UTILISATION OF MICROTUNNELING TECHNOLOGY FOR CONSTRUCTION OF THE NEW PIPELINE BETWEEN AZERBAIJAN AND EUROPE

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BESSAC Company profile:

- Group
- Tunneling and Microtunneling contractor
- Industry division
- Large fleet of equipment: ~40 TBMs and MTBM
- 150 km excavated in the last 10 years
- References in 30 countries on 5 continents
• New 48” gas pipeline between Azerbaijan and Europe to secure delivery
• 3 sections:
  o SCPx (Azerbaijan and Georgia)
  o TANAP (Turkey)
  o TAP (Greece, Albania and Italy)
SCPX Project
Georgia - Kura East River Crossing

- 605 m long
- 1800 mm ID
Azerbaijan - Kura West River Crossing

- 1010 m long
- 1800 mm ID
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Albania - Corovode East drive

East drive:
- 560 m long
- 1800 mm ID
Albania - Corovode West drive

- West drive:
  - 600 m long
  - 1800 mm ID
Max depth: 65 m
Rock formations - Flysch:
- Mudstone, Sandstone, Conglomerate
- UCS 10 to 120 MPa
- RQD 50% à 100%
Max depth: 110 m

Rock formations - Flysch:
- Mudstone, Sandstone, Conglomerate
- UCS 10 to 120 MPa
- RQD 50% à 100%
Albania - KP 114

- 435 m long
- 1600 mm ID
• Flysh
• Alluvial deposits (with boulders)
Albania - KP 139

- 420 m long
- 1600 mm ID
• Alluvial deposits (with boulders)
Albania - Trepollar

- 400 m long
- 1600 mm ID
- 2000 m asl !!
Rock formations:
- Mudstone, Sandstone, Limestone
- UCS 10 to 80 MPa
- RQD 0% à 100%
SHAFTS: many techniques
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Use of 3 different MTBMks and 4 cutterheads
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PIPELINE INSTALLATION
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RISER INSTALLATION
GROUTING
Main challenges of these projects:

- 3 new countries for the company
- EPC contracts
- Remote locations
- Stringent HSE Oil&Gas standards
- Various geotechnical conditions along these 4 km tunnels
- Hyperbaric works for cutterhead maintenance
- Scope including pipeline installation and final grouting
THANK YOU