

What do I want to say by this? The Kola ultra-deep borehole refuted the classical concepts of drilling into the Earth's interior. At first we did not know how we had to proceed but eventually we understood what to do.

The main information for geologists is contained in the core sample of stony material. Usually ultra-deep boreholes are drilled without it - and the core sample is 5-7 percent of the length of the shaft. At the Kola site it is more than 80 percent. In a special automated storage site the chief geologist of the expedition, Vladimir Stepanovich Lanev, opened two long containers in front of me. The first was from six kilometers and there were smooth stone columns in it. In the other, from 12 kilometers, instead of "columns" there were circular plates. When this material was raised to the surface the force of the rock pressures dispersed and the column "exploded".

"The column is sawed lengthwise," recounts Vladimir Stepanovich. "One half is not used in the testing - in the future newer methods of investigation will be developed and it is necessary to save it for them. The other half is used for immediate investigation. We have done these here in the laboratory, by studying the physical, petrographic and mineralogical properties. A complex analysis is performed at institutes in Moscow and Leningrad. An interesting site was selected for a super-deep borehole on the Baltic Shield. The age of the rock at the surface is 1,500 million years. At a depth of 12 kilometers it is three billion years old and the age of the Earth is 4.5 - 5 billion years. Thus I, as a geologist, measure the borehole in such a way that its length spans a period of one-and-a-half billion years. You have to agree, this is a substantial chunk out of the life of our planet."