

Montana Bureau of Mines and Geology
Open File No. 554

Geologic Map of the Plains
30' x 60' Quadrangle, Western Montana

Mapped by Jeffrey D. Lonn, Larry N. Smith,
and Robin M. McCulloch

2007

To view a full scale version of this map, [click here](#).

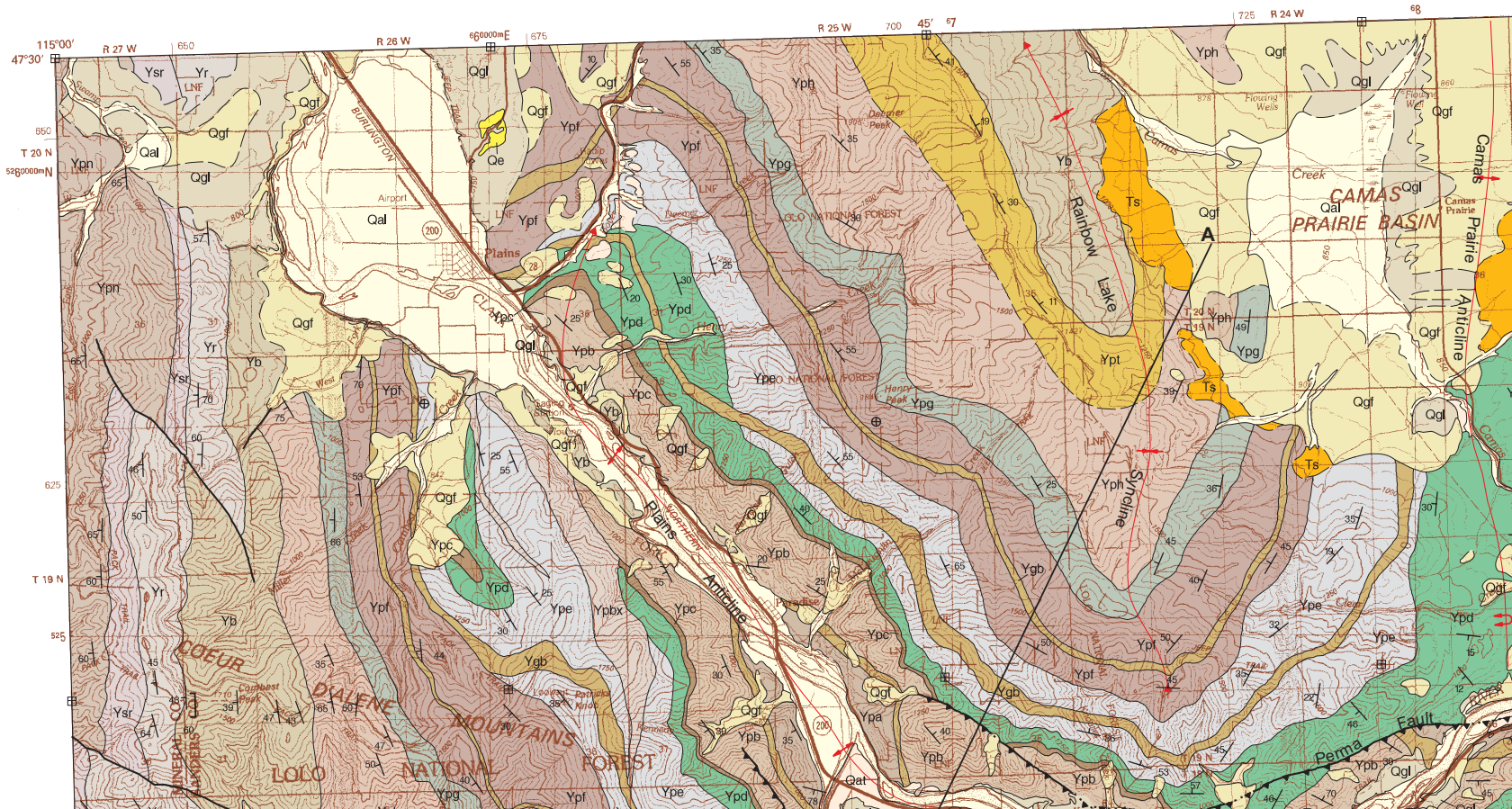
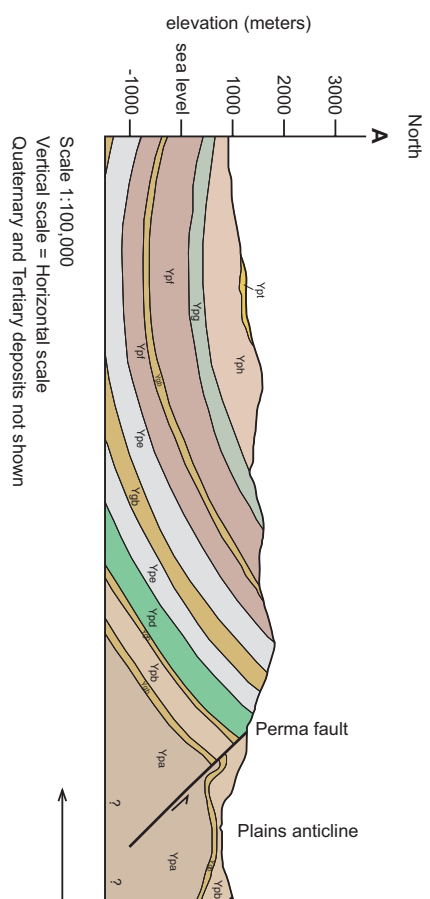
For the text files with the map information, [click here](#).

