GEOLOGIC MAP OF THE FREEDOM QUADRANGLE, IDAHO-WYOMING

Scale 1/62500

1 ½ 0 1 2 3 4 Miles

1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 50 feet.

Datum is mean sea level.

1927

R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by Albert Pike and J. L. Lewis
Control by Geo. T. Hawkins, O. G. Taylor, and D. S. Birkett
Surveyed in 1911–1913

Geology by G. R. Mansfield, P. V. Roundy, R. W. Richards, A. R. Schultz, E. H. Finch, E. L. Jones, Jr., and Robert Ferron
Surveyed in 1910, 1911, 1914–1915

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EXPLANATION

SEDIMENTARY ROCKS

QUATERNARY

Recent

Ql — Landslides

Qal — Alluvium

Qt — Travertine
(Of Recent and Pleistocene age; may include some Pliocene)

Pleistocene

Qw — Hill wash and older alluvium

TERTIARY

Pliocene (?)

Tsl — Salt Lake formation
(Conglomerate, calcareous grit, sandstone, marl, and clay)

UNCONFORMITY

CRETACEOUS

Lower Cretaceous (?)

Kw — Wayan formation
(Upper part sandstone, shale, and conglomeratic beds; lower part limestone and red beds, with a massive sandstone near top)

UNCONFORMITY

CRETACEOUS (?)

Lower Cretaceous (?) Gannett group

Kgt — Tygee sandstone
(Gray to buff even-grained sandstone)

Kgd — Draney limestone
(Gray compact limestone, similar to Peterson limestone)

Kgb — Bechler conglomerate
(Gray, reddish, and "salt and pepper" sandstone with conglomerate)

Kgp — Peterson limestone
(Chiefly massive dark dense limestone, weathering white or grayish)

Kge — Ephraim conglomerate
(Red conglomerate, sandstone, and purplish limestone; near base chert-pebble conglomerate)

UNCONFORMITY

JURASSIC

Upper Jurassic

Js — Stump sandstone
(Thin-bedded and massive greenish-gray sandstone, weathering into platy and blocky fragments)

Jp — Preuss sandstone
(Reddish-gray to deep-red sandstone, usually calcareous, locally shaly)

UNCONFORMITY

Jtc — Twin Creek limestone
(Chiefly whitish-weathering shaly limestone; basal part largely massive brown sandy limestone)

UNCONFORMITY

Jn — Nugget sandstone
(Chiefly reddish to pinkish dense sandstone; some shaly beds and locally limestone bands with red shale near top)

TRIASSIC (?)

Trws — Wood shale
(Thin-bedded brilliantly red sandstone and red shale, locally gypsiferous)

Trd — Deadman limestone
(White, locally reddish or greenish limestone, massive, cherty, locally nodular; locally interbedded mottled limy shale)

Trh — Higham grit
(White to pinkish quartzitic grit, conglomerate with small quartzite pebbles, coarse quartzite or sandstone)

UNCONFORMITY

TRIASSIC

Lower Triassic

Trty — Timothy sandstone
(Thin-bedded yellowish to grayish, somewhat sugary sandstone)

UNCONFORMITY

Trt — Thaynes group
Upper part (Portneuf limestone) chiefly massive drab siliceous limestone, but includes red-bed member; middle part (Fort Hall formation) yellowish and gray sandstone and shale; basal part (Ross Fork limestone) grayish and yellowish limestone, shale, and sandstone with Meekoceras zone at base)

Trw — Woodside shale
(Olive-drab platy shale, with thin beds of brownish-gray limestone; massive fossiliferous limestone near top)

UNCONFORMITY

CARBONIFEROUS

Permian

Cpb, Cpa — Phosphoria formation
(Rex chert member, Cpb, at top; Cpa, phosphatic shale, yellowish to brown phosphatic sandstone, brown or black fetid limestone, locally beds of chert)

UNCONFORMITY

Pennsylvanian

Cw — Wells formation
(Upper part chiefly dense, hard siliceous limestone; middle part softer sandy limestone, quartzite, and sandstone; lower part sandy and cherty gray limestone and sandstone)

UNCONFORMITY

Mississippian

Cm — Madison limestone
(Thin-bedded bluish-gray limestone, weathering brown or gray; also massive beds of light-gray limestone)

Fault

Inferred fault

Fault concealed by surface deposits

Anticlinal axis

Synclinal axis

Dip and strike of rocks

Strike of vertical dip

Well
(Location approximate)

K′ — K
Line of profile on Plate 10