



OLT VALLEY, KM 239+500 - 246+500, ROMANIA

Slope Stability

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Project	Olt Valley, km 239+500 - 246+500
Location	DN7
Country	Romania
Year of installation	2015
Customer	Compania Națională de Administrare a Infrastructurii Rutiere (C.N.A.I.R.) – Directia Regionala de Drumuri si Poduri Craiova (D.R.D.P.)
Engineering	S.C. IRIMAT Cons S.R.L. - Bucharest
Contractor	S.C. VECTRA SERVICE S.R.L.
Other participating companies	Sächsische Bau GmbH Dresden Germany, Sibiu Branch
Initial situation	<p>National road no. 7 (DN7) is one of the most important routes through the Carpathian Mountains, with heavy traffic. The Olt River runs parallel to the DN7 with high mountains, directly next to the road. In winter and spring rockfalls occur regularly. Also with unstable slopes, torrents and avalanches the risk of accidents was high.</p> <p>This project was originally developed with five concrete canopies for rockfall protection. Due to costs and other restrictions, a modern solution using high tensile steel wire was chosen. After further investigation, 23 dangerous areas were found and had to be protected using two types of protection systems: active and passive.</p>

Description

4200 m² of TECCO® System and 560 m² of SPIDER® System were installed together with nailing as an active protection measure on the following sectors:

1. km 240+421 - 240+441

TECCO® G65/3

- stabilized area: 260 m²
- slope height: 15 m
- nail pattern: 2.20 x 2.20 m
- nail type: GEWI 28
- nail length: 3 m

2. km 240+441 - 240+467

SPIDER® S3-130

- stabilized area: 540 m²
- slope height: 18 m
- nail distance: 2.50 m
- nail type: GEWI 32
- nail length: 3 m

3. km 240+510 - 240+555

TECCO® G65/3

- stabilized area: 585 m²
- slope height: 13 m
- nail pattern: 2.50 x 2.50 m
- nail type: GEWI 32
- nail length: 3 m

4. km 242+457 - 240+610

TECCO® G65/3

- stabilized area: 1377 m²
- slope height: 10 m
- nail pattern: 2.10 x 2.10 m
- nail type: GEWI 32
- nail length: 3 m

5. km 242+859 - 242+940

TECCO® G65/3

- stabilized area: 640 m²
- slope height: 13 m
- nail pattern: 2.20 x 2.20 m
- nail type: GEWI 32
- nail length: 3 m

6. km 243+099 - 243+179

TECCO® G65/3

- stabilized area: 1260 m²
- slope height: 14 m
- nail pattern: 2.20 x 2.20 m
- nail type: GEWI 32
- nail length: 3 m

See also the other projects of Olt Valley.

Protected object

Road

Other installed applications	Rockfall Protection, Debris Flow & Shallow Landslide Protection
Corrosion protection	GEOBRUGG SUPERCOATING
Geology	<p>Along the whole section, mica and para gneiss appear in outcrops belonging to the series of the tail (the upper Proterozoic ante) and the local packet sandstone, covered at the top by diluvium deposit (dust, sand and gravel powder blocks).</p> <p>Slopes (for the most part covered with forest) show inclinations of up to 60 - 80° and are strongly tectonized (kneading such, micro cracks) and continuous processes of disintegration. The angle of the rock packages varies between 30 - 55° (lower to higher sandstone and mica).</p>
Stabilized area	4700 m ²
Maximum slope height	38 m
Slope inclination	48 ° - 87 °
Exposition	North-East

For questions please contact our Geobrugg specialist at your side

Kevin H. Coyle

Regional Manager Northeast

Phone +1 860 377 3230

kevin.coyle@geobrugg.com



Geobrugg

info@geobrugg.com | www.geobrugg.com
