

# Triaxial

Alliance employ the best laboratory employees in the commercial sector using the latest GDS Triaxial Automated System (GDSTAS). This provides our clients with the most accurate and reliable testing results with a faster turnaround time.

The triaxial test is one of the most versatile and widely performed geotechnical laboratory tests, allowing the shear strength and stiffness of soil and rock to be determined for use in geotechnical design. Advantages of using the latest equipment include the ability to control specimen drainage and take measurements of pore water pressures during shearing. Primary parameters obtained from the test may include the angle of shearing resistance  $\phi'$ , cohesion  $c'$ , and undrained shear strength  $S_u$ , although other parameters such as the shear stiffness  $G$ , compression index  $C_c$ , and permeability  $k$  may also be determined.



## Triaxial Testing

- **Triaxial (UCS)**  
Unconfined Compression Test on Cohesive Soil
- **Triaxial (UU)**  
Unconsolidated Undrained without pwp measurement
- **Triaxial (CU)**  
Consolidated Undrained with pwp measurement
- **Triaxial (CD)**  
Consolidated Drained

