

KICK CONTROL PROCEDURE

In addition to adequate knowledge of the Blow-out Control equipment, the attached procedures will be followed when either a kick has occurred or a known high pressure zone has been penetrated. The most likely times would be:

- 1) Shortly after starting out of the hole on a trip - whether the bit is "swabbing the hole" or not.
- 2) During the first twenty or thirty stands while going back in hole after completing the first half of a trip.
- 3) After completing a round trip, when the process of circulation and drilling is resumed.
- 4) If you have previously had high-pressure low volume gas, any additional gas can make such a kick very dangerous. You MUST NOT assume that a kick is not severe merely because the well has kicked harmlessly at a shallower depth.
- 5) When you are drilling below mid-string casing, the low capacity of the hole means that a relatively small "bubble" or kick can empty a considerable part of the well.
- 6) When running or pulling any tool, for example a core barrel or drillstem test tool; where circulation is restricted, internally or externally. This especially applies when you are handling a wet string.

The main thing is, keep track of mud volume all the time. Any increase should be caught at once and the best test is always to pick up, shut down the pump and see if mud flow stops. If it does not, follow the appropriate procedures given on the following sheets.

At all times while you are operating under these procedures you will have a Kelly cock and a Lower Kelly cock both installed. You will test lower cock daily. Also you will have another lower Kelly cock on the floor ready to be stabled on the top joint of drill pipe.