



P-CWL

CEMENTING SERVICE BULLETIN

10/05/12

P-CWL (PETROCHEM – CHEMICAL WASH LIQUID)

TECHNICAL DATA

P-CWL is a concentrated chemical pre-flush designed as a cement aid for use where the cement slurry must displace a water-base drilling mud. As a pre-flush P-CWL serves as a spacer between the drilling fluid and the cement slurry. This prevents mud gelation which usually occurs when cement contacts a water-base drilling mud.

Mud gelation can be a serious problem in cementing. A cement slurry tends to finger through or bypass the viscous gelled mud, resulting in a poor bond between the pipe and formation. Subsequent stimulation treatments often result in communication with unwanted zones. The use of a chemical wash such as P-CWL sweeps the mud ahead and disperses residual mud left in contact with the walls of the pipe and formation.

P-CWL has a low viscosity and a zero yield point. As a result it goes 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 volume of P-CWL pre-flush required to give a 10 minute contact time be used ahead of the cement slurry. Contact time less than 10 minutes is not sufficient for the velocity components of the wash to effectively clean the formation and pipe surface of drilling mud.

MIXING: Add 1.00 Gallons of P-CWL per 41 gallons of water.
 Add 0.03 Gallons of P-AFAL (anti-foam agent) per barrel of P-CWL.
 The final product will be P-CWL pre-flush.

To prevent fluid loss in a cement slurry that will follow the pre flush, it is recommended to add one quart of "P-CWFL" (Petrochem-Chemical wash Fluid-Loss) per barrel of P-CWL.



PHYSICAL PROPERTIES

<u>MATERIAL</u>	<u>FORM</u>	<u>SP.GR.</u>
P-CWL	Dark Reddish liquid	0.990
P-CWFL	White Liquid	0.989
P-AFAL	Very Slight color	0.996

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