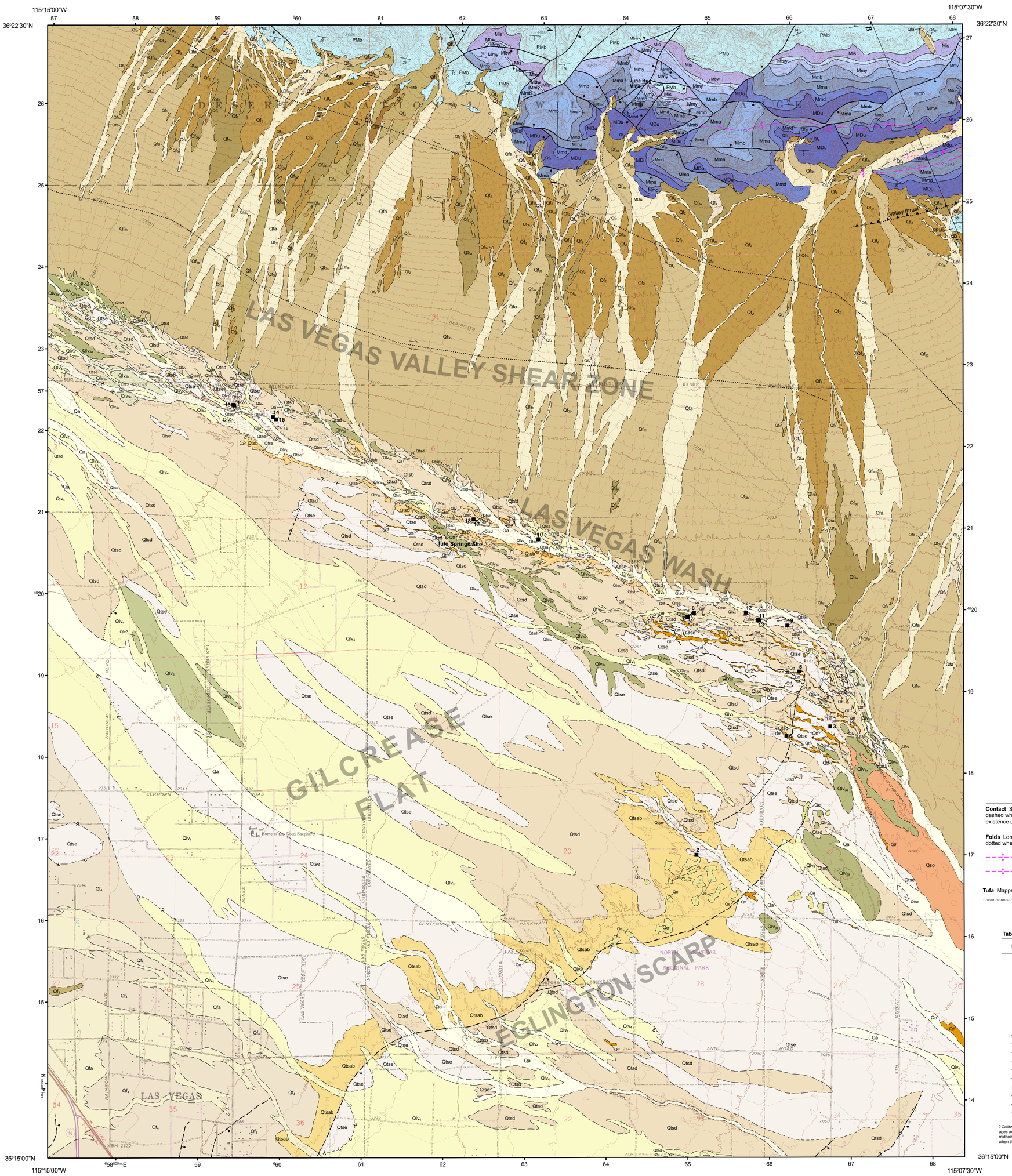
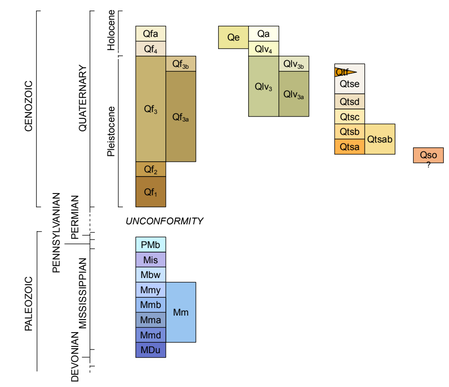
Prepared with support from the U.S. Bureau of Land Management through the Southern Nevada Public Land Management Act (SNPLMA)





