In-situ Burning and Dispersants Use in Oil Spill Response

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Shell Exploration & Production Company

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In-situ Burning

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In-situ Burning

More than 500 bbl of oil
can be eliminated
in less than an hour
with 500 feet of fire boom

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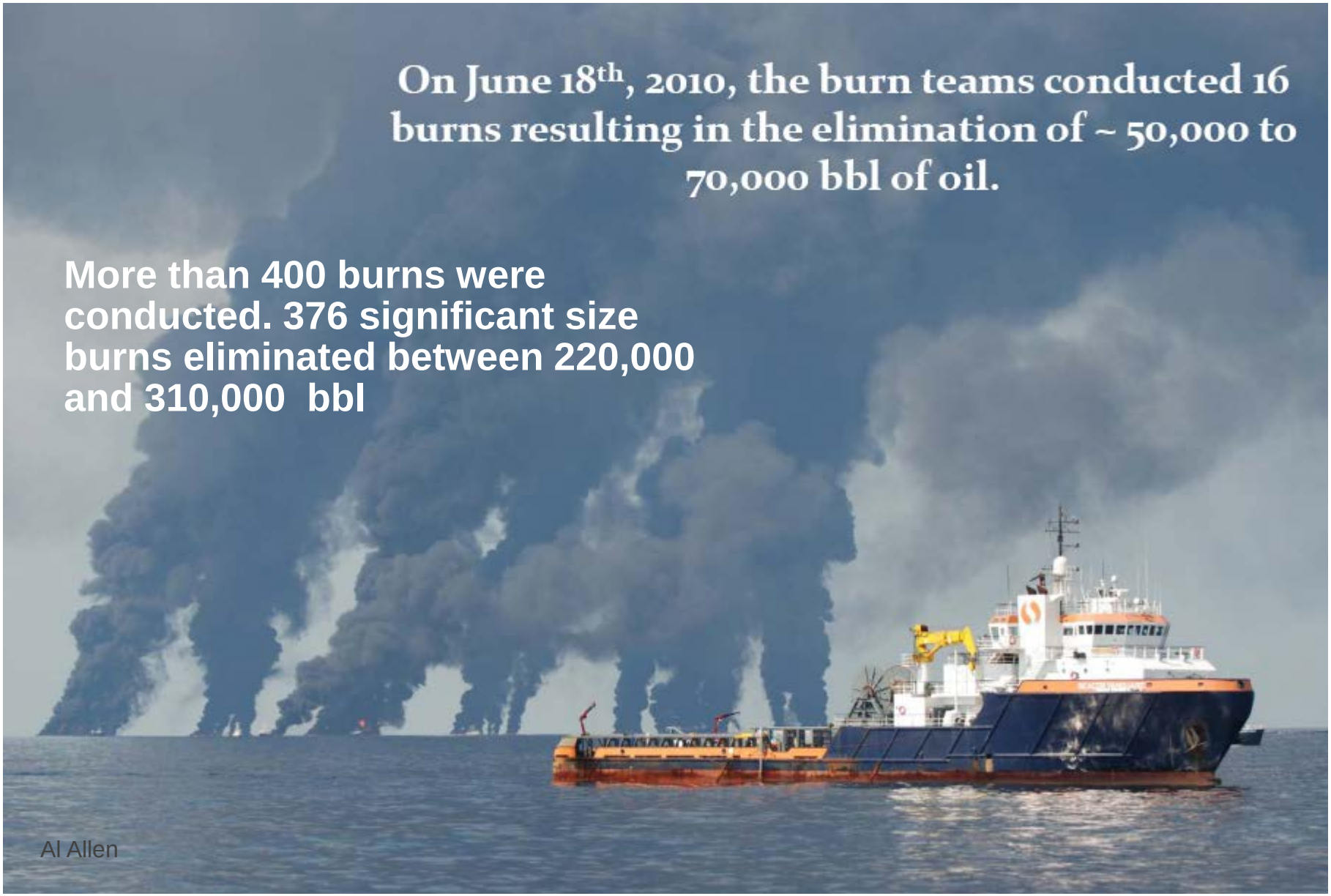
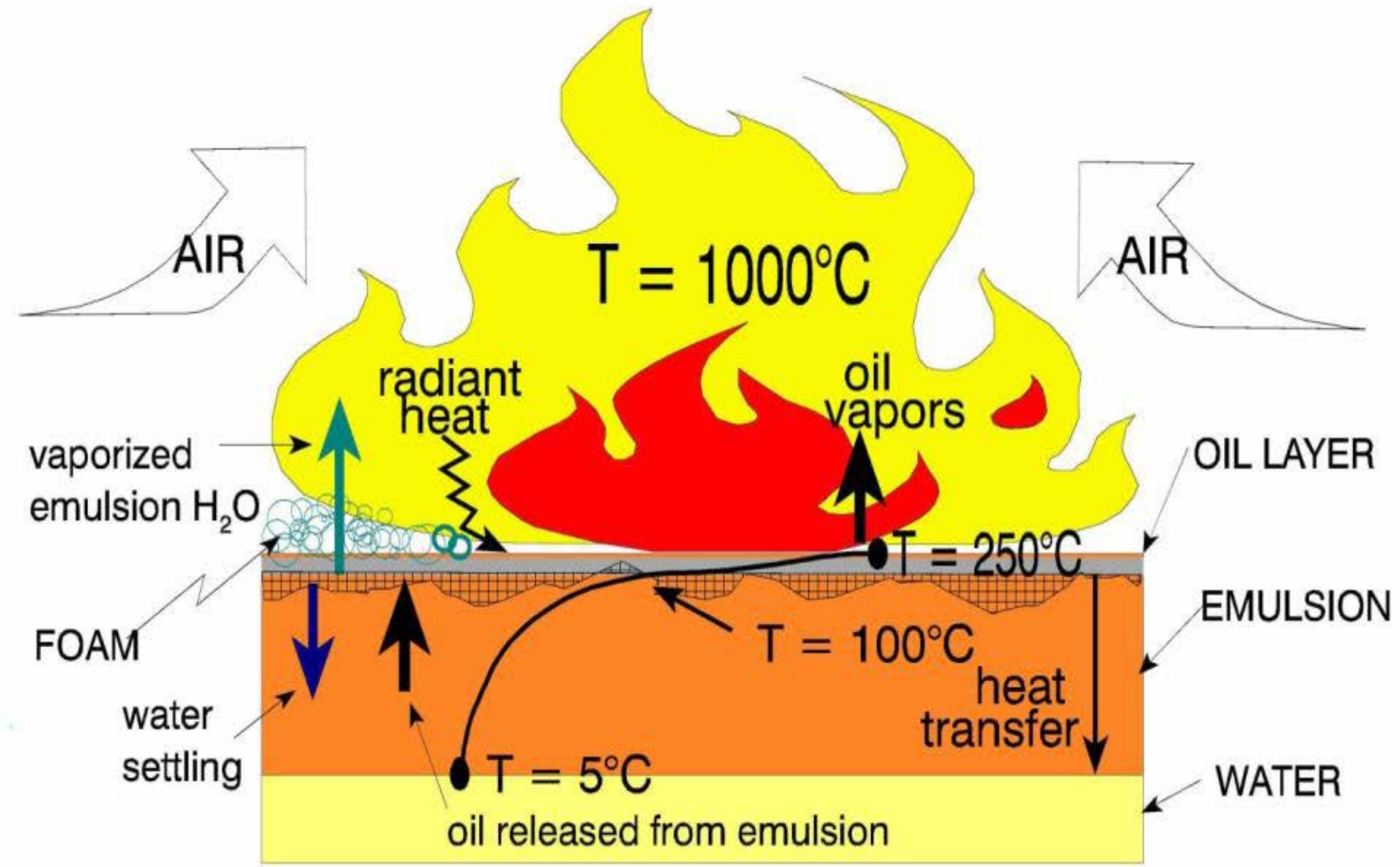
ISB in Deepwater Horizon Response



