WAD-232L

Viscosity reducing agent for remediating damage in low API gravity crude oil wells

Applications

- Used to reduce viscosity of heavy oil by forming metastable water external emulsions that can move heavy oil from the reservoir but break easily and efficiently using conventional emulsion breakers on surface
- Mixed with production brine designed to stimulate heavy oil wells, SAGD producer wells, or injection wells for increased productivity or injectivity
- Used as a preflush replacement to Xylene in SAGD wells to cut through oily film and strip hydrocarbon barriers and other organic material
- Co-injected down the annulus with brine typically at 3,000- to 8,000-ppm (0.3 to 0.8%) concentration, to blend with annular fluids and shear thin heavy oil viscosities at the pump intake
- Mixed into clean production brine at a ratio determined by the oil viscosities, cumulative sand production, and reservoir pressure
- Can also be blended into heavy oil as a diluent replacement for pipeline transportation

Features and Benefits

- Reduces heavy oil viscosities to enhance flow to the pressure drop
- Stabilizes a light oil emulsion that is capable of carrying sand, silt, and clay
- Water wets the formation and increases the relative permeability to oil
- In CHOPS (cold heavy oil pumping with sand) wells:
  - Removes skin damage, including completion damage
  - Initiates near-borehole sand failure and worm-holing
  - Contacts and initiates enhanced connate gas production
  - Removes dead heavy oil and sand/clay bridges from existing wormholes

Product Description

WAD-232L is a cost-effective additive combining surfactants and solvent-based co-surfactants. It can penetrate, solubilize, and disperse heavy oil while in water-based fluid.

Specifications

Physical Description

Appearance	Clear liquid
Specific gravity at 68ºF (20ºC)	.87
Pour point	< -25ºC
Packaging	Drum, bulk