ALLUVIAL-FAN DEPOSITS

- Qfa — Fan alluvium of recently active washes
- Qf_4 — Late to middle Holocene fan deposits
- Qf_3 — Early Holocene to latest Pleistocene fan alluvium, undivided
- Qf_{3b} — Early Holocene to latest Pleistocene fan alluvium
- Qf_{3a} — Latest Pleistocene fan alluvium
- Qf_2 — Late to middle Pleistocene fan alluvium
- Qf_1 — Middle to early Pleistocene fan alluvium

LAS VEGAS WASH DEPOSITS

- Qe — Eolian deposits
- Qa — Alluvium of recently active washes
- Qlv_4 — Late to middle Holocene alluvium
- Qlv_3 — Early Holocene to latest Pleistocene alluvium, undivided
- Qlv_{3b} — Early Holocene to latest Pleistocene alluvium
- Qlv_{3a} — Latest Pleistocene alluvium

FINE-GRAINED DEPOSITS OF TULE SPRINGS

- Qff — Tufa deposits, contemporaneous with Qtse
- Qtse — Unit E of Haynes, 1967 (includes subunits E0, E1, and E2, undivided on map but described in text)
- Qtsd — Unit D of Haynes, 1967
- Qtsc — Unit C of Haynes, 1967
- Qtsb — Unit B of Haynes, 1967 (includes subunits B1, B2, and B3, undivided on map but described in text)
- Qtsa — Unit A of Haynes, 1967
- Qtsab — Undivided fine-grained alluvium
- Qso — Old fine-grained spring deposits of Page et al., 2005 (middle Pleistocene)

SEDIMENTARY ROCKS

- PMb — Bird Spring Formation, undivided (Lower Permian to Upper Mississippian)
- Mis — Indian Springs Formation (Upper Mississippian)
- Mbw — Battleship Wash Formation (Upper Mississippian)

MONTE CRISTO GROUP (Upper and Lower Mississippian)

- Mm
  - Mmy — Yellowpine Limestone (lower Meramecian and upper Osagean)
  - Mmb — Bullion Dolomite (lower Meramecian to middle Osagean)
  - Mma — Anchor Limestone (Osagean)
  - Mmd — Dawn Limestone (lower Osagean and Kinderhookian)
- MDu — Mississippian to Devonian rocks, undivided (Lower Mississippian and Upper Devonian)

See accompanying text for full unit descriptions and references for this map.

Symbology (per FGDC-STD-013-2006)

Contact Solid where certain and location accurate, long-dashed where approximate; queried if identity or existence uncertain.

Folds Long-dashed where location is approximate; dotted where location is concealed.

Anticline

Syncline

Tufa Mapped by Haynes (1967)

Normal fault Solid where certain and location accurate, long-dashed where approximate, dotted where concealed; queried if identity or existence uncertain. Ball on downthrown side.

Thrust fault Identity or existence certain, location concealed. Queries added where identity or existence may be questionable. Sawteeth on upper plate.

Concealed fault strands of the Las Vegas Valley shear zone from Page and others (2005)

A — A′ **Line of cross section**

Strike and dip of bedding

- 47 Inclined
- 58 Overturned

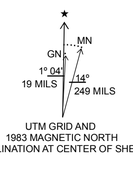
Radiocarbon dates

- 1

Table 1. Radiocarbon dates for the Gass Peak SW quadrangle

ID	Unit	Conventional Age ^{14}C	Age (cal ka BP)[3]	Lab #	Sample Type
1	E_2	6980 ± 70 BP	7810 ± 130	Beta 252832	Charcoal
2	E_2	7770 ± 50 BP	8530 ± 100	Beta 294464	Charcoal
3	E_2	9400 ± 50 BP	10,630 ± 120	Beta 289513	Charcoal
4	E_2	9790 ± 70 BP	11,220 ± 140	Beta 269140	Black Mat
5	E_2	10,480 ± 60 BP	12,390 ± 190	Beta 279304	Charcoal
6	E_2	11,530 ± 50 BP	13,380 ± 120	Beta 297878	Charcoal
7	E_1	12,430 ± 60 BP	14,560 ± 430	Beta 279305	Charcoal
8	E_1	12,840 ± 60 BP	15,410 ± 460	Beta 279251	Charcoal
9	E_1	13,390 ± 60 BP	16,230 ± 250	Beta 279306	Charcoal
10	E_0	14,780 ± 40 BP	17,890 ± 200	Beta 178778	Charcoal
11	E_0	16,300 ± 70 BP	19,420 ± 170	Beta 264965	Charcoal
12	E_0	16,410 ± 70 BP	19,510 ± 100	Beta 279250	Charcoal
13	E_0	16,820 ± 70 BP	20,040 ± 250	Beta 272512	Charcoal
14	E_0	17,300 ± 80 BP	20,670 ± 420	Beta 297880	Charcoal
15	E_0	17,370 ± 60 BP	20,740 ± 400	Beta 282792	Charcoal
16	D	20,310 ± 120 BP	24,190 ± 340	Beta 252833	Organic sediment
17	D	25,950 ± 170 BP	30,710 ± 330	Beta 268971	Black Mat
18	D	27,850 ± 180 BP	32,070 ± 590	Beta 268972	Black Mat
19	D	31,100 ± 240 BP	35,680 ± 660	Beta 264964	Charcoal

