

Figure 1-CORRELATION DIAGRAM FOR OLILOCENE AND MIOCENE TUFF UNITS SHOWING MAP SYMBOLS USED IN QUADRANGLES IN SOUTHWESTERN PART OF WALKER LAKE 2° QUADRANGLE. THICKNESSES NOT TO SCALE

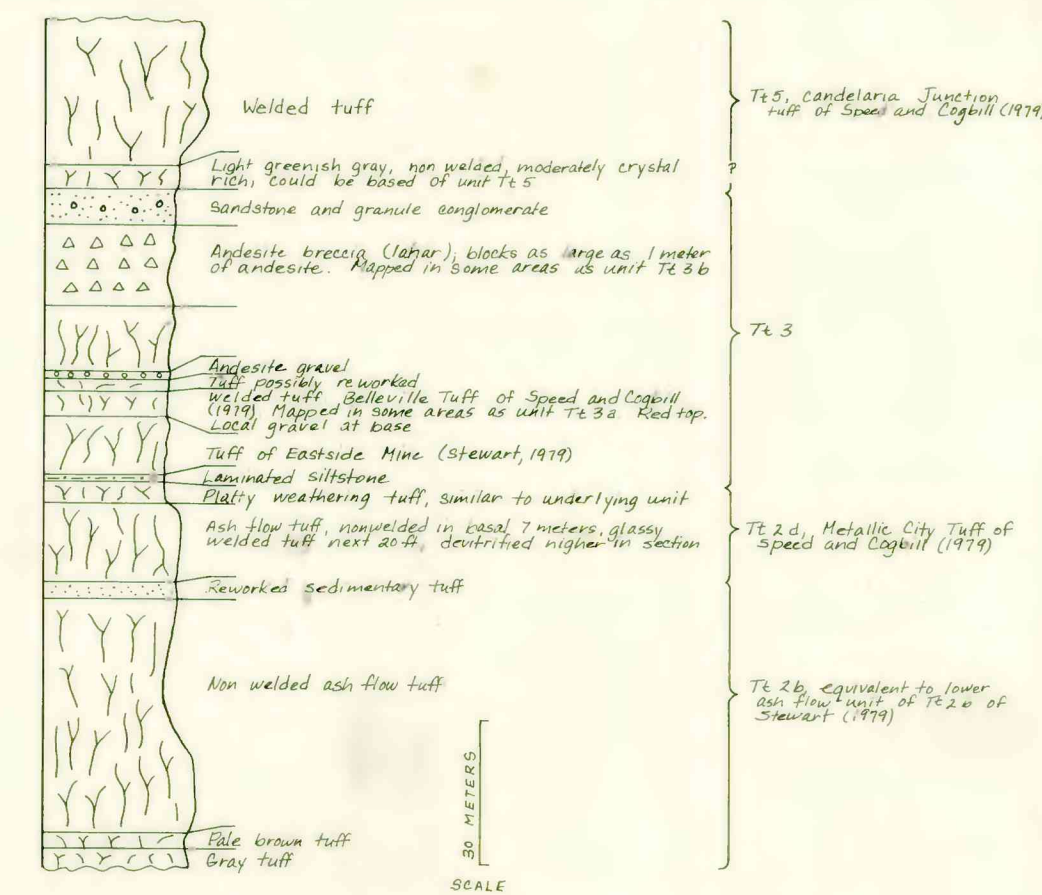
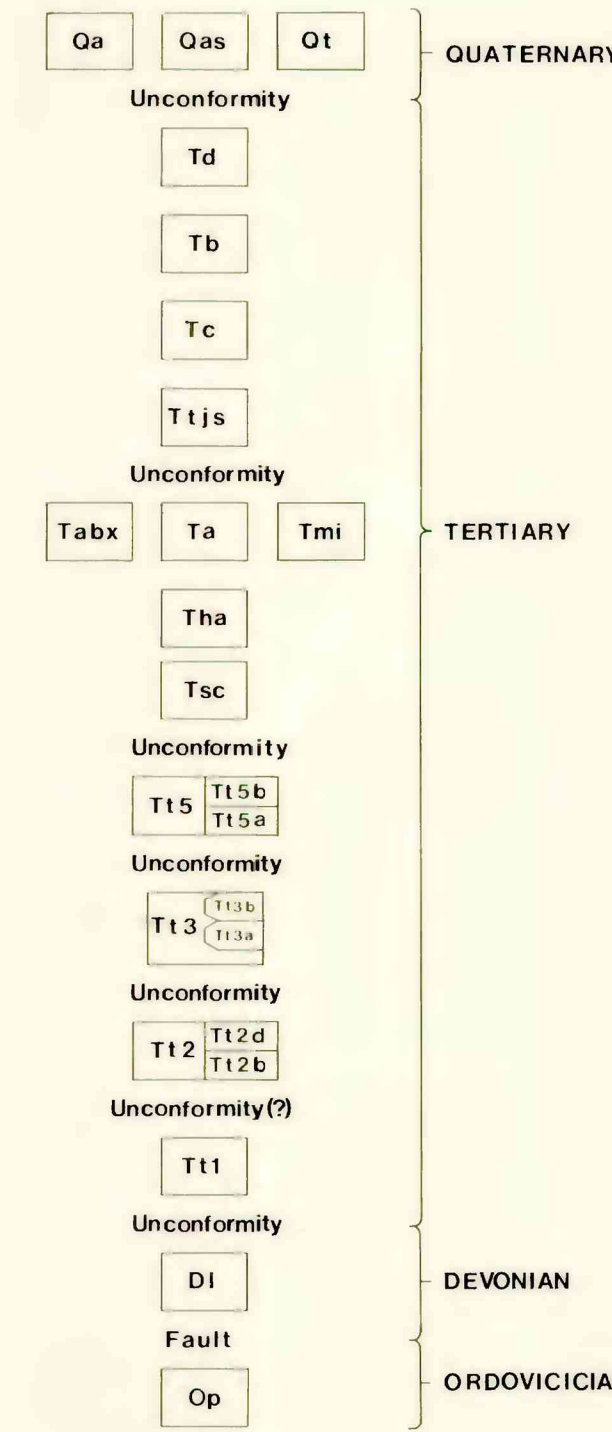


