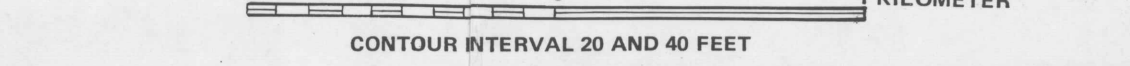
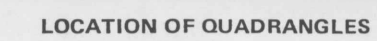


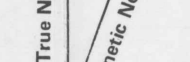
GARY A. SMITH
OREGON STATE UNIVERSITY
1985



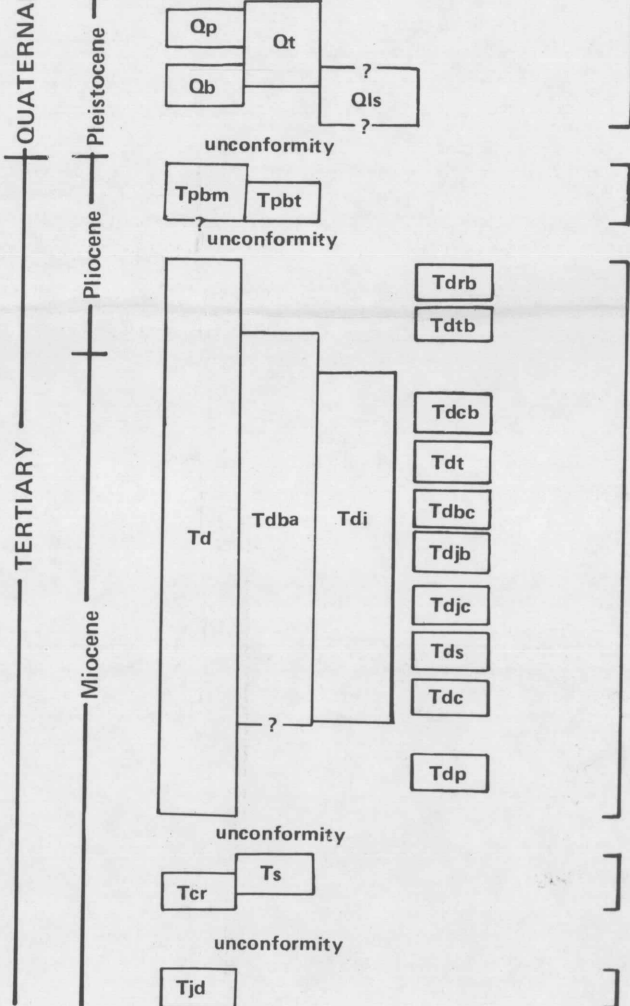
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DOTTED WHERE CONCEALED
OWNTHROWN SIDE; U, UPTHROWN SIDE

Approximate mean declination, 1962



RY- Holocone Qal



4 - Silt, sand, and gravel; includes
Quia and Tenino creeks. Charcoal i

terrace near west margin of map yielded a ^{14}C age of 1670 ± 100 years (W. E. Scott, U. S. G. S., written commun., 1984).

of Vandevoort site, at the mouth of Willow Creek, and at Indian Park campground. Overlies unit Qal south of the map area. Occurs as reworked material in unit Qal.

along U. S. 26 include a white rhyodacitic pyroclastic-flow deposit which predates unit Qp (Yogodzinski and others, 1983).

near top of Simtustus and John Day formations.

George Washington (1732-1799)

OF METOLIUS BENCH - Series
basalt distinguished from basalts

evolved composition (1.3 to 2.1% TiO_2 ; $<10.5\%$ CaO ; $>9.5\%$ FeO). Overlies 4.27 ± 0.75 Ma basaltic andesites west of map area (Yogodzinski, 1986). Both normal and reverse magnetic polarity.

Bench by more primitive composition (0.9 to 1.1% TiO_2 ; $\geq 11.0\%$ CaO; $\leq 9.0\%$ FeO). Normal magnetic polarity.

ES FORMATION, undifferentiated
ained volcanic sandstones, con-
es interbedded with argillite

Ignimbrites, Ignimbrites and lava flows mapped separately where exposed. This symbol represents known exposures of sedimentary lithologies and slopes lacking exposure and presumably composed mostly of sedimentary rocks, but also may include unwelded ignimbrites. Includes well-indurated, ledge-forming, poorly sorted sedimentary units (most prominent along east side of

Basaltic andesite, undifferentiated. Fine-grained, platy jointed
flow with coarse clinoclase phenocrysts. Two flows merged.

member in upper Seekseequa Creek and Tenino Creek areas, and

rhyodacitic ignimbrite between Tenino and Coyote Butte igni

Tdrb Round Butte member - At least four flows of gray, porphyritic olivine basalt erupted at Round Butte, south of map area.

Tetherow Butte member, Agency Plains basalt flow - Black,

reflects burial of erosional topography by the flow. Forms the rimrock on the east side of the Deschutes River over most of the map area and is overlain by up to 45 m of sedimentary rocks.

Tdcb Coyote Butte ignimbrite member - White to light gray, unwelded, dacitic ignimbrite exposed widely over western part of the map area. Two flow units are recognized in Tenino Creek area.

Tdt	Tenino ignimbrite member - Multiple flow units of gray, dacitic ignimbrite in two cooling units, locally separated by sedimentary
-----	---

part of thick, lower cooling unit in Tenino Creek area where pillars of platy-jointed, densely-welded ignimbrite are conspicuous. Green magnetic nodules

usually oxidized pink or orange by fumarolic alteration, intensely altered ignimbrite exposed southeast of Coyote Butte, north of

tentatively assigned to this member. Welding restricted to central portion of thick exposure at mouth of Willow Creek where crude columnar jointing is prominent. Reverse magnetic polarity.

Normal magnetic polarity.

jointing and spiracles characterize most outcrops. Member extends in a narrow north-south band across the central part of the map area, where it filled and overflowed an ancestral

Chinook ignimbrite member - Pinkish gray, unwelded, rhyodacitic ignimbrite with white pumice lapilli rarely exceeding 1 cm across and prominent cobble-rich zone near

Pelton basalt member: Diktytaxitic olivine basalt in 4 to 8 flow

Snice (1984) at 7.8 ± 0.3 Ma. Normal magnetic polarity.

MBIA RIVER BASALT GROUP, Grande Ronde
ville Chemical Type - Two flows of sparsely phyr

hyalophitic basalt, locally separated by Simtustus Formation sedimentary interbed. Dark gray to black, weathered brown brown glass, exhibits well developed columnar and a thick

magnetic polarity (N_2 chron).

JOHN DAY FORMATION, undifferentiated - white, tan, and buff colored tuffs, lapillistones, fine-grained volcanic sandstones and mudstones. All John Day Formation in map area assigned

just north of the map area (Carriger, 1997).