**Hydrostatic Pressure (HP)**

Hydrostatic pressure using ppg and feet as the units of measure

*HP = mud weight (ppg) x 0.052 x true vertical depth (TVD)(ft)*

Case : mud weight = 13.5 ppg  
 true vertical depth = 12,000 ft

HP = 13.5 ppg x 0.052 x 12,000 ft

= 8424 psi

**Hydrostatic pressure (psi) using pressure gradient (psi/ft)**

*HP = psi/ft x true vertical depth (ft)*

Case : Pressure gradient = 0.624 psi/ft

True vertical depth = 8,500 ft

HP = 0.624 psi/ft x 8,500 ft

= 5304 psi

**Hydrostatic Pressure (psi) using mud weight (lb/ft3)**

*HP = mud weight(lb/ft3) x 0.006944 x TVD (ft)*

Case : mud weight = 90 lb/ft3

True vertical depth = 7,500 ft

HP = 90 lb/ft3  x 0.006944 x 7,500 ft

= 4687 psi

**Hydrostatic Pressure (psi) using meters as unit of depth**

*HP = mud weight (ppg) x 0.052 x tvd (ft) x 3.281*

Case : mud weight = 12.2 ppg

True vertical depth = 3,700 ft

HP = 12.2 ppg x 0.052 x 3,700 x 3.281

= 7,701 psi

**Converting Pressure into Mud Weight**

**Convert pressure (psi) into Mud Weight (ppg) using feet as the unit of measure**

*Mud Weight (ppg) = pressure (psi) : 0.052 : TVD (ft)*

Case : pressure = 2,600 psi

True vertical depth = 5,000 ft

Mud weight (ppg) = 2,600 psi : 5,000 ft

= 10.0 ppg

**Convert pressure (psi) into Mud Weight (ppg) using meters as the unit of measure**

*Mud Weight (ppg) = pressure (psi) : 0.052 : TVD (ft) : 3.281*

Case : pressure = 3583 psi  
 true vertical depth = 2000 meters

mud weight (ppg) = 3,583 psi ÷ 0.052 ÷ 2000 m ÷ 3.281

= 10.5 ppg