DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH
THE GEOLOGICAL SURVEY OF WYOMING

OPEN-FILE REPORT 83-802
GEOLOGIC MAP OF WYOMING SHEET 2 OF 2

EXPLANATION

The geographic and tectonic distribution of geologic units in Wyoming is such that, in general, they can be classified conveniently by regions of the State (Quaternary and Tertiary, Fig. 1) Mesozoic and Paleozoic, Fig. 2); some of the regions are further subdivided. Some surficial deposits do not fit this classification; for them, no areas of distribution are designated.

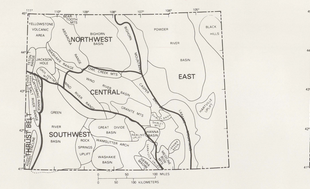


FIGURE 1.—INDEX MAP OF WYOMING SHOWING SELECTED TECTONIC FEATURES AND REGIONS OF MESOZOIC AND PALEOZOIC ROCKS AS DEFINED FOR EXPLANATION AND TERTIARY ROCKS AS DEFINED FOR EXPLANATION

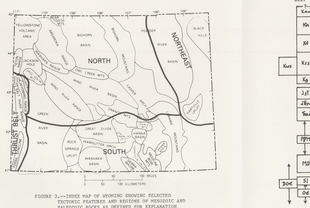
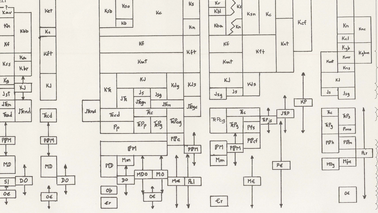


FIGURE 2.—INDEX MAP OF SYMBOLIC SHOWING SELECTED TECTONIC FEATURES AND REGIONS OF MESOZOIC AND PALEOZOIC ROCKS AS DEFINED FOR EXPLANATION



DESCRIPTION OF STRATIGRAPHIC UNITS

The stratigraphic units are described generally from left to right and youngest to oldest as they appear on the map explanation. Map symbols in parentheses indicate combinations of two or more stratigraphic units. For example: Twf indicates Wind River Formation; Tf, Fort Union Formation; and Twfu, Newlens Formation; Tfu, Indian Meadows Formation.

QUATERNARY ROCKS AND UNCONSOLIDATED DEPOSITS

Holocene and Pleistocene

Qa ALLUVIUM AND COLLUVIUM—Clay, silt, sand, and gravel in flood plains, fans, and terraces
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—Mostly locally derived clasts. In some localities includes some Tertiary gravels. Includes some glacial deposits along east flank of Wind River Range
Qs CLAY, DEPOSITS—Sand, gravel, and boulders
Qb LANDSLIDE DEPOSITS—Locally includes some intermixed landslide and glacial deposits, talus, and rock-glacier deposits
Qs DUNE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS—Includes active and dormant sand dunes and loess, in northwestern Wyoming, in Sweetwater County, and in Niobrara County
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

TERTIARY ROCKS AND UNCONSOLIDATED DEPOSITS

NORTHWEST
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—May include some Pleistocene deposits and Tertiary gravels
Qs AEOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

SOUTHWEST
Qb BASALT FLOWS AND INTRUSIVES
Qr RHYOLITE FLOWS, TUFF, AND INTRUSIVES

SOUTHEAST
Qt ALKALIC EXTRUSIVE AND INTRUSIVE IGNEOUS ROCKS

NORTHWEST
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—Mostly locally derived clasts. In some localities includes some Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

CENTRAL
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—Mostly locally derived clasts. In some localities includes some Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

EAST
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—May include some Pleistocene deposits and Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

NORTH
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—May include some Pleistocene deposits and Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

SOUTH
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—Mostly locally derived clasts. In some localities includes some Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

NORTHEAST
Qa ALLUVIUM AND COLLUVIUM
Qg GRAVEL, PEDIMENT, AND FAN DEPOSITS—May include some Pleistocene deposits and Tertiary gravels
Qs EOLIAN DEPOSITS
Ql LAKESHORE DEPOSITS
Qb BARE SAND, LOESS, AND ASSOCIATED EOLIAN DEPOSITS
Ql PLAYA LAKE AND OTHER YOUNG LACUSTRINE DEPOSITS
Q UNDIVIDED SURFICIAL DEPOSITS

QUATERNARY ROCKS AND UNCONSOLIDATED DEPOSITS

Qb BASALT FLOWS AND INTRUSIVES
Qr RHYOLITE FLOWS, TUFF, AND INTRUSIVES

Qt ALKALIC EXTRUSIVE AND INTRUSIVE IGNEOUS ROCKS

QUATERNARY AND TERTIARY

Holocene
Pleistocene
QUATERNARY
Pliocene
Miocene
TERTIARY

LOWER QUATERNARY AND TERTIARY ROCKS AND UNCONSOLIDATED/SURFICIAL DEPOSITS

QTg TERRACE GRAVEL (PLEISTOCENE AND/OR PLIOCENE)
Tw WASATCH FORMATION
Tfu Fossiliferous Sole (Fluviatile) Member
Tn Medicine Bow Nountains and east of Laramie Mountains (Pliocene to Miocene)
Tfu BIG POMPOUS (PLEISTOCENE AND PLIOCENE)

UPPER TERTIARY SEDIMENTARY AND IGNEOUS ROCKS

THRUST BELT
Tbf BASALT FLOWS AND INTRUSIVES
Tm MIOCENE ROCKS
Tmp BROOKS PARK FORMATION

CENTRAL
Tmp MOONSTONE FORMATION
Tmp NORTH PARK FORMATION
Tmp BROOKS PARK
Tmp LOWER MIOCENE ROCKS

EAST
Tmu UPPER MIOCENE ROCKS
Tmu LOWER MIOCENE ROCKS

Tmu ROCKS EQUIVALENT TO UPPER AND LOWER MIOCENE ROCKS AND WHITE RIVER FORMATION

THRUST BELT
Tkl SALT LAKE FORMATION
Tcc COWART CREEK TUFF
Tcc CALDWELL CANYON VOLCANICS
Tcf CAMP CARTER FORMATION

NORTHWEST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

SOUTHWEST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly DUNOUS ROCKS AND GRAVEL

CENTRAL
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

EAST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

UPPER TERTIARY AND QUATERNARY SEDIMENTARY AND IGNEOUS ROCKS

THRUST BELT
Tkl SALT LAKE FORMATION
Tcc COWART CREEK TUFF
Tcc CALDWELL CANYON VOLCANICS
Tcf CAMP CARTER FORMATION

NORTHWEST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

SOUTHWEST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

CENTRAL
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

EAST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

NORTH
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

SOUTH
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

NORTHEAST
Tkl SALT LAKE FORMATION
Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)
Tly BIGHORN MOUNTAINS

Tcc CALDWELL CANYON VOLCANICS (PLUTONIC ON HIGHER)