

Modernisation of the railway line Wroclaw – Poznan



The modernisation of the E-59 railway line between Wroclaw and Poznan required a lot of new cable laying parallel to the railway line. This included 6 HDD river crossings under the rivers Widawa and Odra. The contractor M/s SABEL of Wroclaw decided to use TERRA-JET equipment. The main HDD works were executed by their TERRA-JET TJ 8522 S with a pulling force of 22 tonnes, a torque of 8'500 Nm and a drilling fluid volume of 400 ltr/min (48'400 lbs, 6'300 ft.lbs, 100 gpm).

The River Widawa was crossed twice in lengths of 300 m and 336 m (1'000 ft and 1'100 ft). The pilot bore \varnothing 140 mm (5.5") was reamed step by step to 240, 360 and 460 mm (18"). A pipe bundle of 4 HDPE pipes with OD 125 mm (5") were pulled in. As drilling fluid TEQGEL Bentonite was used. These river crossings required 70% of the maximum parameters of the drilling machine.

The river Odra was crossed 4 times in lengths between 165 m - 312 m (550 ft – 1'030 ft). Pipe bundles of two HDPE pipes OD 160 mm (6.3") were pulled in.



View onto the drill path.



View to the starting point.

HDD machine
TERRA-JET TJ 8522 S



Locating of the drill head was done with the Digitrak F5 on a boat.



After 312 m (1'030 ft) the drill head reaches the other end of the river.



An intermediate reaming is started. Drill rods are connected behind the reamer.



The TERRA-JET TJ 8522 S during backreaming.
The drill mud flows into a large pit besides the entry pit.

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