

Exploration & Mining Services



Deep Drilling Solutions

Consulting, planning and supervision

- Feasibility studies
- Consulting for subsidies
- Executing mining law permit procedures
- Invitation to tender
- Establishing technical specifications
- Awarding
- Drill monitoring and construction supervision

Well site

- Planning of well site
- Construction of well site
- Stove pipe drilling
- Aquifer tests
- Design and operation of dewatering and drainage systems

Deep drilling

- Drilling of wells up to 5,000 m
- Borehole diameters up to 36 inches
- Mud service and disposal
- Supply of completion materials

Additional scope

- Water purification
- Water cooling
- Draining of process water
- Borehole geophysics

Being an engineering consultant, FORALITH Drilling Support AG provides services such as consulting, planning and supervision of exploration and production drilling worldwide.

Bauer Spezialtiefbau, a sister company of Bauer Resources, is a worldwide leading provider of special civil engineering works of any kind.

- Cost-effective drilling site construction including stove pipe as turnkey project
- Executing mining law permit procedures
- Considering constructional features according to deep drilling regulations

Advantages with regard to drilling and costs of a surface casing with the so-called air-flush technique by using a small truck mounted drilling rig:

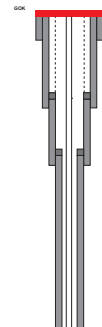
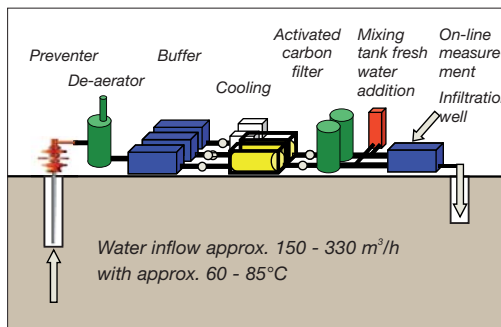
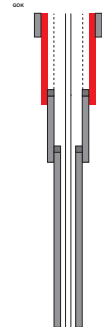
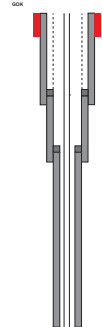
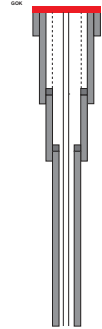
- Controlled drilling despite drilling mud loss
- Minor daily rates due to the use of smaller drilling rigs with a smaller number of drillers

Manufacturing of deep drilling rigs TBA 200 and TBA 300 through our sister company Bauer Maschinen:

- Capability of drilling up to 5,000 m
- Possibility to drill for oil and gas as well as for geothermal energy

Our subsidiaries Bauer Drilling Services, Foralith and SITE Group possess the necessary know how to operate these rigs. Hands-off operation and fulfilment of the latest ATEX requirements are therefore available.

We are planning, delivering and installing the necessary water treatment technique and are operating the same during the pump testing around the clock within Bauer Resources' Environment Division.



Bulk Sampling

Equipment

BAUER BG 28 H Kelly Rotary Drilling

Scope of work

Exploration of phosphate deposits

Diameter of 780 mm

Depth 72 m

Location

Northern Territory Australia

Geology

Very strong granite with UCS up to 100 MPa and apatite rare earths



Exploration



Equipment

BAUER BG 36 R/C Drilling

Scope of work

Exploration of kimberlite deposits

Diameter of 1,200 mm

Depth 360 m

Location

Fort à la Corne region in Saskatoon, Canada

Geology

Kimberlite of an average thickness of 88 m underneath 90 metres of glacial overburden

