

Montana Bureau of Mines and Geology
Open File No. 459

Geologic Map of the
Great Falls North 30' x 60'
Quadrangle, Central Montana

Compiled and mapped by Susan M. Vuke,
Roger B. Colton, and David S. Fullerton

2002

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

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

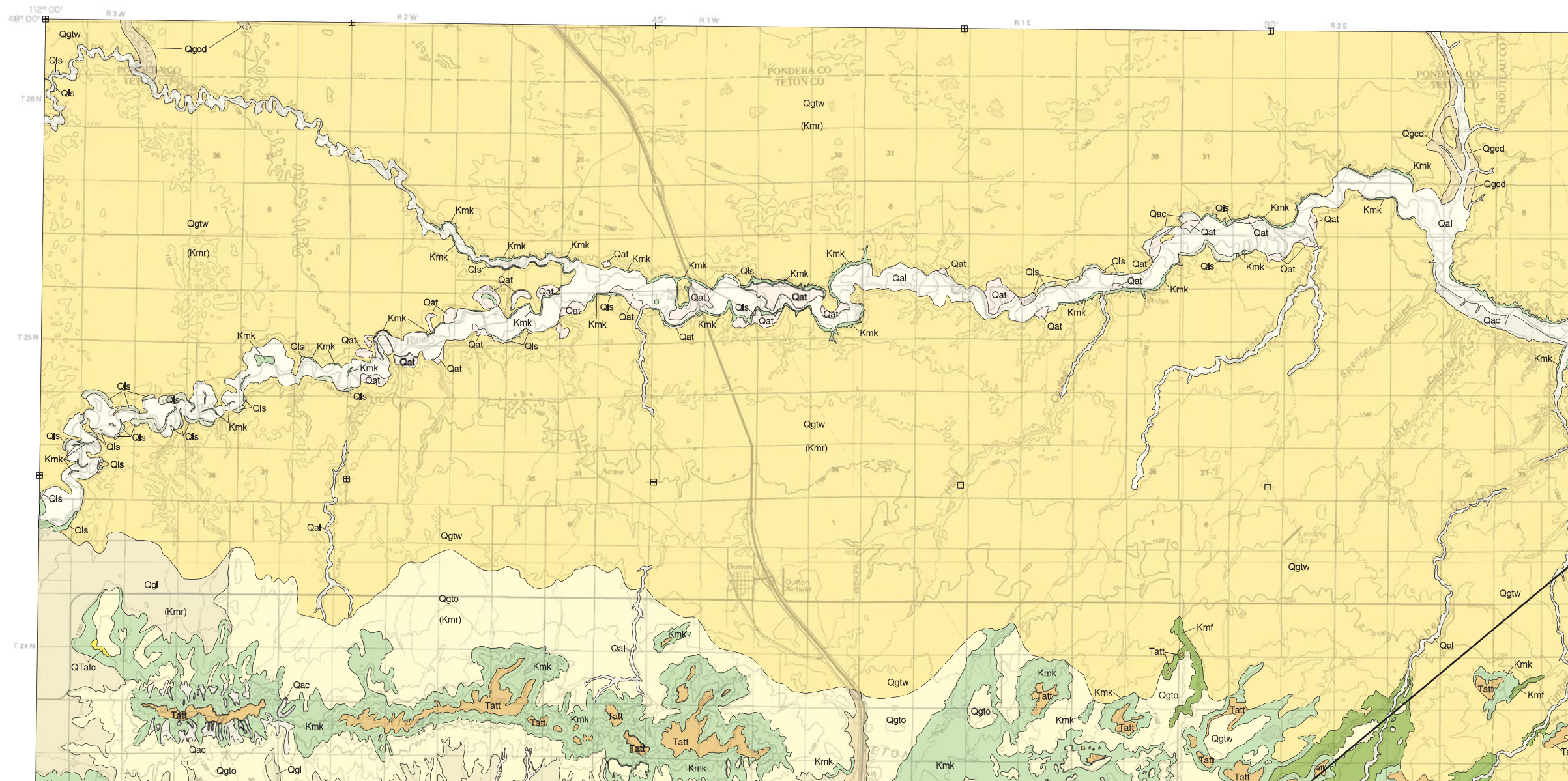
[Digital data link](#)