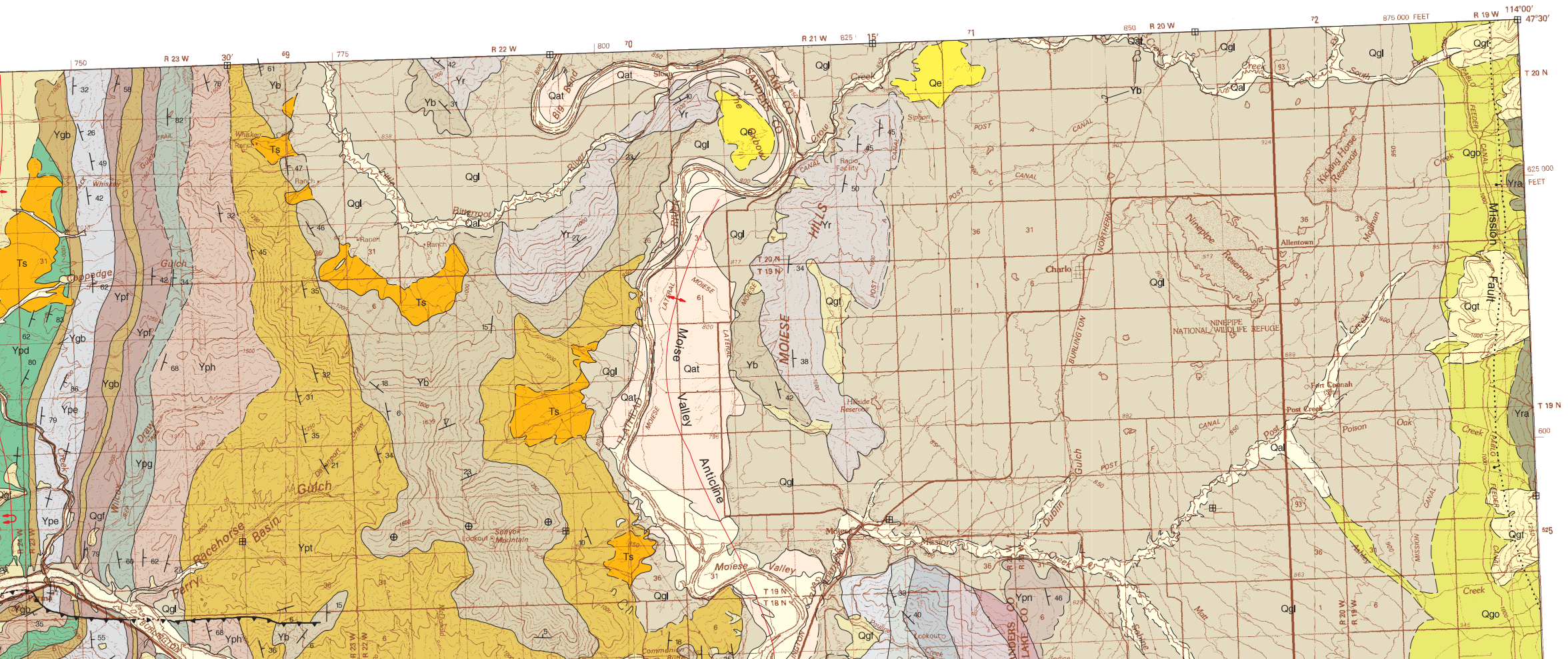
Note— This map was originally published at a scale of 1;100,000 but the page sizes have been modified to fit the average printer capabilities (8½ x 14; legal size paper). There is a an eighth inch overlap on these pages. A full sized colored print of this map can be ordered from the **MBMG Publication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