In-situ Burning Temperatures



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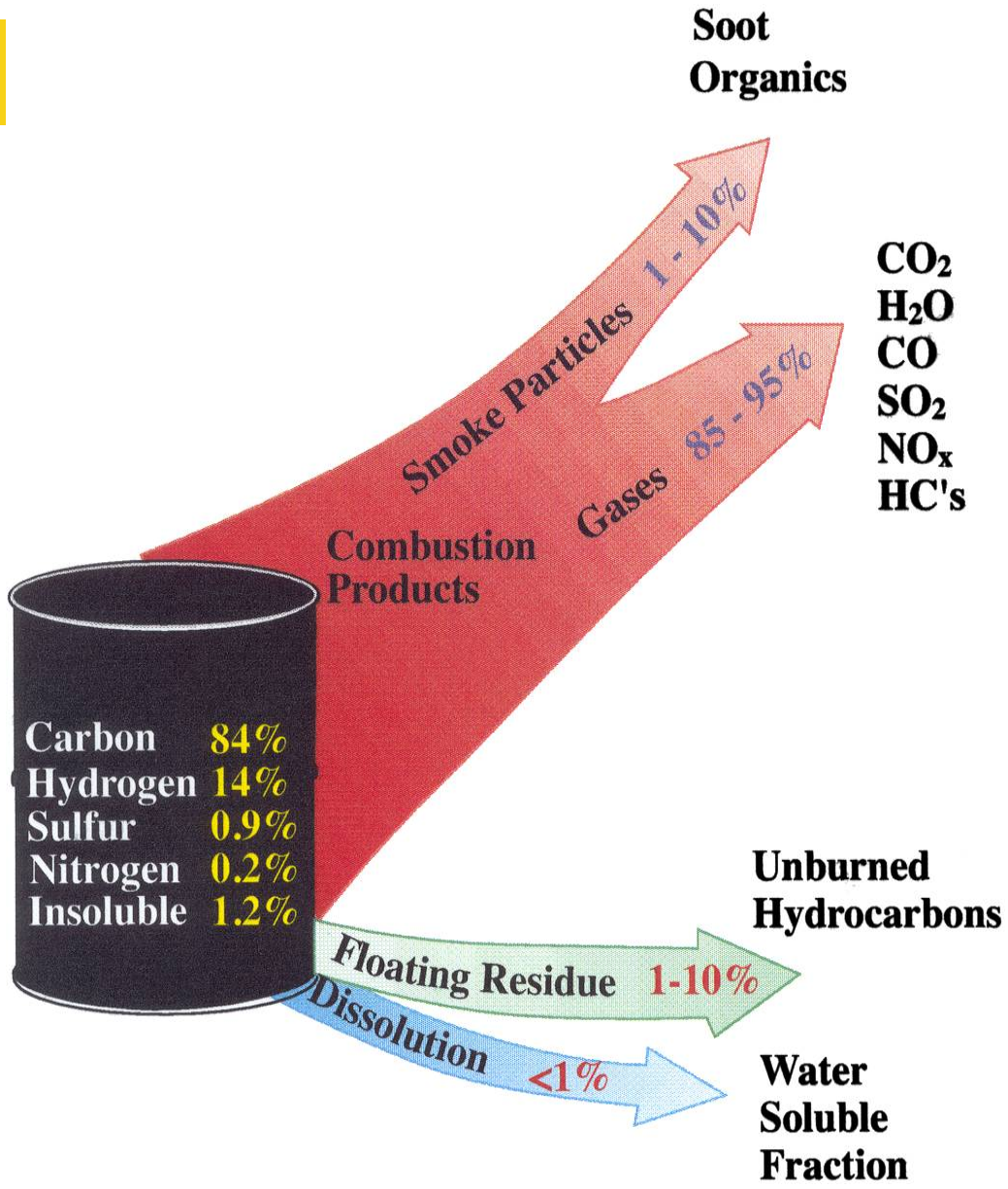
Mass Balance



