

Rock Drilling with the TERRA MINI-JET

City: Luzern/Switzerland
Authorities: Städtische Werke Luzern
Contractor: W. Schmid/Sachseln
HDD Machine: TERRA MINI-JET with

TERRA-ROCK Air Percussion Head ø 65 mm

Air Compressor: 2.5 m³/min at 7 bar Length: 14 m (house connection)

Inclination: at the beginning 50 % (27°), at the end 80 % (39°)

Pipe bundle: 3 PE pipes OD 92 (Power) + OD 75 (Gas) + OD 75 (Water)

Underground: sand stone



<u>Above:</u> The TERRA MINI-JET with the TERRA-ROCK Air Percussion Head ø 65 mm. For starting the short starting adapter is used instead of the longer sonde housing.







Right: The TERRA-ROCK Air Percussion Head ø 65 mm during starting, now with the sonde housing.

Horizontal Directional Drilling System TERRA MINI-JET





Left: The Rock Drill Head has reached the target. The speed in sand stone was 6 m/h. The inclination was 80 % (39°) upwards.

<u>Right:</u> The backreaming is done with the standard TERRA-JET backreamers, which can be used nearly in every ground (with Bentonite).



<u>Left:</u> The pipe bundle with the three PE pipes and the backreamer OD 215 mm reach the starting pit.

TERRA AG, Industriestrasse 1, 4805 Brittnau, Switzerland, Tel.: +41-62-751 24 52, Fax: +41-62-751 40 46, E-mail: terra.ch@bluewin.ch, Internet: www.terra-de.de