Phone: 406-496-4167

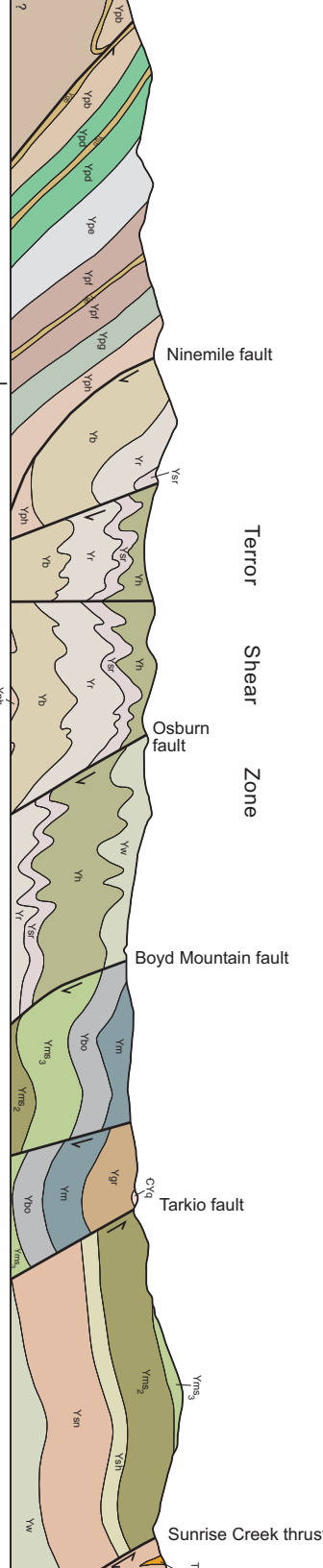
Email: pubsales@mbmg.mtech.edu

