

VISTA GEOLOGIC MAP



QUATERNARY

TERTIARY

MESOZOIC

- Qm** — Mainstream gravel Sandy cobble gravel confined to the present Truckee River and Long Valley Creek floodplains.
- Qe** — Eolian sand Yellowish brown to pale brown very fine to medium sand in dunes and thick veneers. Non-indurated, well sorted, homogeneous.
- Qfl** — Floodplain and lake deposits Pale yellowish to light gray very fine sandy mud and silt with minor interbedded fine to medium sand. Non-indurated, well sorted, thin to medium-bedded, slightly eroded, locally contains lenses of peat up to 2 feet thick and organic rich beds.
- Qa** — Alluvium Very pale brown to brown muddy very fine to medium sand, fine to medium sand and sandy mud with thinly interbedded sandy pebble gravel. Non-indurated, well sorted, laminated to thickly bedded, slightly eroded.
- Qft** — Alluvial fan deposits Light yellowish brown to yellowish brown muddy sandy small to medium pebble gravel and gravelly muddy medium to coarse sand. Non-indurated, unsorted, thick bedded to massive, slightly eroded.
- Qal** — Alluvium Light gray to gray-brown pebbly to sandy silt, clasts subangular to subrounded, occupies a closed basin in the Pah Rah Range, locally derived from andesites.
- Qf** — Alluvial fan deposits Light yellowish brown to strong brown muddy sandy granule to pebble gravel, gravelly very coarse sand and gravelly muddy medium to coarse sand. Non-to-moderately-indurated, poorly to well sorted, laminated and crossbedded to massive, moderately eroded.
- Qle** — Lake Lahontan deltaic sediments of the Truckee River Pale brown silt and clay with interbedded fine sand. Non-weakly indurated, well sorted, laminated to thin-bedded with laminae and bedding being ripply and contorted, slightly to moderately eroded.
- Qto** — Tahoe Outwash Yellowish brown to grayish brown sandy medium to large pebble gravel with minor lenses of slightly gravelly muddy fine to coarse sand, and bouldery sandy pebble and cobble gravel. Non-weakly indurated, poorly to unsorted, moderately eroded. Subangular to round clasts consisting of (increasing to decreasing abundance) andesite, rhyolite tuff, plutonic and metamorphic rocks, and basalt in Truckee Meadows; and basalt, andesite, plutonic and metamorphic rocks, and rhyolite at Mustang.
- Qdo** — Donner Lake Outwash Dark yellowish brown sandy large pebble and cobble gravel. Non-indurated, unsorted, moderately eroded. Angular to round clasts consisting of (increasing to decreasing abundance) basalt, andesite, metamorphic rocks and rhyolite in Truckee Meadows, and basalt, rhyolite, andesite and metamorphic rocks at Mustang. Middle Pleistocene age.
- Qfo** — Old alluvial fan deposits Light yellowish brown to grayish brown sandy pebble and cobble gravel and gravelly muddy medium to coarse sand. Non-indurated, unsorted to poorly sorted, massive. Locally veneered with eolian sand and locally pedimented. Middle Pleistocene age.
- Qao** — Old alluvium of Spanish Springs Valley Yellowish brown slightly gravelly medium to coarse sand and gravelly muddy coarse sand. Non-indurated, moderately to well sorted, thick bedded to massive. Contains lenses of muddy very fine sand. Middle Pleistocene age.
- Qpo** — Old pediment deposits Brown muddy sandy granule gravel in relatively thin veneers. Non-indurated, poorly sorted. Early to middle Pleistocene age.
- Qpf** — Older alluvial fan deposits Pale yellowish to reddish brown, poorly sorted, montmorillonitic, gravelly to sandy and clayey silt. Equivalent in age with alluvial fan deposits of Peavine Mountain in the Reno quadrangle. Early to middle Pleistocene age.
- Qmp** — McClellan Peak olivine basalt Gray to black basalt with prominent yellowish-green olivine phenocrysts, jointed, flow tops scoriaceous. Age 1.14±0.04 m.y. (Doell and others (1966)).
- Qbi** — Basalt dike rock Black aphanitic, weathers to dull reddish brown, well developed horizontal jointing, occasional altered olivine phenocryst noted on fresh surface.
- QTg** — Gravel Pebble cobble conglomerate and stream gravel. Well rounded clasts, in part oxidized with red staining. Occupies old stream channels and terraces.
- Tl** — Lousietown Formation Medium- to dark-gray basaltic andesite and andesite, thin platy parting conspicuous, flow surfaces vesicular, flows less than 50 ft. thick. Radiometrically dated at approximately 7 m.y.
- Tss** — Basaltic andesite of Spanish Springs Peak Medium- to dark-gray basaltic andesite and andesite, thin platy parting conspicuous. Similar to the Lousietown Formation but was erupted from a vent on Spanish Springs Peak.
- Tw** — Washington Hill Rhyolite Light gray to gray, flow banded rhyolite weathers light tan, contains alternating layers of gray and white devitrified glass, approximately 10 m.y. old. Contemporaneous with the upper part of the Truckee Formation.
- Tt** — Truckee Formation White to light brown clastic sedimentary rock consisting of conglomerates, coarse sandstone, siltstone, pumaceous tuff-breccia, contains intercalated tuff. Derived from andesite and rhyolite source rocks. Locally intertongues with the upper part of the Kate Peak Formation.
- Tk** — Kate Peak Formation Flows, flow breccia, tuff breccia, mudflow agglomerate, volcanic conglomerate and associated intrusive ranging in composition from pyroxene andesite to rhyodacite; dotted where bleached.
- Ta** — Alta Formation Gray-brown to black, pyroxene and hornblende andesite, flows, breccias and pyroclastics, commonly proplitized and locally bleached; dotted where bleached.
- Kqm** — Quartz monzonite Coarse-grained, light gray plutonic rock composed of microcline, quartz, plagioclase and biotite. Deeply weathered does not normally crop out.
- Kgd** — Granodiorite Grayish-white to gray, medium- to coarse-grained, equigranular to porphyritic. Hornblende-biotite granodiorite.
- Trmv** — Metavolcanic rocks Dark grayish-green rocks irregularly stained with iron oxides. Green color varies with the amount of epidote and chlorite. Rocks were probably originally andesites and basalts.
- Trms** — Metamorphosed sedimentary rocks Light gray to purple slate is the most predominant rock type. Tan to yellow meta-tuff crops out on the south side of the Truckee River. Minor metaconglomerate containing rounded siliceous and andesitic pebbles up to 1 in. (2.5 cm) in diameter is interbedded with the slates.

Contact. Long dashes where approximately located; short dashes where gradational; dotted where concealed.

Fault. Dashed where approximately located; dotted where concealed. Ball on downthrown side.

Foliation. Schistosity in metamorphic rocks; flow foliation in volcanic rocks.

Inclined + Vertical

Joints. Inclined + Vertical

Bedding. Inclined

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Portions modified from STATHIS, G.J. (1960) Geology of the southern portion of Spanish Springs Valley quadrangle, Nevada. University of Nevada, Reno, unpub. M.S. thesis.

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PRELIMINARY

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

SCALE 1:24000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

VISTA, NEV.

SW/4 SPANISH SPRINGS VALLEY 15' QUADRANGLE
N3930-W11937.5/7.5

QUADRANGLE LOCATION

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1957