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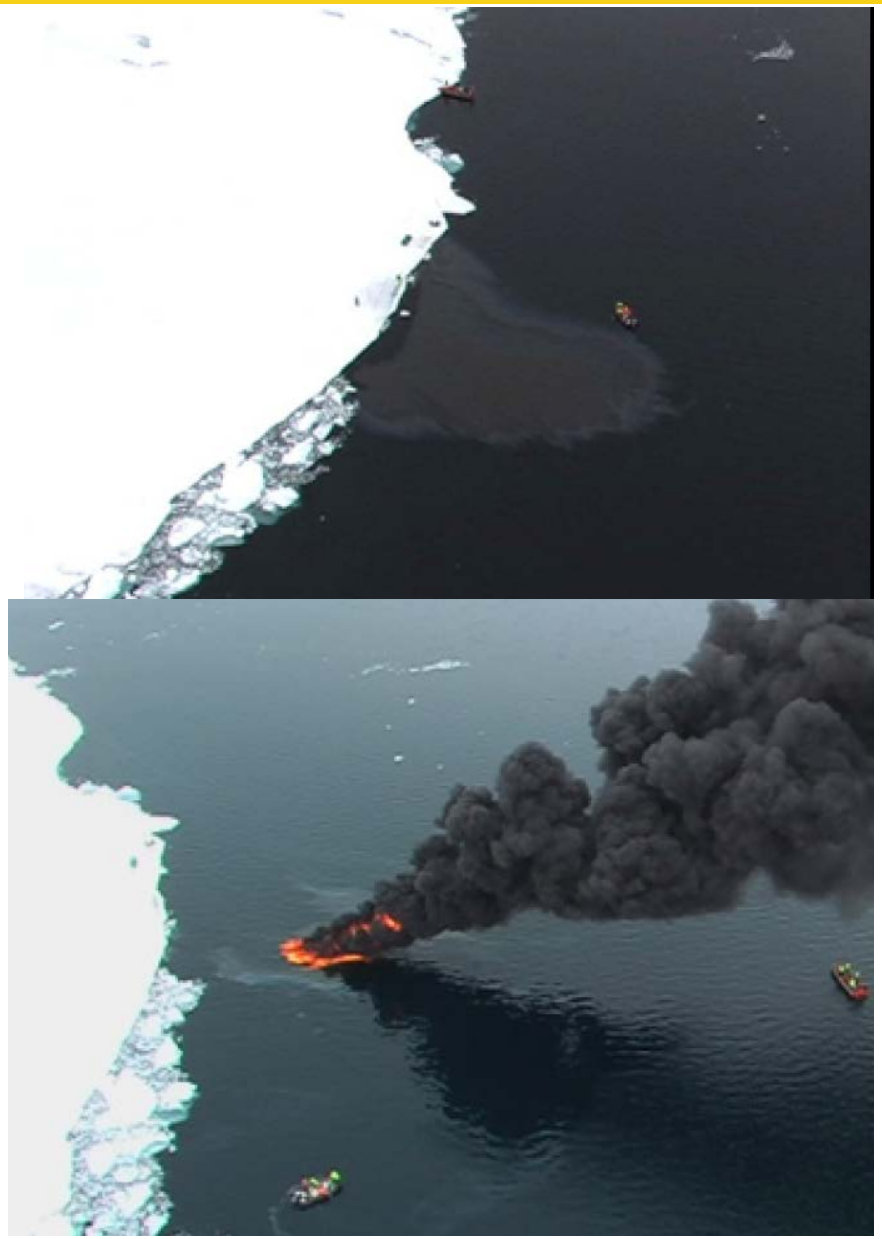
