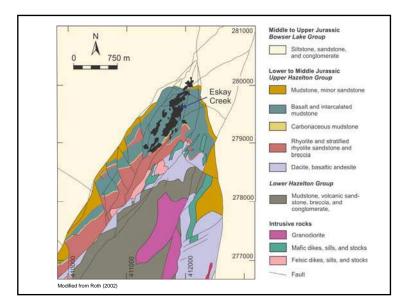
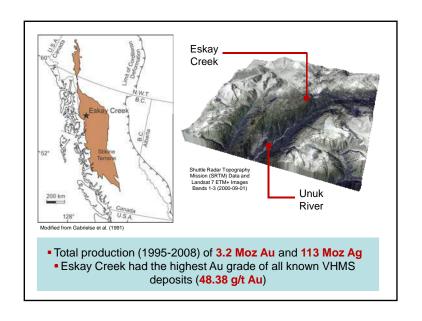
The Jurassic Eskay Creek deposit, northwestern British Columbia

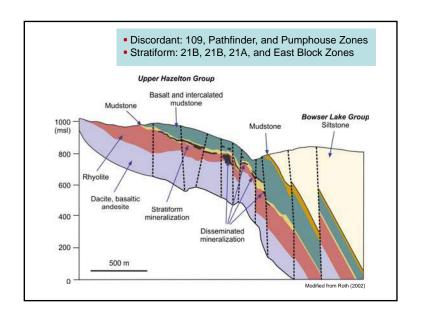
Mineralogical and geochemical indicators of proximity in carbonaceous mudstone

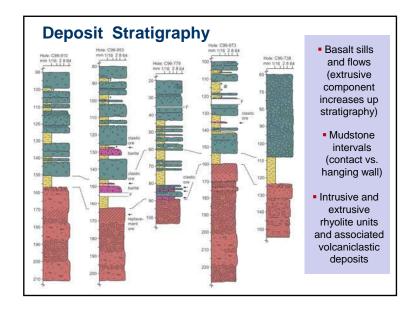
Thomas Monecke, Tom Meuzelaar, Andrew Ritts, Mark D. Hannington, Reinhard Kleeberg

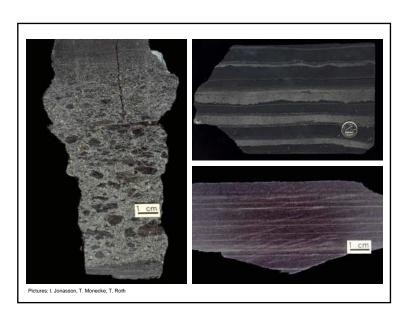




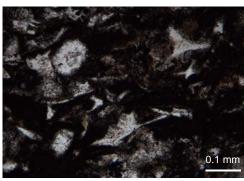








Origin of the Mudstone Host



 Pelagic to hemipelagic mudstone that formed by suspension sedimentation and contains a significant proportion of rhyolitic glass shards (C_{ord}=0.1-6.0 wt%)

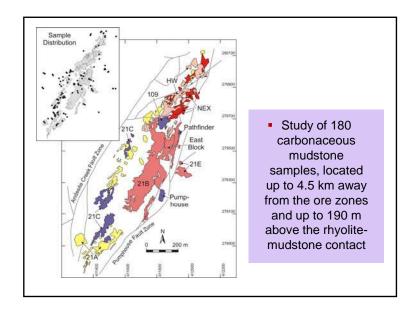
Fragmentation Process

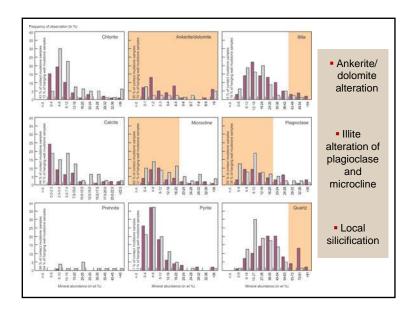


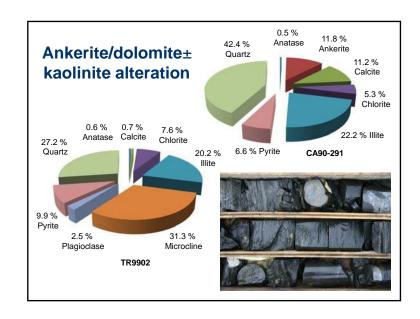
Similar clastic deposits have been described at 1650 m water depth from the active SuSu hydrothermal field, Papua New Guinea (Hrischeva et al., 2007)

