

Use of Cavitation Scrubbing to Clean Heavy Oils and Hydrocarbon Greases from Sand

A trial was carried out to remove heavy crude oil from in order to evaluate the effectiveness of cavitation scrubbing systems in the clean-up of sandy beaches contaminated by oil spills offshore.

Sand was screened to remove stones and other objects above 5mm in size and then thoroughly mixed with heavy oils, hydrocarbon greases and water. This mixture was then loaded into a small



cavitation scrubbing system capable of processing up to two 2 tonnes of particulates per hour using the vacuum produced by the cavitation unit. Salt water was used in the cavitation scrubbing unit, heavy particulates were recovered using a cyclone separator and hydrocarbons and fine particulates were recovered using a hydrocarbon+solids separator

The results shown below clearly demonstrate that cavitation scrubbing is an efficient method for cleaning up crude oil contaminated sand.



Hydrocarbon Removal Results

	Original	Cleaned	Reduction
Hydrocarbon contamination (mg/Kg)	99,500	620	99.38%

Global Advantech develops and supplies innovative products and technologies for:

- Recovery of hydrocarbons from oil and gas production wastes and sludges.
- Treatment of wastewater and effluent.
- Remediation and decontamination of hydrocarbon contaminated soil, sand and concrete.

For more information on cavitation scrubbing please see technology data sheet TDS805.



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