Viking fracturing fluid systems

Maximize fracture economics and minimize risks

Applications

- Hydraulic fracturing operations in conventional and unconventional reservoirs
- Foamed or energized fracturing treatments using nitrogen
- High shear-rate environments and areas where water quality prohibits the use of more sensitive fluids
- Frac-pack operations

Features and Benefits

- High apparent viscosity
  - Improves proppant transport
- Superior fluid efficiency
  - Minimizes pad volumes and overall fluid volumes required for an optimized operation
- Functions at high pH
  - May be energized or foamed with nitrogen
- Can be custom-formulated for crosslink times of more than 5 minutes
  - Minimizes hydraulic horsepower requirements
- Breaks cleanly and completely with Baker Hughes EnZyme™ and HighPerm™ encapsulated breakers
  - Minimizes risks of formation and proppant pack damage
- Good tolerance to mix waters, including brines
  - Facilitates water management and reduces associated costs

The Baker Hughes **Viking™ family of fracturing fluids** are economical, high-pH, borate-crosslinked systems for applications in temperatures up to 300°F (150°C). The fluid systems incorporate proprietary complexor and breaker chemistry to achieve customizable crosslink and break times.

In particular, the Viking D system maximizes conductivity when greater fracture widths are required for placement of high proppant concentrations, coarser proppants, or both.

Safety Precautions

Refer to system component material safety data sheets (MSDS) for handling, transport, environmental information, and first aid.

References

System component MSDS

Typical properties

Typical temperature range	Up to 300°F (150°C)
Typical pH range	9.5 to 10

Typical Viking D Fracturing Fluid Systems Viscosities