Equipment

Prakla RB 40 R/C Drilling

Scope of work

Exploration of kimberlite deposits

Diameter of 450 mm

Depth 350 m

Location

Koidu Kimberlite Project

Sierra Leone

Geology

Kimberlite



Mining

Equipment

BAUER HPRC System

Scope of work

Design, manufacturing and testing of HPRC System

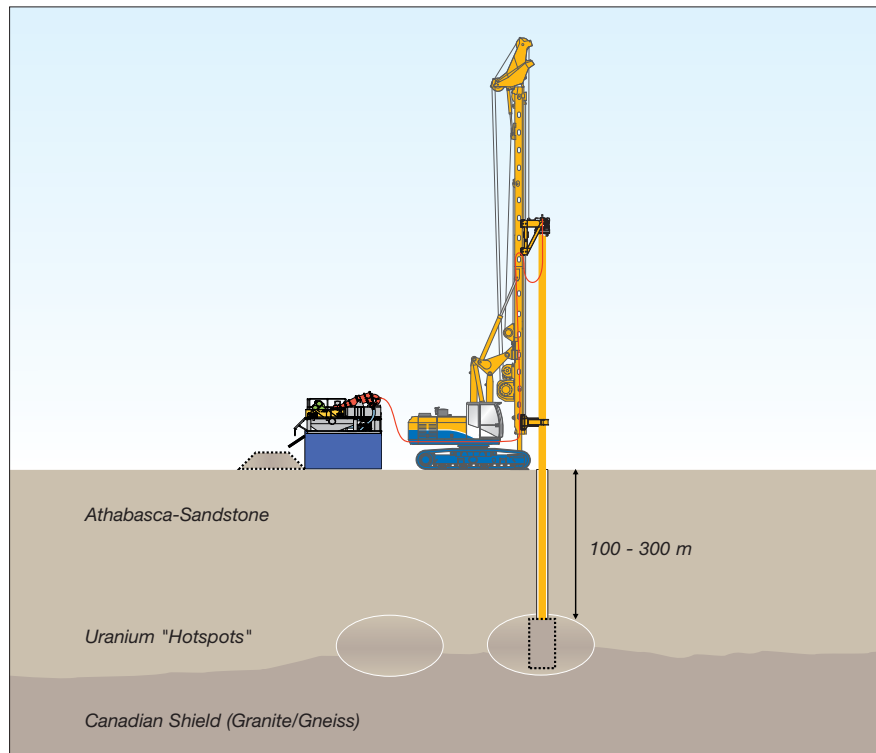
In cooperation with BAUER Maschinen GmbH and AREVA Resources Canada Inc., Bauer Resources developed the High Pressure Reverse Circulation (HPRC) system in order to be able to mine high grade uranium deposits which are too small to be mined with an open pit or an underground operation.

Location

McClellan Lake Saskatchewan, Canada

Geology

Mining of high grade uranium ore deposits in 150 - 180 m depth



Water Well Drilling



Equipment

Prakla RB 50 R/C Drilling

Scope of work

- Drilling, formation sampling, geophysical logging, completion, development and test pumping of fifty-five (55) production wells with a minimum depth of 500 m and a maximum total depth of 600 m
- Drilling, formation sampling, coring, geophysical logging, completion, development and testing of nine (9) piezometer wells with a minimum depth of 400 m and a maximum total depth of 440 m
- Installation of permanent pumps and riser pipes.

Location

Southern Jordan, Disi Amman

Geology

Rum aquifer

Mine Development

Equipment

BAUER BG 36 with Kelly Rotary Drilling

Scope of work

- Passive vertical drain (PVD) wells for a copper mine
- Drilling passive vertical drain (PVD) wells for the Highland Valley Copper Mine
- Number of PVDs drilled: 27
- Drilling depth: 85 - 114.5 m
- Drilling diameter: 1.20 m
- Drilling method: Kelly drilling using extensions for depth > 72 m, borehole cased from 0 - 30 m, in greater depth borehole supported with additives

Location

British Columbia, Canada
(Highland Valley Copper Mine)

Geology

Drilling through 70 - 100 m of sediments, as sand and clay, into a gravelly basal aquifer



Equipment

Prakla RB 40 Hammer Drilling

Scope of work

- Well drilling in Newmont Goldmine:
- Flush drilling technique
 - DTH hammer technique up to 760 m