[3] Calibrated ages were calculated using CALIB v. 6.0.0, IntCal09.14C dataset; limit 50.0 calendar ka B.P. Calibrated ages are reported as the midpoint of the calibrated range. Uncertainties are reported as the difference between the midpoint and either the upper or lower limit of the calibrated age range, whichever is greater. Multiple ages are reported when the probability of a calibrated age range exceeds 0.05.



UTM GRID AND
1983 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Page (Paleozoic rocks), 1998

Ramelli (alluvial fans and fine-grained deposits), 2007-2011

Manker and Springer (fine-grained deposits), 2004-2011

SOURCES OF GEOLOGIC DATA

Scale 1:24,000

0 — 0.5 — 1 kilometer

0 — 0.5 — 1 mile

0 — 1000 — 2000 — 3000 — 4000 — 5000 feet

CONTOUR INTERVAL 20 FEET

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1927 (m)

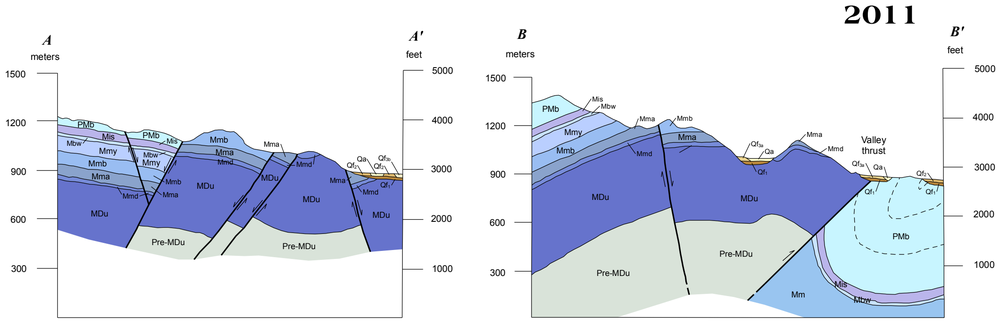
Base map: U.S. Geological Survey Gass Peak SW 7.5' quadrangle (1974, photorevised 1983)

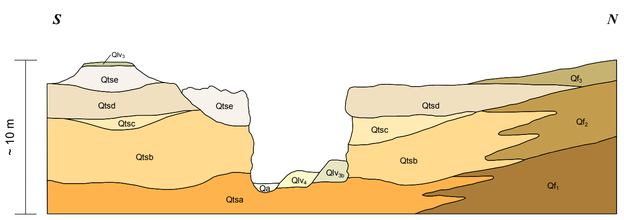
GEOLOGIC MAP OF THE GASS PEAK SW QUADRANGLE, CLARK COUNTY, NEVADA

Alan R. Ramelli[1], William R. Page[2], Craig R. Manker[3], and Kathleen B. Springer[3]

[1]Nevada Bureau of Mines and Geology; [2]U.S. Geological Survey, Denver, CO; [3]San Bernardino County Museum, San Bernardino, CA

2011





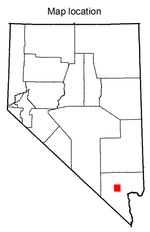
Schematic cross section of stratigraphic relations along upper Las Vegas Wash; not site specific.

Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

1 Corn Creek Springs
2 Gass Peak
3 Gass Peak NE
4 Tule Springs Park
5 Gass Peak SW
6 Valley
7 Blue Diamond NE
8 Las Vegas NW
9 Las Vegas NE

Map location



Suggested citation:

Ramelli, R. A., Page, R. W., Manker, C.R., and Springer, K.B., 2011, Geologic map of the Gass Peak SW quadrangle, Clark County, Nevada: Nevada Bureau of Mines and Geology Map 175, scale 1:24,000, 8 p. text.

Nevada Bureau of Mines and Geology
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College of Science
University of Nevada, Reno

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PEER-REVIEWED MAP

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Field review by John Bell, James Faulds, P. Kyle House, Jeff Pigati, and George Varhalmi

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Compilation by Alan Ramelli
Cartography and map production in ESRI ArcGIS v9.3 (ArcGeology v1.2) by Matthew Richardson
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