Open File MBMG 554, Plate 1 of 1
Geologic Map, Plains 30'x60' Quadrangle



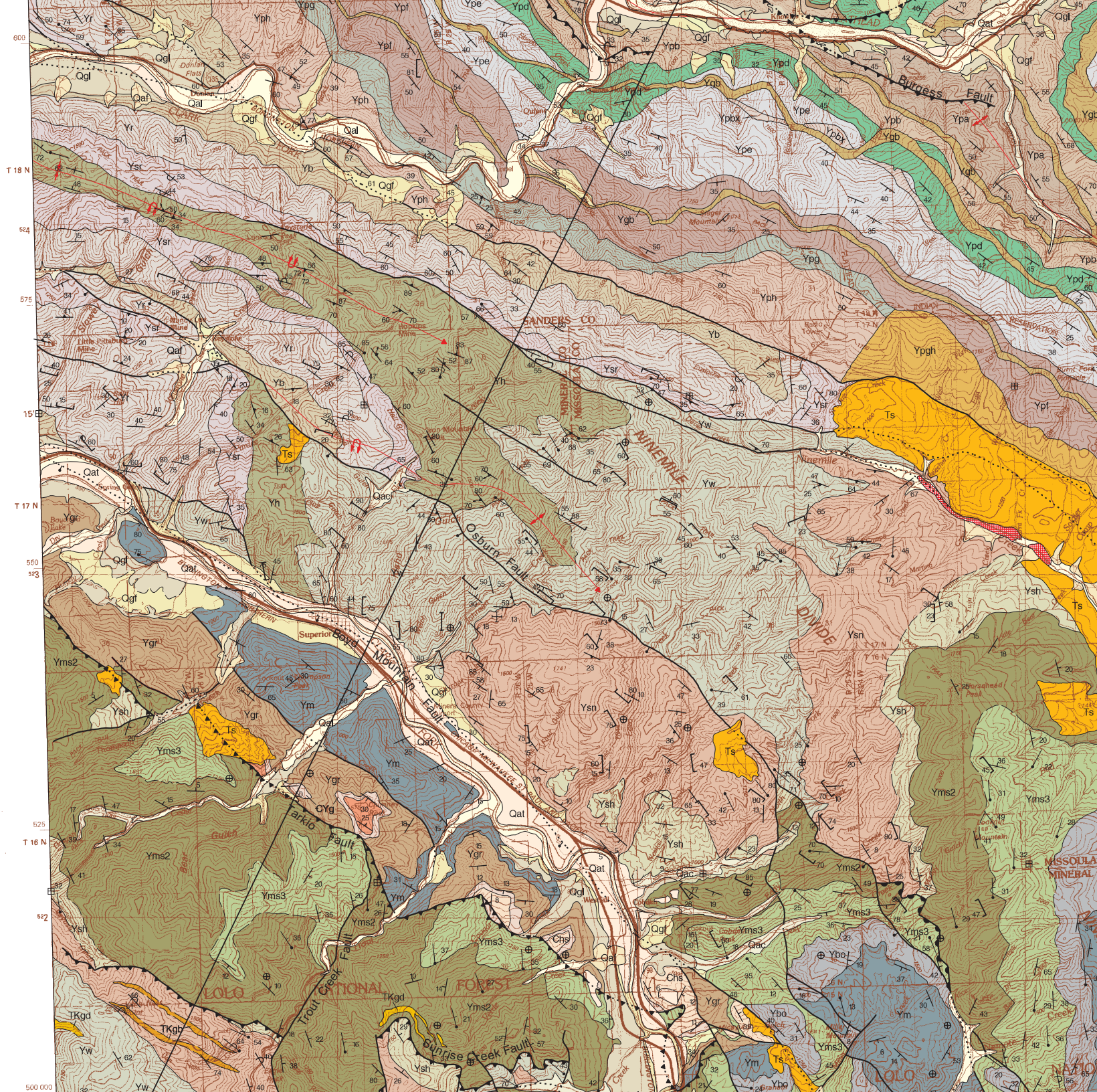