Location

Ahafo, Ghana

Geology

Saprolith and solid rock

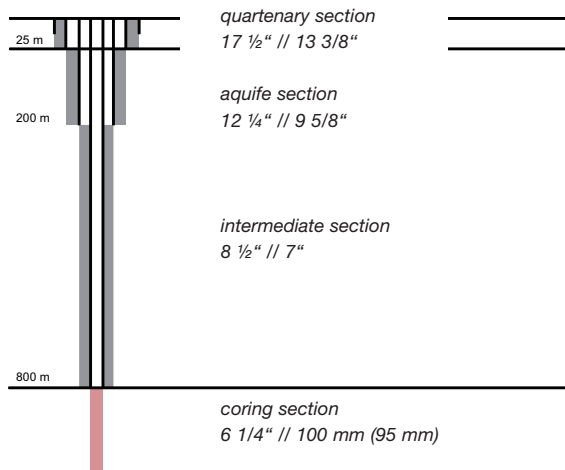
Shale Gas Drilling

Equipment

Mining Rig G 750 direct mud drilling and wire line coring

Scope of work

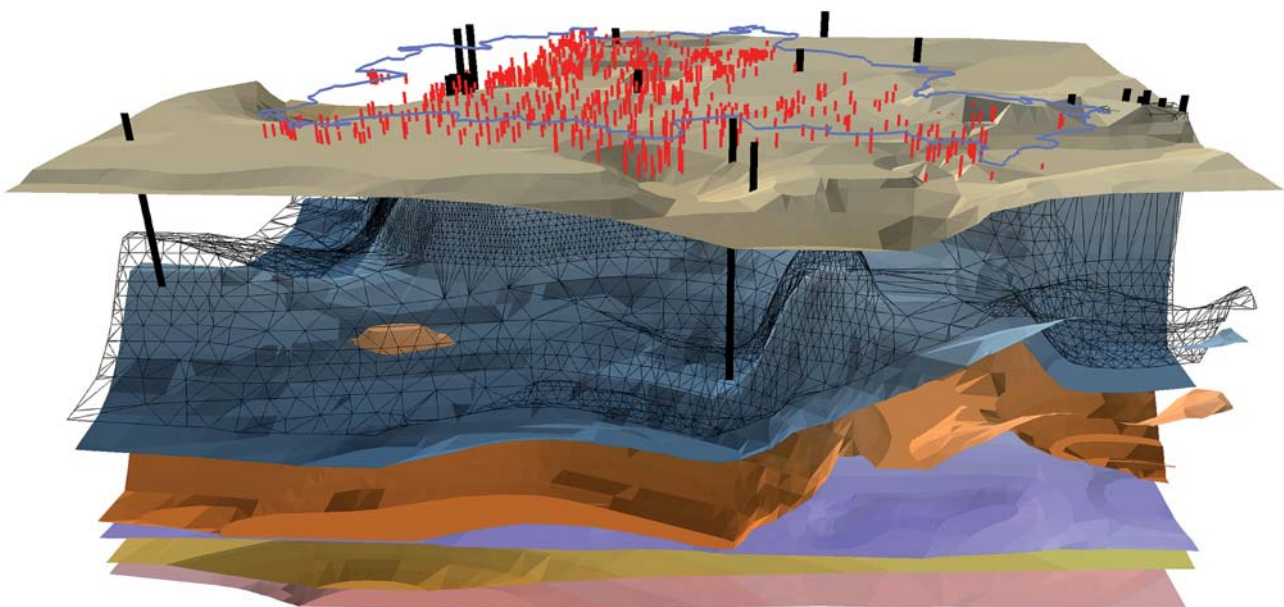
- 3 shale gas exploration drillings for Shell from app. 800 m to app. 950 m depth
- Diameter at surface 17 1/2", diameter after final depth 6 1/4"
- Destructive drilling to top shale deposit, afterwards wire line coring section of app. 200 m with triple core barrel 6 1/4" x 95 mm



Environmental Information Systems

In cooperation with our subsidiary HGC Hydro-Geo-Consult GmbH we offer Data Base Management Systems in connection with customer-oriented applications of Geographic Information Systems (GIS), software developments and

3D-modelling (in geology, hydrogeology, for mines or open pits). Furthermore, shallow geothermal systems for heating and cooling (starting with feasibility studies up to planning and testing) belong to our competences.





BAUER Resources GmbH
BAUER-Straße 1
86529 Schrobenhausen, Germany
Telephone: +49 8252 97-1650
Telefax: +49 8252 97-1845
BRE-EDH@bauer.de
www.bauer.de

