

## Deep Reflection Profiling in China

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From 1983 to present, 3193 km deep seismic reflection profiling has been completed in 18 projects in China, among which 2869 km were carried out by the former Ministry of Geology and Mineral Resources, and 324 km by the State Seismological Bureau. Deep reflection profiling in China began with the study of potential oil basins and active earthquake localities, and subsequently expanded to encompass the study of major problems of continental dynamics. In most cases, deep reflection profiling in China has been conducted in combination with other geophysical, geochemical and geological investigations.

A variety of approaches have been employed by Chinese deep seismic studies, including wide-angle profiling and crooked line profiling, using both dynamite and vibroseis sources, with stacking fold ranging from 15-144. Duration of recording has ranged from 12 to 50s, with good reflection data often acquired to crustal and subcrustal levels.

Abundant information on a variety of subsurface structures has been acquired from virtually every locality investigated, contributing a number of important new discoveries. For example, results from Tibet-Qinghai Plateau (Project INDEPTH) have stimulated new geodynamic models for the evolution of the Tibet Plateau. Other surveys have shed new light on the origin of ultrahigh pressure metamorphic rocks and revealed potential seismogenic features at substantial depths. Although these surveys have greatly improved our knowledge of the sites thus far explored, much additional work should be done in the future, with corollary efforts to improve geological interpretations and promote scientific exchange.