Viscosity Improver Additive for mineral oils

Concentrate

PT-WELL6240 is a concentrated blend of petroleum distillates, penetrants, and dispersants for prevention and dissolution of asphaltene and paraffin deposits to improve viscosity of crude oil. PT-WELL6240 is used for a variety of applications where these troublesome deposits cause plugging and reduced production of crude oil. This multifunctional product provides superior deposit and sludge control compared to treatment programs using only solvents. PT-WELL6240 does not interfere with the quality of the distillate or residue fractions.

Methods of Application

Acidizing: Some crude oils form an insoluble sludge when contacted with HCI. Asphaltenes are the primary ingredients of sludge, but resins, paraffins, hydrocarbons, fines, and clays are also present. Once formed, this sludge is extremely difficult to remove. PT-WELL6240 prevents sludge from occurring when the oil is treated prior to acidizing. The product is also used as a remedial treatment to re-disperse precipitated solids in sludge caused by acidizing. Treatments using only solvent have not been effective in these applications.

For use as a spearhead treatment prior to acidizing to reduce sludging or as a post acid treatment to dissolve formed sludge, add 15% by weight of PT-WELL6240 to an aromatic solvent like xylene or toluene. Blend thoroughly prior to application until a single phase is achieved.

For use as an anti-sludge agent while acidizing, add 10% by weight of PT-WELL6240 to 15% HCI to prevent sludge from occurring.

PT-WELL6240

Stimulation

To remove formation damage caused by asphaltene deposits, add 15% by weight of PT-WELL6240 to an aromatic solvent like xylene or toluene. Spot the treatment compound at the formation face and into the near wellbore region. Use 1-2 barrels of the treatment compound per foot of perforations. After soaking for a minimum of 16 hours, over-flush at sub-fracturing pressure with 10-20 barrels of light crude oil per foot of perforations prior to retuning the well to production.

Workover Fluids

To reduce viscosity of heavy oil, add 10% by weight of PT-WELL6240 to a kerosene carrier fluid. Blending 7% by weight of this compound with 11-14 API lease crude reduces viscosity from 10,000 cps to 2,500 cps.

In some areas, condensate is used to reduce the viscosity of heavy oil in spite of its low flash point and potential for asphaltene precipitation upon contact with oil. To formulate a workover fluid with a higher flash point (108°F) that will not precipitate asphaltenes after prolonged contact with heavy oil, add 10% by weight of PT-WELL6240 to a kerosene carrier fluid.

PT-WELL6240 reduces flashing of condensate /solvent that are mixed with oil at higher temperatures. For example, adding 250 ppm of PT-WELL6240 to a mixture of 70% crude oil and 30% condensate at 45 psig and 19°F can reduce flashing of C1, C2, C3, C4, C5 and C6 by 50%-75%.

Slop Oils

Add 5% by weight of PT-WELL6240 to gas-oil. Mix 1 %-5% of this compound with slop oil prior to treatment. By reducing oil/ water interfacial tension and changing solids wetability from oil-wet to water-wet, this compound can improve the productivity of centrifuge equipment and significantly increase clean oil sales.

Paraffin Inhibition
PT-WELL6240 can inhibit paraffin deposition when asphaltenes are the nucleating material that causes paraffin crystals to agglomerate. PT-WELL6240 acts like an artificial resin to keep asphaltenes in suspension so they cannot react with paraffin to form deposits.

Packaging, Handling, Shipping

PT-WELL6240 is a liquid packaged that can be shipped in Isomodular Delivery Tanks, and 55 gallon-non-returnable steel drums.

Read the label and Material Safety Data Sheet for complete handling information before using or storing this product.

Environment: Non-hazardous
DOT: Not regulated
Export Classification: Prepared additive, viscosity improver
Schedule B 3811.19.0000