DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

GEOLOGIC MAP OF THE LAKE HELEN QUADRANGLE, BIG HORN AND JOHNSON COUNTIES, WYOMING

By Fred Barker

GEOLOGIC QUADRANGLE MAP
Published by the U.S. Geological Survey, 1982

GEOLOGIC MAP SYMBOLS
COMMONLY USED ON MAPS OF THE UNITED STATES GEOLOGICAL SURVEY
(Special symbols are shown in explanation)

Contact—Dashed where approximately located; short dashed where inferred; dotted where concealed

45 Contact—Showing dip; well exposed at triangle

Fault—Dashed where approximately located; short dashed where inferred; dotted where concealed

20 Fault, showing dip—Ball and bar on downthrown side

Normal fault—Hachured on downthrown side

Fault—Showing relative horizontal movement

Thrust fault—Sawteeth on upper plate

Anticline—Showing direction of plunge; dashed where approximately located; dotted where concealed

Asymmetric anticline—Short arrow indicates steeper limb

Overturned anticline—Showing direction of dip of limbs

Syncline—Showing direction of plunge; dashed where approximately located; dotted where concealed

Asymmetric syncline—Short arrow indicates steeper limb

Overturned syncline—Showing direction of dip of limbs

Monocline—Showing direction of plunge of axis

20 Minor anticline—Showing plunge of axis

60 Minor syncline—Showing plunge of axis

Strike and dip of beds—Ball indicates top of beds known from sedimentary structures

70 Inclined ⊕ Horizontal
Vertical 40 Overturned

Strike and dip of foliation

20 Inclined Vertical Horizontal

Strike and dip of cleavage

15 Inclined Vertical Horizontal

Bearing and plunge of lineation

15 Inclined Vertical Horizontal

Strike and dip of joints

40 Inclined Vertical Horizontal

Note: Planar symbols (strike and dip of beds, foliation or schistosity, and cleavage) may be combined with linear symbols to record data observed at same locality by superimposed symbols at point of observation. Coexisting planar symbols are shown intersecting at point of observation.

Shafts

Vertical Inclined

Adit, tunnel, or slope

Accessible Inaccessible

X Prospect

Quarry

Active Abandoned

Gravel pit

Active Abandoned

Oil wells

Drilling Shut-in Dry hole, abandoned
Gas Show of gas
Oil Show of oil