

# Experimental Study on the Mechanics Character of Lava in the Area of Xujiaweizi

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## Abstract

The Xujiaweizi rift in the north of Songliao Basin is the largest volcanic gas reservoir in China, and because the mechanics character of lava largely influences the production and development of the oil field, so it is necessary to make clear the mechanics character of laves in this area. After analyzing the lava lithology of the Daqing Xujiaweizi, taking the rock mechanics and the elastic mechanics as the theoretical base, six kinds of representative lava mechanics characters in this area are tested in the laboratory, and relative basic mechanics parameters are obtained, which can exert important function for relative engineering design. The test results show that the lavas in this area are representative brittle rocks and the rock fracture mainly is brittle failure, and with the increases of the burial depth and the confining pressure, the rocks present character of plastic failure. The research results will play a very important role in the volcanic gas reservoir exploitation in Daqing Xujiayanzi.

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