



UNIVERSITY OF  
SCIENCE & TECHNOLOGY  
GRADUATE STUDIES

**INVESTIGATION OF DRILLING OPERATION LIMITATION BY  
STRESS ANALYSIS AND FAILURE CRITERIA METHODS**  
دراسة محدودية عمليات الحفر باستخدام تحليل الإجهاد  
والطرق المعيارية لتمثيل الانهيار

**ATHESIS SUBMITTED IN PARTIAL FULFILLMENT'S FOR THE  
DEGREE OF M. SC. IN DRILLING ENGINEERING**

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## الاستهلال

قال تعالى :

{ أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَسَالَتْ أَوْدِيَةٌ بِقَدَرِهَا فَاحْتَمَلَ السَّيْلُ  
زَبَدًا رَابِيًا وَمِمَّا يُوقِدُونَ عَلَيْهِ فِي النَّارِ ابْتِغَاءَ حِلْيَةٍ أَوْ مَتَاعٍ زَبَدٌ  
مِثْلُهُ كَذَلِكَ يَضْرِبُ اللَّهُ الْحَقَّ وَالْبَاطِلَ فَأَمَّا الزَّبَدُ فَيَذْهَبُ جُحَاءً  
وَأَمَّا مَا يَنْفَعُ النَّاسَ فَيَمْكُثُ فِي الْأَرْضِ كَذَلِكَ يَضْرِبُ اللَّهُ  
الْأَمْثَالَ { الرعد (17)

صدق الله العظيم

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