

AMERICAN GILSONITE

Improves performance, extends thermal life and reduces cost



Proven safe and effective for deepwater operations

Gilsonite® uintaite is a safe, naturally occurring hydrocarbon resin with unique chemical properties. Added to drilling fluids, it increases performance and reduces cost in deepwater drilling while minimizing risk.



Gilsonite® meets all EPA requirements for Gulf of Mexico discharge

	EPA Static Sheen	96 Hours LC50 Aquatic Bioassay >30,000 ppm SPP	EPA (RPE) Fluorescence	GCMS Crude Oil <1%	Sediment Toxicity <1.0
Synthetic-Based Mud (SBM)	✓ Pass (No sheen)	✓ Pass (929,380)	✓ Pass (No fluorescence)	✓ Pass (0.06)	✓ Pass (0.3)
SBM + 3 ppb Gilsonite®	✓ PASS (No sheen)	✓ PASS (933,350)	✓ PASS (No fluorescence)	✓ PASS (0.06)	✓ PASS (0.22)
SBM + 6 ppb Gilsonite®	✓ PASS (No sheen)	✓ PASS (890,670)	✓ PASS (No fluorescence)	✓ PASS (0.06)	✓ PASS (0.22)

The deeper you look, the more benefits you'll see

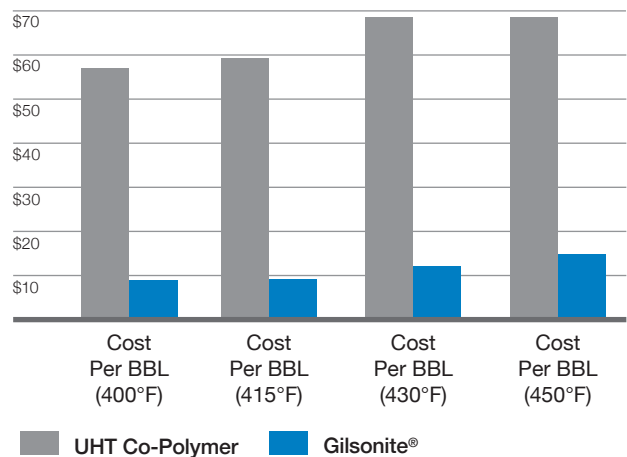
Gilsonite® uintaite has been proven safe and effective in more than 60 years of oilfield performance. With natural bonding and plugging properties and a high softening point, it is a cost-effective, multi-purpose additive.

- > Extends thermal life 10% or more
- > Prevents lost circulation
- > Minimizes differential sticking
- > Stabilizes shales
- > Performs in WBM and SBM
- > Performs in HP/HT environments
- > Reduces cost vs. polymers
- > Delivers higher performance with no HSE risk

Gilsonite® reduces costs more than 80%

Gilsonite® uintaite is a fraction of the cost of premium polymers. With its high softening point, it delivers greater cost advantages at higher temperatures.

Gilsonite® improves performance at a fraction of the price of synthetics alone.

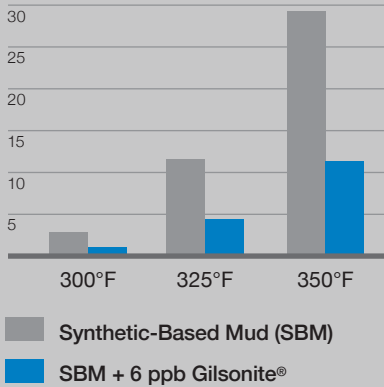


Gilsonite® uintaite extends thermal life

American Gilsonite Corporation's mines have yielded variations of uintaite with a range of softening points. Carefully selected varieties of pure Gilsonite® have been combined to perform to customers' specifications, at temperatures as high as 500°. Adding Gilsonite® extends the thermal life of synthetic-based mud and water-based mud formulations by 10% or more.

