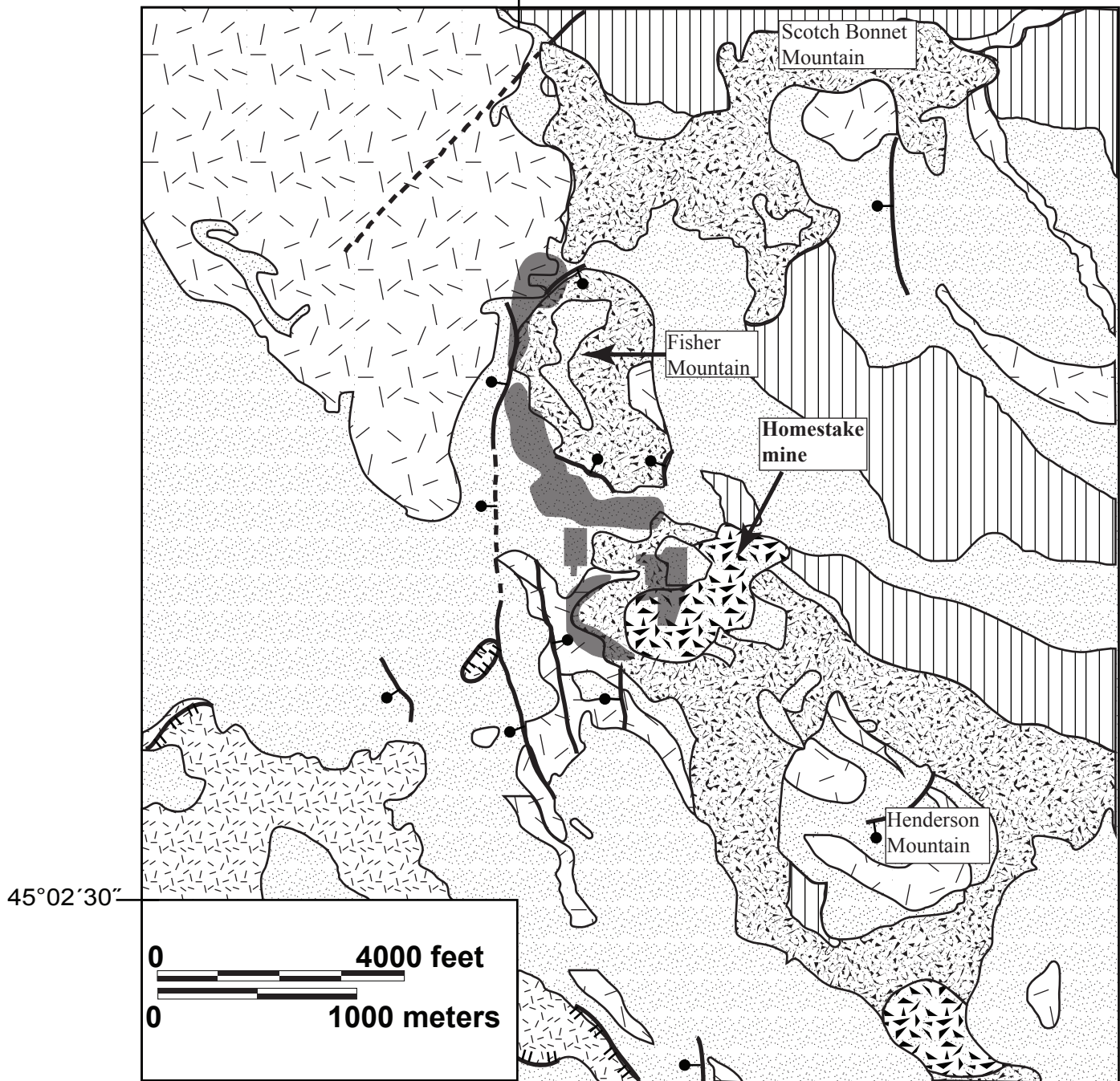


Handout 1: Generalized Geologic Map of the Area around Homestake Mine

Map modified after Figure 2 of USGS Special Paper 1717, Chapter M: Van Gosen, Bradley S. "The Life Cycle of Gold Deposits Near the Northeast Corner of Yellowstone National Park—Geology, Mining History, and Fate." (2007). (<http://pubs.usgs.gov/pp/1717/downloads/pdf/p1717M.pdf>)

110°57'30"



High-angle faults*

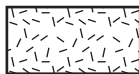


Detachment faults*

Contacts



Metallic sulfide and gold deposits



50-40 Million Year old extrusive rocks and lava flows



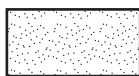
50-40 Million Year old intrusive rock formations



50-40 Million Year old volcanic rock formations



50-40 Million Year old volcanic pipes shattered during eruption



Sedimentary rocks and unconsolidated surface deposits



>2,500 million years old igneous and metamorphic rocks

*Faults=a break in rock layers. Fluids bearing minerals often travel along faults