Figure 1. -- Section of Tertiary rocks, Lat 38°5'40" N, Long. 118°21'25" W,
2.5 Km. N 86 W of Eastside Mine

Tt_{3a} Belleville Tuff of Speed and Cogbill (1979)--Yellow gray to light gray, common moderate reddish-orange zones; 18 percent crystals; plagioclase (10 percent) and minor amounts of sanidine, quartz, biotite, pyroxene, and opaque minerals; 3 percent lithic fragments; abundant pumice; common black vitrophyre

Tuff of Eastside Mine (not mapped separately)--Very pale orange to pale yellowish brown; 15 percent crystals, plagioclase, sandline, and quartz in approximate proportion 6:4:3, sparse biotite and opaque minerals; 5 percent lithic fragments as large as 5 to 8 cm in diameter composed of brown porphyritic lava, of aphanitic lava, and of sparse Paleozoic rocks. Common pumice. Mostly nonwelded or only slightly welded.

Tp₂ ASH-Flow TUFF—Locally subdivided into two subunits (Tp_{2a} and Tp_{2b}).
Metallic City tuff of Speed and Coghil (1978)—Ash-flow tuff, dark gray in lower part, light gray in upper part; 25 percent crystals, plagioclase, sanidine, and quartz in approximate proportions of 5:3:5, 2:9 percent respectively. Matrix is composed of 25 percent minerals; 14 percent rock fragments; clastic firming; 22 to 24 percent ash. See also note dated 1968-3. See Speed and Coghil (1978) and Stewart (1978) for further description.

Tp_{3b} Ash-flow tuff—Two and one-half kilometers west of Kaxstide mine, consists entirely of the lower ash-flow tuff of unit Tp₃ of Stewart (1978) in contact with the Goliad Group. In the east, according to petrographic studies by P. T. Robinson (written comm., 1978), lower ash-flow tuff of unit Tp_{3b} consists of 10 percent crystals, 10 percent rock fragments, 20 percent sanidine, biotite, and magnetite. Rocks sampled at Tp_{3b}, 2.5 km north of Kaxstide mine, have not been studied in detail and cannot be assigned with certainty to Tp_{3b}.

Tt₁ ASH-FLOW TUFF--Pale red, densely welded, crystal poor to moderately crystal rich; crystals of quartz, sanidine, and plagioclase(?), sparse biotite, common fine-grained volcanic lithic fragments. Probably same as Tt₁ of Stewart (1979). Discontinuous

01 LIMESTONE—Consists mostly of sandy limestone to limy sandstone, limestone, since calc-silicate breccias, and chert. Includes cross-stratified and locally convoluted limestone. Similar to sandy limestone and related rocks of Devonian age in Miller Mountain and Columbus quadrangles to east (Stewart, 1979). Occurs as units interleaved with rocks mapped as Ordovician Palmetto Formation. The character of the boundaries of the Devonian units with the Palmetto is not clear, but in places the irregularities may be faults to account for the interleaving of Devonian and Ordovician rocks. Units of Devonian limestone are inconsistently mapped and boundaries of individual units are in places incomplete.

Op Palmetto Formation. Phyllitic to hornfelsic shale, argillite, chert, and siliceous siltstone, and quartzite; trace fossils locally.