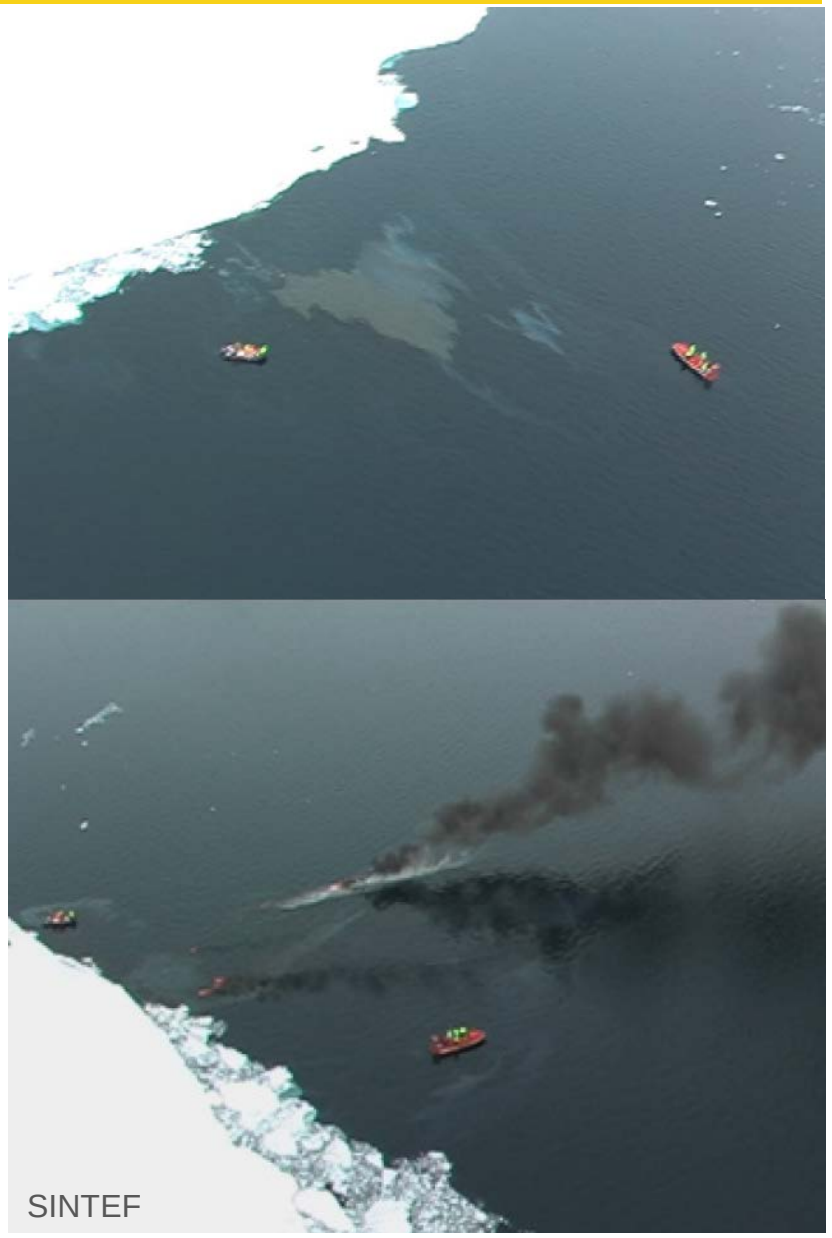
Herders Use to Support In-Situ Burning