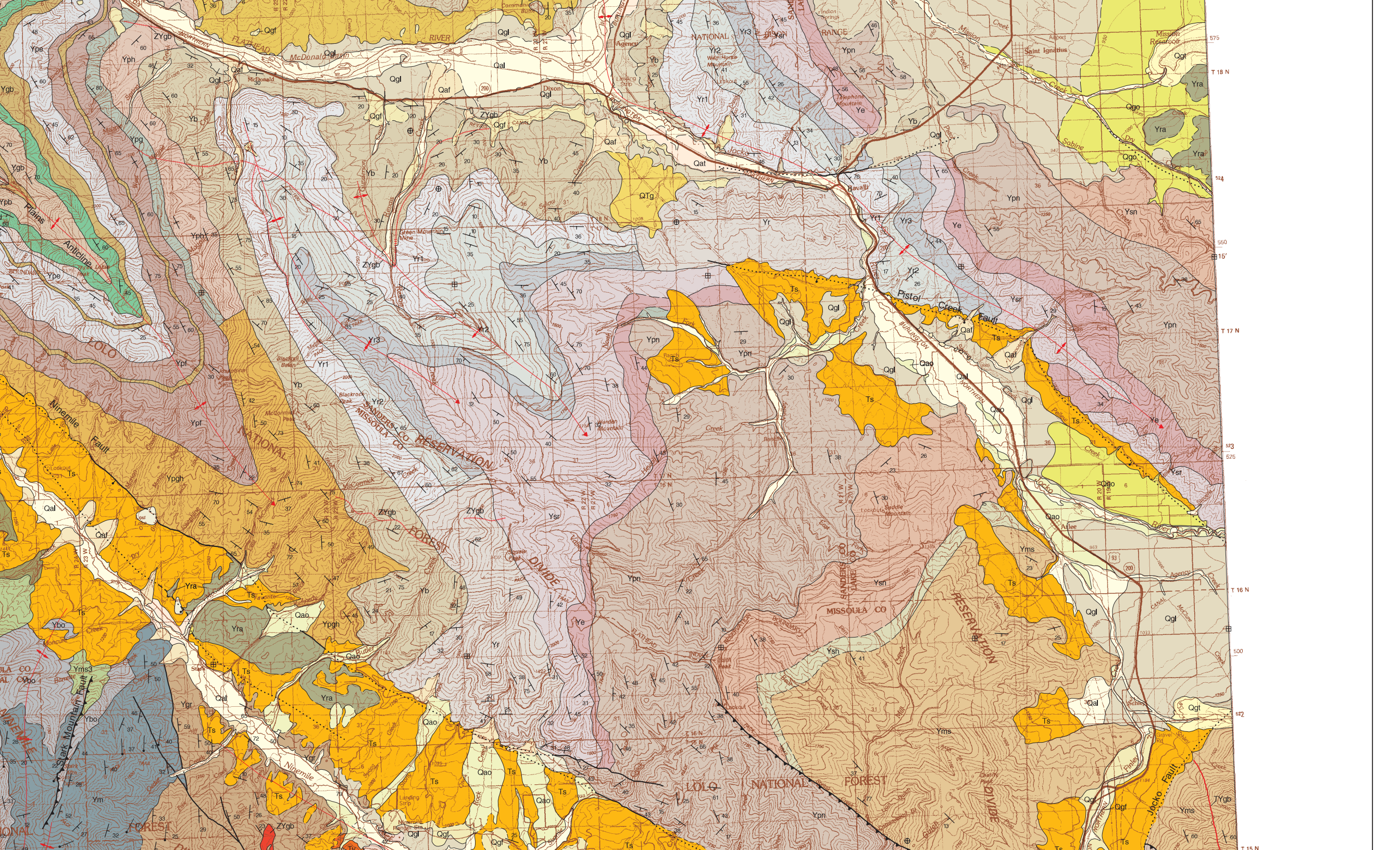
Purcell Anticlinorium
Lewis and Clark Line

