Question 1: Building a Geomechanical Model

a. From the first homework assignment, what is the overburden stress of the site at 5725 feet depth in psi?
   6374.80 +- 637.480

b. What is the minimum horizontal stress of the site at 5725 feet depth in psi?
   3721.25 +- 372.125

c. What is the pore pressure of the site at 5725 feet depth in psi?
   2748 +- 274.8

d. What is the mud pressure of the site at 5725 feet depth in psi?
   3034.25 +- 303.425

e. From the third homework assignment, what is the unconfined compressive strength estimated from a sonic log for the Barnett formation of the site at 5725 feet depth in psi?
   12659.88 +- 1265.988

f. What is the upper bound of the maximum horizontal stress of the site at 5725 feet depth in psi?
   5381.5 +- 538.15

g. What is the lower bound of the maximum horizontal stress of the site at 5725 feet depth in psi?
   3721.25 +- 372.125

h. What is the value of the upper bound of a ϕ of the site at 5725 feet depth? Enter your answer as a number from 0 to 1.
   0.626 +- 0.0626

i. What is the value of the upper bound of an Aϕ of the site at 5725 feet depth? Enter your answer as a number from 0 to 3.
   0.626 +- 0.0626