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Dispersants

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Dispersants Application Techniques

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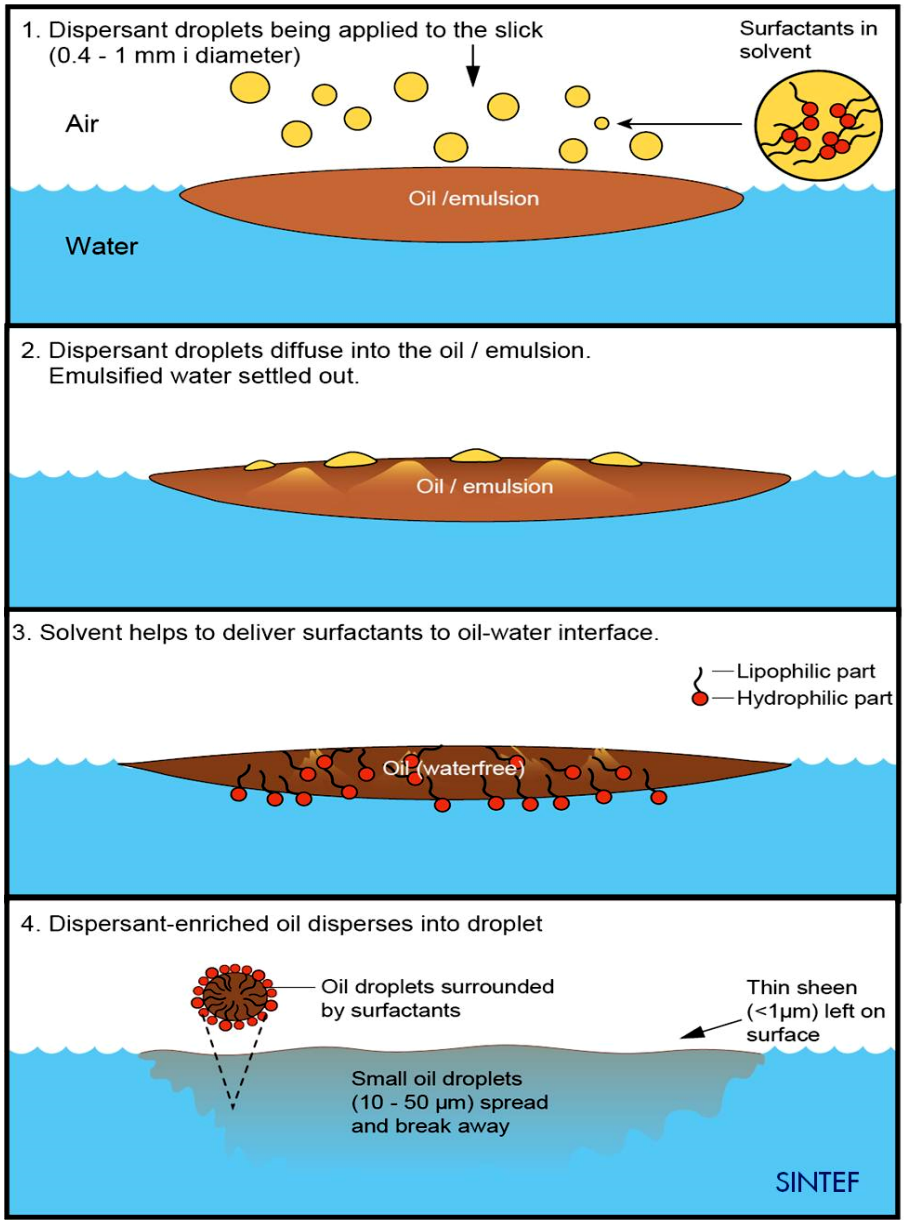
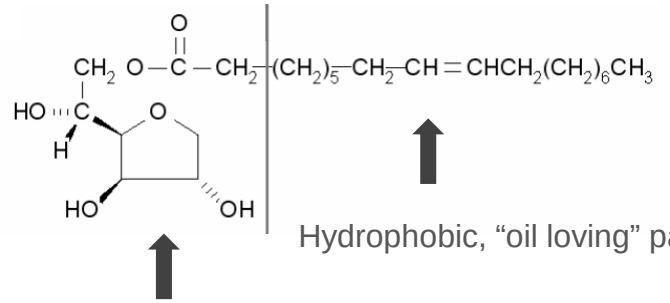
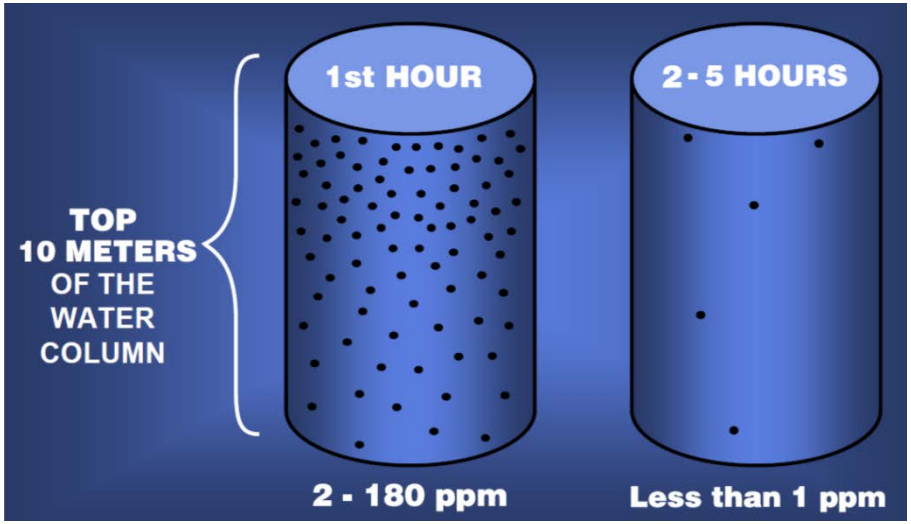
Dispersants Use at the Water Surface

