

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
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OPEN-FILE REPORT O-07-15

Preliminary Geologic Map of the Umatilla Basin,
Morrow and Umatilla Counties, Oregon

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This geologic map was funded in part by the U.S. Geological Survey National
Cooperative Geologic Mapping Program under award 01HQ00014.

PLATE 1

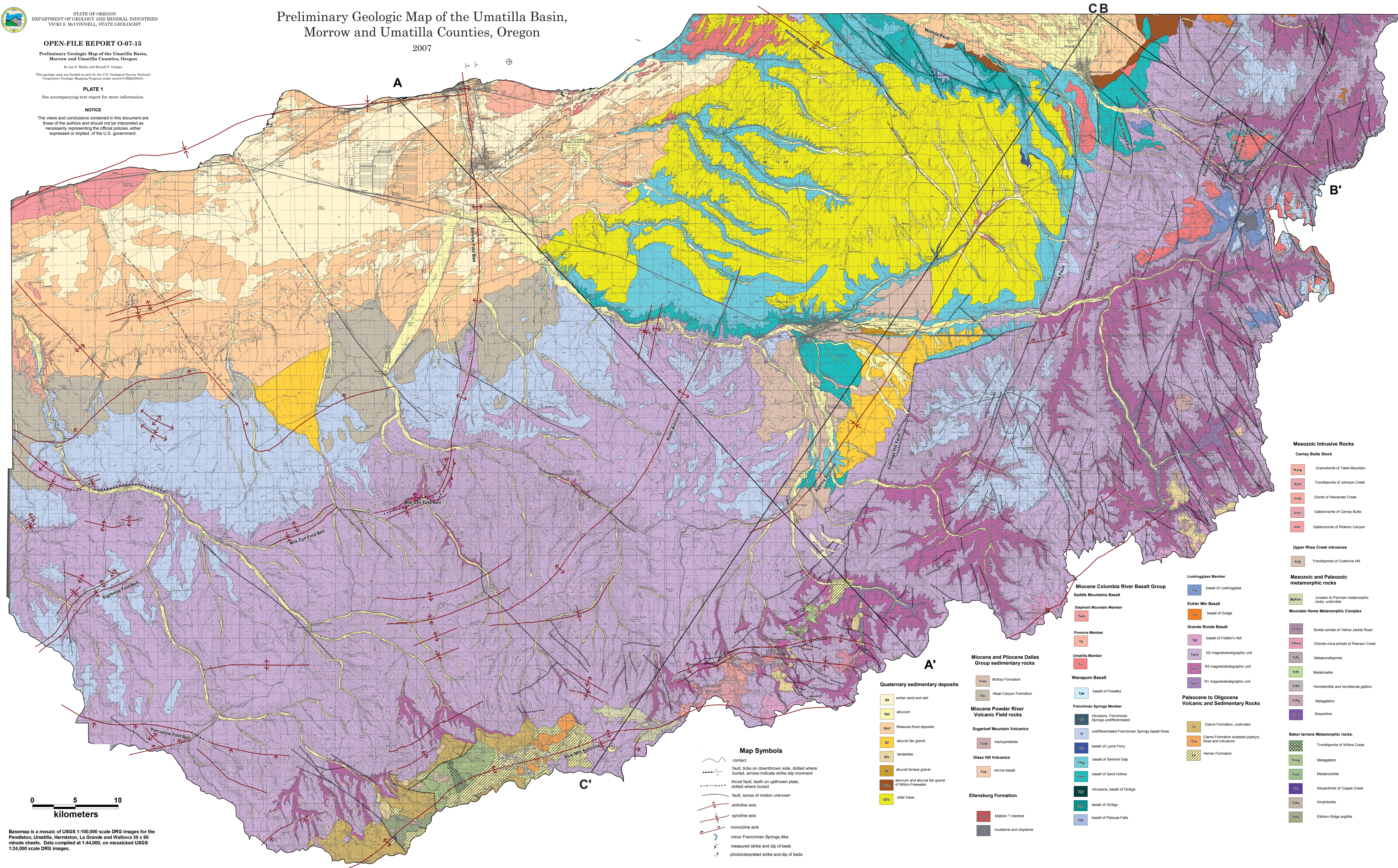
See accompanying text report for more information.

NOTICE

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2007



0 5 10
kilometers

Basemap is a mosaic of USGS 1:100,000 scale DRG images for the
Pendleton, Umatilla, Hermiston, La Grande and Wallowa 30 x 60
minute sheets. Data compiled at 1:44,000, on mosaicked USGS
1:24,000 scale DRG images.

Map Symbols

- contact
- fault, ticks on downthrown side, dotted where buried, arrows indicate strike slip movement
- thrust fault, teeth on upthrown plate, dotted where buried
- fault, sense of motion unknown
- anticline axis
- syncline axis
- monocline axis
- minor Frenchman Springs dike
- measured strike and dip of beds
- photointerpreted strike and dip of beds

Quaternary sedimentary deposits

- Qe eolian sand and ash
- Qal alluvium
- Qmf Missoula flood deposits
- Qrf alluvial fan gravel
- Qls landslides
- Qrt alluvial terrace gravel
- Qst alluvium and alluvial fan gravel of Milton-Freewater
- Qta older loess

Miocene and Pliocene Dalles Group sedimentary rocks

- Twmk McKay Formation
- Tac Alkali Canyon Formation

Miocene Powder River Volcanic Field rocks

- Ttr trachyandesite

Glass Hill Volcanics

- Tob olivine basalt

Ellensburg Formation

- Ton Mabton ? interbed
- Ton mudstone and claystone

Miocene Columbia River Basalt Group

- Saddle Mountains Basalt
- Elephant Mountain Member
- Pomona Member
- Umatilla Member
- Wanapum Basalt
- Frenchman Springs Member

Grande Ronde Basalt

- Tgr basalt of Fiddler's Hill
- Tgr2 N2 magnetostratigraphic unit
- Tgr2 R2 magnetostratigraphic unit
- Tgr1 N1 magnetostratigraphic unit

Lookingglass Member

- Tlg basalt of Lookingglass

Eckler Mtn Basalt

- Td basalt of Dodge

Paleocene to Oligocene Volcanic and Sedimentary Rocks

- Tc Clarno Formation, undivided
- Tca Clarno Formation andesite porphyry flows and intrusions
- Herren Formation

Mesozoic and Paleozoic metamorphic rocks

- MuPm Jurassic to Permian metamorphic rocks, undivided

Mountain Home Metamorphic Complex

- STery Biotite schists of Yellow Jacket Road
- TrPms Chlorite-mica schists of Pearson Creek
- TrPj Metatrandjermite
- TrPt Metatonalite
- TrPh Hornblende and hornblende gabbro
- TrPg Metagabbro
- TrS Serpentine

Baker terrane Metamorphic rocks.

- TrW Trondjermite of Willow Creek
- Trmg Metagabbro
- Trm Metastrolite
- Trn Serpentine of Cripple Creek
- TrPa Amphibolite
- TrPv Elkhorn Ridge argillite

Mesozoic Intrusive Rocks

Carney Butte Stock

- KJag Granodiorite of Table Mountain
- KJct Trondjermite of Johnson Creek
- KJda Diorite of Alexander Creek
- KJnc Gabbroite of Carney Butte
- KJcr Gabbroite of Ridenor Canyon

Upper Rhea Creek Intrusives

- KJrh Trondjermite of Coalmine Hill