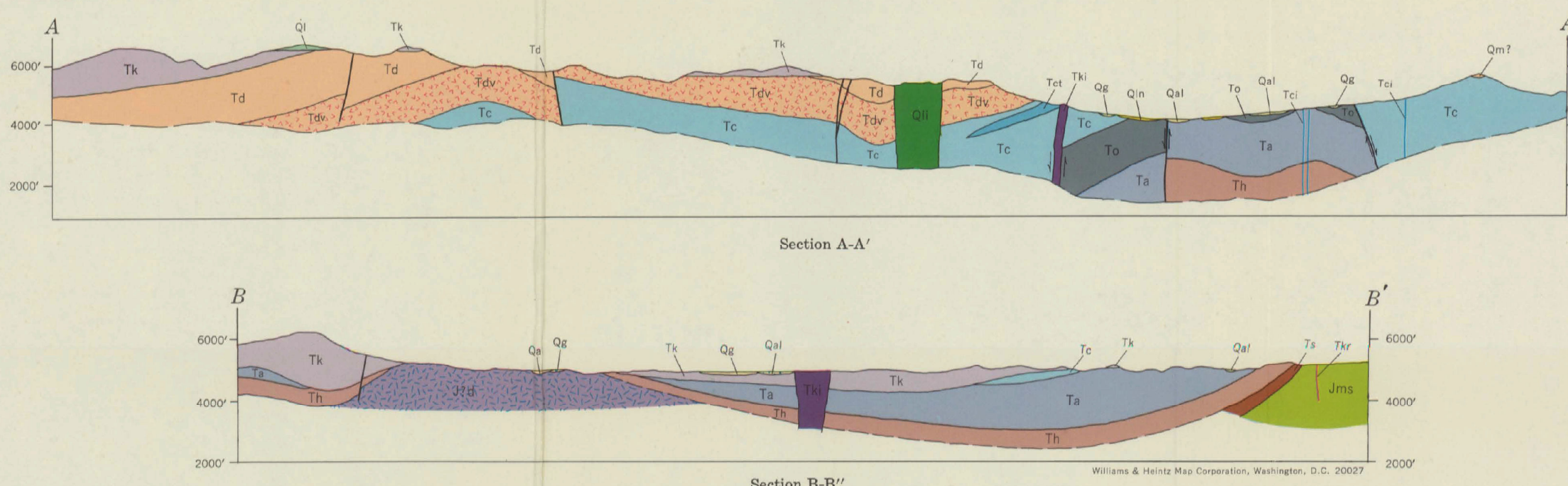
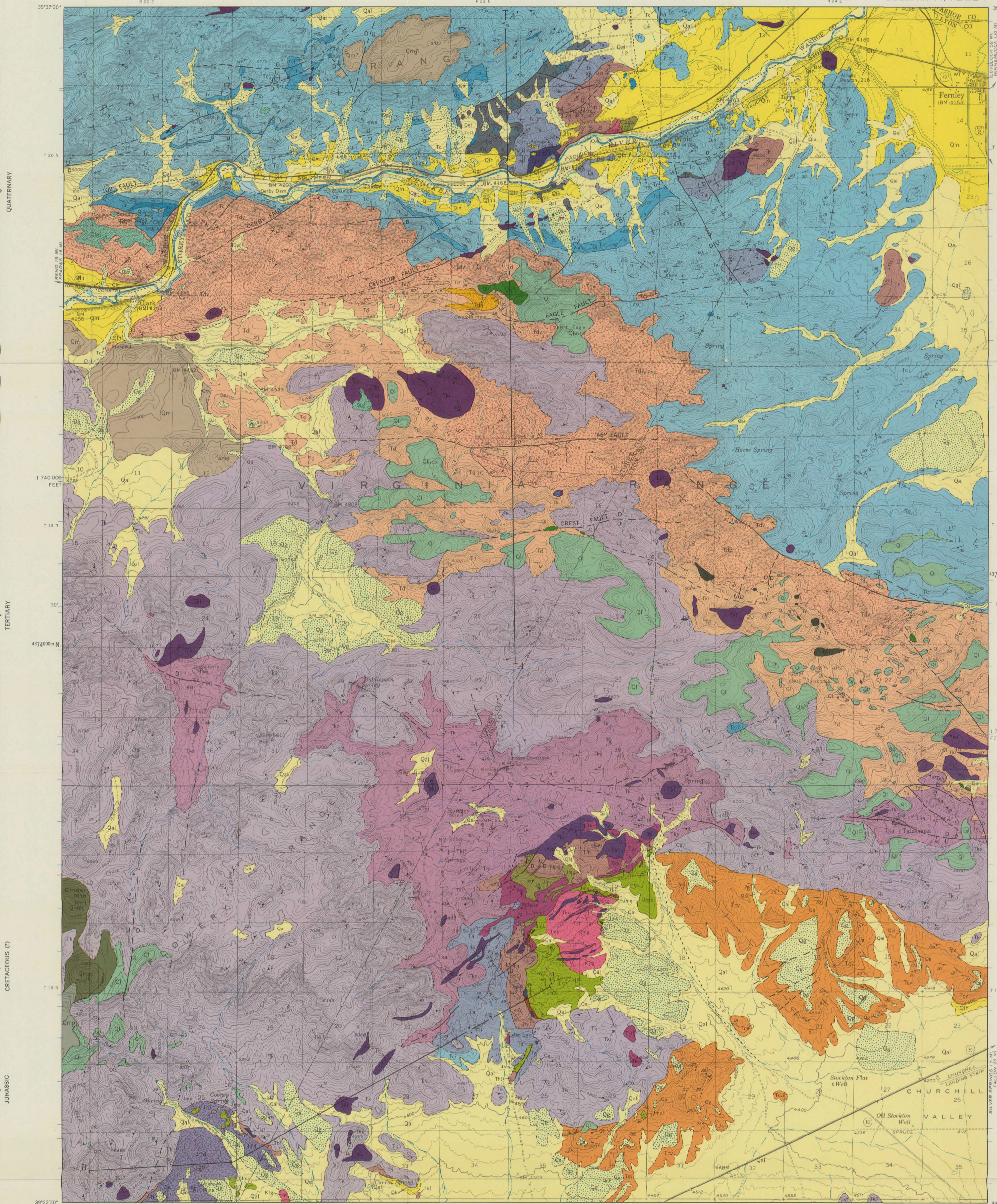


