

# SYN-TEQ

## Safely discharge drill cuttings in environmentally sensitive areas

### Applications

- Invert emulsion drilling fluids
  - Compatible with synthetic base fluids such as GT-3000
- Shelf applications
- Environmentally sensitive areas

### Features and benefits

- Superior drilling performance
  - Provides nearly twice the lubricity of diesel-based drilling fluids
  - Improves rate of penetration
  - Helps minimize torque and drag
  - Excellent handling properties
  - Can be stored in unheated additive tanks
  - Requires less expensive storage facilities
- Environmental compliance
  - Safely discharge cuttings in environmentally sensitive areas
- Retains optimum rheological properties at temperatures above 400°F (204°C)
- Effective in a wide range of fluid properties and densities

Today, when selecting a drilling fluid, operators often are forced to sacrifice system performance to meet strict environmental requirements.

The Baker Hughes **SYN-TEQ™ synthetic-based drilling fluid system** delivers superior drilling performance and environmental acceptance in a synthetic drilling fluid.

The SYN-TEQ drilling fluid system combines a thermally stable isomerized olefin base fluid with high quality emulsifiers and a wetting agent to deliver a cost effective, rheologically-stable drilling fluid system.

Baker Hughes set the industry standard in synthetic fluids, pioneering the use of low-viscosity, isomerized olefins. Baker Hughes introduced the first use of internal olefin base fluids to the Gulf of Mexico market in 1995. Our proven GT-3000™ base fluid is a non-toxic, isomerized olefin designed specifically for synthetic drilling fluid applications. This biodegradable fluid, when combined with other specialized fluid additives in the SYN-TEQ drilling fluid system, offers operators worldwide an environmentally safe alternative to traditional oil-based drilling fluids.

### Superior performance

SYN-TEQ fluids deliver nearly twice the lubricity of diesel-based drilling fluids, as documented in the field and by extreme pressure lubricity testing

performed by independent labs. In the field, this additional lubricity has proven extremely beneficial in drilling highly deviated wells, minimizing torque and drag while increasing rate of penetration (ROP).

The SYN-TEQ drilling fluid system exhibits minimal rheological changes with temperature fluctuations. SYN-TEQ fluids retain optimum rheological properties at temperatures above 400°F (204°C) and the system's low-kinematic-viscosity allows its rheological profile to remain virtually unaffected by reduced temperatures. This is especially important when low flowline temperatures are encountered.

SYN-TEQ system's low viscosity base permits the design of high-density fluids that retain optimum rheological properties. These properties are especially desirable when lost returns are a concern. System properties can also be enhanced when hole cleaning becomes the primary objective.

### Cost savings

In addition to its superior performance and environmental benefits, the SYN-TEQ drilling fluid system can present operators certain economic advantages. In special applications, SYN-TEQ drilling fluid systems can be formulated with low synthetic-to-water ratios (SWR's). This can result in significant cost savings, enhancing overall well economics.

### Typical components of SYN-TEQ drilling fluid system

Product Name	Description
<b>Synthetic base fluid such as GT-3000™</b>	Nontoxic and biodegradable base fluid
<b>CARBO-GEL™ series</b>	Viscosifier and suspending agent
<b>OMNI-MUL™ series</b>	Primary emulsifier
<b>OMNI-TEC™</b>	Secondary emulsifier
<b>BIO-COTE™</b>	Wetting agent

Additional information describing recommended treatment, environmental information, safe handling recommendations, packaging description, and typical physical properties is available for each product.