



Weight Material

Description

BARITE

BARITE is finely ground high purity barium sulfate mineral. It is manufactured under license from the American Petroleum Institute and bears the API monogram.

Uses

BARITE has a density of 4.1. It is used for increasing the density of fresh water, salt water, and oil based muds.

Benefits

BARITE is inexpensive and non-reacting with a moderately high specific gravity. Higher density weight materials are either much more expensive and abrasive (HEMATITE), or hazardous (Lead Ore). BARITE should not be used where formation damage is a major concern as it is very difficult to remove.

Treatment

BARITE is added through the mud hopper or in bulk with a “wet receiver”. Water (or oil) should be added in small amounts when large additions of BARITE are made to allow wetting of the solids. Oil based muds may require the addition of an additional wetting agent when the density is being increased by several pounds per gallon. Good agitation is required to mix BARITE. Sufficient gel strengths should be maintained to prevent settling during periods of quiescence.

The amount of BARITE needed to increase mud density is calculated as follows:

$$100 \text{ pound bags of Barite per } 100 \text{ bbls of mud} = \frac{1435 (W_2 - W_1)}{34.2 - W_2}$$

Where: W_1 = initial density (ppg)
 W_2 = desired density (ppg)

Function

BARITE is much more efficient at raising the density of drilling fluids than drilled solids because of its specific gravity. Using BARITE reduces the percentage of solids required by nearly 50%.



Drilling Fluids, Inc.

Weight Material

Typical Physical Properties

Safe Handling Recommendations

Packaging

BARITE (Continued)

Physical Appearance Gray to pink powder
Specific Gravity.....4.1
Bulk Density 120 pcf
Hygroscopic:.....no
pH in Water:neutral
Solubility in water:.....insoluble

Utilize normal precautions for employee protection when handling chemical products. Use of appropriate respirator, gloves, goggles, and apron is recommended for employee comfort and protection. See Material Safety Data Sheet (MSDS) for this product prior to use.

BARITE is packaged in 100 lb multi-wall bags.