

PERSONALIZED FRAC CHEMICAL SOLUTIONS

WELL-SPECIFIC SOLUTIONS REDUCE YOUR OPERATING COSTS

We at 23D Services understand that chemical additives and fracturing fluids are a crucial element in the safe and effective fracturing of oil-bearing rock formations. To that end, we help you custom-tailor solutions to meet your unique, individual well conditions. We don't bring you ready-made solutions and pre-conceived notions. We're good listeners and team players who work closely with you every step of the way to ensure high-efficiency frac operations so critical in today's competitive arena. Everything is calculated to increase cost efficiency and reduce your total operating costs in the most challenging environments.

RESPONSIVE. NO BUREAUCRACY TO DEAL WITH.

Our streamlined organizational structure gives us the agility to make on-the-spot decisions and respond quickly to your needs. While others are muddling their way through the chain of command, we are executing and innovating. You get the best of both worlds: Strong local support with world-class frac chemicals and expertise.

THE LABORATORY. SERVICE STARTS BEFORE JOB BEGINS.

Extensive lab testing ensures the best products for each particular well are used and that all chemistries are compatible. We prevent frac water problems before they begin with detailed water analysis and prescriptive treatments. Our team of laboratory professionals works closely with our field operations team for optimal fit-for-purpose fracturing solutions.

When the job begins, sites are fully manned 24 hours a day with a highly qualified staff and on-duty supervisor. All staffers receive specialized training that brings you consistent value. Post-job services include bacteria monitoring at 30, 60 and 90-day intervals. The greatest feedback from our customers is in regard to our post-job look-back with the engineering and operations team leads. We sincerely want to know what went well, where we can improve, and what we learned. This is vital in our continuous enhancement of operations.



PRECISE CHEMICAL DELIVERY SYSTEMS

Our fully self-contained water science trailers can inject and meter any of our chemistries on the fly. Pumps and meters are sized such that we can consistently add our chemicals to the frac fluid precisely, with a level of accuracy to within 1 part per million. We monitor the clean pump rate live and adjust pump rates accordingly.



COMPLETE LINE OF FRAC CHEMICALS

Just a few of our high-performance custom-blended and off-the-shelf products:

- ⊞ **HIGH VISCOSITY FRICTION REDUCER** - SLICK THICK combines a reducing agent and viscosity builder into one convenient blend
- ⊞ **BIOCIDES** - Enduracide, an EPA registered biocide, provides fast, effective and long-lasting kill on a broad spectrum of bacteria
- ⊞ **SCALE INHIBITORS** - Advanced polymer-based deposit control agents for high temperature, high TDS, high iron, and high scaling indices
- ⊞ **CLAY CONTROL** - An Engineered BioFluid (EBF™) that prevents both fines migration and hydration of reactive clays (swelling)
- ⊞ **SURFACTANTS** - An Engineered BioFluid (EBF™) for enhanced load recovery in fractionally wetted low permeability reservoirs.
- ⊞ **NON-EMULSIFIERS** - An Engineered BioFluid (EBF™) breaker separates water-in-oil and oil-in-water emulsions to improve production

Fracturing fluids and additives are customized on a client-by-client basis to maximize production, formation permeability, and proppant conductivity. You enjoy optimal performance with economic pricing.



Call one of our experts today for well-specific frac fluid solutions.

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