**Training exercise 10.1**.

**Task 1**

Column 5 of the file: [www.ipt.ntnu.no/~asheim/TPG4135/DataJan2016.txt](http://www.ipt.ntnu.no/~asheim/TPG4135/DataJan2016.txt) contains downhole pressure measurements.

1. Estimate mean downhole pressure and its standard deviation.
2. Estimate the distribution of downhole pressure measurement.
3. How do the downhole pressure variation compare to estimates of tubing head pressure variation discussed in the compendium

**Task 2**

Tubing inner diameter is 4.778 inches.

Oil gravity is given: 0.92, gas gravity: 0.61, water gravity: 1.06

1. Estimate tubing flow velocity at outlet
2. Estimate gas, oil and water fractions
3. What regime may best describe this flow