## **DCS-FINES 33**



## DESCRIPTION

DCS-Fines 33 is an engineered biofluid for shale reservoir stabilization. DCS-Fines 33 uses a biopolymer chemically engineered to both encapsulate near colloidal particles and inhibit swelling clays. The DCS-Fines 33 encapsulates clays and fines to eliminate this source of reservoir damage.

## FINES MIGRATION PROBLEM

Limiting the generation and migration of fine particle migration is key for shale reservoir production. Most temporary clay control additives are not perfectly suited for this problem due to the nature of their interaction with colloidal fines. Reducing the production of fines requires additives that interact with the rock, formation waters and completion fluid chemistries without injuring the reservoir.

## DRY CREEK SOLUTIONS

DCS-Fines 33 immobilizes fines and provides longer term shale stabilization in low permeability reservoirs. DCS-Fines 33 bioploymer forms stable encapsulating films on clay surfaces that prevent fines dispersion. Typical treatment rates are 0.5 to 2.0 gallons per thousand (gpt).

- Colloid encapsulation
- Dual functional
- Lower solids flow-back

CORE DESCRIPTION	FLUID NAME	AVERAGE CST (s)	CST RATIO
EF-Core-033016 (70 mesh)	1.0 gpt DCS-Fines 33 in Tap Water	99.2	8.1
EF-Core-033016 (70 mesh)	1.0 gpt 70% Choline Chloride in Tap Water	105.9	8.3
Color: Light Tan to Blac pH: 5.0 - 7.0 Specific Gravity: 1.105± Density: 9.205 (lbs/gals)	Pour Point: -2°C Flash Point: > 100°C + 0.250 Hazardous: N/A		
Dry Creek Solution	ns, 28610 Highway 290, Ste. F09-#22 drycreeksolutions.co		3.885.6139