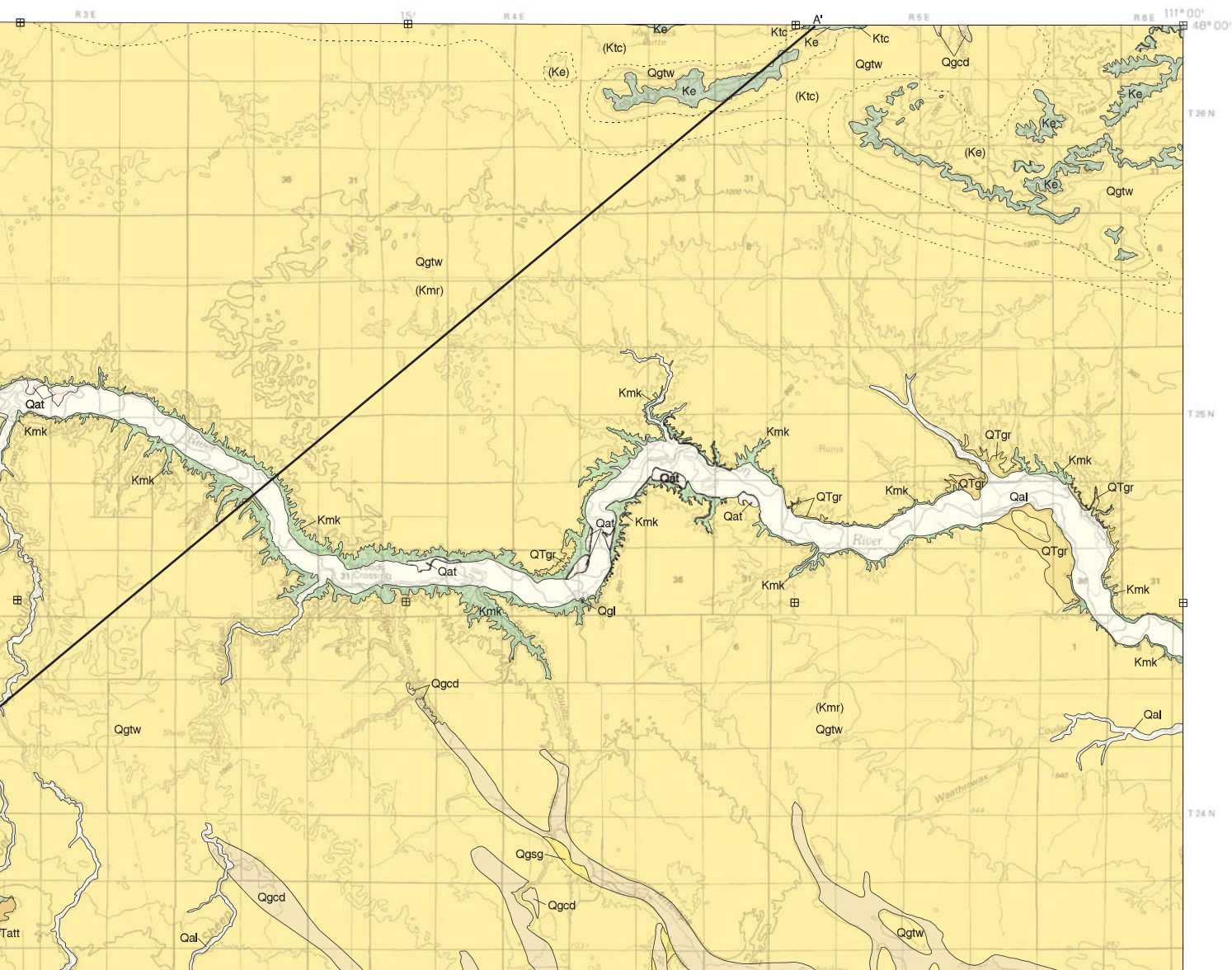
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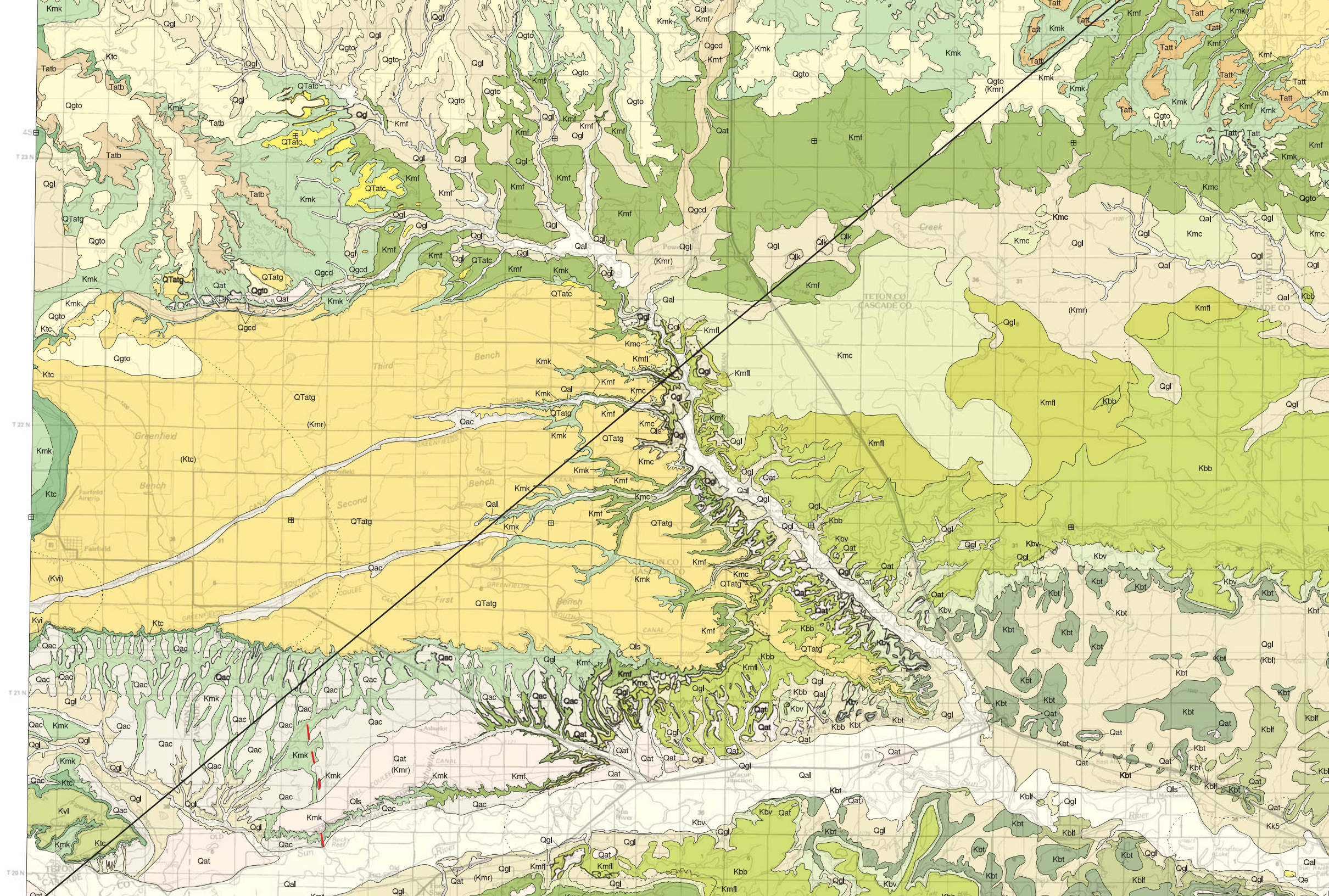
Open File MBMG 459, Plate 1 of 1
Geologic Map, Great Falls North 30' x 60' Quadrangle





