Job Report

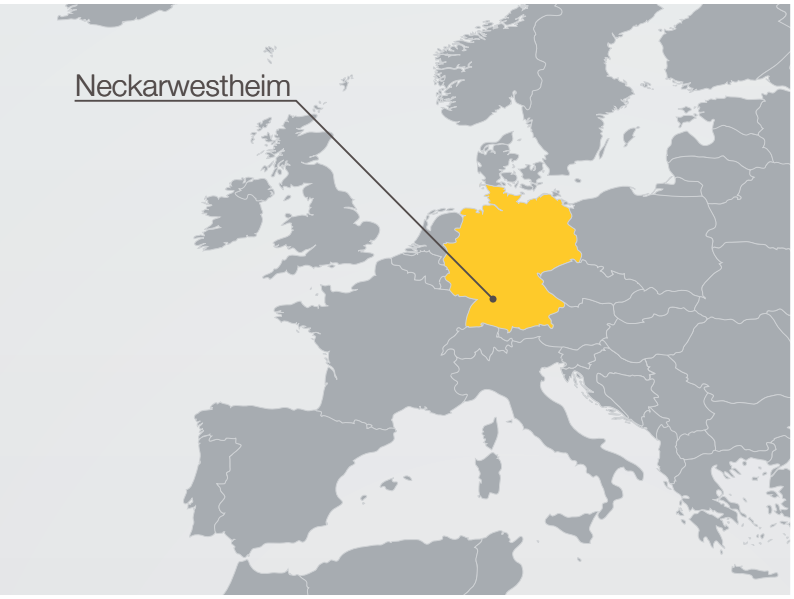
Drilling Rigs

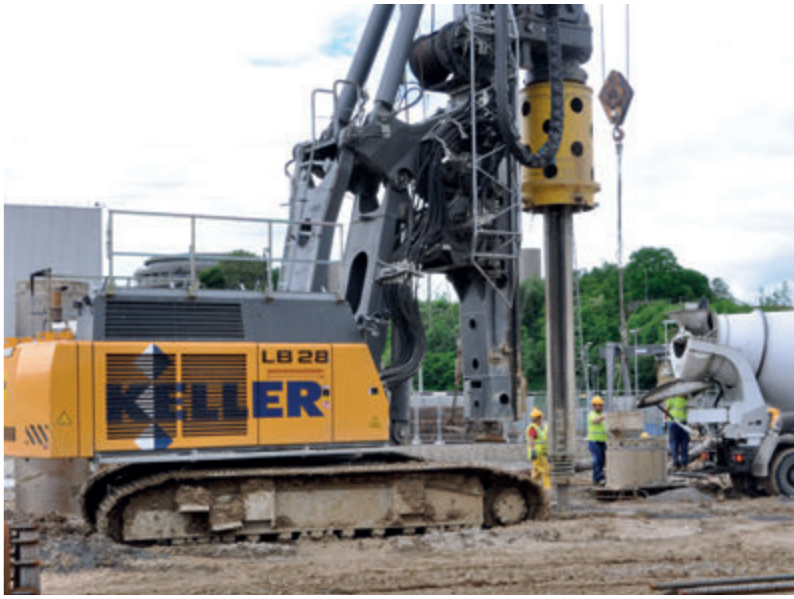
LB 28-320 and LB 36-410

„The leader adjustment of more than one metre provides a huge advantage, especially when positioning the machine in front of the drilling hole and when changing the tools.“

Juergen Schutte
Foreman – Keller Grundbau GmbH

LIEBHERR





Situation

EnBW Kernkraft GmbH (EnKK), Germany's third largest power concern, has the aim to quickly and efficiently decommission nuclear power plants in Baden-Württemberg – consistent with the interests of the energy revolution. The required infrastructure is currently being built. The buildings are planned for the processing of demolition materials and the storage of radioactive waste. Almost 6.6 billion euros have been reserved by the German power concern for the decommissioning of its nuclear reactors in Neckarwestheim and Philippsburg. A period of two and a half years is estimated for the construction and commissioning of the facilities.

Task

In Neckarwestheim the company Keller Grundbau GmbH carried out the foundation work for the new decommissioning centre. The centre's processing should reduce the amount of radioactive waste to a minimum. The foundation work entailed drilling depths amounting to a total of 12,000 m. For this Keller Grundbau GmbH chose three Liebherr drilling rigs: one LB 28-320 and two LB 36-410.

Solution

The three Liebherr drilling rigs used to install the pile foundations were equipped for Kelly drilling. In addition to single drilled piles with a diameter of 1.20 m and a depth of 20 m, a drilled pile wall was erected. The piles were in cohesive soil, cased down to the final depth and inserted between 2 and 4 m in hard rock. The Liebherr drilling rigs convinced with their high performance. This was especially remarkable since the soil conditions proved to be challenging. Each machine produced three piles per day, a total of approximately 60 m of drilling. The work started in April 2016 and was completed in September of the same year.

Technical Data: LB 28-320 / LB 36-410 – Kelly Drilling

Operating weight:	98.7 t / 115 t	Max. crowd force:	400 kN / 400 kN
Max. torque:	320 kNm / 410 kNm	Max. drilling depth:	70 m / 88 m
Engine power:	390 kW / 390 kW	Max. drilling diameter:	2,300 mm / 3,000 mm

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