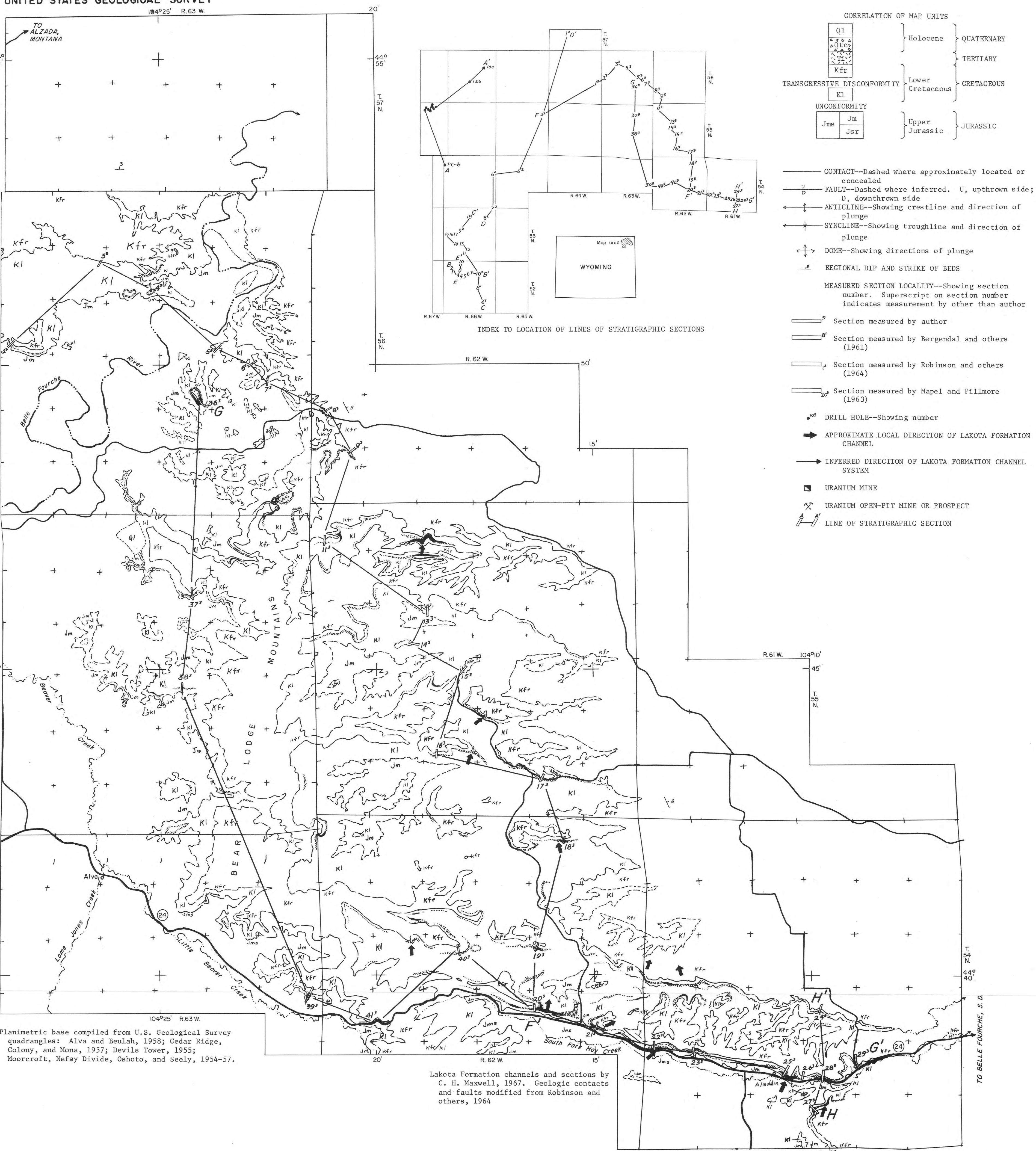


DESCRIPTION OF MAP UNITS

- Mapping of geologic formations has been shown only along a narrow zone bordering the outcrops of the Lakota Formation. Consolidated sedimentary rocks younger than the Fall River Formation (Lower Cretaceous) and older than the Redwater Shale Member of the Sundance Formation (Upper Jurassic) are not shown.
- Q1 LANDSLIDE DEBRIS (HOLOCENE)  
Q1c4 TALUS AND COLLUVIAL DEBRIS (HOLOCENE)—Largely material from intrusive rocks  
T1 Nepheline syenite intrusive rock (Tertiary)  
Kfr FALL RIVER FORMATION OF INYAN KARA GROUP (LOWER CRETACEOUS)—Sandstone, siltstone, and shale  
K1 LAKOTA FORMATION OF INYAN KARA GROUP (LOWER CRETACEOUS)—Solid pattern, river channel deposits; dotted pattern, fine-grained carbonaceous sandstone deposits marginal to main river channels, and subsidiary channel deposits. Channel deposits are complexly intermixed lenses of coarse- to fine-grained conglomerate, grit, very fine to medium-grained sandstone, thin lenses of siltstone or mudstone, and small lenses or partings of claystone, complexly crossbedded with prominent scour-and-fill structures and many angular disconformities; material is generally very poorly sorted. Channel deposits grade laterally into very lenticular, fine-grained to very fine grained sandstone and siltstone composing natural-levee and overbank-spill deposits which contain variable amounts of carbonaceous trash, coalified wood fragments, and logs. Natural-levee and overbank-spill deposits grade laterally into evenly bedded siltstone, mudstone, and claystone. The matrix of the channel conglomerate is extremely variable in size which ranges from clay to coarse sand. The larger clasts are mostly black, gray, and tan, commonly tripolized, chert in the upper part; black and gray chert in the middle; and black chert at the base of the formation. The chert fragments get progressively larger and more angular toward the south. A few feet of blocky claystone usually occurs at the top of the formation just beneath the Fall River contact in the river channel areas, and is much thicker and interbedded with siltstone in other areas. A distinctly older coal-bearing sequence occurs in the basal part of the formation in the Aladdin area (Wassé, 1959).
- Jms MORRISON FORMATION AND REDWATER SHALE MEMBER OF SUNDANCE FORMATION (UPPER JURASSIC)  
Jm MORRISON FORMATION (UPPER JURASSIC)—Claystone, marlstone, and limestone  
Jrs REDWATER SHALE MEMBER OF SUNDANCE FORMATION (UPPER JURASSIC)—Shown only locally where overlying Morrison Formation has been removed by erosion