Graptolite collections identified by R. J. Ross, Jr., as follows:
F1, U.S.G.S. Colln. D278760. (Field No. 1-74-73) Palmetto Formation, 900 ft, NW of hill 6515. Lat 38 degrees 6.1 min. N., Long 118 deg. 21 min. W. Basalt quad, Nevada.

GLOSSOGRAPTUS? sp.
 AMPLEYOGRAPTUS? sp.
 ORTHOGRAPTUS TRUNCATUS INTERMEDIUS Elles and Wood
 Age: Probably zone of O. TRUNCATUS INTERMEDIUS
 I am not entirely happy with this determination because I have
 been unable to pin down two of the genera for sure. For the
 time being the identifications are the best I can do.

F2. U.S.G.C. Coll. D27850. (Field no. 1-72-23) Palmer
Formation, 300 ft. SE of Hill 6666, 18 deg. 52 min. N, 106
18 deg. 20 min. W, Gulf quadrangle, Nevada.
MEGALOMASTIX *MEGALOMASTIX* *MEGALOMASTIX* (Henderson, 1963, p. 110-111)
not of *Hoplites* or *Elles* or *Verdy*.
CLADOMASTIX *CLADOMASTIX* *CLADOMASTIX* (Henderson, 1963, p. 110-111)
CLADOMASTIX *CLADOMASTIX* *CLADOMASTIX* (Henderson, 1963, p. 110-111)
this genus, could be the following:
HALOMASTIX sp. (Henderson, 1963, p. 110-111)
Th 1/10 mm. Might be immature stage of *M. MICROMASTIX* Hall
or better assigned to *MEGALOMASTIX* cf. *MARGASTATUS*.
OTIDOMASTIX *OTIDOMASTIX* *OTIDOMASTIX* (Henderson, 1963, p. 110-111)
OTIDOMASTIX *OTIDOMASTIX* *OTIDOMASTIX* (Henderson, 1963, p. 110-111)
Ophiopodites *OTIDOMASTIX* *OTIDOMASTIX* *OTIDOMASTIX* (Henderson, 1963, p. 110-111)
Age: Middle or Late Cretaceous. Zone of *C. DICEROS* to zone
of *C. TRIMASTIX* (Henderson, 1963, p. 110-111)

P3, U.S.G.S. Coll. D2786CO (Field No. 1-74-33). Palm Springs
Formation, 2600 ft. ENE of hill 6515. Lat 38 deg. 5.3 min. N.,
Long 118 deg. 20.3 min. W., Basalt quadrangle, Nevada.
CLIMACOGRAPTUS sp.
DIAPOGOGRAPTUS or GLYPTOGRAPTUS sp.
Identification to species is impossible.
Age must be younger than Lower Llanvirn and older than Mid-
lower Llanvory.

P4. *D.S.G. Col. D2789C.* (Field No. 1-108-61) Palmetto
Formation, 2800 ft. WNW of MS9521, lat 38 deg. 3.8 min. N., long.
118 deg. 17 min. W. Basalt quadrangle, Nevada.
CLITHACORAPTUS CANADATUS Lapworth
CLITHACORAPTUS TUBIFERUS Lapworth
FORTHOCAPTUS sp.
Age: Zone of *D. CLINGANI* in British scheme. Lower zone of *O.*
QUADRIBRACHIATUS of Berry.
(I would not be surprised if your collection 1-74-3J was the same
as this.)

SYMBOLS

----- Contact--dashed where approximately located

--- Fault--dashed where inferred or approximately located; queried where uncertain; dotted where concealed. Bar and Ball on downthrown side

W Strike and dip of stratified rock

↕ Vertical bedding

↗ Anticline

↘ Syncline

✕ Fossil locality

REFERENCES

Crowder, D. F., Johnson, P. T., and Harris, D. L., 1972, Geologic map of the Benton quadrangle, Mono County, California, and Emeralds and Mineral Counties, Nevada. U.S. Geological Survey Geologic Quadrangle Map G-700, scale 1:62,500.

Gilbert, C., Christiansen, N. K., Al-Rawi, Y. T., and Lajoie, K. R., 1968, Structural and volcanic history of Mono Basin, California-Nevada, in Gilbert, C., Rye, J. B., and Lajoie, K. R., eds., Geology of the Mono Basin, California-Nevada, Geological Society of America Memoir 86, p. 175-192.

Speed, R. C., and Cogbill, A. H., 1979, Cenozoic volcanism of the Candelaria region, Nevada. Geological Society of America Bulletin, pt. 2, v. 90, p. 656-679.

Stewart, J. B., 1979, Geologic map of Miller Mountain and Columbus Mountains, Nevada. U.S. Geological Survey Geologic Quadrangle Map G-700, scale 1:62,500.

U.S. Geological Survey Open-File Report 79-1145.

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.