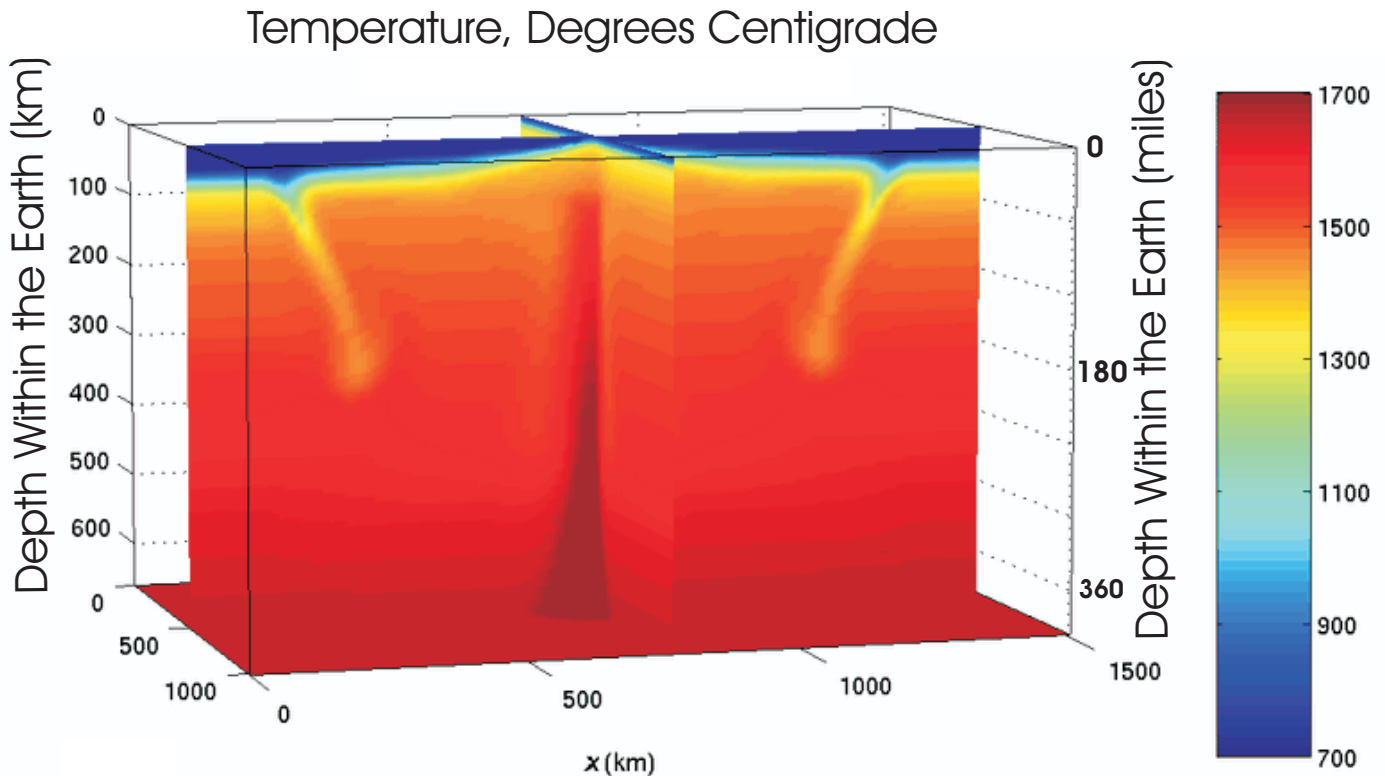


# Deep Drill Holes and the Temperature of the Earth



[Http://www.geophysik.uni-frankfurt.de/geodyn/island/publications/ru-et-al01c.html](http://www.geophysik.uni-frankfurt.de/geodyn/island/publications/ru-et-al01c.html)

With depth, the temperature continues to increase, reaching over 5,000 degree Centigrade at the center of the core, which is 6,370-km (3,820-mi) below the Earth's surface.

One major limitation to the depth of a drill hole is the melting point of steel, which is 1,370 degrees Centigrade (2,500 ° F).

From 1970 to 1994 a scientific deep-drilling project was carried out at Zapolyarniy, Kola Peninsula, northeastern Scandinavian Shield in the former Soviet Union. **The borehole reached 12-km (7.2-mi) depth, making it the deepest hole ever drilled into the Earth.**

Samples from an early Proterozoic (about 2 billion years old) greenstone belt (0-7 km. 0-4.2 mi) as well as the underlying Archean (more than 2.5 billion years old) gneiss basement were recovered.

#### References:

[Http://www.icdp-online.de/html/sites/kola/news.html](http://www.icdp-online.de/html/sites/kola/news.html)

Dynamical Models of Melt Migration and Crust Formation in a Plume Beneath a MOR  
T. Ruedas, H. Schmeling, and G. Marquart (Frankfurt/M.)

[Http://www.geophysik.uni-frankfurt.de/geodyn/island/publications/ru-et-al01c.html](http://www.geophysik.uni-frankfurt.de/geodyn/island/publications/ru-et-al01c.html)