

PETE 203: *Drilling Engineering*

EXERCISE # 4

Chapter 4: Drilling Hydraulics

- (a) Calculate the pressure at the bottom of the well when the cementing operation was stopped given that the annulus contains the following types of fluids at that moment:

From 0 to 2000 ft. – 9.5 ppg mud.

From 2000+ to 2200 ft. – 8.5 ppg preflush mud.

From 2200+ to 4000 ft. – 14.0 ppg cement.

- (b) If the casing is full of 9.5 ppg mud, compute the pump pressure required to completely displace the cement from the casing.