The Ocean Has a New Best Friend — If We're Lucky

300-word re-write of "*New 'Sponge' Material is like a ShamWow for Oil Spills," Discover Magazine, March 6, 2017*

Imagine dragging a bag across an oil slick and watching it swell like a living thing, drinking up the disaster one molecule at a time.

That's not science fiction. Researchers at Argonne National Laboratory have developed a synthetic foam infused with silane – an oil-loving compound that absorbs up to 90 times its own weight in oil. Place it in a porous bag, lay it on an oil slick, drag it slowly across the surface, and the foam does the rest.

Current cleanup methods — burning, skimming, blanketing spills in straw, sand, or clay — are blunt instruments. Such methods merely contain damage rather than reverse it, and once saturated the materials often sink, trading one mess for another.

Our oil-loving foam friend offers something different: precision. It attracts oil selectively, ignores water, and can be wrung out like a sponge and reused, with the extracted oil recovered for repurposing. Less waste. Less loss. Less pollution being transferred from seashore to seafloor.

Laboratory simulations of real ocean conditions have been promising. Scientists are cautiously optimistic.

And here's the really exciting thing: If this technology scales, it doesn't just change how we respond to oil spills — it changes how we (businesses, politicians, consumers) think about them. Right now, a spill is a write-off, an "acceptable" loss absorbed by ecosystems and insurance policies alike. But a reusable, wringing-out, oil-recovering foam reframes the spill as a retrieval problem. The oil doesn't "disappear" — it comes back.

Whether the ocean will cooperate with laboratory results remains to be seen. But for the first time in a long time, the answer to an oil spill might not be damage control.

It might be undoing.