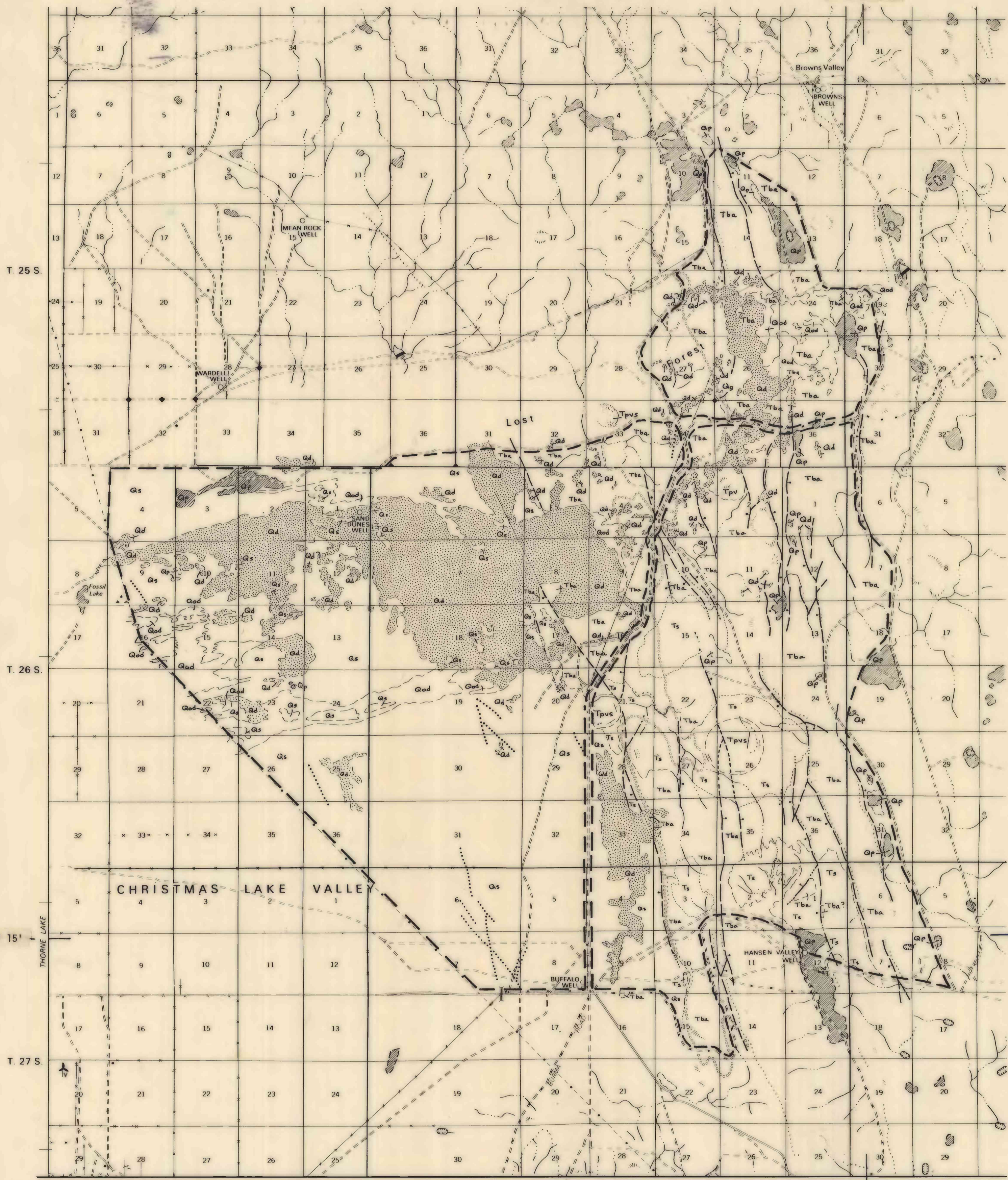


R. 19 E.

R. 20 E.

120° 15'



