



MANAGEMENT OF DRILL CUTTINGS

Drill cuttings, spent drilling muds, and cement may be all discharged to sea during drilling operations. The vast majority of this material ends up on the sea bed, where the main environmental impacts will occur. ERT (Scotland) Ltd (ERT) has over 30 years experience in predicting, monitoring, analysing and reporting on the fate of cuttings piles in the waters around the British Isles and in the Caspian Sea.

DRILL CUTTINGS SURVEY AND ANALYSIS

ERT has been undertaken numerous surveys, for various operators, at the location of cuttings discharge in order to determine the extent, height and composition of the discharge. Through further surveys, ERT has monitored the degradation and dispersal of these discharged contaminants, allowing prediction of the time necessary for recovery of the sea bed. ERT has a strong record in the analysis of drill cuttings.



Selected drill cuttings survey experience

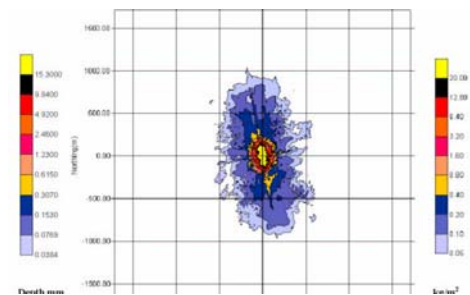
Date	Client	Location	Project description
2004	ADTI/Amerada Hess Ltd	West of Shetland	ROV seabed survey, monitoring the extent of cuttings pile
2002	Talisman Energy UK	North Sea	Assessment of environmental recovery around an abandoned cuttings pile
2001	Kerr McGee UK	North Sea	Monitoring the effect of platform decommissioning on a cuttings pile
2000	UKOOA	North Sea	Assessment of the acute toxicity of different types of drill cuttings

Key staff participate in expert groups on methods and guidelines for hydrocarbon/oil analysis including the Standard Committee of Analysts and the European Committee for Standardisation.

For further information contact Gordon Todd, enquiries@ert.co.uk

DRILL CUTTINGS IMPACT ASSESSMENT

ERT has considerable experience in the conduct of Environmental Impact Assessments (EIA) and the preparation of Environmental Statements (ES) for the oil and gas industry. We have been involved in a wide range of offshore developments from exploration wells to complicated developments, both nationally and internationally. Management of types and disposal of drill cuttings and used muds is an important aspect of the EIA process. The impacts of discharged drill cuttings and muds on the surrounding benthic macrofauna and the water column are assessed and, where possible, mitigated against.



Cuttings dispersion modelling

Cuttings dispersion modelling is commonly used to predict drill cuttings deposition on the sea bed. ERT has vast experience in interpreting these modelling results, and assessing the potential environmental impact of the discharged cuttings.

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DRILL CUTTINGS RESEARCH AND REVIEW

ERT's studies have examined and compared impacts from the discharge of oil-based and water-based drilling muds and synthetic mud systems. Although the discharge of oil-based muds to sea in the UK Continental Shelf is now prohibited, the continued presence of old oily cuttings piles in the North Sea is of concern. ERT has participated in research commissioned under the UK Offshore Operators Association (UKOOA) drill cuttings initiative Phases I and II. ERT's involvement has included literature review of natural degradation and estimated recovery timescales of cuttings piles, particularly with respect to the effects of bioturbation and sedimentation rates on degradation. This was followed by laboratory experimental work examining colonisation and macrofaunal activity in drill cuttings material. A comparative review of the biological field effects recorded following the use of water-based and other drilling muds was conducted for Conoco Norway.

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