10/15

a) Hg 13.6 g/ml — H_2O 1 g/ml

760 mm

55.9 mm Hg

b) Surface = 1 atm

$P_T = P_{surface} + P_{at\ 39'}$

$0.97\ atm + 11.89\ m$

$\frac{1189\ mm}{760} = 15.644\ mm$

$1\ atm = 760\ mm\ Hg = 101.325\ kPa$

Dec 4-8:29 AM

Boiling P_{atm}

Vapor pressure ↑

COOL

Condenser

HOT

Pump

① Bubbles on bottom 1st (gaseous)

$H_2O(g)$ ← water VAPOR

② Heat increase, from bottom up ↑

③ Boil - bubbles break Through surface.

$VP \geq P_{atm}$

Dec 4-9:08 AM

NYC - sea level 760mms or 1atm

BP Pure H_2O = 100°C

Boulder, CO 5'430' ~1655M

Patm < 1atm BP H_2O < 100°C

~ 97°C

Dec 4-9:14 AM

Colligative Prop

To ↑ BP Add solute

↓ FP to Solvent

Dec 4-9:16 AM