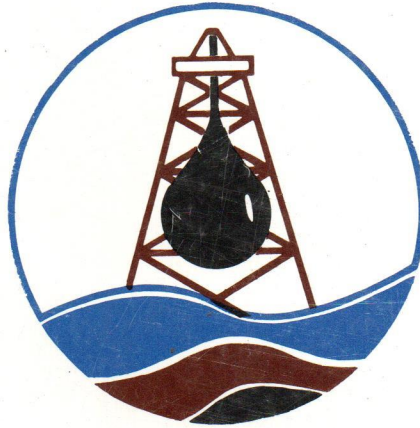


المنظمة العالمية للطاقة

قسم هندسة النفط - كلية الهندسة، جامعة الفاتح

INTERNATIONAL ENERGY FOUNDATION
DEPARTMENT OF PETROLEUM ENGINEERING
FACULTY OF ENGINEERING, AL-FATEH UNIVERSITY

مؤتمر ومعرض البحر المتوسط للنفط
MEDITERRANEAN PETROLEUM
CONFERENCE & EXHIBITION



كتاب الأبحاث
PROCEEDINGS

MPC 95

26 - 29 الحرت (نوفمبر)، طرابلس - الجماهيرية العظمى
NOVEMBER 26-29, TRIPOLI - LIBYA (GSPLAJ)

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SUMMARY

Operational experience of oil and gas companies has shown that well casings have a limited life and often impair the operational safety as a result of damage caused by corrosion. This paper reports on the causes of corrosion damage to well casings and on corrosion prevention by cathodic protection.

Using cathodic protection, the casings of production wells can be protected from corrosion damage and their lifetime can thereby be extended by a factor of about 4. The economic advantages that can be derived by the application of cathodic protection to well casings has been demonstrated in one of the world's biggest cathodic protection project for 500 oil production wells in 3 oil fields of the Arabian Gulf Oil Company (AGOCO), situated at different locations in Libya.

Protection of these production wells required the installation of 330 cathodic protection systems. They utilized newly developed open-hole deep grounded assemblies containing replaceable anode chains.

Six years of trouble-free operation that has been achieved so far, without the failure of even a single anode, under extremely severe operating conditions is of course a clear proof of the effectiveness of the technology newly developed and applied and of the suitability of the materials, processing routes and installation methods employed.