Montana Bureau of Mines and Geology
Open File No. 529

Geologic Map of the Ennis 30' x 60' Quadrangle, Madison and Gallatin counties, Montana and Park County, Wyoming

K.S. Kellogg and V.S. Williams
U.S. Geological Survey, Denver. CO

2006

To view a full scale version of this map, click here.

For the text files with the map information, click here.

Digital data link

Note— This map was originally published at a scale of 1;100,000 but the page sizes have been modified to fit average printer capabilities (8½ x 14; legal size paper). There is a an eighth inch overlap on these pages. A full sized colored print of this map can be ordered from the MBMG Publication Sales Office, 1300 West Park Street, Butte, MT, 59701-8997.

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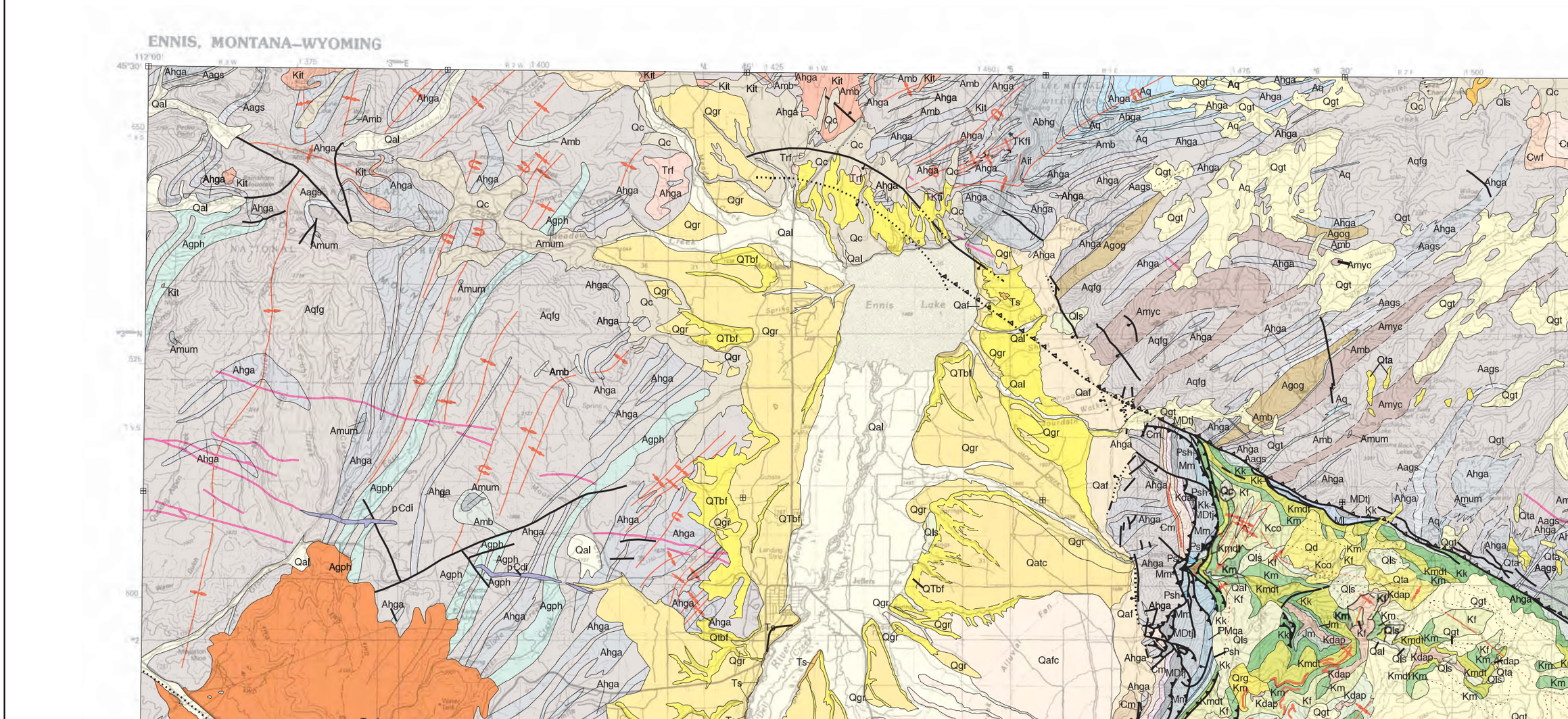
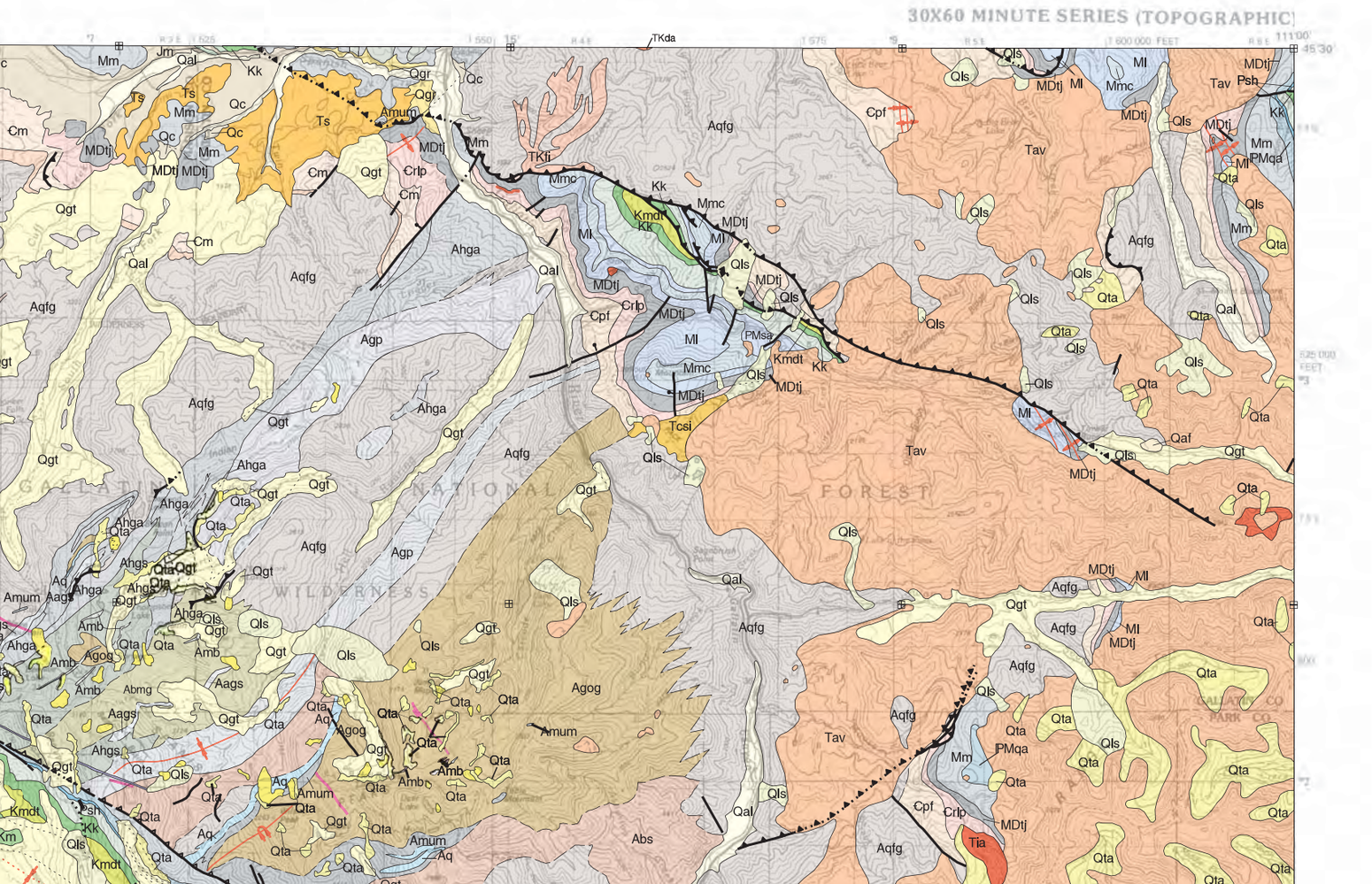
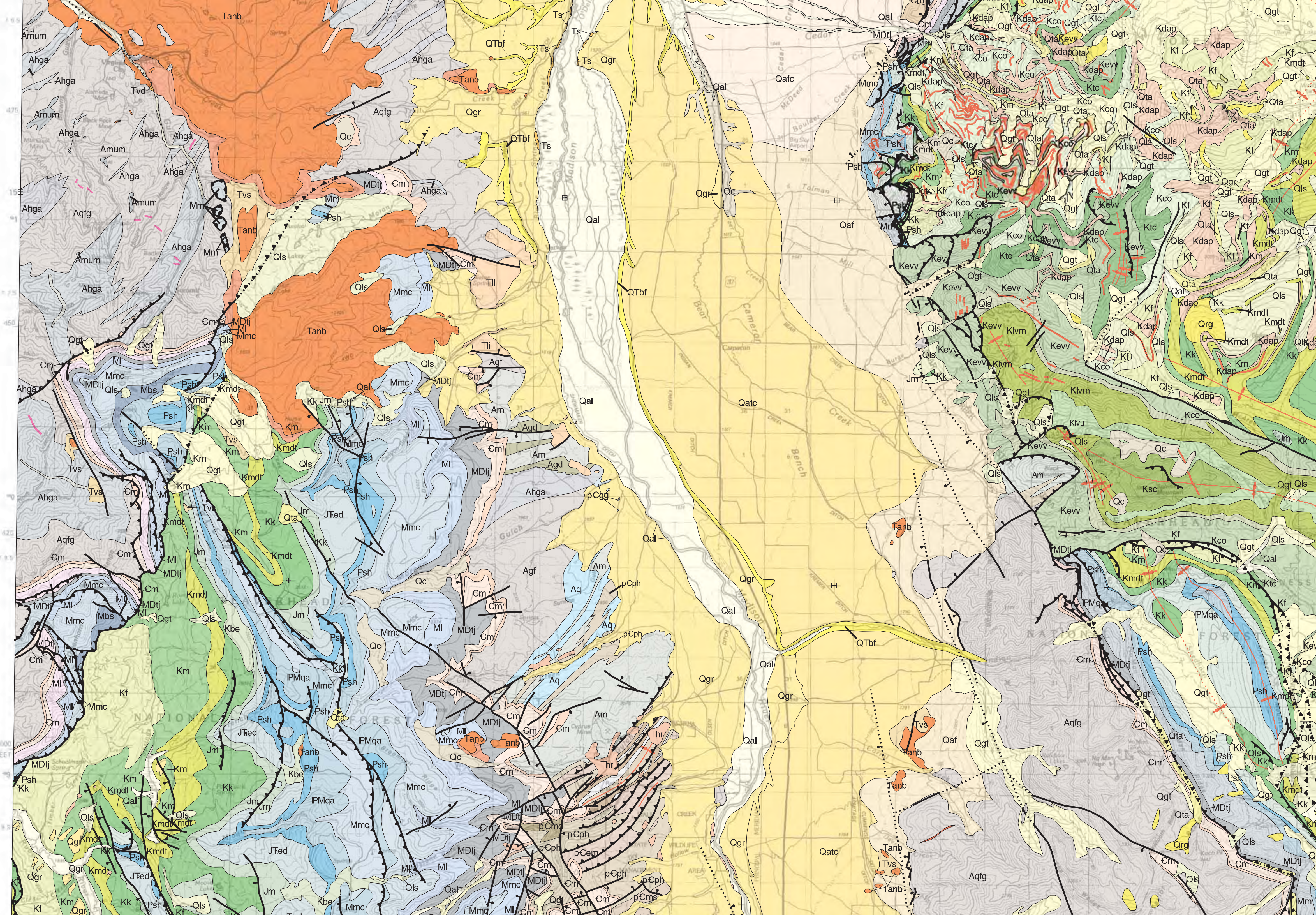
Open File MBMG 529, Plate 1 of 1
Geologic Map, Ennis 30'x60' Quadrangle



