

CAPTAIN FRANK PASKEWICH'S ADJUSTED SPILL RESPONSE EFFECTIVENESS CALCULATIONS

Taken together, the response measures implemented during the *Deepwater Horizon* Response were extraordinarily effective in minimizing the effects of the spill. On average for most open ocean spill responses, approximately 10-15% of oil is removed, typically using mechanical recovery means, such as skimming.¹ The *Deepwater Horizon* Response deployed a combination of tools—including skimming, in situ burning and dispersant applications—to achieve a removal rate that greatly surpassed this 10-15% benchmark. According to government estimates, BP and others in the Unified Command skimmed, burned, and chemically dispersed approximately 37% of the oil that was spilled in the *Deepwater Horizon* Incident—roughly **three times greater** than the removal rate achieved in a typical spill response.² These results are exceptional, with BP and its Unified Command partners achieving a removal rate in the *Deepwater Horizon* Response that dwarfs the 10-15% benchmark removal rate, as well as the results of other large spill responses, as shown in revised Figure 7A, below.

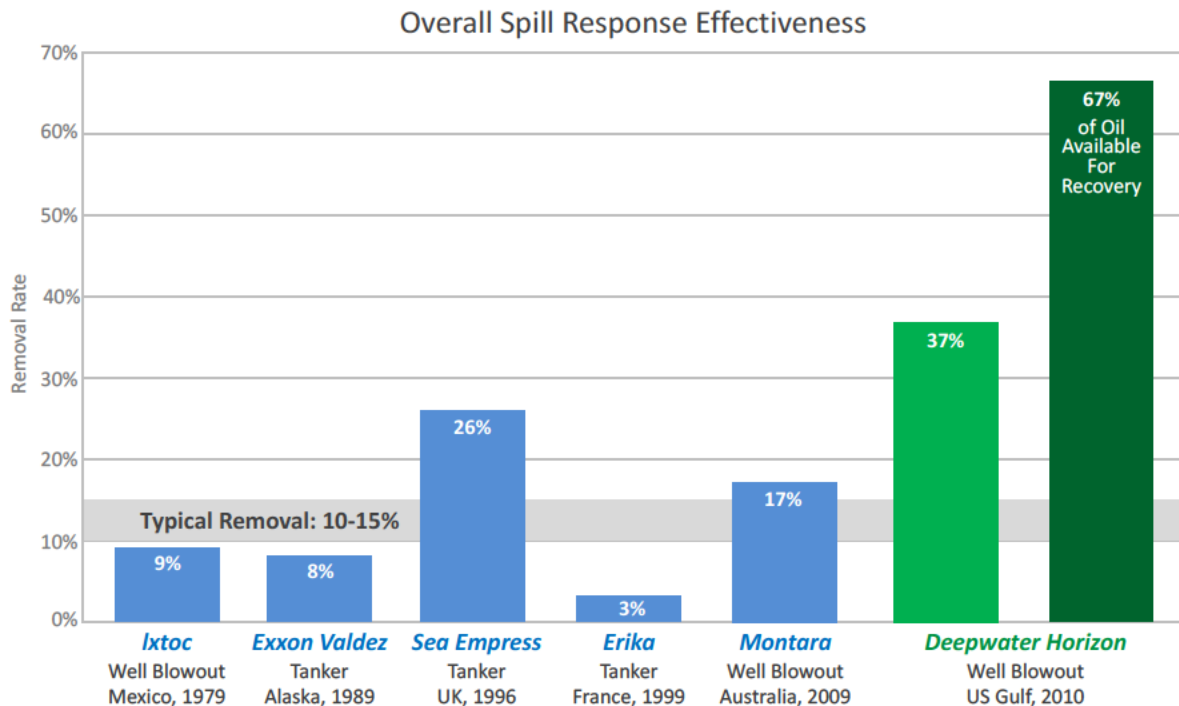


Figure 7A: Comparison of Spill Response Effectiveness

These results are even more impressive considering the depth at which the *Deepwater Horizon* spill occurred. Many spills occur at the surface or in shallower water than the *Deepwater Horizon* spill, making mechanical recovery and other response measures more effective in removing a higher percentage of the oil spilled. In the *Deepwater Horizon* spill, the

¹ See Paskewich Opening Report (TREX 231612) n. 70 (citing sources).

² See United States' Third Supp. Response to Defs' First Set of Disc. Reqs. (TREX 012198) at 5; MDL 2179 Findings of Fact and Conclusions of Law for the Phase Two Trial (Rec. Doc. 14021).

source was located in the deep ocean, meaning that more oil dissolved and was consumed by natural processes before reaching the surface, where it could be skimmed or removed in other ways. Because a relatively greater percentage of oil in the *Deepwater Horizon* spill was removed or dissolved through natural processes, a relatively smaller percentage was available for recovery through response actions. Based on the government's own estimates, BP and its Unified Command partners burned, skimmed, and chemically dispersed 1.2 million of the 1.79 million barrels—or 67%—of the oil from the spill that was available for recovery.³ In my experience, these results are exceptional.

³ *See id.* In its Third Supplemental Interrogatory Response, the United States states that 1.84 million barrels of oil were dispersed naturally, evaporated, or dissolved in the waters of the Gulf. To determine the amount of oil available for recovery in light of the Court's January 15 quantification ruling, I reduced this amount proportionately to arrive at a figure of 1.4 million barrels of oil that were dispersed naturally, evaporated, or dissolved (3.19 million barrels discharged minus 1.4 million barrels dispersed naturally, evaporated, or dissolved = 1.79 million barrels available for recovery). I reserve the right to update my calculations should the United States amend its Third Supplemental Interrogatory Response.