

CRITICAL WELLS

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For when it's critical to stay one step ahead

Reactive shales. HPHT formations. We know that critical well are going to expose your operation to the most challenging conditions.

Our proactive solutions make sure you are ready for anything – bringing together our unparalleled experience, industry-leading design and engineering software, rigorous product assurance testing, and 24/7 worldwide support to keep your well on track. **No matter what.**



Enhance your fluid knowledge

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SHALE INHIBITION

The performance advantages of WBM

Without the shale-related issues.

We believe the presence of clay, gumbo or reactive shales should not stop you from gaining the performance benefits of water-based drilling fluids. And, thanks to our effective approach to shale inhibition, you can. Avoiding the swelling, wellbore instability, high torque and drag, and stuck pipe associated with the water phase of drilling fluids in these conditions.

Anticipating and solving shale issues

Our team of scientists at the Newpark Technology Center laboratory analyze shale samples to determine the quantities and types of clays present in the shales. Based on decades of shale inhibition expertise, our scientists then formulate an appropriate inhibition package for that shale.

[Key shale inhibition products and solutions >](#)

Our shale hydration inhibiting solutions include:

- **Polyol Chemistry:** reduces water activity and enables membrane development.
- **Emulsified Phase:** improves the membrane and coats formation surfaces with non-aqueous film.
- **Supplemental salinity:** lowers the water activity.
- **Silicates:** precipitate into pore spaces and onto the surfaces of shales and cuttings.
- **Amine:** actively bonds to exchange sites in clays.

Read about our most recent shale inhibition wins

MEDITERRANEAN SEA

DeepDrill WBM eliminates stuckpipe issues and decreases NPT compared to conventional drilling fluid in reactive shales

DeepDrill system provided wellbore stability throughout problematic reactive shale interval

[Read case study >](#)

PINEDALE ANTICLINE, WYOMING

Drilling performance of non-aqueous fluids is improved in challenging shale

A novel invert emulsion system using a polyglycerol internal phase to establish a shale/fluid membrane and controlling water activity

[Read technical paper >](#)

HPHT WELLS

Extreme downhole conditions

Resilient fluid performance.

The interaction of reservoir fluids, formations, and drilling fluids in the HTHP environment places extreme demands on your operations. That's why Newpark fluids experts use our industry-leading laboratory capability to perform all the rigorous testing required to ensure the system will perform as expected. In real-world downhole conditions.

Our holistic, field focused approach identifies the fluid and well characteristics required from initial fluid design through service quality and program implementation to well completion.

Advanced laboratory design and a field-focused outlook enable our operations managers to provide a fluid program

encompassing the design and operation that can withstand the most hostile environments – with total service quality.

Optimizing HTHP fluid performance in the field

Our highly skilled fluids engineers run well site tests to ensure the execution of the fluid solution to the defined plan – while their extensive experience enables them to resolve any challenges they encounter. Quickly, efficiently and cost-effectively.

[Find our more about Evolution drilling fluid proven in HPHT applications >](#)

Read about our recent HPHT wins

COOPER BASIN, AUSTRALIA

Evolution fluid remains stable, drills HPHT wells to 420°F

Remarkable consistency and predictable behaviour over the 4 well campaign

[Read case study >](#)

NORTHERN ITALY

Novel water-based drilling fluid for HPHT wells

Drilling time, environmental impact and associated costs reduced

[Read case study >](#)

Discover more about our solutions to other technical challenges

Deepwater and offshore wells

The experience and expertise to keep you one step ahead of complex requirements.

[Read more >](#)

Unconventional wells

Unconventional drilling and stimulation fluid solutions to keep you on time. On budget. On plan

[Read more >](#)

Lost circulation wells

Reduce drilling time and cost. Avoid the cost of lost fluid and circulation.

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Mats & Integrated Services
Excalibar Industrial Minerals
Manufacturing

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