

Rodl-Kaplice fault system – northern part - Kaplice fault

Structure ID: KPL

Fault Section IDs: KPL_01 to KPL_04

Related terms: kaplický zlom (in Czech); Rodl-Kaplice Fault System (En)

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General description

Rodl-Kaplice fault is one of the very significant "N-S" faults, which belongs to the fault system of the Kourim-Blanice-Rodl-Kaplice Large-scale Fault System. This ca. 250 km long, approximately NNE-SSW (and partly NNE-SSW) trending large-scale fault system extends from the Kouřim Furrow in the North, following the Blanice Furrow, crossing the basins of Třeboň and České Budějovice via Kaplice (CZ) and the valley of the Große Rodl to Gramastetten (A) and the basin of Eferding, where it is partly covered by Miocene sediments, but continues into the basin subsurface (see <http://resource.geolba.ac.at/structure/182>).

The course of the Kaplice fault zone is characterized by a series of parallel fault lines, generally following the direction of NNE-SSW (see the Raster geological map 1 : 50 000, Czech Geological Survey - sheet 32-22 České Budějovice and 32-24 Trhové Sviny). It can be described as a shear zone. According to geological maps mentioned above, some faults separate the block of the Moldanubian metamorphites from different types of the granitic rocks of the Central Moldanubian Pluton.

There is no clear separation between the Rodl fault and Kaplice fault, but there is a custom that the fault is known as Rodl on Austrian territory and as Kaplice on Czech one. The Czech part - the Kaplice fault runs from Dolní Dvořiště in the south, along the town of Kaplice to Dolní Stropnice in the north (Fsections KPL_01 to KPL_03). In addition, the parallel section KPL_04P has been defined, which runs from Netřebice in the south to Straňany in the north, about 1.5 to 2 km west from KPL_03.

Fault structure and dip

The angle of dip of the fault plane is assumed to be very steep with direction generally to the west. **More detailed data aren't available.**

Cross structures and Segmentation

Geological map (see e.g. Raster geological map 1 : 50 000, Czech Geological Survey – sheet 32-24 Trhové Sviny) shows a series of transverse strike-slip faults that divide the Kaplice fault (Fsection KPL_02) into segments 2.5 to 4 km long. These segments limit the relics of the sediments of the Mydlovarský Formation near Kaplice. However, the limitation of these relics by faults with post-Miocene activity has not yet been proven.

In the north, on the other hand, it is possible to define one uninterrupted section 12 km long (KPL_03) between Pořešinec and Dolní Stropnice. Similarly, the KPL_04 section appears as two 8.7 km and 4.1 km long uninterrupted sections.

Scarp morphology

It has not been monitored yet.

Seismicity

No earthquake epicenters were recorded in the fault zone.

Pre-Miocene evolution

A long-lasting and multiphase deformation history can be assumed at the Kaplice fault, among other during the Permian and Cretaceous Era. See description of the Rodl fault.

Fault activity in late Cenozoic

Miocene or post-Miocene activity of this fault has not been proven. Addressing this issue requires a more detailed investigation of Miocene relics near Kaplice.

Related local evidence

They are not yet processed.

References

<http://resource.geolba.ac.at/structure/182> (state to 2020-03-02).