



Inversion of potential field data with prior information constraints: examples from mining areas in China

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To decrease the ambiguity of potential field data inversion it is important to add some constraints based on prior information. We use a constrained inversion method with different kinds of prior information from drill-hole loggings, geological cross-sections and other kind of geophysical data. We use such information as a starting model or as a reference model and compare the obtained inverted models. The source properties are given by rock and ore samples, and are used as constraints to build the starting and reference models. The method firstly is tested by use of magnetic data on an iron deposit with drillhole logging information and the test reveals that inversion results adding prior information are in better agreement with the true models.