Tips for controls:

- Try all the different tabs at the top of the simulation. The tabs are designed to help teachers scaffold lessons or make lessons age appropriate by using only some tabs.
- **Reset All** resets only the tab that you are presently using.
- This sim is also the **Pressure** tab in **Fluid Pressure and Flow**
- The Grid option is provided to help students see relative fluid height easily.
- The masses can only be set on the left column of water.
- Multiple tools can be used to make comparisons. -
- You can **Pause** the sim and then use **Step** to incrementally analyze.
- If you are doing a lecture demonstration, set your screen resolution to 1024x768 so the simulation will fill the screen and be seen easily.

101.4

106.3 kPa

250 kg

Pressure

106.3 kPa

Important modeling notes / simplifications:

- The **Pressure** tab shows a thin slice of an underground basin with fluid in it. We used an underground situation where the top of the basin is at sea level
- The sensors are very sensitive, so you may expect some variations in answers.

Insights into student use / thinking:

• Because the Gravity slider has few tick marks, it is easy for a student to think they have Gravity 9.7 m/s²

set the meter back to Earth but not have exactly 9.8 m/s^2 . For example: Exact values between 1.0 and 20.0 can be typed in the white readout box.

Suggestions for sim use:

- For tips on using PhET sims with your students see: <u>Guidelines for Inquiry</u> <u>Contributions</u> and <u>Using PhET Sims</u>
- The simulations have been used successfully with homework, lectures, in-class activities, or lab activities. Use them for introduction to concepts, learning new concepts, reinforcement of concepts, as visual aids for interactive demonstrations, or with in-class clicker questions. To read more, see **Teaching Physics using PhET Simulations**
- For activities and lesson plans written by the PhET team and other teachers, see: <u>Teacher</u> <u>Ideas & Activities</u>
- Related sims: Fluid Pressure and Flow, Density, Buoyancy