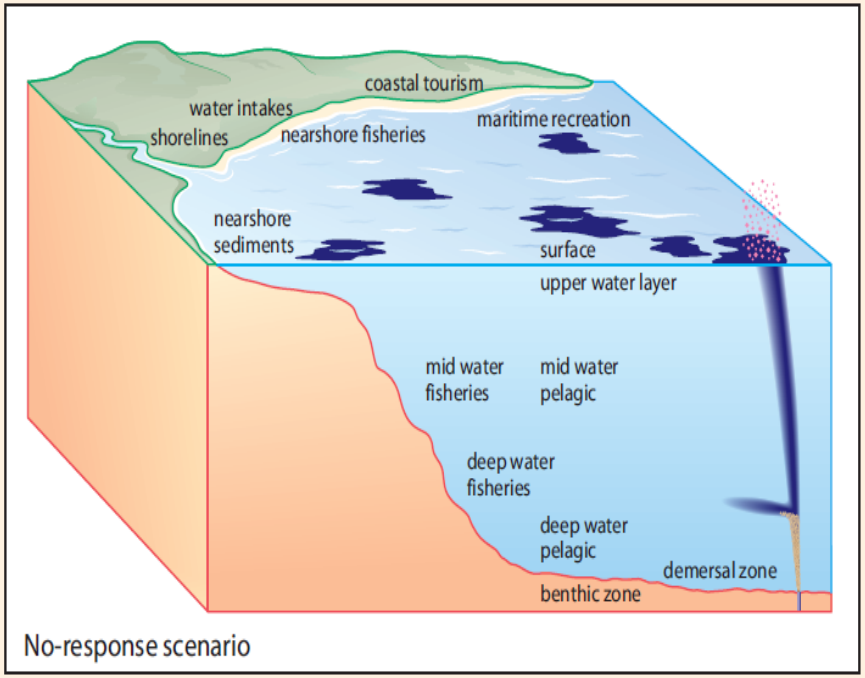


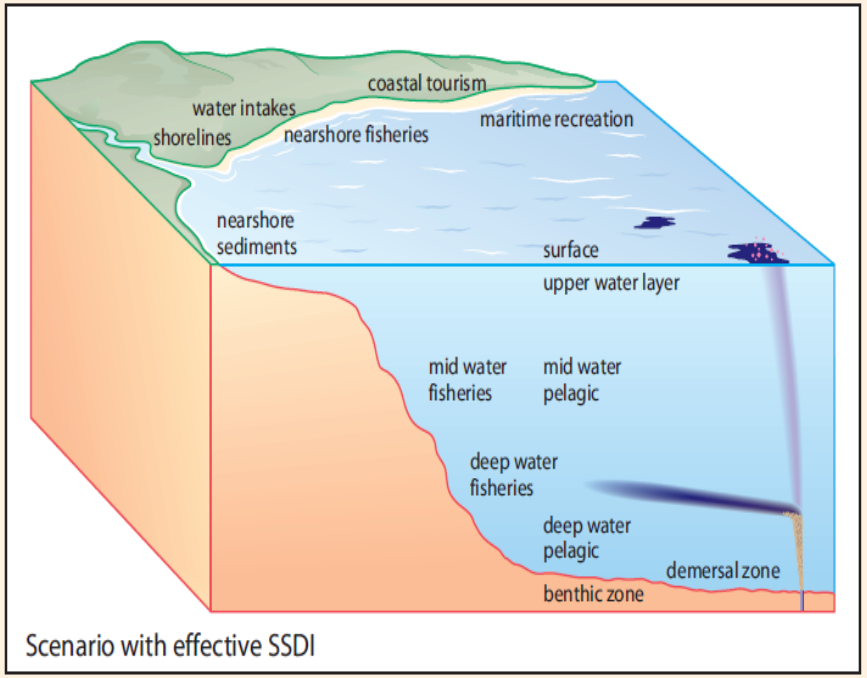




ExxonMobil

Dispersants Use Subsea





IOGP/IPIECA

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Biodegradation of Oil Dispersed at Sea