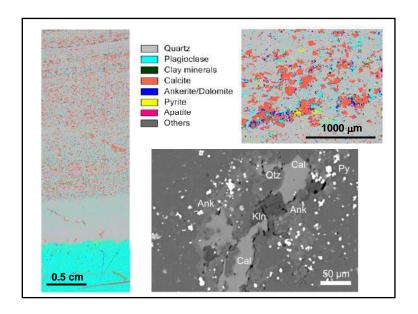
 Clastic sulfides were emplaced by mass-flow deposition – efficiency of fragmentation of the ore and presence of unusual stratified rhyolite breccia suggest occurrence of phreatic-hydrothermal explosions at the source

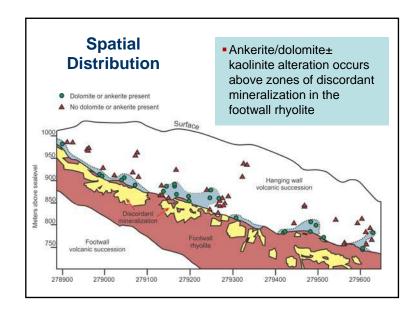
Thomas Monecke - Colorado School of Mines

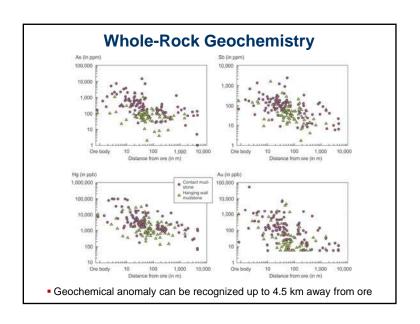


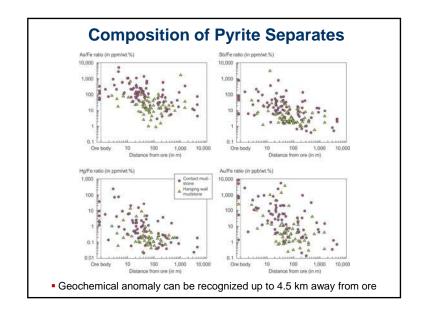


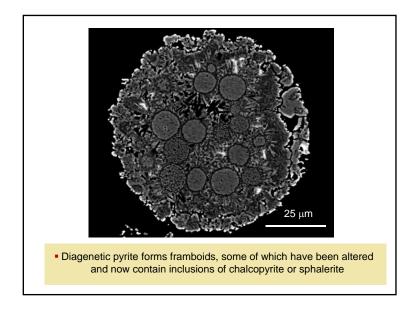


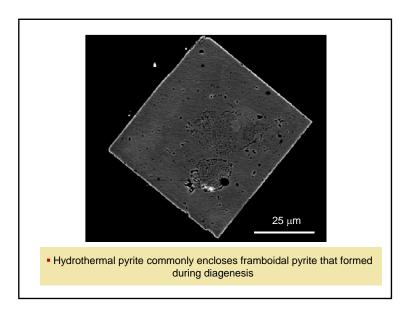


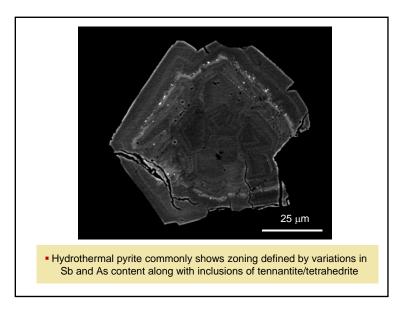












Conclusions

- Zones of hydrothermal upflow and discordant mineralization in the rhyolite are marked by ankerite/dolomite± kaolinite alteration in the overlying mudstone
- Whole-rock geochemistry and trace element analyses of pyrite provide vectors to stratiform mineralization at the meters to basin scales





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