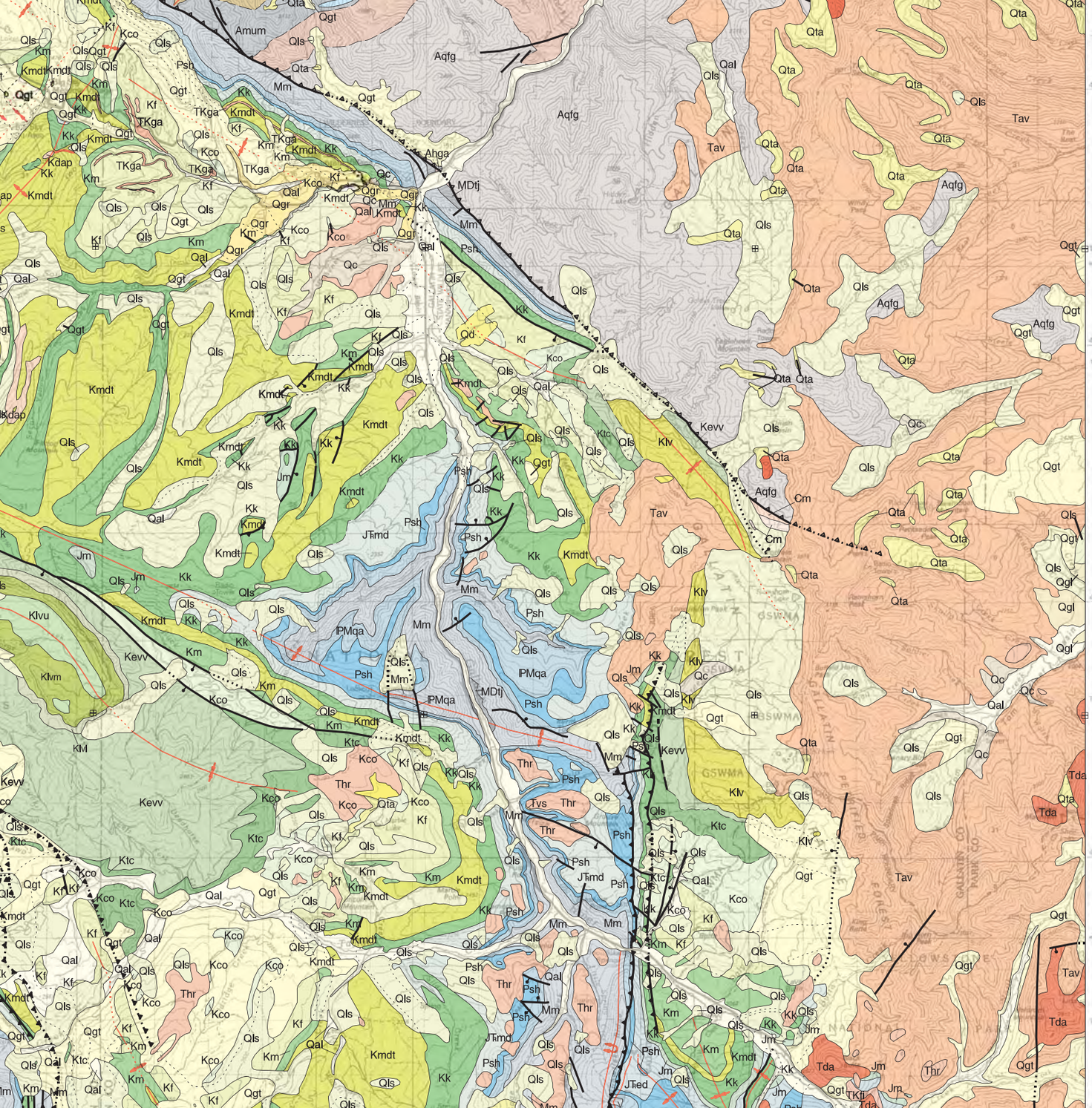


MAP UNITS

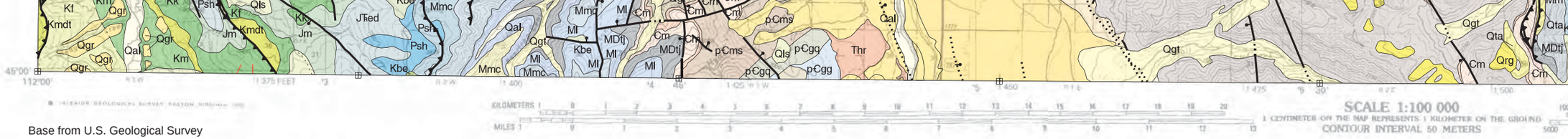
Qal	Alluvium of modern channels and flood plains
Qg	Floodplain deposit
Qc	Colluvium
Qta	Talus deposit
Qls	Landslide deposit
Qrg	Rock glacier deposit
Qaf	Alluvial fan deposit
Qaf1	Alluvial fan deposit, youngest
Qafc	Cedar Creek alluvial fan deposit
Qgl	Glacial lake deposit
Qgt	Glacial till
Qd	Diamicton
Qgr	Gravel deposit
Qatc	Alluvium of Cameron Bench
QTgr	Gravel
QTbf	Basin-fill deposit
Thr	Huckleberry Ridge Tuff, undivided
Tls	Landslide deposit
Ts	Sediment or sedimentary rocks, undivided
Tli	Freshwater limestone
Tvd	Diatreme
Tanb	Andesite and basalt flows
Trf	Rhyolite flows
Tda	Dacite
Tfet	Felsic tuff
Tvs	Volcaniclastic sandstone and conglomerate deposits
Tia	Intrusive rocks of Absaroka Volcanics supergroup
Tav	Absaroka Volcanic Group (part)



