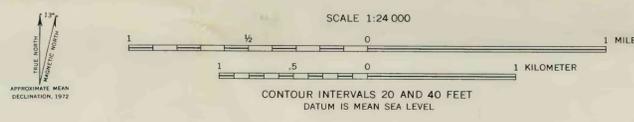


EXPLANATION

- Ps**
Sedimentary rocks
- UNCONFORMITY**
- mg mp**
Intrusive metagabbro (mg) and intermediate porphyry (mp)
- sg ch**
Swede Gulch Formation
Graywacke, slate, graphitic schist, and massive chert (ch)
- ps**
Poverty Gulch Slate
Dark-colored laminated garnetiferous slate or phyllite and graphitic slate
- rf**
Rochford formation
Thin-bedded ferruginous cherty unit containing rosettes of cummingtonite or grunerite and minor garnet
- na rc**
Nahant Schist and Rapid Creek Greenstone
na, Nahant Schist; graphitic schist with muscovite plates in foliation. Occurs above and below the Rapid Creek Greenstone.
rc, Rapid Creek Greenstone; ellipsoidal metabasalt, nonellipsoidal metabasalt, schistose calcareous mafic tuff and agglomerate
- mm**
Montana Mine Formation
Like Rochford formation
- ig ch-c**
Irish Gulch Slate
Dark nonlaminated slate or schist and sparkling micaceous phyllite
ch-c, chert-cummingtonite unit near base of formation
- mgs mgs**
Moonshine Gulch Quartzite
mgs, laminated slate or schist
mgs, dark-colored siliceous quartzite. Thin quartzite beds show grading
- Contact**
Dashed where approximately located or inferred; queried where doubtful
- Inferred fault**
Queried where position uncertain. U, up-thrown side; D, downthrown side. Arrows indicate relative horizontal movement
- Inclined Vertical Overturned Plicated**
Strike and dip of beds
Direction of tops not implied
- Tops of graded beds**
- Tops of lava pillows**
- Inclined Vertical**
Strike and dip of foliation
- Bearing and plunge of lineation**
May be combined with bedding or foliation symbols
- Anticline** **Overturned anticline**
- Syncline** **Overturned syncline**
- Folds**
Showing plunge and direction of dip of limbs. Dashed where approximately located
- Refolded overturned anticline**
- Minor anticline, showing plunge**
- Minor syncline, showing plunge**
- x** Test pit **+** Test trench **+** Adit
- Open pit mine
- x** Inactive gold mine
- +** Mine shaft
- +** Trend of magnetic anomaly
- USGS drill hole 2

PALEOZOIC
Middle Precambrian
PRECAMBRIAN

Base from U.S. Geological Survey 1:24,000, Nahant, Deerfield, Rochford, and Minnesota Ridge, 1956



PRELIMINARY GEOLOGIC MAP OF THE ROCHFORD DISTRICT
BLACK HILLS, SOUTH DAKOTA