Map Units

Qal	Flood plain and channel alluvium
Qlk	Lake deposit
Qac	Alluvium and colluvium
Qls	Landslide deposit
Qe	Eolian deposit
Qat	Alluvium of alluvial terrace deposit
Qgtw	Glacial till, late Wisconsin
Qgto	Glacial till, Illinoian and pre-Illinoian
Qgcd	Glacial meltwater deposit
Qgsg	Glacial sand and gravel deposit
Qgl	Glacial lake deposit and reworked glacial lake deposit
QTatg	Alluvial terrace deposit of Greenfield Bench
QTatc	Alluvial terrace deposit of Cordova area
QTgr	Gravel
Tatb	Alluvial terrace deposit of Bole Bench
Tatt	Alluvial braid plain deposit of Teton Ridge
Ke	Eagle Formation
Kvi	Virgelle Formation
Ktc	Telegraph Creek Formation
Kmk	Kevin Member of Marias River Formation
Kmf	Ferdig Member of Marias River Formation
Kmc	Cone Member of Marias River Formation
Kmfl	Floweree Member of Marias River Formation
Kbb	Bootlegger Member of Blackleaf Formation
Kbv	Vaughn Member of Blackleaf Formation
Kbt	Taft Hill Member of Blackleaf Formation
Kblf	Flood Member of Blackleaf Formation
Kbls	Kentucky Formation, Teton

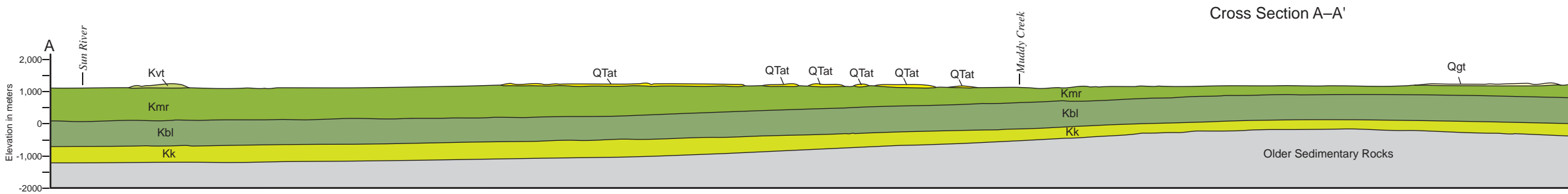




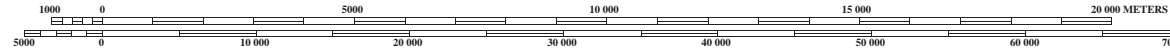
Base from U.S. Geological Survey
Great Falls North 30' x 60' topographic quadrangle
Map edited: 1976; photoinspected 1990
Projection: UTM zone 12; 1927 NAD
UTM grid declination 0°28' West
1976 Magnetic North Declination 18.5° East



