Air Drilling Course Outline

Air Drilling Course

Wild Well

Review the characteristics of Air drilling and advantages of drilling with air versus drilling with fluids.

Review the types of Air drilling including:
- Dust, Mist, Foam and Aerated

Understand uses and limitations of Air drilling.

Understand Dust Drilling overview and equipment specifically used in Dust drilling.

Understand Mist drilling overview and equipment specifically used in Mist drilling.

Understand Foam drilling overview and equipment specifically used in Foam drilling.

Understand Aerated drilling overview and equipment specifically used in Aerated drilling.

Discuss Blooie lines, well barriers, float valves and downhole fires.

Air drilling well control: main issues and considerations; understand how this differs from well control during conventional fluid drilling.

Understand that flaring can be classified as flow management; differentiate between flow management and Air drilling well control; understand that this differentiation can be based upon hole section and equipment configurations that determine the influx response options.

The following field calculations will be performed to support the case histories: Hydrostatic and Formation pressure, Kill weight fluid, Drillpipe, Annular, Tubular capacities and volumes, Strokes.

Case History: Rig encounters extremely high increases in flow at the blooie line; Conduct safety meeting; Demonstration/Simulation.

Case History: while drilling ahead, multiple influxes are encountered; blow down the well or kill the well with fluid; Conduct safety meeting; Demonstration/Simulation.

Case History: Shut in the well, circulate again and kill the well; Conduct safety meeting Demonstration/Simulation.

Course review and final written test.

Completion of course.