Groovy Drum Skimmer Improves Oil-Spill Recovery Rates

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Oil-recovery methods from oil spills have essentially stayed the same for decades. A rotating drum with an oil-adhering surface called a “drum skimmer” turns in the contaminated water, removing oil that is then scraped into a collector. However, a new skimmer developed at the University of California, Santa Barbara is poised to revolutionize the oil-recovery industry.

Victoria Broje, a doctoral student at the university, redesigned the standard drum skimmer by adding new surface coatings and V-shaped grooves running in the direction of rotation. The grooves add four times the surface area compared to the standard drum skimmer. These grooves help the drum pull up a thicker layer of oil with each rotation, and slow oil drainage back to the slick.

> *Tests showed that the Groovy Drum Skimmer increased oil-recovery rates by more than 200 percent.*

The “Groovy Drum Skimmer” was disclosed in 2004. With a $170,000 grant from the Coastal Response Research Center at the University of New Hampshire, Broje successfully tested the design in ice-infested water. In 2006 the product

was licensed to Illinois-based Elastec/American Marine, the largest manufacturer of oil-spill recovery equipment in the United States. It is being sold to recovery companies around the world.

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