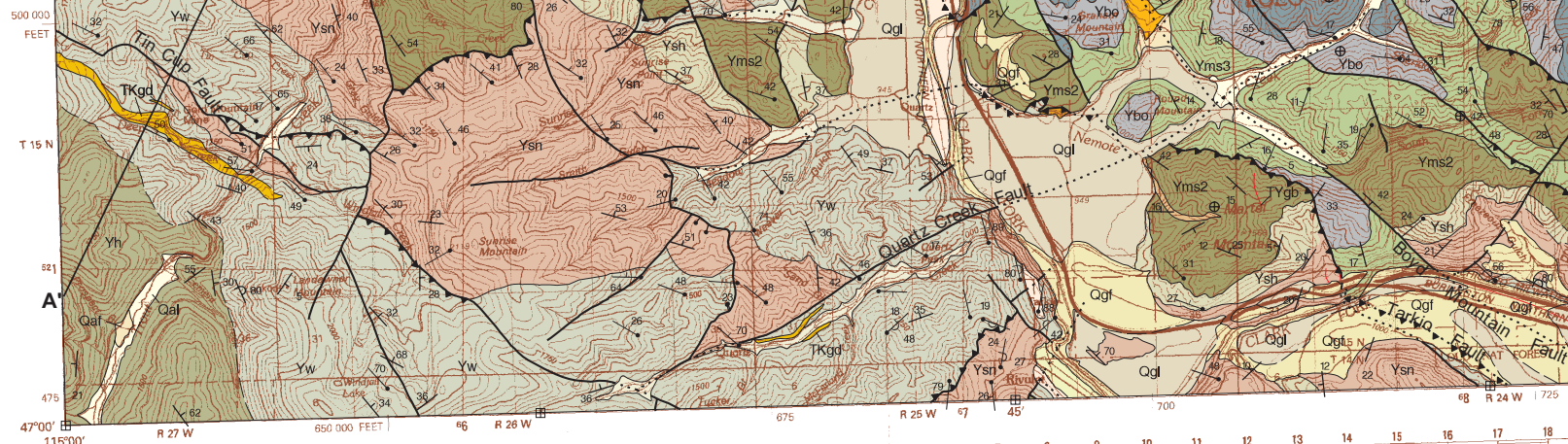
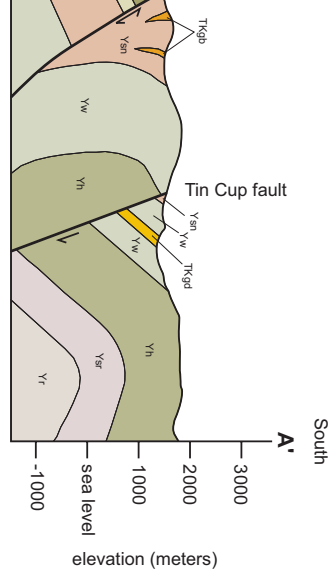


Cross Section A—A'

Terror
Shear
Zone







INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1982
 Base from U.S. Geological Survey
 Plains 30'x60' topographic quadrangle
 Map date: 1980
 Projection: UTM zone 12; 1927 NAD

 UTM grid declination 1°51' East
 1980 Magnetic North Declination 20° East

Montana Bureau of Mines and Geology
 Open File 554

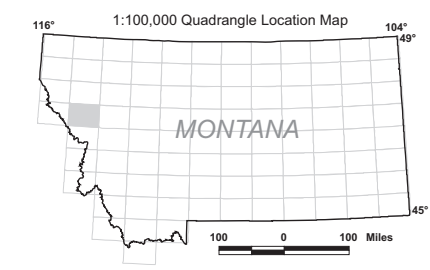
Geologic Map of the Plains 30' x 60' Quadrangle, Western Montana

Jeffrey D. Lonn, Larry N. Smith
 and Robin B. McCulloch

2007

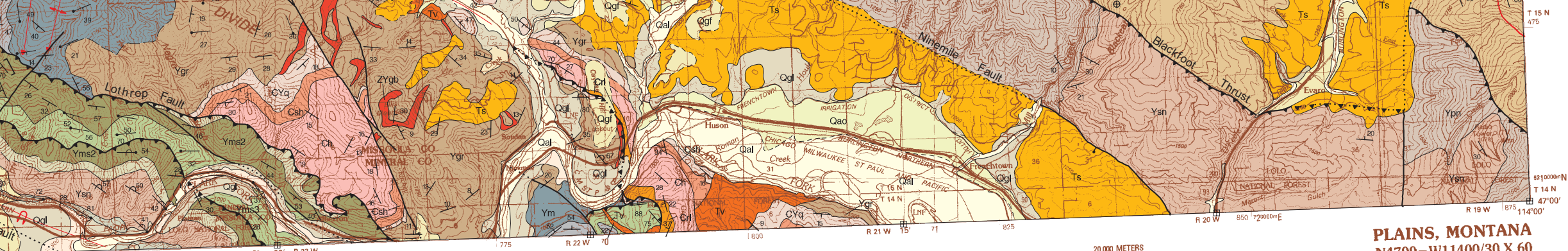
Quadrangle index

116°	115°	114°	113°
THOMPSON FALLS	POLSON	SWAN PEAK	48°00'
WALLACE	PLAINS	SEELEY LAKE	47°30'
HEAD-QUARTERS	MISSOULA WEST	MISSOULA EAST	47°00'
			46°30'

