



ARC CBM Drill-In™

Product Data Sheet

Delivering Tomorrow's Fluid Technologies Today

Description

Micro-solution Additive for CBM Drilling and Cavitating fluids.

ARC CBM Drill-In™ is a patent pending, biodegradable, thermodynamically stable micro-solution (clear mixture of solvent, co-solvent and surfactant) designed specifically for use as a CBM drilling and cavitating fluid additive. **ARC CBM Drill-In™** enhances CBM drilling fluids by shutting down instantaneous imbibition into the low permeability coal. This process mitigates phase trapping and optimizes the reservoirs gas production potential. When used in CBM drilling or cavitating fluids **ARC CBM Drill-In™** controls all multiple phase interfacial tensions between solids, liquids and gases within the reservoir facilitating expedient cleat clean-up by optimizing flow back of black water from the reservoir.

For foam applications in coals please see the **ARC CBM Low Head™** product data sheet.

Properties

Form:	Liquid	Chemical Family:	Proprietary
Color:	Clear to Opaque	Solubility:	Water and Brines
Odor:	Citrus	Wt. per Gal.:	7.837 lbs.
Charge:	Nonionic	Flash Point:	77° F

Application

ARC CBM Drill-In™ is a CBM reservoir production enhancer.

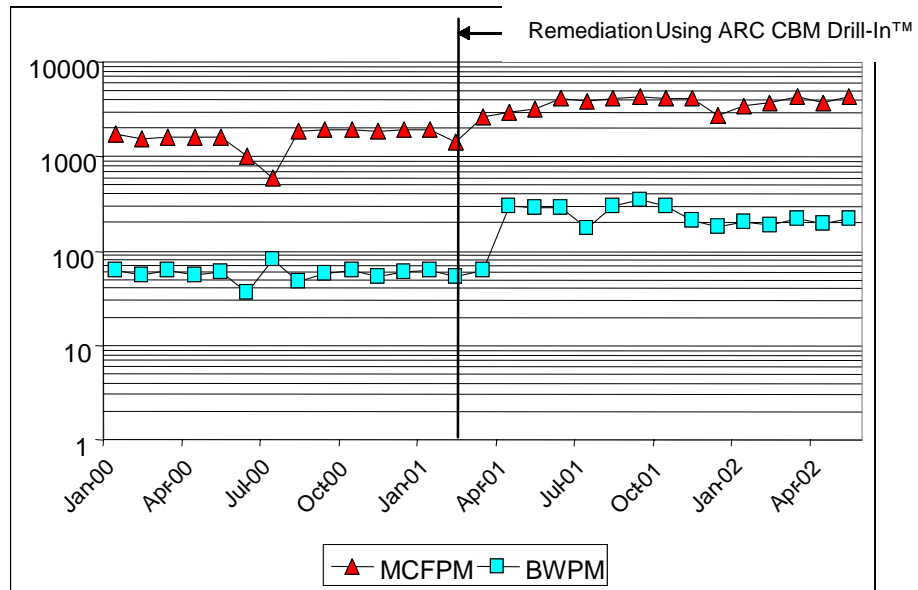
By controlling the interfacial tensions between the liquids, solids and gasses within a CBM reservoir post drilling and cavitation clean-up is enhanced. Typical increased clean-up rates of 20 – 40 % are in direct proportion to the increased gas production volumes observed on several hundred wells. When coal is drilled high volumes coal fines are generated. Relieving these coal fines of the hindrance generated by interfacial tension two key benefits are received. One is they do not pack as a tightly bonded mass within the cleats. Secondly their resistance to flow back when the well is produced is significantly reduced facilitating rapid clean up of black water. Couple these features to the added benefit of the micro-solution traveling with the drilling or cavitating fluid that enters into your reservoir thereby mitigating phase trapping and overall reservoir performance is optimized.

If your CBM reservoir has clays present due to shale stringers ARC offers a complete product line of stand alone additives or single package blends providing inhibition, corrosion control and micro-solution technology.

Case History

ARC CBM Drill-In™ cleans up phase trapping.

Remediation of stimulation damage in coalbed methane well in San Juan Basin of New Mexico was accomplished with a treatment of 30 gal of **ARC CBM Drill-In™** in 30 bbl of brine water. Gas improved from 1,500 to 4,000 MCFPM.



CBM production remained at improved levels for one year following the treatments with ARC CBM Drill-In™ as water production improved by 300 %

ARC CBM Drill-In™ is typically used at 2 gallons per 1,000 gallons by volume in the drilling fluid. Remediation applications may require as much as 20 gallons per 1,000 gallons by volume **ARC Drill-In™** to achieve optimum performance benefits.

Compatibility

ARC CBM Drill-In™ is generally compatible . . .

ARC CBM Drill-In™ is generally compatible with cationic, anionic and amphoteric additives. A compatibility test is advised before use with other surfactants.

Handling and Storage

* Refer to Material Safety Data Sheet . . .

Keep drum tightly sealed to avoid contamination. **ARC CBM Drill-In™** may cause eye, skin and respiratory tract irritation by contact with the liquid or vapors. Do not breathe vapors, especially in confined areas. Use with adequate ventilation. Recommend use of splash goggles and rubber gloves. Refer to the Material Safety Data Sheet for more detailed information.

Packaging

Specialty packaging is available . . .

ARC CBM Drill-In™ is available in 5 gal. pails, 55 gal. poly drums, 330 gal. bulk tanks, or bulk transport loads.

Questions & Answers

ARC Fluid Technologies, LLC “Offering You Tomorrow’s Solutions Today”

If you would like to know more about the ARC Micro-solution Technologies and how they can improve your well performance please contact us at:

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