



# P-CWC

## CEMENTING TECHNICAL BULLETIN

10/05/90

### P-CWC (PETROCHEM-CHEMICAL WASH CONCENTRATE)

**P-CWC** is used to prepare chemical wash spacers for both fresh water and oil-base mud systems. However, the use of P-NSL is required to make the chemical wash compatible with oil-base mud. These pre-flush systems serve as a spacer between the drilling fluid and the cement slurry to prevent mud gelation which usually occurs when cement contacts the drilling mud, causing the cement slurry to finger through or bypass the viscous gelled mud, resulting in a poor bond between the pipe and formation.

P-CWC chemical wash spacer systems have a low viscosity and a zero yield point allowing the chemical wash to go into turbulent flow at very low pump rates. The velocity eddies that result from the turbulent fluid, sweeps the side of the pipe and formation resulting in excellent mud removal. This leaves a clean surface on the face of the casing and formation. The uncontaminated cement slurry that follows can contact both the formation and pipe and the chances of getting a good bond are generally enhanced.

It is recommended that the minimum volume of chemical wash to be used should provide 10 minutes of contact time, since less than 10 minutes will not provide the velocity components to effectively clean the formation and pipe surface of drilling mud. P-CWFL (Chemical wash Fluid-loss additive) is added to the chemical wash to avoid excessive fluid-loss to the formation that has been cleaned of mud filter cake. P-AFAL (antifoam agent) is not normally needed prior to the addition of P-NSL, but may be used if laboratory studies indicate a potential foaming problem.

#### To prepare ONE BARREL of chemical wash:

41.00 gallons of water

00.03 gallon P-AFAL (Anti-foam agent - if required) - circulate.

00.50 gallon of P-CWC - circulate.

00.25 gallon P-CWFL to 200F. BHCT, or 0.5 GAL to 300F. BHCT - circulate.

00.25 gallon P-NSL (if chemical wash is to be used with oil-base mud) - circulate.

(Do not mix the raw additives together before adding them to the water)

Add additional water to the system if P-CWFL or P-NSL are not used.

#### PHYSICAL PROPERTIES:

<u>MATERIAL</u>	<u>FORM</u>	<u>SP. GR.</u>
P-CWC	Reddish liquid	1.030
P-CWFL	White Liquid	1.055
P-AFAL	Very Slight color	0.996
P-NSL	Amber liquid	1.037

Before handling these products, read each Material Safety Data Sheet.