

## INFORMATION

# OIL AID-CS-20

CLAY STABILIZER

### DESCRIPTION

OIL AID-CS-20 is an inorganic chemical capable of stabilizing and fixing clay particles and holding them together so that they will not move again - even when exposed to an extreme dispersing condition. Formation sensitivity to water results from the swelling or migration of clay particles. By stopping such movement, OIL AID-CS-20 prevents permeability damage to clay-bearing formations.

### APPLICATION

OIL AID-CS-20 is designed for use in treating wells producing from water-sensitive formations. It prevents permeability reduction in producing formations by inhibiting hydration, holding clay particles together and preventing their movement.

Dispersion and movement of clay particles cause not only permeability loss, but also sand production. In many cases, a well will produce sand-free oil until water becomes part of the over-all production. When water begins to move it affects the clay binder in the formation, allowing clay particles to move, thus restricting flow through the matrix.

Often this effect of water in the clay binder causes the release of sand particles. Therefore, when clays are stabilized with OIL AID-CS-20, not only is permeability loss prevented, but also in many cases the sand can be controlled.

### RECOMMENDED TREATMENT

OIL AID-CS-20 can be used in dilute acid, acidic brine, or methyl alcohol. It can be applied in either matrix or in fracturing treatments.

### MATRIX TREATMENTS

- Treatment of undamaged critical areas - OIL AID-CS-20 can be used in dilute hydrochloric, acetic or formic acids to stabilize existing permeability.
- Treatment of gravel packs - This special form of wellbore stabilizing requires the first fluid entering the formation to be a solution of OIL AID-CS-20. The fluid that contains sand and gravel should then follow the OIL AID-CS-20 solution.

- Treatment of damaged formations - First, acid or mud-acid is used to restore permeability, and then OILAIDCS-20 is applied to prevent damage from reoccurring.

### **FRACTURE TREATMENTS**

For fracturing, OILAID-CS-20 normally is used only in the spearhead fluid. It can be used in Messina's OILAID-WG thickened solutions. OILAID-CS-20 is compatible with OILAID-WG, but causes a 10-30% reduction in the viscosity of OILAID-WG thickened brines or acid. OILAID-CS-20 is not compatible with other thickeners or friction reducers.

### **ADVANTAGES**

- OILAID-CS-20 stabilizes all varieties of clay
- Stabilizes clay particles immediately on contact
- Stabilizes clay permanently so that natural formation fluids will not affect or remove it
- Adsorbs principally on clays and not other formation minerals
- Has no temperature limitations
- Can be used in dilute acids, acidic brine or methyl alcohol
- Is compatible with acid inhibitors

### **PACKAGING**

OILAID-CS-20 is packaged in 55 gallon steel drums.

For more detailed information on this product or system, please see the relevant Messina Technical Bulletin, available on request.

OILAID-CS-20 is a Messina trademark