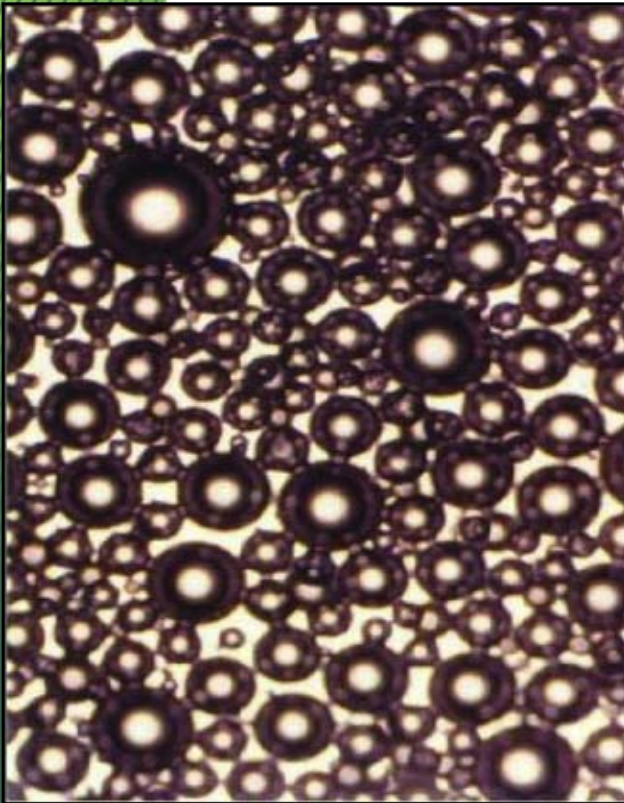




“Real time control over lost circulation zones”



Introduction

Formation damage due to drilling fluid/filtrate invasion is a function of hydrostatic column. Reducing the differential pressure between the mud column and the pore pressure will diminish the cone of damage near the wellbore.

Lost circulation occurs when the differential pressure of the hydrostatic column is much greater than the formation pressure. Lost circulation can lead to hole instability, stuck drill pipe, loss of well control, formation damage and at the worst will halt drilling operations and require the replacement of mud volume.

The MicronAire™ System's surfactant package acts by entraining air bubbles in a viscous bentonite based fluid. This new, lighter density fluid, capable of achieving densities as low as 720 kg/m³ at surface, controls fluid invasion into lost circulation and pay zones by placing a “micro-bubble bridge” across porous formations.

Applications:

- Near-balance fluid for depleted horizontal wells
- Low density drill-in fluid for hydrocarbon pay-zones
- Lost circulation system for surface or downhole applications

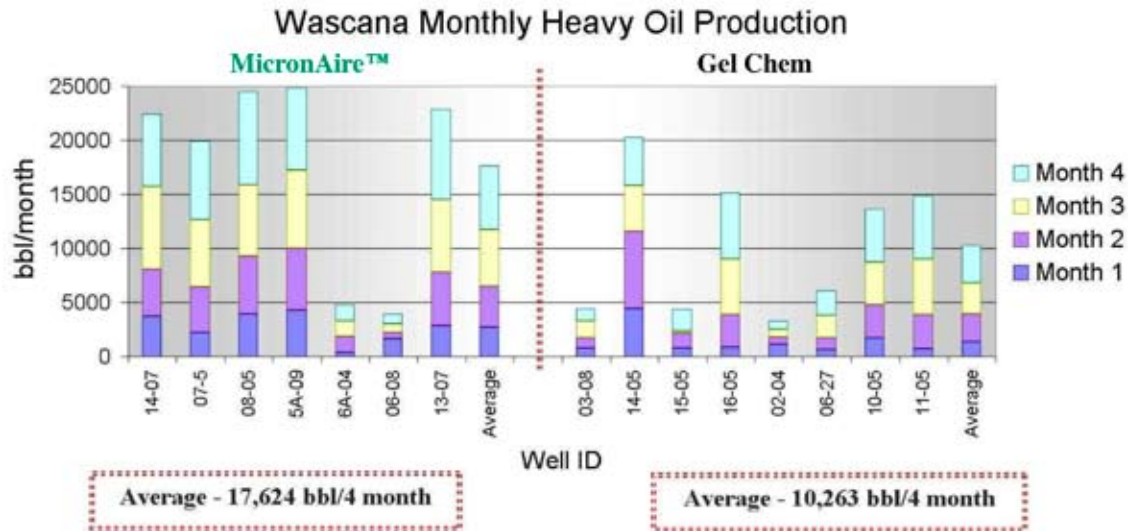
Benefits:

- Reduced formation damage
- Reduced time to put into production
- Real time control over lost circulation zones
- Reduced tendency for differentially stuck pipe
- Reduced clean-up costs
- Use of standard rig equipment
- Land-spreadable sumped fluid

MicronAire™

www.qmaxsolutions.com

Case Histories



Comparison based on 49 wells, both vertical and horizontal:

	Competitor's	MicronAire™
Vertical \$ mud/m	\$180.38	\$50.48
Horizontal \$ mud/m	\$37.20	\$23.74

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Preventing Formulation Impairment with a MicronAire™ Drilling Fluid