CORRELATION OF RHYOLITIC TUFFS

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Violent rhyolitic eruptions can cover large areas with ashflow tuffs (ignimbrites) and even larger areas with air-fall tuffs. The associated eruptions are typically pulse-like events, i.e. of relatively short duration. Such tuffs therefore can be stratigraphic markers of great utility for regional correlations and for interpreting structural, tectonic, litho- and biologic stratigraphic and other events in Earth history. However distinguishing between petrologically similar tuffs can be difficult. Even more difficult is establishing the connection between an air-fall tuff and its associated ashflow tuff. This study1) summarizes correlation methods for rhyolitic tuffs generally, and2) examines specifically the distribution and correlation of the Caetano Tuff, an early Oligocene rhyolitic assemblage widely distributed over central Nevada. For the Caetano Tuff, several vent regions are implied by a variety of techniques.