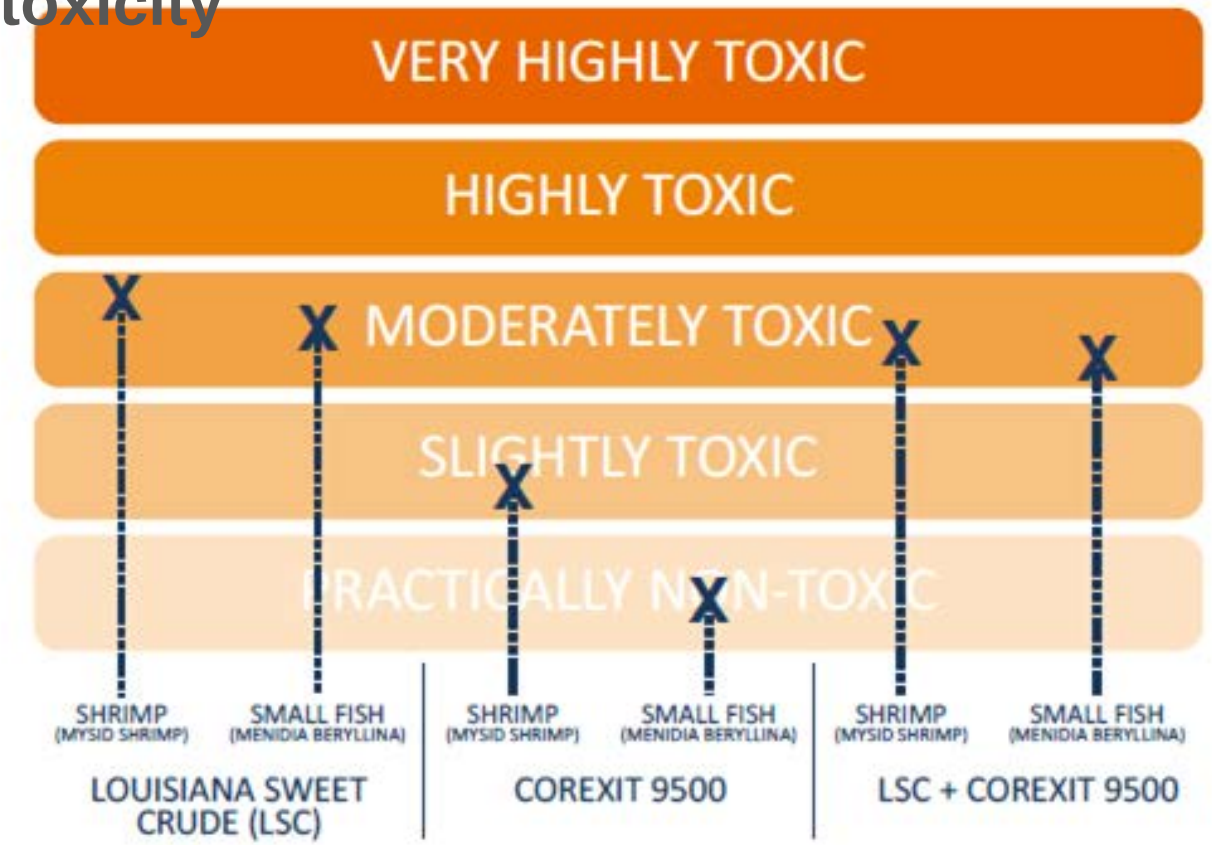
"Dispersants don't remove oil from the sea, but they are designed to help nature do so... Imagine a cake the size of a house, and a hundred thousand people trying to wolf it down at once; then imagine that cake cut into slices and passed around to the same crowd."
-The New Yorker, March 2011

VERSUS

DISPERSANTS WORK IN A SIMILAR FASHION TO THE CAKE ANALOGY ABOVE: OIL IS BROKEN INTO SMALLER DROPLETS THAT ARE MORE EASILY CONSUMED BY MICROORGANISMS.

Dispersant and Oil Toxicity

Oil properties, NOT dispersant, drive the toxicity



STUDIES CONDUCTED IN 2012 BY THE FDA AND NOAA HAVE SHOWN THAT, UNLIKE MERCURY, INGESTION OF DISPERSED OIL BY MARINE ORGANISMS DOES NOT IMPACT THE FOOD CHAIN.

SOURCE: ENVIRONMENTAL PROTECTION AGENCY 2010

Q&A