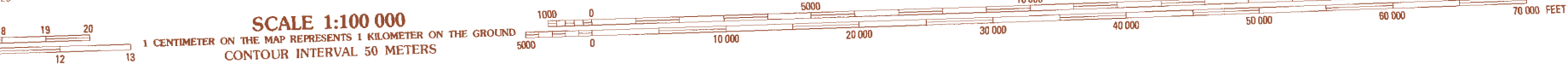


Partial support has been provided by the STATEMAP component of the National Cooperative Geologic Mapping Program of the U.S. Geological Survey under Contract Number 06HQAG0029.

GIS production: Ken Sandau and Paul Thale, MBMG. Map layout: Susan Smith, MBMG.



PLAINS, MONTANA
N4700-W11400/30 X 60
1980

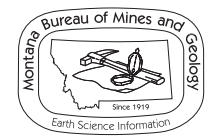


MAP UNITS

Qal	Alluvium of modern channels and flood plains
Qao	Alluvium, older, undivided
Qat	Alluvium of alluvial terrace
Qaf	Alluvial fan deposit
Qac	Alluvium and colluvium, undivided
Qe	Eolian deposit
Qgf	Glacial flood deposits
Qgl	Glacial lake deposit
Qgo	Glacial outwash deposit
Qgt	Glacial till
Qls	Landslide deposit
QTg	Quaternary and Tertiary? gravels
Tv	Volcanic rocks, undivided
Ts	Sediment or sedimentary rocks, undivided
TKgb	Gabbroic and dioritic dikes and sills
TKgd	Granodiorite and quartz diorite
TYgb	Gabbro and diorite

CYq	Pilcher and Flathead Formations
Chs	Hasmark and Silverhill Formations, undivided
Ch	Hasmark Dolomite
CrI	Red Lion Formation
Csh	Silver Hill Formation
ZYgb	Gabbro and diorite
Ygr	Garnet Range Formation
Ym	McNamara Formation
Ybo	Bonner Formation
Yms	Mount Shields Formation
Yms3	Mount Shields Formation, third member, informal
Yms2	Mount Shields Formation, second member, informal
Ysh	Shepard Formation
Ysn	Snowslip Formation
Ypn	Piegan Group
Yw	Wallace Formation
Yh	Helena Formation
Ye	Empire Formation
Yra	Ravalli Group

Ysr	St. Regis Formation
Yr	Revelt Formation
Yr3	Revelt Formation, member 3
Yr2	Revelt Formation, member 2
Yr1	Revelt Formation, member 1
Yb	Burke Formation
Ypt	Prichard Formation, transitional member, informal
Ypgh	Prichard Formation, members g and h
Yph	Prichard Formation, member h
Ypg	Prichard Formation, member g
Ypf	Prichard Formation, member f
Ypbx	Prichard Formation, breccia unit
Ygb	Gabbro and diorite
Ype	Prichard Formation, member e
Ypd	Prichard Formation, member d
Ypc	Prichard Formation, member c
Ypb	Prichard Formation, member b
Ypa	Prichard Formation, argillite member, informal
md	Mine dump



Maps may be obtained from
 Publications Office
 Montana Bureau of Mines and Geology
 1300 West Park Street, Butte, Montana 59701-8997
 Phone: (406) 496-4167 Fax: (406) 496-4451
<http://www.mbm.mtech.edu>

For a more detailed description of the map units and symbols, please refer to the text accompanying this map.