PROJECT OVERVIEW

WPD required some 2 km of 132kV cable to be installed from the sub-station in Hinckley, Leicestershire to reinforce an existing circuit. The route was largely across open farm land, with an open-cut crossing of the A5 and an auger bore crossing of the Sketchley Brook, a small river. In the middle of the route, the cable ducts had to cross the Leicester to Nuneaton railway line. Network Rail’s preference was for a single bore under the railway, rather than individual bores for the several ducts. A 1200mm internal diameter (id) pipejack was used for this crossing.

DESCRIPTION OF WORKS

The 1200mm id pipejack was driven between two sheet piled pits constructed on each side of the railway. Ten ducts, with diameters ranging from 90mm to 200mm, were installed on fabricated brackets within the pipe. Trench sheeted transition ramps were excavated to carry the ducts from 1.0 metre deep into the 7-metre deep pits. After backfilling the pits and ramps, the tunnel was filled with a high heat transmissivity grout.