

## **Strength and Deformation Properties of Sediments in the Ursa Basin from Consolidated-Undrained Triaxial Compression tests**

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The knowledge of strength and deformation properties of sediments is important in assessing slope stability, well bore stability problem and estimating in-situ stress field. This study presents an experimental study on the deformation and stress-strain characteristics of soft sediments at the depths of about 100m and 200m from IODP's sites 1324B and 1322D, Ursa Basin, Gulf of Mexico.

Consolidated-undrained triaxial compression tests at different effective confining stresses were conducted. Maximum principal stress differences at failure in those samples were used for constructing failure envelope. Cohesion intercept and angle of internal friction obtained from these test was 10.9 kPa, and 20°, respectively. The coefficients of friction on the fractures were 0.52-0.6. The results from the experiments also show that deformation moduli depend on consolidation stress.