HT/HP Fluid Loss (ml)

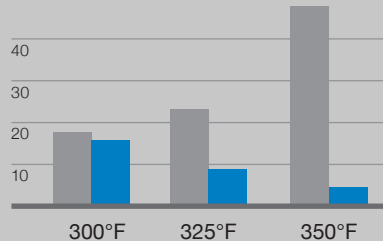
Up to 66% reduction in fluid loss



Particle Plugging Test (PPT)

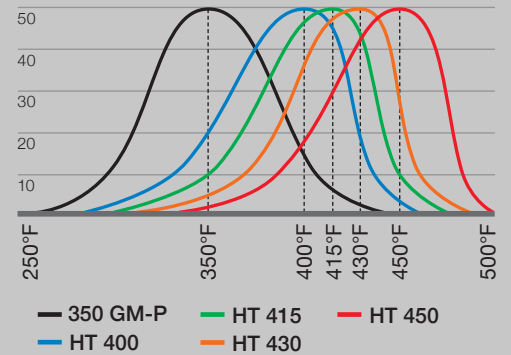
@2000 psi, 10 Microns Disk (ml)

Up to 91% improvement in particle plugging



High Softening Points (% Cumulative Particle)

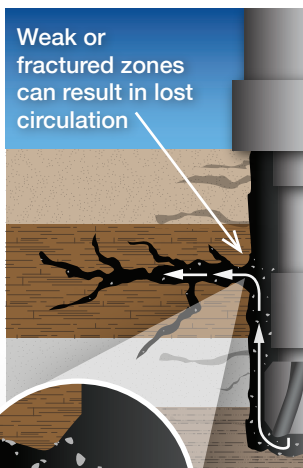
Gilsonite® products offer a variety of softening points to meet drilling requirements



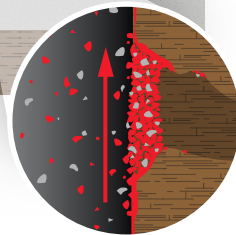
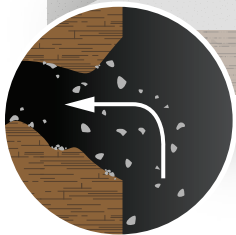
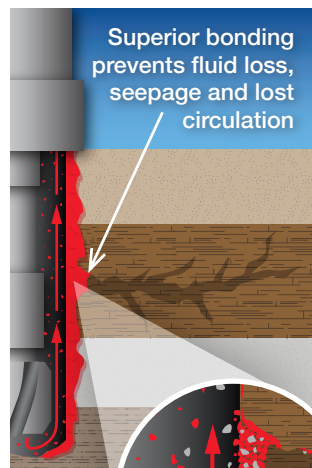
Unique bonding and plugging properties prevent formation damage

Gilsonite® uintaite forms a physical and chemical bond with permeable formations, creating an effective seal to prevent the passage of drilling fluid. By uniquely functioning as both a malleable and solid plugging agent, Gilsonite® controls fluid loss and seepage, prevents lost circulation and protects reactive and low-reactive shale surfaces, even at elevated bottomhole temperatures.

Without Gilsonite®



With Gilsonite®



A case history: Gilsonite® eliminates deepwater differential sticking

An international oil company drilling below 16,000 ft. in the Gulf of Mexico encountered a major pressure regression, and the pipe became differentially stuck. Unable to free the stuck pipe, the oil company and the drilling fluids provider decided to sidetrack the well, re-drilling the section with a zero fluid loss WBM.

Onsite testing indicated that sized particles and calcium carbonate in combination with high concentrations of Gilsonite® uintaite resulted in < 0.5 cc HPHT fluid loss, and fluid loss was nil as measured with a permeability plugging apparatus. Using the reformulated WBM, drilling proceeded through the major pressure regression without any sticking tendencies in the problematic wellbore. Gilsonite® is proven under pressure.®

Gilsonite® is naturally better®

Gilsonite® uintaite is a naturally occurring hydrocarbon resin found only in northeastern Utah. Gilsonite® has significant health advantages over synthetic products.

- > Gilsonite® is:
 - Non-toxic (unlike coal or fly ash)
 - Non-carcinogenic
 - Non-mutagenic
- > No extreme safety measures are needed to handle Gilsonite®