

عنوان مقاله:

Laboratory Experiments Investigation of Effect of Laser Energy on a Variety Rock Types: An Exploration Innovative Technology

محل انتشار:

اولین همایش ملی فناوری های نوین در صنایع نفت و گاز (سال: 1389)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

Rock destruction and removal is a significant issue in the process of oil and gas development. Over the years, billions of cubic feet of rock have been removed, with tremendous capital investment. In 2010, approximately 3.6 million wells (oil, gas and dry) were drilled around world, averaging about 8,500 feet deep, at a cost of nearly Hundreds billion dollars. Application of advanced high power laser technology to oil and gas wells drilling, has been attracting significant research interests recently among research institute, petroleum industries, and universities. Potential laser or laser-aided oil and gas wells drilling has many advantages over the conventional rotary drilling, such as high penetration rate, reduction or elimination of tripping, casing, and bit costs, and enhanced well control, perforating and sidetracking capabilities. Because reducing drilling costs, and problems in an environmentally sensitive manner is critical, we initiated a three-year research program directed towards revolutionizing drilling

کلمات کلیدی:

Laser, Laser drilling, Specific Energy, ROP

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