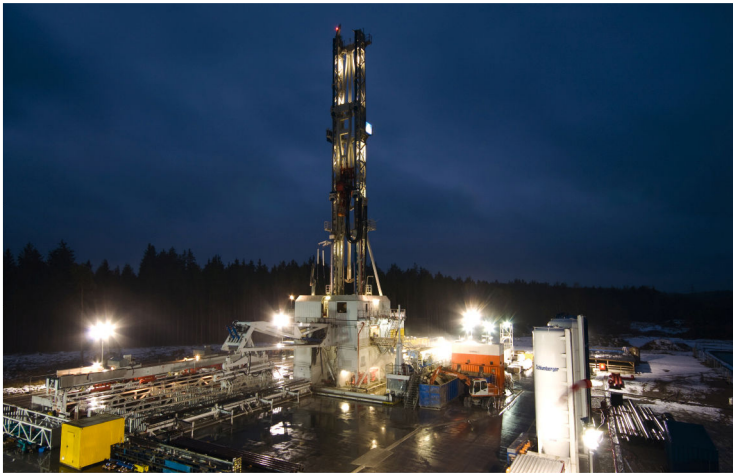




DEEP DRILLING RIGS MADE IN GERMANY.



First success for the Terra Invader 350 in Bavaria.

Company.

We design and manufacture deep drilling rigs and equipment for wells down to 6,000 meters for use in oil, gas and geothermal energy exploration. The innovative "Terra Invader" rigs are specially adapted to customer and project requirements offering high technical standards based on offshore technology and a number of new developments.

Key benefits.

- The high level of automation helps reduce rig floor personnel.
- New sensitive hydraulic hoist system
- Only 65-70 transport units necessary for rig transport.
- Overall well site can be kept much smaller than with conventional equipment. The area required to assemble the complete drilling rig is no more than approx. 30 x 80 m.
- Hands-off technology. Highly automated pipe handling reduces strenuous physical work to a minimum. New design of the pipe handling system makes it possible to safely handle drill pipe elements (doubles) and casings.
- Noise-protection measures during the design of the drilling rigs. The mud pumps are encapsulated, and each of the 1.540KVA generators has optimized exhaust silencers, spark arrestors and flame retardants.

References.

Mauerstetten. Working near the city of Kaufbeuren, the Terra Invader Rig B-001 drilled to a depth of 4.545m with a well diameter of 23" to 8½" for a geothermal power plant. Shock compensation during jarring operations is one of the advantages of the cylinder hoist system over traditional draw works.

Dürrnhaar. If working close to urban areas, the Terra Invader 350 "InnovaRig", B-002, will appeal for its top-rate noise protection. Two wells of depths of 4.393 m and 4.530 m have also been drilled for another geothermal power plant. With regard to the skidding system, which is able to skid the core rig by up to ten meters, no rig-down or rig-up operations were required.

Kirchstockach. The first of the two wells was drilled with an availability of 97% in 101 days. The required measured depth for this well was 4.214 m. The second well was even more successful, drilling to 4.452 m in only 81 days. This Terra Invader 350, B-004, was also in action for a geothermal power plant.

Hanover. The BGR - Germany's Federal Institute for Geosciences and Natural Resources – started work on the Genesys Project in Hanover with the "InnovaRig" Terra Invader 350, B-002. This German city was chosen because it has sediment formations that are typical of northern Germany. The project will show that drilling just one bore hole is sufficient to gain enough geothermal heat to keep the BGR office building warm. The Herrenknecht Vertical Rig had reached a depth of 3.902 m by the end of the job.



Please visit us at the trade show Geotherm,
25-26 February 2010, booth # 44
in Offenburg, Germany.
And at the trade show OTC,
3-6 May 2010, booth # 452
in Houston, Texas, USA.

VERTICAL NEWS 02/2010



CURRENT PROJECT.



BAHIA | BRAZIL

PROJECT DATA



Location: Bahia, Brazil
Measured depth: 4,500m
Well diameter: 17 1/2" – 8 1/2"
Geology: Aliança formations
Employment: Oil exploration
Operator: Petrobras
Contractor:
San Antonio Internacional

MACHINE DATA

B-006/B-008 Terra Invader 350T
Hook load: 350t
Hoist system: 1,600kW
Power top drive : 800kW
Max. tripping speed: 500m/h
Mud pumps: 2 units with 1,000kW

Bahia, Brazil.

Oil is still being exploited in northeastern Brazil. On June 11, 2009, the first of the two Terra Invader Rigs 350T commenced drilling in the middle of the Brazilian jungle. The slingshot substructure can be erected hydraulically, so no heavy duty cranes are necessary in the remote area during assembly work. According to the Argentine drilling company, it took less time than drilling with conventional machines does. In November 2009 the second Rig started drilling in the same oil field and is already provided on its second job for Petrobras. Over 80 further deep wells are planned using this system in the same oilfield.

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COMING IN THE NEXT ISSUE:
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