SCALE 1:100 000
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 20 METERS



No vertical exaggeration
Datum mean sea level
Thin surficial units not shown



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Geologic Map of the Great Falls North 30' x 60' Quadrangle, Central Montana

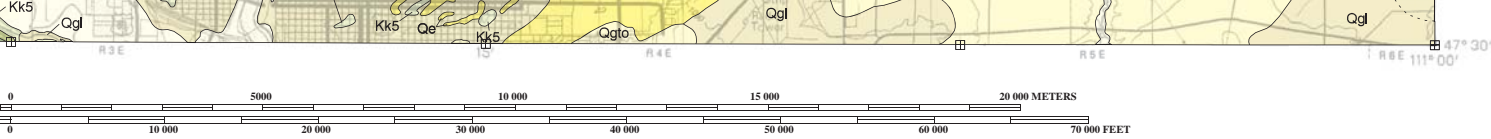
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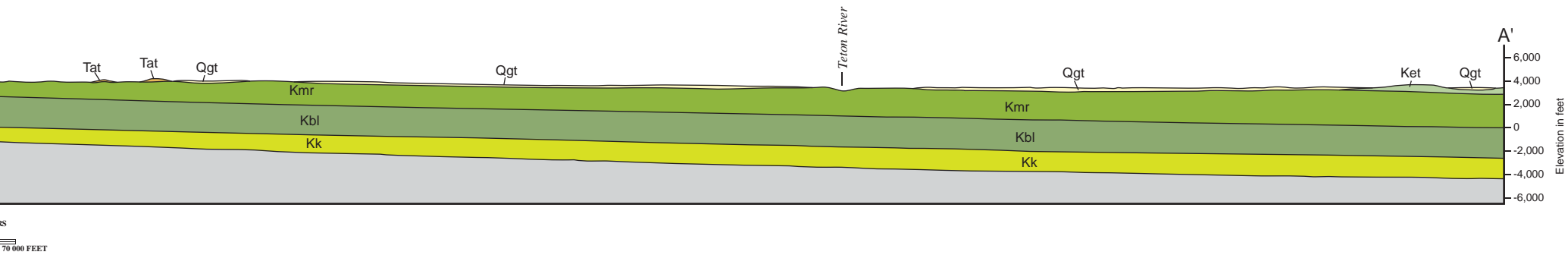
Revisions	Date
Text & map	9/02
Text	3/03
Map <i>Edge matched with Choteau quadrangle to the west</i>	9/12

Partial support has been provided by the STATEMENT
Mapping Program of the U.S.Geological Survey under

GIS production: Ken Sandau, John Dillon and Paul



Dike – Shonkinite dike segments in southwestern part of map are northernmost exposed igneous rocks associated with Adel Mountain Volcanics to south.



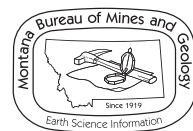
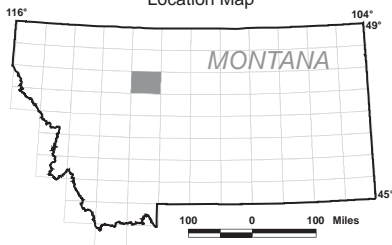
Cross Section Explanation

Qgt	Glacial till, undivided
QTat	Alluvium, undivided (Pleistocene and/or Pliocene)
Tat	Alluvium, undivided (Pliocene and/or Miocene)
Ket	Eagle and Telegraph Creek Fms., undivided
Kvt	Virgelle and Telegraph Creek Fms., undivided
Kmr	Marias River Formation, undivided
Kbl	Blackleaf Formation, undivided
Kk	Kootenai Formation, undivided

Adjacent 30' x 60' quadrangles

VALIER	CONRAD	LONESOME LAKE
CHOTEAU	GREAT FALLS NORTH	FORT BENTON
DEARBORN RIVER	GREAT FALLS SOUTH	BELT

Location Map



Maps may be obtained from
Publications Office

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AP component of the National Cooperative Geologic
under Contract Number 01-HQ-AG-0096.

l Thale, MBMG. Map layout: Susan Smith, MBMG.