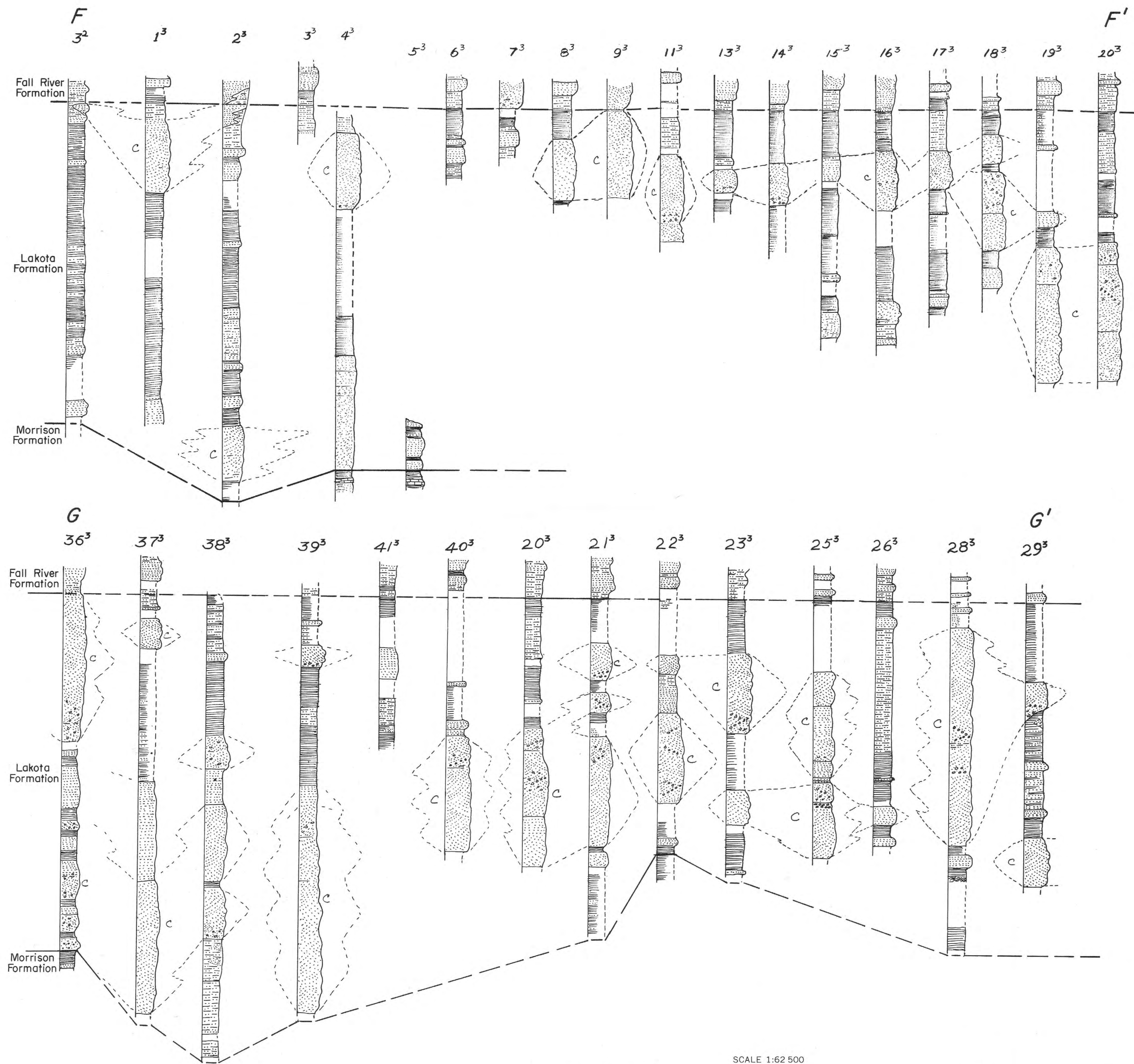
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Planimetric base compiled from U.S. Geological Survey quadrangles: Alva and Beulah, 1958; Cedar Ridge, Colony, and Mona, 1957; Devils Tower, 1955; Moorcroft, Nefsey Divide, Oshoto, and Seely, 1954-57.

Lakota Formation channels and sections by C. H. Maxwell, 1967. Geologic contacts and faults modified from Robinson and others, 1964.



EXPLANATION FOR STRATIGRAPHIC SECTIONS

- Claystone and shale  
Siltstone and mudstone  
Sandstone  
Conglomerate  
Marl and limestone  
Carbonaceous material and coal  
Partly covered or covered  
Formation contact--Dashed where inferred  
Boundary of lithologic unit within the Lakota Formation. Dashed where approximately located
- Letter symbol indicating depositional environment, where known:  
C Channel deposits--May include some overbank deposits  
L Lower-channel deposits  
M Medial-channel deposits  
U Upper-channel deposits  
O Overbank deposits  
F Flood-plain deposits

METRES FEET  
75 250  
200  
150  
100  
50  
0  
VERTICAL SCALE  
1 inch equals 50 feet  
(1 cm equals 6.2 m)

SCALE 1:62 500  
1 0 1 2 3 4 MILES  
1 0 1 2 3 4 KILOMETERS

MAP AND STRATIGRAPHIC SECTIONS SHOWING DISTRIBUTION OF SOME CHANNEL SANDSTONES IN THE LAKOTA FORMATION, NORTHWESTERN BLACK HILLS, WYOMING

By  
Charles H. Maxwell  
1974

Wyoming Black Hills  
Lakota Formation  
C.H. Maxwell

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