

Clark County

Clark County, one of the least populated of Idaho's 44 counties, lies at the foot of the continental divide, and includes the cold, arid northeastern Snake River Plain. Quaternary basalt covers much of the area from Dubois north to Spencer, and supports sparse sagebrush grazing land. Alluvial areas are farmed with irrigation from the Snake River aquifer.

Miocene and Pliocene felsic volcanic rocks, associated with the Heise and Yellowstone volcanic fields, occupy the area east of Spencer, and host Idaho opals. These formed when hot silica-rich water circulated through the young rhyolite lavas and tuffs.

The Centennial Mountains, in the northeastern corner of the county, along the border with Montana, contain folded and thrust faulted Mesozoic and Paleozoic sediments, that lie above Paleoproterozoic basement rock. They belong to the Laramide province, where Mesoproterozoic and Neoproterozoic strata were never deposited beneath the basal Cambrian sandstone.

West of Spencer are the Beaverhead Mountains, divided by the Medicine Lodge Creek from the Tendoy Range to the east along the Continental Divide with Montana. Limestones and tuffs of the Oligocene and Miocene Medicine Lodge Formation occupy the foothills on both sides of Medicine Lodge Creek. The Beaverhead Range extends north to Salmon and merges with the Bitterroot Range in southwest Montana, north of Lost Trail Pass. The range contains a thick package of folded and thrust faulted sedimentary rocks, including Mesoproterozoic Belt Supergroup (Apple Creek, Gunsight and Swauger formations), Neoproterozoic Wilbert Formation, and Paleozoic limestone and dolomite.

The Tendoy Range is capped by the Cretaceous and Paleocene Beaverhead Conglomerate, which was shed from rising mountains to the north and west. Large rivers carried boulder conglomerate east to the Tendoy Range and much of southwest Montana. These quartzite clasts spread east to Jackson Hole, Wyoming and are now making their way back west again, carried by the Snake River.

On the extreme southwest corner of the county is the dry Birch Creek valley and the southeast corner of the Lemhi Range. An active normal fault, the Beaverhead Range fault, bounds the east side of the Birch Creek Valley against the Beaverhead Range. Paleozoic carbonate rocks are exposed here.















Written by P.K. Link, 9/02

Description of Map Units for Blackfoot County, Idaho

Qa	Quaternary alluvial deposits
Qs	Quaternary surficial cover, including colluvium, fluvial, alluvial fan, lake, and windblown deposits. Included fluvial cover on Snake River Plain, (Snake River Group).
Qw	Quaternary windblown deposits; sand dunes and loess.
Qf	Pleistocene silicic volcanic rocks; rhyolite lava and ash-flow tuff (includes Yellowstone Group).
Qb	Pleistocene basalt lava, 2 million to 12,000 years old, flows have some vegetation and surface weathering.
QTb	Pleistocene and Pliocene basalt lava and associated basaltic tuff (deposited close to basaltic vent).
Tps	Pliocene and Upper Miocene stream and lake deposits (Salt Lake Formation, Starlight Formation, Idaho Group).
Tpf	Pliocene and Upper Miocene felsic volcanic rocks, rhyolite flows, tuffs, ignimbrites. (in Owyhee County and Mt. Bennett Hills, this should be Tmf).
Tgs	Eocene granite, pink granite, syenite, rhyolite dikes, and rhyolitic shallow intrusive; last phase of the Challis magmatic event (46 to 44 Ma). Forms craggy scenic mountain landscape in central and northern Idaho.

- QTs Pleistocene and Pliocene stream and lake deposits; sand, gravel and mud; Lake Idaho sediments; Glens Ferry Formation; Idaho Group.
- Tmi Miocene intrusive rock; gabbro and diabase sills (includes part of Salt Lake Formation).
- TKs Paleocene and Cretaceous sandstone and conglomerate (Beaverhead Formation).
- PPMs Permian and Carboniferous sedimentary rocks (Snaky Canyon Formation).
- Ks Cretaceous sedimentary rocks.
- Js Jurassic sedimentary rocks.
- Ts Triassic sedimentary rocks.
- PPs Permian and Pennsylvanian sedimentary rocks.
- Ms Mississippian sedimentary rocks.
- DSOs Devonian, Silurian, and Ordovician sedimentary rocks.
- Zs Neoproterozoic sedimentary rocks undivided.

Symbols

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| <p> Geologic unit contacts with unit designation.</p> <p> Normal fault: certain; dashed where approximately located; dotted where concealed.</p> <p> Thrust fault: certain; dashed where approximately located; dotted where concealed.</p> <p> Detachment fault: certain; dashed where approximately located; dotted where concealed.</p> <p> Anticline: trace of axial plane: large arrow indicates direction of plunge.</p> <p> Syncline: trace of axial plane: large arrow indicates direction of plunge.</p> | <p> Overturned anticline: trace of axial plane.</p> <p> Overturned syncline: trace of axial plane.</p> <p> Location of ISU Rockwalk rock from each county.</p> <p> Cities</p> <p> Feature location</p> <p>Roads</p> <p> Interstate Route</p> <p> U.S. Route</p> <p> State route</p> |
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