

PIPE JACKING CASE STUDY

Beckton to Woodford Pipeline



www.pipejacking.org

PROJECT	Beckton to Woodford Pipeline
CLIENT	Thames Water/J Murphy & Sons
CONTRACTOR	A E Yates Trenchless Solutions Ltd
TUNNELLING MACHINE	Herrenknecht 1500 AVN
VALUE	£320,000



PROJECT OVERVIEW

The Beckton to Woodford Pipeline was installed to provide an alternative to an existing tunnel which had to be abandoned due to the presence of an existing service. The pipeline was required to safeguard drinking water supplies for 900,000 inhabitants in north east of London.

DESCRIPTION OF WORKS

A Herrenknecht 1500 AVN slurry tunnel boring machine was used to install 270 metres of 1500mm diameter pipe in the Thanet Sands under the busy A118 and 11 railway lines in a highly urbanised area of East London.

The line of the abandoned tunnel was retained and the existing shaft was extended by underpinning, which allowed the new tunnel to run directly beneath the abandoned pipe but 7m deeper.

Although difficulties were encountered with the behaviour of the Thanet Sands, creating high jacking pressures, this was overcome by the use of three interjack stations in combination with lubrication. The continuous crossing of 11 railway lines was undertaken without any settlement being recorded.

The delays caused due to the abandonment of the first tunnel required tunnelling work to be carried out on a 24 hour basis and as a result work was completed in six days in advance of the master programme.

FURTHER INFORMATION: www.aeyates.co.uk

