

The Little Rocky Mountains



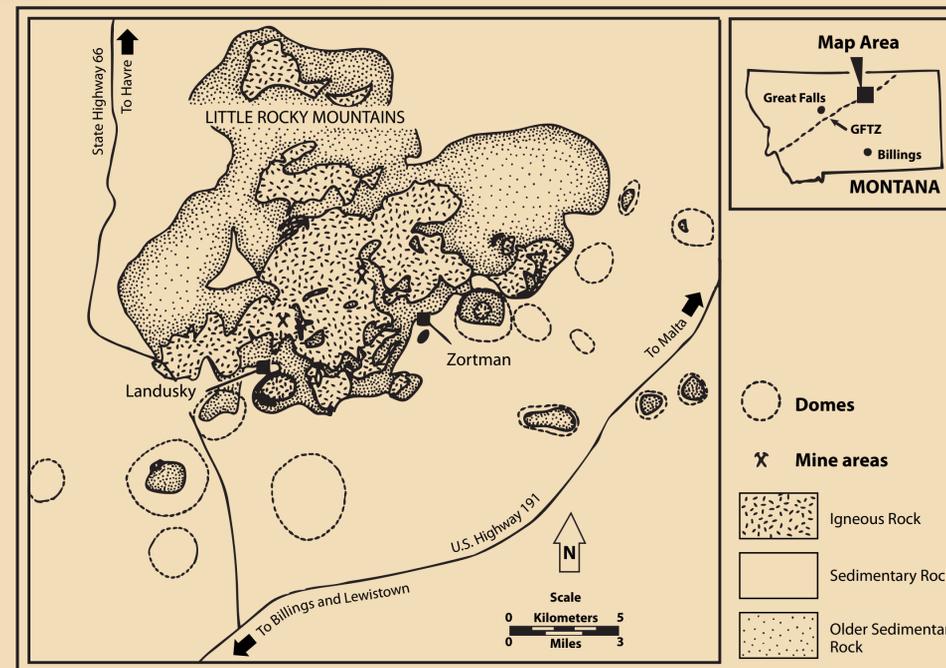
The Little Rocky Mountains are an island on the northern Great Plains of Montana. About 50 million years ago, a fifteen-mile-wide igneous dome pushed its way up through 1700 million-year-old Precambrian basement rocks to form this spectacular mountain range. The mountains are a composite of Precambrian metamorphic rocks, Paleozoic limestone and dolomite, Mesozoic sandstone and shale, and Tertiary intrusive rocks. The loftiest portion of the range is girdled by a steeply dipping wall of Madison Limestone that makes the interior part of the range appear as a fortress. The Little Rockies also contain igneous dikes and sills that contribute to the rugged appearance of these mountains.

In 1884, prospectors found placer gold in many of the stream beds in the southern part of the range. The placers soon played out, and underground mining began. Hundreds of miners, most of whom lived in Landusky and Zortman, worked in mines that reached more than 600 feet deep to extract the gold and silver.



Zortman, Montana ca 1890.

Montana Department of Agriculture, Helena, MT.



Based on: David W. Baker and Richard B. Berg. Guidebook of the central Montana alkalic province: Geology, ore deposits, and origin.

Special publication 100, (Butte: Montana School of Mines and Geology, 1991).

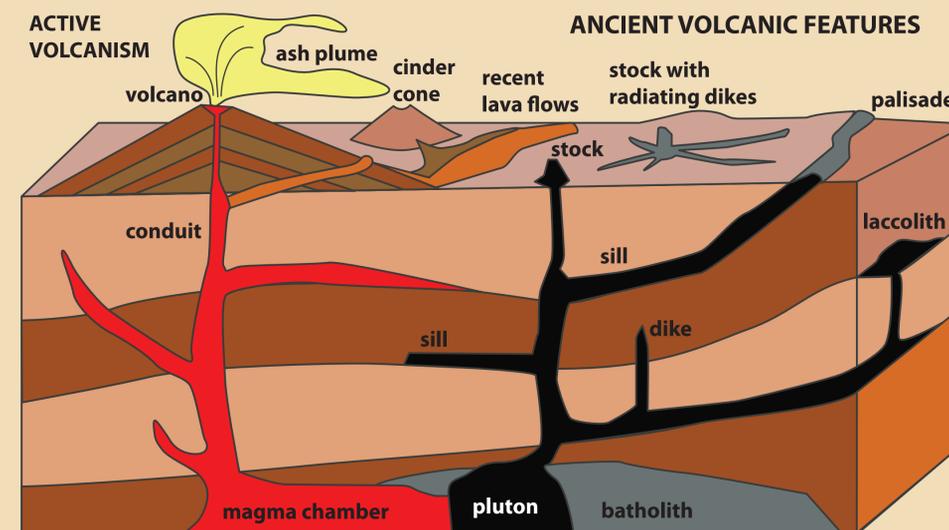


Diagram courtesy of USGS.

Geo-Facts:

- The Little Rocky Mountains contain the only exposures of ancient Precambrian basement rock in northeastern Montana.
- Laccoliths are magma domes that pushed upward, whereas magma sheets that rose vertically are called dikes. Dikes often radiate out from the laccoliths like the spokes on a gigantic wheel.
- Madison Limestone formed 350 million years ago when a shallow sea covered much of Montana. Madison Limestone can be found in many of the mountain ranges of western Montana, but lies deeply buried by younger rocks over most of eastern Montana.

Geo-Activity:

- Look out at the Little Rocky Mountains or when you are back in the car and try to identify some of the formations referenced in the sign. Can you find a place where the tallest mountains are encircled by a wall of Madison Limestone? Does this look like a fortress to you?

Chief Enemy Killer (Toktay-Naunga)

Born about 1822, Enemy Killer was the last Chief of the Mountain Assiniboine, the Nakoda people. He led his people through a difficult transition from the buffalo-hunting days on the Great Plains to their new life on the reservation. Enemy Killer was a prominent medicine man, spiritual leader, and Sundance leader. He earned the name "Nosey" from agency officials because he always asked questions about what they were doing to his people. He actively participated in many of the negotiations with the federal government that created the Fort Belknap Reservation in 1888. He lived near Lodgepole (Wa-say Wak-ba), a place long known and loved by Enemy Killer and his people. He died at Lodgepole in 1907. In recognition of his importance to the Nakoda, Enemy Killer is buried on the hill under the marker installed by his people and maintained in perpetuity by the Bureau of Indian Affairs.

