

Isobar in a v - T -diagram 2

The slope of the isobar in a v - T -diagram (T on the horizontal axis) given by the partial derivative $\left(\frac{\partial v}{\partial T}\right)_P$ for an incompressible liquid is:

For an incompressible liquid the volume, v is constant so the derivative of $vdv = 0$ and therefore the partial derivative is zero. In a diagram this would be a horizontal line.