



Czs
Cenozoic sedimentary rocks
 Alluvial and playa deposits. Tuffaceous sedimentary rocks.

Czv
Cenozoic volcanic rocks
 Basalt, andesite, rhyolite, silicic tuff and related rocks. Minor amounts of sedimentary rocks.

Tji
Tertiary - Mesozoic intrusive rocks
 Granitic and dioritic intrusive rocks. Also includes silicic, intermediate, and mafic intrusive rocks of Tertiary age.

Mzvs
Mesozoic sedimentary, volcanic, and intrusive rocks (includes King Lear and Pansee Lee Formations)
 Shale, mudstone, siltstone, sandstone, limestone, minor amounts of dolomite, locally thick conglomerate, altered andesite flows, rhyolite tuffs and flows, and clastic rocks. Includes leucogranite.

Rpzvs
Siliceous and volcanic assemblage (upper Paleozoic and Triassic)
 Volcanic flows and flow breccias, chiefly of andesitic composition, tuffs, sparse sandstone, and graywacke.

Contact
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Fault
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 Dashed where inferred, dotted where concealed, ball on downthrown side, sawteeth on upper plate of low angle fault.

Gravity contours

Gravity station
 ●

Contour interval 5 milligals. Hachures indicate gravity low. Contours were derived from a 400-m grid that was produced from the scattered gravity data using a minimum-curvature algorithm (Webring, 1981).

Observed gravity values were reduced to the International Gravity Standardization Network 1971 datum (Morelli, 1974). Observed gravity values for prime base stations at Lovelock and Gerlach, Nevada are from Jablonski (1974).

The reference spheroid is GRS 1967 (International Union of Geodesy and Geophysics, 1971). Reduction density is 2.67 g/cm³. Terrain corrections were computed to a radial distance of 166.7 km using a digital elevation model and a procedure by Godson and Plouff (1988) and include inner-zone terrain corrections, where available.

INDEX TO THE BOUGUER GRAVITY MAP OF NEVADA SERIES

Callente - Healey, D.L., Snyder, D.B., Wahl, R.R., and Curry, F.E., 1981, NBMG Map 70.
 Death Valley - Healey, D.L., Wahl, R.R., and Oliver, H.W., 1980, NBMG Map 69.
 Ely - Ponce, D.A., 1992, NBMG Map 99.
 Elko - Ponce, D.A., Morin, R.L., and Robbins, S.L., 1996, NBMG Map 107.
 Godfield - Healey, D.L., Wahl, R.R., and Curry, F.E., 1980, NBMG Map 68.
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 Las Vegas - Kane, M.F., Healey, D.L., Peterson, D.L., Kaufmann, H.E., and Reidy, D., 1979, NBMG Map 61.
 Lovelock - Ponce, D.A., Morin, R.L., and Plouff, D., 1999, NBMG Map 122.
 Lunt - Snyder, D.B., Healey, D.L., and Saliba, F.W., 1984, NBMG Map 93.
 Mariposa - Healey, D.L., Wahl, R.R., and Curry, F.E., 1980, NBMG Map 68.
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 Vya - Ponce, D.A., and Plouff, D., 2001, NBMG Map 128.
 Walker Lake - Plouff, D., 1984, NBMG Map 83.
 Wells - Erwin, J.W., 1980, NBMG Map 65.
 Wenemucco - Erwin, J.W., 1974, NBMG Map 47.

SOURCES OF GEOLOGY
 Stewart and Carlson (1977)
 Stewart and Carlson (1978)

SOURCES OF GRAVITY DATA
 National Geophysical Data Center (1991)
 Plouff (1987, 1996)
 Ponce (1997)

Generalized by:
 J.W. Erwin

SCALE: 1:250,000

0 5 10 15 20 25 30 35 40 Kilometers

0 5 10 15 20 25 Miles

COMPLETE BOUGUER GRAVITY MAP OF NEVADA
VYA SHEET
 David A. Ponce and Donald Plouff
 2001

REFERENCES
 Godson, R.H., and Plouff, D., 1988, BOUGUER version 1.0, a microcomputer gravity-terrain-correction program: U.S. Geological Survey Open-File Report 88-644-A. Documentation, 13 p., 88-644-B, 5 1/2-inch diskette.
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 Morelli, C., ed., 1974, The International Gravity Standardization Net 1971: International Association of Geodesy Special Publication no. 4, 194 p.
 National Geophysical Data Center, 1991, Defense Mapping Agency gravity file of the U.S.: available from the National Geophysical Data Center, National Oceanic and Atmospheric Administration, Mail Code E/GC2, 325 Broadway, Boulder, Colorado 80303.
 Plouff, D., 1987, Gravity observations by the U.S. Geological Survey in northwest Nevada, southeast Oregon, and northeast California, 1984-1986: U.S. Geological Survey Open-File Report 87-639, 33 p.
 Plouff, D., 1996, Principal facts and field observations for gravity data in and adjacent to the Bureau of Land Management's Winnemucca District and Surprise Resource Assessment Area, northwest Nevada and northeast California: U.S. Geological Survey Open-File Report 96-290, 27 p.
 Ponce, D.A., 1997, Gravity data of Nevada: U.S. Geological Survey Digital Data Series DDS-42, 27 p., CD-ROM, 80,000 gravity stations, Stewart, J.H., and Carlson, J.E., 1977, Million-scale geologic map of Nevada: Nevada Bureau of Mines and Geology Map 57, 1:1,000,000.
 Stewart, J.H., and Carlson, J.E., 1978, Geologic map of Nevada: U.S. Geological Survey, scale 1:500,000.
 Webring, M.W., 1981, MNC: A gridding program based on minimum curvature: U.S. Geological Survey Open-File Report 81-1224, 43 p.

Base map: U.S. Geological Survey Digital Raster Graphic of Vya 1"x2" sheet, UTM Projection.

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