

Exploring the Geology of the La Plata Mountains

Leader – David Gonzales

Date – Sunday, August 11, 2024

Time – 8:45 am – 4:45 pm

The La Plata Mountains are one of several Late Cretaceous laccolithic complexes that were developed in northwestern New Mexico and southwestern Colorado ~70 Ma during the Laramide orogeny. The La Plata Mountains straddle a major regional structural boundary between the Four Corner platform and the San Juan uplift.

These mountains were created by emplacement of 70-60 Ma subalkaline to alkaline plutons into Paleozoic to Mesozoic sedimentary rocks causing contact metamorphism and skarn formation. The intrusive rocks in the La Plata Mountains are mostly potassic calc-alkaline to alkaline monzonite and diorite with lesser syenite and gabbro. Base and precious metals mineralization were allied with magmatism and related thermal metamorphism. The rugged landscape in this mountain range was created by glaciation and fluvial erosion along with numerous mass movement events.

This tour will provide a sampling of the geology in the La Plata Mountains. We will stop at various points on this 4 x 4 tour to examine various intrusive masses, contact metamorphic zones, ore deposits, and recent surficial deposits. At Kennebec Pass we will have one of the most magnificent views of the landscape and geology in southwestern Colorado.

Participants should expect unpredictable summer weather; hikes up to 0.5 miles.



Photos by David Gonzales