package, developed by ESRI, that is located in the software directory on this CD-ROM. To find out more about ArcExplorer go to the [free_viewing_software.htm](#) file located in the software directory. For Arcview users a set of pre-built ArcView Version 3x project APR files, designed for use from various cdrom drive letter designations, are contained in the Av3views directory. To utilize these APR project files you must already have installed a full version of ArcView 3x

The Geoindex database in shapefile format and dBase III+ file format are contained on this CD-ROM. This information should be considered preliminary. It has not been edited or checked for completeness or accuracy.

As part of the digital data release for this project several digital base layers of Nevada data in Shapefile format, designed to be used at 1:1,000,000 scale, are included on the CDROM with this project. They are:

County_p.shp	Statewide county polygon coverage
County_a.shp	Statewide county boundary arc coverage
Cities.shp	Major towns in Nevada
Roads_a.shp	Major roads in Nevada
nv_100k.shp	Polygon coverage of 100k USGS topographic map boundaries
nv_1x2.shp	Polygon coverage of 1x2 degree USGS topographic map boundaries
nvqdp.shp	Polygon coverage of 7.5 minute USGS topographic map boundaries
tr_p.shp	Township and Range polygon coverage
tr_a.shp	Township and Range arc coverage

A 1:1,000,000-scale, black and white, georeferenced raster graphic of the Nevada state base map is located in the NV_DRG directory.

Cdrom Directory structure:

Readme.txt	Text File
OFR0201.htm	Full Report in HTML format
OFR0201.txt	Full Report in plain text format
\Geoindex\Av3views	Arcview version 3x Project files for use from various drive letter designation
\Geoindex\Dbase	Directory containing geoindex dBase file
\Geoindex\Document	Directory containing NBMG Open-File Report 02-01 file
\Geoindex\Metadata	Directory containing metadata files
\Geoindex\Nv_drg	Directory contains B&W version of Nevada State base map in DRG (tiffw) format
\Geoindex\Shapefiles	Directory containing shapefiles of project and base data layers directories
\Geoindex\Shapefiles\basedata	Directory containing 1:1,000,000 scale Nevada basedata shape files including major roads, county and state boundaries.
\Geoindex\Shapefiles\master	Directory containing complete geoindex shapefile database (all scales)
\Geoindex\Shapefiles\scale	Directory containing separate geoindex shapefiles broken out by scale
\Geoindex\Software	Directory containing ArcExplorer viewing software

All shape files are in UTM, zone 11, meters, NAD 27 projection.

For questions about NBMG Open-File Report 2002-01 contact:

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