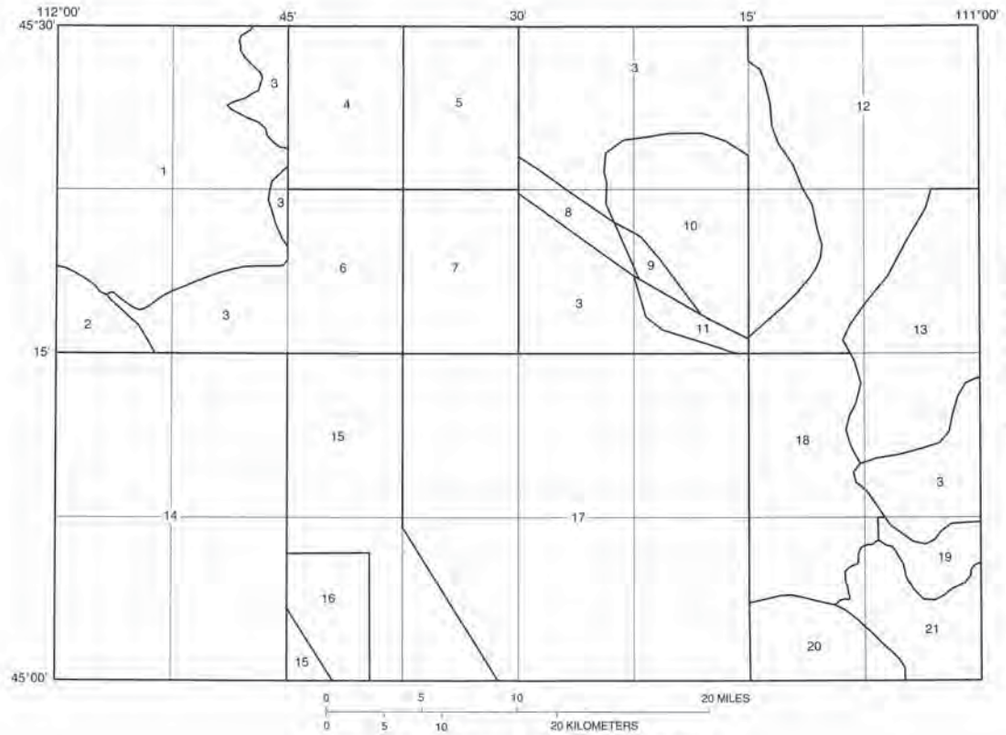
Tanb
QTbf
Qal
Qgr
Qatc
Qaf
Aqfg
Ahga
Amum
Mmc
Psh
Kmdt
Kevv
Kdap
Qgt
Madison
Cameron
Bench
Creek
NATIONAL
FOREST



