



The Belchen motorway tunnel experienced in the 40 years since its completion in 1970 repeatedly floor heaves and swelling-induced damages. In the period 1998 - 2001 a 400 m long experimental adit was constructed beneath the main tunnel. The basic idea was that this adit, assisted by additional drainage boreholes, would cause a draw-down of the water table, thus withdrawing the water from the swelling zone beneath the floor of the road tunnel. This experiment remained however unsuccessful up to now.

Figure 2. Experimental drainage adit beneath the Belchen tunnel (Amstad and Kovári, 2001).