DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
U. S. ATOMIC ENERGY COMMISSION

EXPLANATION

Qoc   Qls

Surficial deposits
Qoc, alluvium and colluvium
Qls, landslide deposits

UNCONFORMITY

Tr

Rainier Mesa member
Gray and brown welded tuff

Survey Butte, Topopah Spring, and
Stockade Wash members
Ts, Survey Butte member, pale-gray and brown bedded tuff
Tt, Topopah Spring member, pale-red and brown partially to densely welded tuff
Tw, Stockade Wash member, pale-gray partially welded tuff

Tgl

Grouse Canyon and Tub Spring(?) members
Tgu, upper part of Grouse Canyon member, gray densely welded tuff and black nitrophyre
Tgl, lower part of Grouse Canyon member, gray vitric and greenish-yellow zeolitic bedded tuff
Tts, Tub Spring(?) member, gray and brown rhyolite and interbedded zeolitic tuff

EAST SIDE OF RAINIER MESA	GROUSE CANYON	CAPTAIN JACK SPRING	WHITEROCK SPRING

Lower member undivided
Gray zeolitic bedded tuff

Tunnel beds
Varicolored zeolitic tuff, locally glassy welded tuff at top of Tlt₂

Tuffs
Tlg₂, zeolitic bedded tuff and nonstratified tuff
Tlg₁, brown and gray biotite- and amphibole-bearing welded tuff

Tuffs
Tlj, varicolored zeolitic bedded tuff
Tlj₁, ₂, ₃, lenses of zeolitic nonstratified tuff

Tuffs, tuffaceous rocks, and basalt
Tlw₇, pale-brown and gray vitric and zeolitic bedded tuff, at or near the base varially welded nonstratified tuff
Tlw₆, white and yellow zeolitic nonstratified tuff, zeolitic tuff, and a basal conglomerate of quartzite, gneiss, and schist
Tlw₅, pale-gray and orange-red zeolitic nonstratified tuff and zeolitic bedded tuff
Tlw₄, greenish-gray and pale-red zeolitic tuff
Tlw₃, pale-gray opaline tuffaceous siltstone and sandstone, and tuff, some lignitic shale
Tlw₂, olivine basalt
Tlw₁, brown mafic welded tuff

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qm

Quartz monzonite
Medium crystalline, locally porphyritic. Small aplite and pegmatite dikes

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IPMei
IPMah
IPMeg
IPMee   IPMef
IPMed

Eleana formation
IPMei, unit I, fossiliferous limestone and shale, and argillite
IPMah, unit H, argillite, limestone, and quartzite
IPMeg, unit G, quartzite, conglomerate, and argillite
IPMef, unit F, quartzite, argillite, conglomerate, and sandstone
IPMee, unit E, argillite, quartzite, and conglomerate
IPMed, unit D, quartzite, conglomerate, and argillite
Symbols queried where correlation of subunits is doubtful

Dc
Db
Do

Rocks of Devonian age
Dc, median- and very dark-gray finely crystalline dolomite
Db, gray and grayish-red clastic thinly laminated dolomite
Do, median- and dark-gray dolomite

DSOu

Rocks of Ordovician to Devonian age
Pale-gray indistinctly bedded and dark bluish-gray thinly laminated dolomitic limestone. Local thin beds of chert near base

Oa

Antelope Valley limestone
Pale-gray dolomitic limestone and thin beds of nodular chert

Cw

Wood Canyon formation
Gray and brown medium-grained quartzite and minor amounts of argillite

Densely welded tuff

Contact
Long dashed where approximately located or gradational; short dashed where inferred

Fault, showing dip
Dashed where probable; dotted where concealed; queried where doubtful. U, upthrown side, D, downthrown side. Measured displacement in feet; arrow shows plunge of slickensides

Thrust fault
Sawteeth on upper plate

Anticline
Showing trace of axial plane and plunge of axis. Dashed where approximately located

Syncline
Showing trace of axial plane and plunge of axis. Dashed where approximately located

Plunge of minor anticline

Plunge of minor syncline

Strike and dip of beds and of layering and eutaxitic structure in tuff

Strike and dip of overturned beds

Strike of vertical beds

Strike and dip of bed whose top cannot be identified

Strike and dip of flow lamination

Strike of vertical flow lamination

Horizontal flow lamination

Strike and dip of joint

Strike of vertical joint

Vertical shaft

Adit

UCRL 3

Drill hole

Topography by Alster and Associates by
stereophotogrammetric methods from
photographs taken in 1959
Grid interval 4000 feet. Nevada State coordinates

Geology by A. B. Gibbons, E. N. Hinrichs,
W. R. Hansen, and R. W. Lemke, 1957-59

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

SECTION ALONG LINE A-A'

GEOLOGIC MAP OF THE WHITEROCK SPRING QUADRANGLE, NYE COUNTY, NEVADA
1961

Nevada (Whiterock Spring quad). Geol. 1:24,000. 1961.
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