



LAÚCA HYDRO POWER PLANT, ANGOLA

Slope Stability

Laúca Hydro Power Plant

Slope Stability

Project
Location
Country

Laúca Hydro Power Plant
Laúca
Angola

Year of installation

2017

Customer
Engineering
Other participating companies

Aproveitamento Hidroelétrico de Laúca
Intertechne Consultores S.A.
Tecnasol Fundações E Geotecnia, S.A.

Initial situation

The Lauca Hydro Power Plant is located at the foot of a steep slope. The slope requires stabilization to avoid causing damage to the facilities and equipment.

Description

The following solutions were used for slope protection:

Top of the cliffs and tower shaped structures partially protected with TECCO® System:

- high tensile mesh: TECCO® G65/3
- self-drilling nails: INCO 32 TD
- nail diameter: 32 mm
- nail length: 4.0 m
- nail pattern: 1.4 x 1.4 m

Tower shaped structures partially protected with TECCO® System and SPIDER® System:

- high tensile mesh: TECCO® G65/3
- high tensile net SPIDER S4-230
- tower structure width below 3.0 m: nail pattern 1.4 x 1.4 m
- tower structure width over 3.0 m: nail pattern 3.0 x 1.4 m

At the base of the tower structures:

- high tensile mesh: TECCO® G65/3
- self-drilling nails: INCO 32 TD
- nail diameter: 32 mm
- nail length: 4.0 m
- nail pattern: 5.0 x 5.0 m

Regular area of the slope, between rockfall barrier line and top of the cliffs:

- high tensile mesh: TECCO® G65/3
- self-drilling nails: INCO 32 TD
- nail diameter: 32 mm
- nail length: 4.0 m
- nail pattern: 5.0 x 5.0 m

Below the rockfall barrier, ca. 10 m high zone directly above slope cut:

- high tensile mesh: TECCO® G65/3
- self-drilling nails: INCO 32 TD
- nail diameter: 32 mm
- nail length: 8.0 m
- nail pattern: 2.0 x 2.0 m

Self drilling nails were used due to fractured condition of the rock slope.

Passive rockfall protection barrier:

- rockfall protection barrier RXI-050
- height: 4 m
- length: 600 m in 3 sections of: 180 m / 240 m / 180 m

For questions please contact our Geobrugg specialist at your side

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Other installed applications

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Road, Building, Infrastructure, Other

Rockfall Protection

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