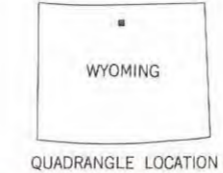
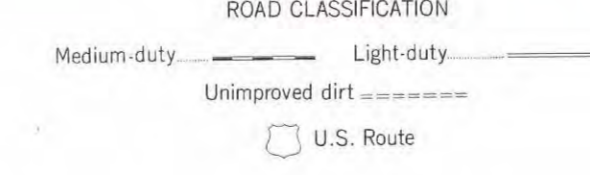
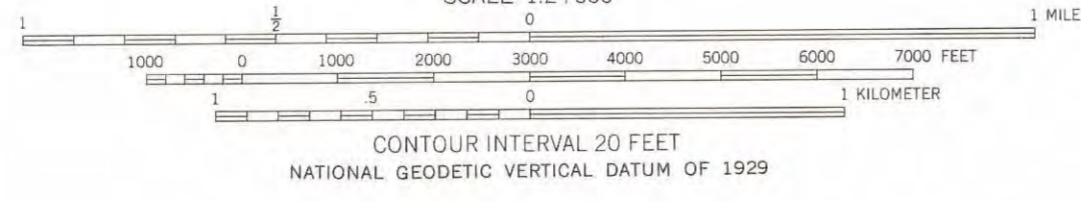
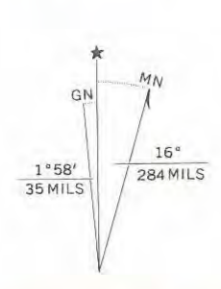


EXPLANATION

- | | | | | | | | | | | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|-----------------------|---|
| Qt₁ | Qt₂ | Qt₃ | Qt₄ | Qt₅ | Qt₆ | Qt₇ | Qt_{trc} | Qt_{hc} | Qt_{bc} | Qt_t | Terrace Levels |
| Q_{trc1} | Q_{trc2} | Q_{trc3} | Q_{trc4} | Q_{trc5} | Q_{trc6} | Q_{trc7} | | | | | Qi Terraces along Shell Creek. Qt ₁ is lowest surface, Qt ₇ is highest.
Qtbc Terraces along Beaver Creek
Qtbc Terraces along Horse Creek. [Qt _{hc} is Ancestral Horse Creek Terrace].
Qt _{trc} Terraces along Red Canyon Creek
Qt _t Terraces along Trapper Creek |
| Q_{p1} | Q_{p2} | Q_{p3} | | | | | | | | | Pediment |
| | | | | | | | | | | | Dipping erosion surface developed on bedrock.
Q _{p1} is closest to mountain front. |
| Q_{es} | | | | | | | | | | | Erosion Surface |
| | | | | | | | | | | | Nearly level erosion surface of unknown origin. |
| Q_{tc} | | | | | | | | | | | Talus Cone |
| | | | | | | | | | | | Rockfall deposits. |
| Q_{ls} | | | | | | | | | | | Landslide Material |
| | | | | | | | | | | | Blocks of bedrock or loose slope debris. |
| Q_{al} | | | | | | | | | | | Alluvium |
| | | | | | | | | | | | Unconsolidated deposits of alluvium along stream valleys at or near present stream levels. |
| Q_{af} | | | | | | | | | | | Alluvial Fan |
| | | | | | | | | | | | Unconsolidated fan-shaped deposits of alluvium. |
| K_f | | | | | | | | | | | Frontier Formation |
| | | | | | | | | | | | Only the basal Peay Sandstone is present. Fine-grained, light gray sandstone. Thickness 70 feet. |
| K_{mr} | | | | | | | | | | | Mowry Shale |
| | | | | | | | | | | | Upper part is dark to light gray shale, in part siliceous; gray siltstone and bentonite beds at top. Thickness 370 feet. Lower part is dark gray shale with thin bentonites and ferruginous shales. This unit was mapped as the Shell Creek Shale by the author, but has been included with the Mowry to reflect the most recent accepted nomenclature. Thickness 215 feet. |
| K_{md} | | | | | | | | | | | Thermopolis Shale |
| K_t | | | | | | | | | | | Dark gray, non-resistant shale. Upper 34 feet is Muddy Sandstone Member (K _{md}) which is light gray sandstone with thin shale beds. Thickness 335 feet. |
| K_{sm} | | | | | | | | | | | Cloverly Formation |
| K_{cl} | | | | | | | | | | | Variegated mudstone, shale, sandstone, and lenticular cross-bedded sandstone. Upper 160 feet is mapped as Sykes Mountain Member (K _{sm}) which is interbedded yellow or brown siltstone and sandstone and medium gray shale. Thickness 330 feet. |
| J_m | | | | | | | | | | | Morrison Formation |
| | | | | | | | | | | | Calcareous variegated siltstone and mudstone with thin sandstone and limestone beds. Thickness 320 feet. |
| J_s | | | | | | | | | | | Sundance Formation |
| | | | | | | | | | | | Upper part is interbedded, fossiliferous, glauconitic shale, and sandstone. Lower part is green, fossiliferous shale with medial oolitic and upper calcarenite units. Thickness 330 feet. |
| J_{gs} | | | | | | | | | | | Gypsum Spring Formation |
| | | | | | | | | | | | Interbedded siltstone and carbonate with basal massive gypsum or carbonate collapse breccia. Thickness 200 feet. |
| T_c | | | | | | | | | | | Chugwater Formation |
| | | | | | | | | | | | Thin carbonate member overlying reddish-brown calcareous siltstone. Thickness 600 feet. |
| T_{pe} | | | | | | | | | | | Goose Egg Formation |
| | | | | | | | | | | | Upper part is interbedded sandstone, carbonate, and evaporite; Lower part is red shale and siltstone. Thickness 225 feet. |
| P_t | | | | | | | | | | | Tensleep Sandstone |
| | | | | | | | | | | | Thick, cross-bedded sandstone underlain by interbedded sandstone and siltstone. Thickness 100 feet. |
| P_{ma} | | | | | | | | | | | Amsden Formation |
| | | | | | | | | | | | Siltstone and dolomite with a basal sandstone. Thickness 160 feet. |
| M_m | | | | | | | | | | | Madison Limestone |
| | | | | | | | | | | | Light gray, massive, well-indurated carbonate with upper <i>Condophycus austini</i> layer. Thickness 750 feet. |
| D_d | | | | | | | | | | | Darby Formation |
| | | | | | | | | | | | Interbedded silty shale and carbonate. Thickness 100 feet. |
| O_{bh} | | | | | | | | | | | Bighorn Dolomite |
| | | | | | | | | | | | Light gray to white, well-indurated dolomite. Thickness 380 feet. |
| G_g | | | | | | | | | | | Gallatin Limestone |
| | | | | | | | | | | | Interbedded green intramicritic and glauconitic shale. Thickness 500 feet. |
| Formation Contact | | | | | | | | | | | |
| Dashed where approximately located; dotted where concealed. | | | | | | | | | | | |
| Fault | | | | | | | | | | | |
| Dotted where inferred. [D denotes downthrown side, U denotes upthrown side]. | | | | | | | | | | | |
| Monocline | | | | | | | | | | | |
| Trace of axial plane and direction of plunge. Small arrow on more inclined limb. | | | | | | | | | | | |
| Syncline | | | | | | | | | | | |
| Trace of axial plane and direction of plunge. Dashed where approximately located. | | | | | | | | | | | |
| Strike and dip of beds. | | | | | | | | | | | |

Cartography by Fred H. Porter



GEOLOGIC MAP OF SHELL QUADRANGLE, WYOMING
by
Kenneth A. Manahl
1985

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