

Job Report

LB 36 in Colombia



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Situation

The Colombian government's "4G Toll Road Concession Program" is the largest project in Latin America for the development of the road infrastructure. It involves the expansion or maintenance of about 7000 km of roads as well as the erection of new bridges. A two-lane road is being built on the

35 km long east-west route between Ibagué and Cajamarca and will include 40 bridges made of concrete elements. It is assumed the distance can then be covered in half the time that is currently required.

Project

The contractor for the project is APP GICA S.A., a group of six Colombian construction companies. One of them, Mincivil, is applying the drilling rig type LB 36 from Liebherr for the installation of the bridge piles in Ibagué. Using the Kelly drilling method, the machine is installing piles with diameters of

1500 mm and average depths of 30 m. The number of piles varies according to the design of the bridge. Depending on the soil conditions, the LB 36 has a daily performance of 10 to 15 m drilling depth.

Challenge

Due to the close vicinity of the "Nevado del Tolima", the soil consists of a hard rock layer and is extremely difficult to crack. A task which is a little too ambitious for many drilling rigs. It would seem they bow in awe of the 5220 m high volcano. Daniel Rodriguez, Foundation Unit Business Manager

at Mincivil, has already applied diverse deep foundation equipment. Thanks to his many years of experience, he is sure of one thing, "Only Liebherr comes into consideration with such hard soil conditions."

Technical data – Kelly drilling:

Max. torque:	410 kNm
Max. drilling depth:	88,0 m
Max. crowd force:	400 kN
Engine power:	390 kW

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