**PropStop® ABC Service**  
*Aqueous-Based System to Help Control Proppant Flowback*

Being able to halt or minimize proppant flowback can be crucial in turning a mature asset profitable. Proppant flowback can damage equipment and restrict hydrocarbon production and can require frequent workovers to clean the wellbore. Halliburton’s PropStop® ABC service provides proppant flowback control in a safer and easier to use system.

- Provides cohesion between proppant grains without damaging permeability or conductivity of proppant pack
- Helps maintain highly conductive fractures and long-term productivity
- High-strength consolidation can be achieved with small amounts of material
- Eliminates many health and safety hazards
- High flash point makes system easier to manage
- Easy cleanup, no special solvents required on location for equipment cleaning
- Can be applied using bullheading or coiled tubing
- Enables treating long intervals; foam acts as a resin extender and is self-diverting

**Proppant Flowback Control is Essential in Maximizing Mature Asset Performance**

In all assets and particularly in mature assets, proppant flowback has plagued the industry and can result in a significant loss of fracture conductivity and lower overall productivity in the well. Damaged equipment and cleanout services add to the cost of the well and lower the economic return. Additionally, cleaning the wellbore does not prevent recurrence of proppant flowback and must be repeated several times.

**PropStop® ABC Service, A More Effective Way to Control Proppant Flowback**

Remedial treatments to apply a resin coating to the proppant pack have proved effective in controlling flowback. PropStop ABC service was developed as an alternative to solvent-based resins.
Case History

PropStop ABC Service Remediates an Extreme Case

A North America well was completed openhole with a perforated liner. The well was cavitated and then fractured for stimulation. Continuous proppant and formation solids production caused operational problems with water lift equipment. The gross interval was 316 ft and the net interval was 82 ft. The well was treated with a bullhead squeeze of 80 quality foamed PropStop ABC agent and displaced to the top of the zone using nitrogen.

After cure time, the upper completion was installed and the well placed on production with no sand production.

PropStop® ABC Service Achieves Complete Zone Coverage in the Permian Basin

PropStop ABC service was used as a preemptive step to avoid production problems associated with proppant flow back on an oil well in the Permian Basin. This was a challenging well with 25 perforations spaced out over a gross interval of 279 ft.

Small pre-flush stages commingled with nitrogen were used to displace the oil from the near wellbore and to condition the proppant surfaces for the PropStop ABC service treatment. The coiled tubing, with Pulsonix TF service, was cycled over the perforated interval for each of these stages for enhanced placement. The well was shut-in long enough for the consolidation system to cure and was then completed and put on production.

Since this treatment, the well has been producing at 500 bpd with no proppant production.

Tagging Proppant Verifies Effectiveness of Treatment

A major operator tested the PropStop ABC system in a land-based USA well. To determine the effectiveness in controlling proppant flowback, the operator performed a fracture stimulation treatment using 16/30-mesh sand with a low-viscosity fracturing fluid, and took no measures to prevent proppant flowback.

After a few days of controlled flow the operator tagged proppant built up in the wellbore. The operator (1) cleaned out the wellbore, (2) performed a consolidation treatment using the PropStop ABC system, (3) turned the well to production and (4) after several weeks of production, performed another tag to verify that no additional proppant or formation material had been produced. The well is producing as well as or better than offset wells, has not seen any additional buildup of solids in the wellbore, and has flowed back no measurable amount of proppant.

For more information about how PropStop® ABC proppant flowback control can help you maximize your mature asset, contact your local Halliburton representative or email stimulation@halliburton.com.

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