EXPLANATION

- Qp** PLAYA DEPOSITS. Includes clay, fine silt; some thin sand layers, and thin layers of saline minerals (trona and halite?), particularly on playa surfaces.
- Qd** DUNE DEPOSITS. Moderately well- to well-sorted mineral grains (alkali feldspar, plagioclase, pyroxene, olivine, hypersthene, and magnetite), shell and bone fragments, ostracod remains, and abundant pumice fragments and granules mostly in active, crescent-shaped dunes and in widespread veneer up to several feet thick of mixed pumice and mineral grains*.
- Qod** "OLD" DUNE DEPOSITS. Mostly well-sorted mineral grains and minor pumice and shell fragments in stabilized (fixed) longitudinal dunes and widespread veneer. Locally grades into unit Qd.
- Qg** GRAVEL. Rounded pebbles in sandy matrix that comprise arcuate, beach deposits of pluvial Fort Rock Lake. Represents highest identified still-stand, at elevation of about 4800 feet (1472m), of pluvial lake.
- Qs** SEDIMENTARY ROCKS. Lacustrine deposits that are thin-bedded, poorly consolidated, and consist of clay, ash, pumice lapilli, siltstone, and sandstone. Some beds contain diatoms intermixed with altered pumice (Dole, 1941). Locally contains vertebrate (bird, fish, and mammal) fossils and fresh-water mollusks that indicate a Pleistocene age (Elftman, 1931; Allison, 1966; Walker, Peterson, and Greene, 1967).
- Tpv** PYROCLASTIC ROCKS OF BASALTIC VENTS. Fragmental basaltic ejecta associated with fissure and point-source eruptions.
TpvS Subaerial deposits of scoriaceous red cinders and bombs in form of eroded cinder cone.
TpvS Subaqueous deposits of pumice tuff and breccia in form of tuff rings (maar) and tuff ridges. Included in Fort Rock Formation by Hampton (1964).
- Tba** BASALT AND ANDESITE. Thin flows of olivine basalt, basaltic andesite, and pyroxene- and pyroxene-hypersthene andesite. In places partly altered to clay minerals, calcite, and zeolites. Olivine in some flows partly altered to iddingsite. Locally interbedded with unit Ts; in places grades laterally into pumice tuff and breccia of unit Ts. Identified as Hayes Butte Basalt by Hampton (1964).
- Ts** SEDIMENTARY ROCKS. Includes bedded pumice tuffaceous sedimentary rocks, minor pumice breccia, fine- to medium-grained, partly indurated sandstone and siltstone composed of mineral grains (alkali feldspar, plagioclase, clinopyroxene, olivine, hematite (?), and magnetite), rhyolitic pumice granules, and a matrix of partly altered glass shards. About 1 km south of area unit contains a vertebrate fauna originally considered of middle Pliocene (Hemphillian) age (Repenning, 1967, p. 40; 1968, p. 63-67; Walker, Peterson, and Greene, 1967), but now considered to be either late Miocene or Pliocene. Included in Fort Rock Formation by Hampton (1964).

Holocene
Pleistocene
Pliocene (?)
Miocene and Pliocene

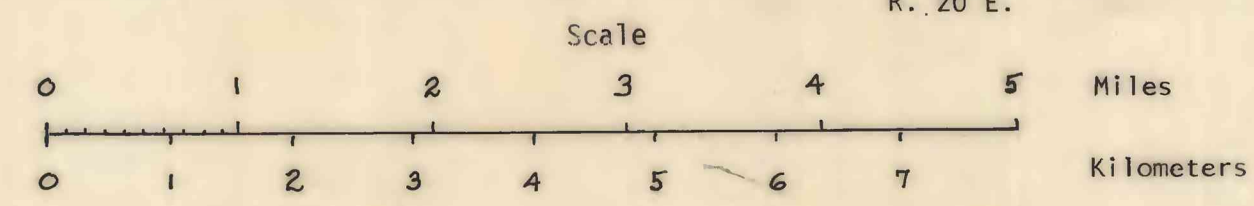
QUATERNARY
TERTIARY OR QUATERNARY
TERTIARY

- Contact (Dashed where approximately located; short-dashed where inferred)
- - - - - Fault (Dashed where approximately located; dotted where concealed. Bar and ball on down-thrown side)
- o o o o o o o o Pluvial shoreline (Approximately located)
- Linear feature on aerial photograph (Probably denotes underlying fault or fracture zone)
- Strike and dip of beds
- - - - - Study area boundary

* An unmapped, thin and discontinuous veneer of wind-blown silt and fine pumice covers much of the area underlain by Pleistocene sedimentary rocks in Christmas Lake Valley.

This map is preliminary and has not been edited or reviewed for conformity with Geological Survey Standards and nomenclature

Base modified from U.S. Bureau of Land Management, 1:62,500, 30-minute Cliff quadrangle



Geology by George W. Walker, August 1978.

GEOLOGIC MAP OF THE LOST FOREST AREA, LAKE COUNTY, OREGON