

43°22'30"

103°32'30"

103°30'
43°22'30"



EXPLANATION

Qal

Alluvium

Qlg

Terrace gravel

Ql

Landslide

Ksc

Skull Creek shale

Dark-gray marine shale

Kfr

Fall River formation

s, sandstone, m, mudstone, ss, sandstone and silt-

stone interbedded. Basal sst contains uranium in

adjacent areas

Klf

Fusion member

m, mudstone

Klu

Unnamed lower unit

m, mudstone; sm, sandstone and mudstone interbedded;

S₂, prominent fine-grained yellowish-gray cross-

bedded sandstone, the top of which is marked by a prom-

inent 5-foot red sandstone. S₂ contains discontinuous

lenses of mudstone and siltstone

Ju

Unkappa sandstone

White to pale-red fine-grained argillaceous indistinctly

crossbedded sandstone. Top locally grades into clay-

stone

Jsr

Jsl

Jsh

Jssb

Jscs

Sundance formation

Jsr, Redwater shale member, gray marine shale, silt-

stone, thin fossiliferous limestones, glauconitic at top;

Jsl, Lak member, moderate reddish-brown siltstone;

Jsh, Hulett sandstone member, fine-grained pale gra-

ish-orange ripple-marked thin-bedded sandstone, thin

gray shale and siltstone at top; Jssb, Stockade

Beaver shale member, olive-gray fossiliferous cal-

careous shale; Jscs, Canyon Springs sandstone mem-

ber, pale-orange to moderate reddish-brown fine-

grained friable sandstone, lower part massive, upper

part thin bedded

RPsg

RPsg

RPsg

Spearfish formation

Dark reddish-brown siltstone, RPsg; prominent gypsi-

ferous units consisting of 10 to 40-foot beds of gypsum

separated by 5-foot siltstone beds, RPsg

Pm

Minnekahta limestone

Light brownish-gray to pale-red slabby limestone with

intricately undulating bedding

Po

Opeche formation

Dark reddish-brown siltstone

Contact

Dashed where approximately located

Indefinite or inferred contact

Top and bottom contacts of Inyan Kara group

Dashed where approximately located

Contact within Inyan Kara group

Dashed where approximately located

Limit of exposure

"s" indicates exposure. Exposures mapped only in Inyan

Kara group, Unkappa sandstone, and Sundance for-

mation

5100

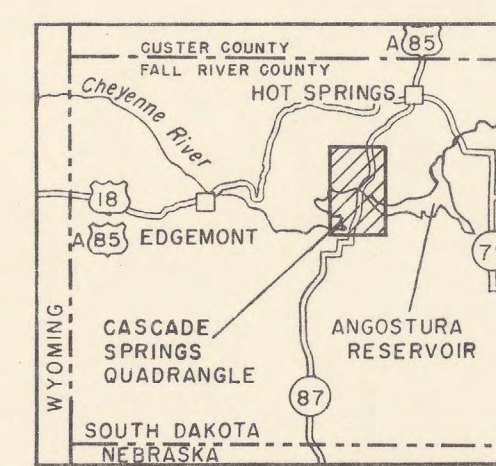
Structure contour

Drawn on top of unnamed lower unit of Lakota formation;

interval 50 feet; datum is mean sea level. Long dashes

where unnamed lower unit of Lakota formation is buried,

dotted where eroded



INDEX MAP SHOWING LOCATION
OF CASCADE SPRINGS QUADRANGLE

INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D.C. 20540

Geology by E. V. Post and D. W. Lane, 1956

103°30'
43°20'

103°32'30"

43°22'30"

APPROXIMATE MEAN
DECLINATION, 1959

PART OF QUADRANGLE
COVERED BY THIS MAP

0 5 10 Miles

3 1818 00178902 1

Topography by U. S. Geological Survey by
multiplex methods from aerial photographs

PRELIMINARY GEOLOGIC AND STRUCTURE MAP OF THE NORTHEAST PART OF THE CASCADE SPRINGS QUADRANGLE, FALL RIVER COUNTY, SOUTH DAKOTA

By
Edwin V. Post and Donald W. Lane

Scale 1:7200

1000 0 1000 2000 3000 Feet

Contour interval 10 feet
Datum is mean sea level

1959

MINERAL INVESTIGATIONS
FIELD STUDIES MAP MF-208

South Dakota (NE Cascade Springs quad.) geol. 1:7200. 1959.
cop. 1.

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A56fs
2-208

M(200)
MF208
1564 2067

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