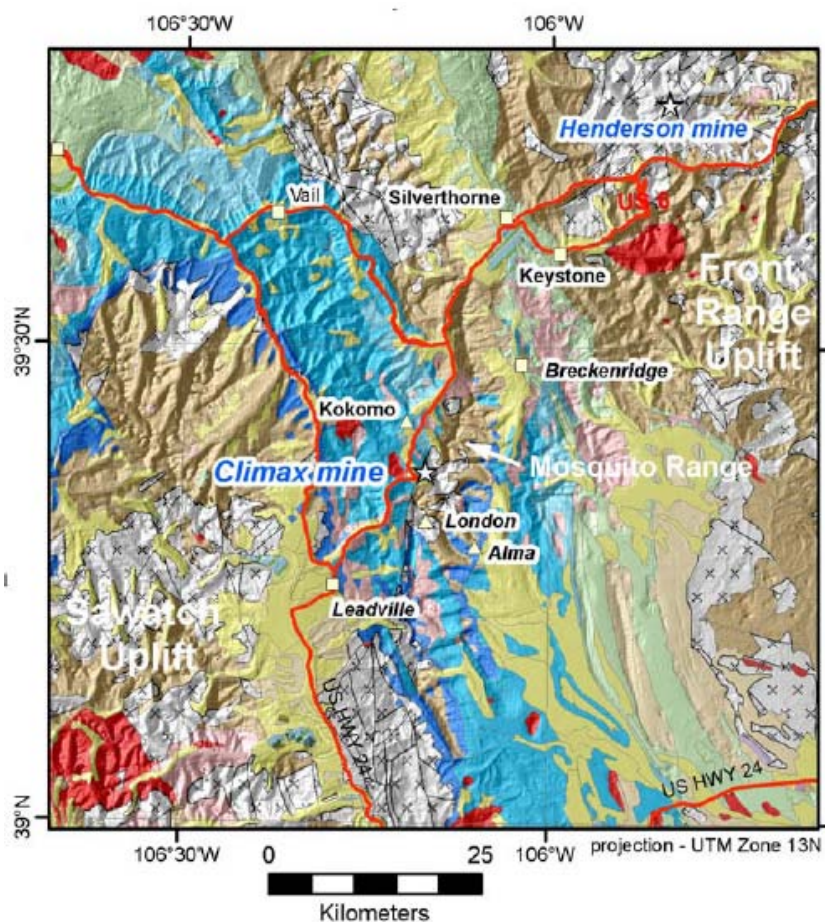


PORPHYRY MOLYBDENUM DEPOSITS IN COLORADO
I. CLIMAX PORPHYRY MOLYBDENUM DEPOSITS
II. HENDERSON MOLYBDENUM MINE



Climax Field Trip: September 30, 2010
Field Trip Leaders: Ralph J. Stegen and Robert Cal Callaghan
Henderson Field Trip: October 1, 2010
Field Trip Leaders: Robert Cal Callaghan and Ralph J. Stegen

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PREFACE

The Climax and Henderson mines are within the Colorado Mineral Belt, a mineralized belt that contains the most productive porphyry molybdenum deposits in the world. Since the discovery of molybdenum-bearing stockwork veinlets at Climax in 1879, the Urad orebody in 1914, and Henderson in 1964, these mines collectively have produced over 2.9 billion pounds of Mo. In late 2009, Henderson produced its billionth pound of molybdenum from the mining of 220.8 million tons of ore. Significant published reserves remain and for both Climax and Henderson that total over 1 billion pounds of molybdenum metal.

The Climax and Henderson porphyry molybdenum deposits are genetically associated with Tertiary rhyolitic and granitic stocks. They are complex igneous hydrothermal systems characterized by multiple intrusive and mineralizing events with average ore grades greater than 0.2% Mo. The orebodies are Mo stockwork veinlets that form dome-shaped masses centered on an intrusive stock.

This guidebook provides copies of the key previously published papers of Climax and Henderson. This is a departure from the traditional SEG Guidebook format in that it does not contain new papers of the deposits. With the exception of the two *Economic Geology* papers by Seedorff published in 2004, very little geologic study has been performed of these deposits for the last 20 years. This is largely due to mine closures and depressed Mo metal prices. It is planned that with the recent stability in the price of Mo and the prospective re-opening of the Climax mine, that mine geology programs and new research will lead to further understanding of these important deposits. In addition to the professional papers, road logs from Keystone, Colorado to both Climax and Henderson are included.

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