Tanf	Andesite flows of Hyalite Peak Volcanics
Tcsi	Conglomerate and siltstone of Absaroka Volcanics
TKda	Dacite
TKfi	Felsic intrusive rocks
TKga	Gabbro sills
Kdap	Dacite porphyry
Kit	Intrusive rock of Tobacco Root Batholith, undivided
Ksc	Sphinx Conglomerate
Kbe	Beaverhead Group
Kbel	Beaverhead and Livingston Groups, undivided
Klv	Livingston Formation or Livingston Group
Klvu	Livingston Fm, upper member
Klvm	Livingston Fm, middle member
Klvl	Livingston Fm, lower member
Kevv	Everts Formation through Virgelle Sandstone, undivided
Ktc	Telegraph Creek Formation
Kco	Cody Shale
Kf	Frontier Formation
Km	Mowry Shale
Kmdt	Muddy Sandstone and Thermopolis Fm., undivided
Kk	Kootenai Formation
Jm	Morrison Formation
Je	Ellis Group, undivided
JTmd	Morrison through Dinwoody Fms., undivided
JTed	Ellis Gp., Woodside and Dinwoody Fms., undivided
Tw	Woodside Formation
Psh	Shedhorn Sandstone
PMsa	Shedhorn through Amsden Fms., undivided
PMqa	Quadrant and Amsden Formations, undivided
Mbs	Big Snowy Group, undivided
Mm	Madison Group, undivided
Mmc	Mission Canyon Limestone
Ml	Lodgepole Limestone
MDtj	Three Forks and Jefferson Formations, undivided
OCbp	Big Horn Dolomite through Park Shale, undivided
Crlp	Red Lion Fm. and Pilgrim Dolomite, undivided
Cpf	Park through Flathead Formations, undivided
Cm	Meagher Limestone
Cwf	Wolsey and Flathead Formations, undivided
pCdb	Diabase dike
pCmd	Metadiorite



Base from U.S. Geological Survey
Ennis 30'x60' topographic quadrangle
Map date: 1989
Projection: UTM zone 12; 1927 NAD



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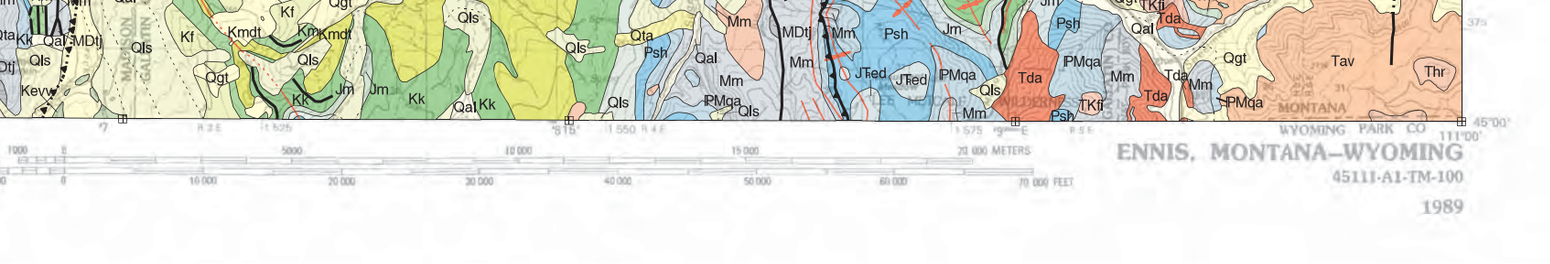
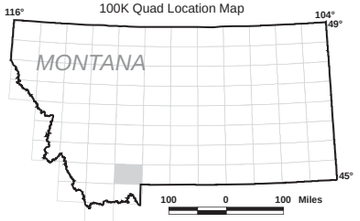
GIS production: Ken Sandau and Paul Thale, ME



Quad index

BUTTE SOUTH	BOZEMAN	LIVINGSTON
DILLON	ENNIS	GARDINER
LIMA	HEBGEN LAKE	*YELLOW-STONE NAT PARK N*

100K Quad Location Map



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MBMG. Map layout: Susan Smith, MBMG.

pCmd	Metadiorite
pCph	Phyllite
pCem	Epidote-actinolite metasediment
pCbs	Biotite-chlorite schist
pCif	Banded Iron Formation
pCms	Mylonite schist
pCgq	Biotite gneiss, quartzite, and hornblende gneiss
pCgg	Granite gneiss
Agp	Granite porphyry of Hell Roaring Creek
Agog	Granite orthogneiss
Amb	Metabasite
Ahgs	Hornblende-biotite granodiorite orthogneiss of Summit Lake
Amum	Meta-ultramafic rocks
Aqfg	Quartzofeldspathic gneiss
Agph	Garnetiferous gneiss of Tobacco Root Mtns.
Ahga	Hornblende-plagioclase gneiss and amphibolite
Abs	Biotite schist
Agd	Gedrite-cummingtonite gneiss
Abhg	Biotite-hornblende gneiss of Beartrap Canyon
Aamh	Amphibolite and hornblende gneiss
Amyc	Mylonite of Crooked Creek Shear Zone
Aags	Aluminous gneiss and schist
Abmg	Biotite-muscovite gneiss
Aq	Quartzite
Aif	Banded Iron formation
Am	Marble