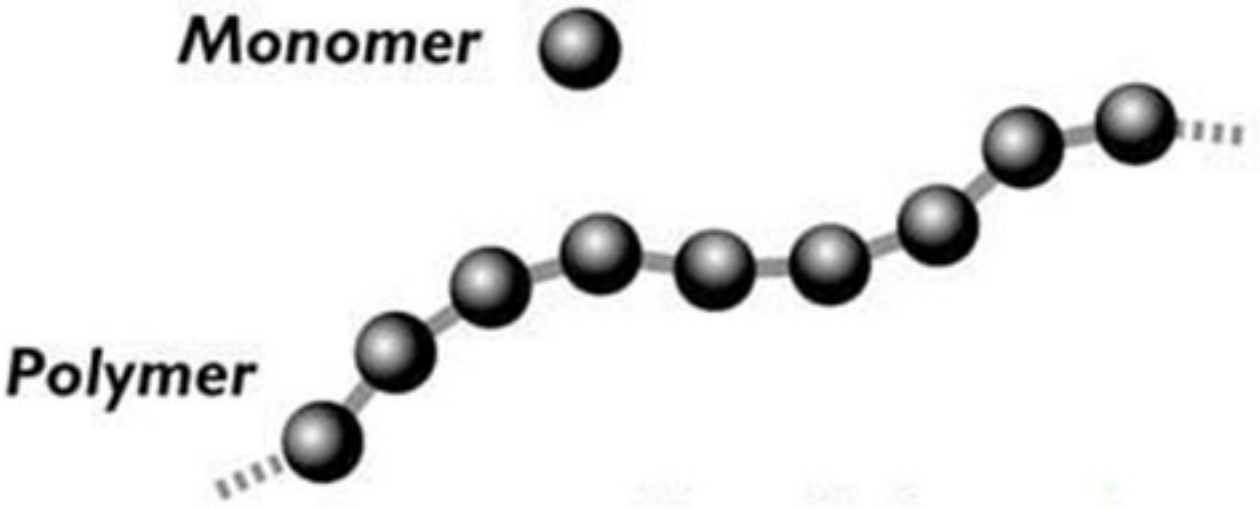
**Polymers**


**"A POLYMER IS A LARGE MOLECULE, MADE UP OF SMALL UNITS, CALLED MONOMERS SAME ANDREPEATED".**




**POLYMERS: GENERAL CLASSIFICATION**

**Natural polymers:** Their sources are plants, animals and bacterial fermentation, cellulose, starch, protein, natural rubber, nucleic acids, PAL, diamond, graphite, silk, etc..

**Polymer modified:** Nitrocellulose, etonita, etc.

**Synthetic polymers:** nylon, polyethylene, polyvinyl chloride, polimetano, Bakelite, etc.

**CLASSIFICATION OF POLYMERS FOR DRILLING FLUIDS**

**Source:** Natural, modified natural and synthetic

**Nature Chemical:** Ionic and nonionic surfactants.

**Function:** viscosifier and filtering driver.

**PAC: polyanionic cellulose**

Are designed to stabilize the condition of the hole, THROUGH the formation of a low

permeability filter cake.

Help improve the carrying capacity (transport of detritus) of the fluid.

POLYPAC (UL, R), Pac Liquid, Hibtrol, Platinum Pac, and so on.

### FATS

Are designed to reduce friction and / or vibration of the pipeline, specifically in dry wells or without return sludge.

Ensure a good seal in the pipe connections.

Provide less wear on equipment and tools.

Coat Rod B 700, Platinum Road Coat.

Thread Bond Z

### LOST CIRCULATION MATERIALS

The loss of circulation is one factor that contributes to the high cost of sludge.

Potential problems such as instability, impingement, upwelling, is worse.

Paper Drilling, Cotton Seed Hulk, Cello flake, Kwick Seal, Poly Swell, etc.

### ANALYSIS

Conditions should be recorded when the loss occurred.

Help determine the cause of the loss, the position and the best solution.

Information on training (areas of carbonates, shales, sands, etc.)

Changes in rate of penetration.

### PROBLEMS WITH CLAY

Physicochemical Linked to instability: Contact with formation of sludge.

Instability caused by:

1. Mechanical stress (faults, fractured shale)
2. Chemical reaction (some products, high filtration)
3. Physical interaction with the fluid (erosion, turbulent flow)