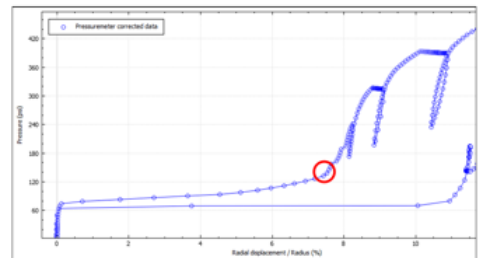
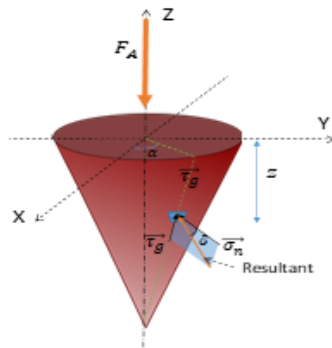


# Gain Insight Unlock the rock!



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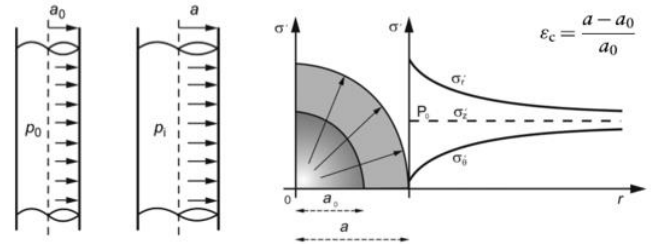
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# Physical acquisition of rock properties and stress magnitudes.

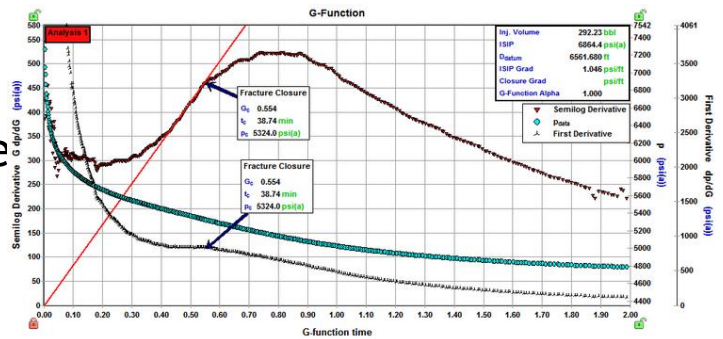
## Intelligent Packer

- Instrumented membrane that measures the rock's response to applied force



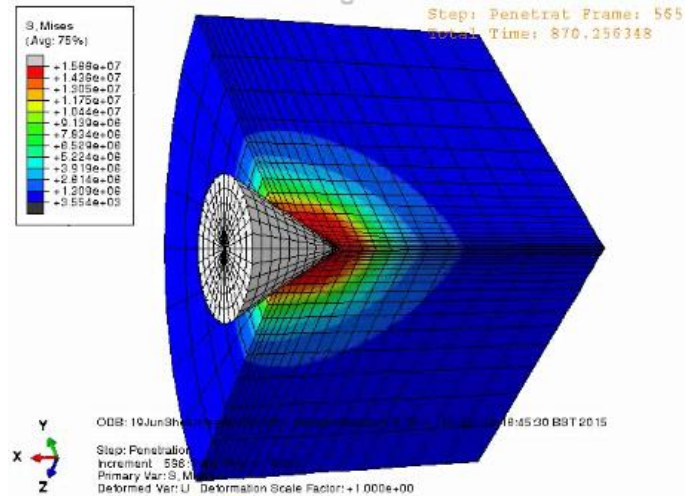
## Mini-Frac

- Low volume, high pressure fluid injection



## Shear Head

- Downhole combination of a direct shear box test and a 'scratch test'



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# Universal data that crosses industry borders.

## Physically Measured via the HTHP Insight Tool:

- Minimum In Situ Stress
- Permeability
- Average In Situ Stress
- Shear Modulus
- Limit Pressure
- Residual Strength
- Stress Anisotropy Orientation
- Cohesion
- Friction Angle
- UCS
- Tensile Strength
- Brittleness

## Finite Element Modelling Outputs:

- Effective Insitu Horizontal Stress
- Undrained Shear Strength
- Undrained Shear Modulus
- Unloading Shear Strength
- Shear Stiffness Coefficient
- Shear Exponent of Elasticity
- Maximum Shear Modulus
- Insitu Pore Pressure
- Dilation Angle
- Critical State Friction Angle
- Dynamic Viscosity of Pore Fluid

## Readily Derived:

- Young's Modulus
- Poisson's Ratio



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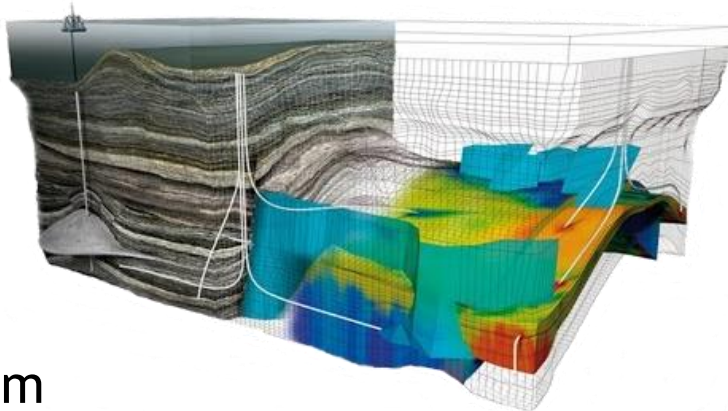


# Mechanical measurements that make all the difference.

Do you prefer real-time results  
or painful wait time?

Is in situ data important to you and your models?

We physically measure in situ rock strength and  
stress properties via mechanical testing of the wellbore wall!



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President

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