ÖBB High Speed Rail Graz–Klagenfurt – Koralmbahn, Lot 60.3 St. Kanzian Tunnel Chain – Geological Documentation and Consulting

Client:
ÖBB - Infrastruktur AG

Country:
Austria

Duration:
March 2015- March 2019

Services:
Expert Statement, Geological Construction Documentation, Geotechnical Consultancy

Project objectives
Lot 60.3 St. Kanzian within the Mittlern–Althofen section is another milestone of the Koralmbahn high speed rail between Graz and Klagenfurt. The main links in the tunnel chain are the 230 m long Peratschitzen tunnel, the 620 m long Srejach tunnel and the 665 m long Untersammelsdorf tunnel. The construction lot also includes several bridges and open-air-sections.

Project description
The projected alignment of lot 60.3 of the Koralmbahn high speed rail project is located within Quaternary sediments such as coarse-grained, sandy gravels as well as fine-grained stillwater sediments and moraines. Partly, deep foundations even reach down to the phyllites of the Palaeozoic age, the so called “Magdalensbergserie”, which forms the geological basement within the project area.

Project data
Total investment for lot 60.3 St. Kanzian: 140 million EUR; length of tunnels accumulated: approx. 1,500 m; scheduled date of completion: 2019

Project specifics
The Srejach and Untersammelsdorf tunnels will be constructed using the hydraulic excavator or cut-and-cover method. Extensive dewatering and soil stabilisation measures (e.g. bored piles, jet grouting etc.) are required as a consequence of the difficult ground conditions within the so called “Seeton”, a highly water saturated, soft, clayey- silty to sandy sediment. The construction methods used have previously been tested in terms of applicability.

Services
iC is in charge of the engineering-geological documentation and consulting in the construction phase of lot 60.3.