

# Vitis fault

**Structure ID:** VIT

**Fault Section IDs:** VIT\_01 to VIT\_14

**Related terms:** zlom Vitis (Cz); Vitisier Störung, Vitis-Pribyslav Störungssystem (De)

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## General description

According to the Austrian database as the Vitis fault is considered the NNE–SSW striking, steeply WNW dipping fault system runs from Amstteten via Zwettl and Vitis to Slavonice in the Czech Republic (see <http://resource.geolba.ac.at/structure/161>), where it continues as Přebyslav fault or Přebyslav Mylonite Zone through Dačice, Jihlava and Přebyslav.

The Vitis fault can be traced as a mylonite or ultramylonite zone (see the Geological map of Austria 1 : 50 000, gk018 Wietra and gk35 Königsweisen) or the mylonite complex with gneiss (see the Geological map of Austria 1 : 50 000, gk019 Zwettl) which runs through the Bohemian Batholith.

## Fault structure and dip

Late Variscan mainly sinistral brittle-ductile reactivations of the NNE–SSW fault structure with steep dipping to WNW caused a formation of the nape structures of zones, and during these movements the mylonite zone was formed. According to BRANDMAYR ET AL. (1997), BÜTTNER (2007) and LEHNHARD ET AL. (2007). Miocene reactivations caused a cataclastic flow during the sinistral strike-slip movements.

The interpretation is not complete yet.

## Cross structures and Segmentation

The interpretation is not complete yet.

## Scarp morphology

It has not been monitored yet.

## Seismicity

To be revisited after completion of earthquake catalogue.

## Pre-Miocene evolution

According to the Austrian database the ductile main movement phase, similar to the Rodl fault system, is applied to the Late Variscan, with the mainly sinistral direction of motion. It is assumed, that a brittle Miocene reactivation holds the same motion kinematic. (BRANDMAYR ET AL., 1997; BÜTTNER, 2007; LEHNHARD ET AL., 2007).

No more data yet.

## Fault activity in late Cenozoic

The interpretation is not complete yet.

## Related local evidence

They are not yet processed.

## References

BRANDMAYR, M., LOIZENBAUER, J. & WALLBRECHER, E., 1997. Contrasting P-T conditions during conjugate shear zone development in the Southern Bohemian Massif, Austria. – *Mitteilungen der Österreichischen Geologischen Gesellschaft*, 90, pp. 11-29.

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LENHARDT, W.A., ŠVANCARA, J., MELICHAR, P., PAZDÍRKOVÁ, J., HAVÍŘ, J. & SÝKOROVÁ, Z., 2007. Seismic activity of the Alpine-Carpathian-Bohemian Massif region with regard to geological and potential field data. – *Geologica Carpathica* 58, 4, pp. 397-412.

<http://resource.geolba.ac.at/structure/161> (state to 2020-03-09).