



## Fact sheet: Opalinus clay

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**Opalinus is a clay that was formed from marine material that was deposited approximately 175 million years ago. Clay possesses good sealing and insulation and properties, even over extremely lengthy periods of time, and this is one of the prerequisites for the safe storage of radioactive waste.**

The opalinus clay layer in Switzerland is more than 100 metres deep, and above and below it there are sediment layers of clay and marl that have a low level of permeability. The processes that influenced the geological structure date back hundreds of millions of years. Thanks to this knowledge it is possible to make predictions about the probable development of the region for up to a million years. In this context a variety of scenarios were drawn up, taking account of a broad range of potential climatic conditions, including a new ice age and the elevation or erosion of the area in question.

The results of the studies carried out by Nagra show that the opalinus clay layer is extremely stable and could therefore be suitable for accommodating a deep geological repository.