- EXPLANATION**
- Recent**
- Qal Alluvium
 - Qln Lake Lahontan deposits
Sand with some gravel and silt.
 - Older alluvium
Coarse gravel.
- Quaternary**
- Qmp McClellan Peak Basalt
Qmp Olivine basalt lava flows.
Qmpc Olivine basalt cinders.
 - Qm Mustang Andesite
Hornblende-pyroxene trachyandesite.
- Pliocene**
- Ql Lousetown Formation
Ql Basalt, andesite, and trachyandesite flows.
Qli Intrusive rocks, similar in composition to flow rocks.
Qly Basal gravel, locally mapped.
- Tertiary**
- Tcv Knickerbocker Andesite
Intrusive pyroxene andesite.
 - Tc Coal Valley Formation
Tuffaceous sandstone, siltstone, diatomaceous shale, and rhyolitic tuff.
 - Tk Kate Peak Formation
Tk Gray to brown porphyritic dacite and rhyolitic flows and breccias, local pyroxene andesites. Interbedded rhyolitic tuff, diatomite, and sandstone in southwestern part of mapped area.
Tka Altered variety. Rocks have been argillized, silicified, and propylitized.
Tki Intrusive porphyritic dacites and rhyolites. Includes silicified rhyolitic intrusive rocks.
Tkr Intrusive felsitic rhyolites.
 - Td Desert Peak Formation
Td Tuffaceous sandstone, diatomite, diatomaceous shale, basaltic tuffs, rare rhyolite tuffs and basaltic flows. Sandstones locally silicified.
Tda Black pyroxene andesite flow.
Tds Rhyolite, dacite, and andesite flows much like rocks of Kate Peak Formation. Minor interbeds of tuff and sandstone.
 - Tc Chloropagus Formation
Tc Black and dark gray basaltic and andesitic lavas, commonly amygdaloidal. Siltstone amygdaloides often with celadonite, some zeolites.
Tct Pumiceous rhyolite tuffs often with diatomite or sandstone; locally mapped.
Tci Basaltic and andesitic intrusives.
- Miocene**
- To Old Gregory Formation
White to pale green rhyolitic tuffs, tuff breccia, and brown poecillitic shale. Greenish siltstone and altered basalt locally present.
 - Ta Alta Formation
Ta Dark gray to greenish hornblende and pyroxene andesite, and black, nearly porphyritic trachy-basalt flows. Andesites locally porphyritic or scoriitic. Rare sandstone, shale, and tuff interbeds.
Tat Intrusive rocks, mostly andesitic.
- Oligocene**
- Th Hartford Hill Rhyolite
Varicolored (pink, brownish, green, dark red) devitrified crystal-rich ash flow tuffs. Slightly to strongly welded.
 - Pre-Hartford Hill sedimentary rocks
Olive-green claystone with thin sandstone interbeds, local conglomerate.
 - KfB Granite rocks
Mostly hornblende-biotite granodiorite.
 - D Dioritic rocks
Light to dark gray amphibole diorite and dark gray micro-diorite.
 - M Metavolcanic rocks
Dark green to black meta-andesite and metabasalt. Locally hornblende hornfels.
 - J Metasedimentary rocks
Dark gray slate with thin interbeds of meta-sandstone and dolomitic limestone. Locally is pelitic and contains calc-silicate hornfels.
- Depositional and intrusive contacts**
- Solid where well located, dashed where approximate, dashed and questioned where conjectural.
- Faults**
- Dashed where approximately located, questioned where conjectural or doubtful, dotted where concealed.
- Anticlinaxial axis**
Dashed where approximate.
- Synclinal axis**
Dashed where approximate.
- Strike and dip symbols of planar elements**
- | Bedding | Igneous flow banding |
|------------|----------------------|
| Inclined | — 45° |
| Vertical | + |
| Horizontal | ⊕ |
- APPROXIMATE MEAN DECEMBER, 1959



GEOLOGIC MAP AND SECTIONS OF PARTS OF THE WADSWORTH AND CHURCHILL BUTTE QUADRANGLES, NEVADA
By Robert L. Rose

Scale 1:48,000
1 1/2 0 1 2 3 Miles

Contour interval 40 feet
Dashed lines represent half interval contours
Datum is mean sea level