



Tiam Earth Advanced Materials

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Technical Datasheet

GRAPHITE POWDER



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Description

Graphite is a high-quality grade of mechanical lubricating agent which is widely used in drilling fluids to maximize lubricity properties. Graphite forms a thin film on BHA, bit and drill pipes in order to minimize torque and drag and reduce possibility of stuck. Graphite is chemically inert and may be applied in both water-based and oil-based mud systems.

Application

Main function of Graphite is to reduce friction while drilling with water-based drilling fluids and increase rate of penetration. Besides that, possibility of mechanical stuck or differential stuck is highly decreased while using Graphite. Adding Graphite in high-deviated and horizontal wells is highly recommended. Graphite may be used in depleted zones, to reduce seepage to partial losses.

Advantages

- Compatible with different types of water-based drilling fluids
- Reduce friction in slide drilling
- Reduce possibility of differential sticking
- Chemically stable in downhole temperature and pressure
- Increase rate of penetration
- Effective bridging and sealing agent in thief zones
- Chemically Inert
- Reduce unwanted torque while drilling
- Help to drill a smooth well path

Limitations

- May be removed by shaker screens. It needs to be added periodically while drilling.

Treatment

It is recommended to use Graphite in water-based muds with concentrations of 1 to 3 lb/bbl (2.8-8.4 Kg/M³) in high deviated wells or when sliding. Considering mud type, fluid density and well angle, applicable concentration may differ. Periodic treatments while drilling is highly recommended.

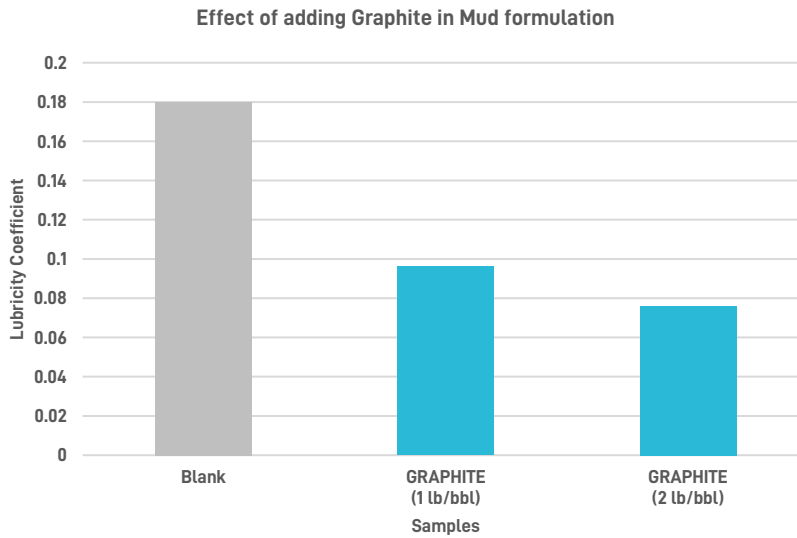


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Typical Properties

Appearance	Black, Gray, Silver granules
Specific Gravity (20°C)	2.1-2.25
Size Distribution	50-75 micron
Solubility	Insoluble in cold water



Packaging

Graphite Powder is available in 25-Kg SXS.