

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
VICKI S. MCCONNELL, STATE GEOLOGIST

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

By Ian P. Madin and Ronald P. Gutzog

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PLATE 1

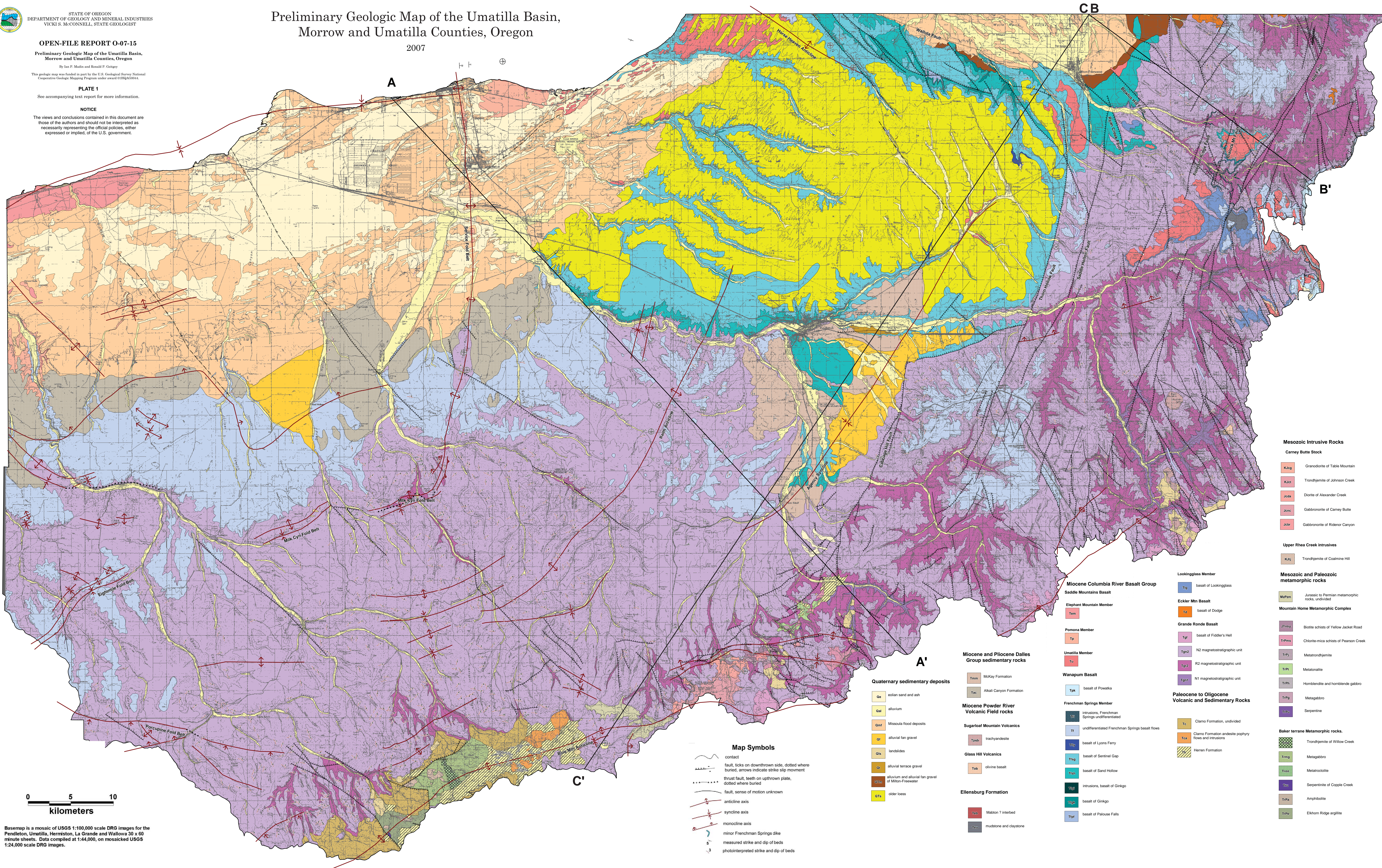
See accompanying text report for more information.

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

- Qa eolian sand and ash
- Qal alluvium
- Qmf Missoula flood deposits
- Qr 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

- Trmk McKee Formation
- Tac Alkali Canyon Formation

Miocene Powder River Volcanic Field rocks

- Trsd trachyandesite

Glass Hill Volcanics

- Tob olivine basalt

Ellensburg Formation

- Teb Mabton ? interbed
- Ten mudstone and claystone

Miocene Columbia River Basalt Group

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

- basalt of Powekta
- undifferentiated Frenchman Springs basalt flows
- basalt of Lyons Ferry
- basalt of Sentinel Gap
- basalt of Sand Hollow
- intrusions, basalt of Ginkgo
- basalt of Ginkgo
- basalt of Palouse Falls

Lookingglass Member

- basalt of Lookingglass

Eckler Mtn Basalt

- basalt of Dodge

Grande Ronde Basalt

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

Paleocene to Oligocene Volcanic and Sedimentary Rocks

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

Mesozoic Intrusive Rocks

Carney Butte Stock

- Granodiorite of Table Mountain
- Trondhjemite of Johnson Creek
- Diorite of Alexander Creek
- Gabbro of Carney Butte
- Gabbro of Rider Canyon

Upper Rhea Creek Intrusives

- Trondhjemite of Coalmine Hill

Mesozoic and Paleozoic metamorphic rocks

Mountain Home Metamorphic Complex

- Biotite schists of Yellow Jacket Road
- Chlorite-mica schists of Pearson Creek
- Metatrandhjemite
- Metatonalite
- Hornblende and hornblende gabbro
- Metagabbro
- Serpentine

Baker terrane Metamorphic rocks.

- Trondhjemite of Willow Creek
- Metagabbro
- Metastrolite
- Serpentine of Cripple Creek
- Amphibolite
- Elkhorn Ridge argillite