

Oil and Gas Activities in America's Beaufort Sea

Stretching from Canada to Barrow, Alaska, the U.S. portion of the Beaufort Sea is an ecological wonderland that borders the Arctic National Wildlife Refuge's Coastal Plain. It is home to one-tenth of the world's polar bears, as well as seals, migratory birds, endangered bowhead whales and other marine life. Alaska Natives have thrived off the bounty of the Beaufort Sea for thousands of years and continue to depend on Beaufort Sea wildlife for their survival.



There are many risks that are unique to drilling in the Arctic's Beaufort Sea – from extreme weather and massive expanses of drifting ice to low water temperatures and a complete lack of supporting infrastructure. In addition, no technology currently exists that can effectively clean up an oil spill in the Beaufort's icy conditions. Also, there is a lack of scientific information about the Beaufort Sea. As a result, scientists have a limited understanding of the Beaufort Sea's marine ecosystem.

Shell Oil's Exploratory Drilling

Shell Oil is pushing to move forward with exploratory drilling in the Beaufort Sea's waters in 2012. With an inadequate spill response plan and major gaps in science about basic Beaufort Sea ecological functions and drilling's impact on the Arctic environment, this proposed drilling could have devastating consequences for both the wildlife and the people of the Arctic.

Shell's 2010 exploration plans – initially approved by the Department of Interior but suspended by Interior Secretary Ken Salazar due to the Gulf spill – included plans to drill Sivilluq, an exploration well, about 12 miles off the Arctic National Wildlife Refuge in Camden Bay. These waters lie within an area that was not only recently designated as critical habitat for the threatened polar bear, but also has been identified as an important feeding and resting area for endangered bowhead whales – a crucial subsistence resource for the Inupiat people who call the Arctic Ocean “their garden.”

In **October 2010**, just two months after the Gulf spill was officially stopped, Shell applied to the Department of Interior for re-approval of its Beaufort Sea exploration plan (EP) for drilling in 2011. Shell also asked for approval of its oil spill response plan, also written and initially approved before the Gulf spill. Paradoxically, Shell insisted both that these plans had been updated to address all lessons learned since the massive Gulf oil spill, and that so few changes had been made that a new environmental review by Department of Interior was unwarranted. Shell actually asked for the same exclusion from review that was used to approve the *Deepwater Horizon* drilling. Shell then urged that the Interior's Alaska Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) – well-known for its deference to industry – be the formal plan reviewer,

and claimed that its plans included confidential information that BOEMRE could not share with the public.

In early **December 2010**, BOEMRE announced that it would prepare an environmental assessment (EA) of Shell's Beaufort EP. A short public comment period was then opened for comments on what little information was publicly available about Shell's plan, but, at that time, no EA was released for review. At the same time, BOEMRE opened a parallel comment period on the oil spill response portion of Shell's plans. Thousands of comments addressing the proposed plans' substantial inadequacies were submitted. In **February 2011**, Shell decided not to move forward with its plans for 2011 Beaufort Sea drilling.

In **March 2011**, Shell announced plans to use two drill ships to simultaneously drill up to ten wells over multiple years in the Chukchi and Beaufort seas starting in 2012. In May, the company submitted exploration plans to BOEMRE for its proposed 2012 drilling.

In early **August 2011**, BOEMRE approved Shell's exploratory drilling plan without an approved oil spill plan that could demonstrate Shell's ability to clean up an oil spill in the Arctic's icy waters.

The *Deepwater Horizon* disaster has shown us what can happen if oil companies are allowed to proceed with risky drilling without adequate forethought, and without adequate environmental analysis and proven oil spill response plans. As oil companies push to drill in this new Arctic frontier, they will face challenges and risks never contemplated in the Gulf.

Specific problems with Shell's plans:

- * Shell's plans include a glorified mop, bucket and brush brigade to respond to oil spilled in broken ice conditions, which brings to mind the "keystone cops" response seen in the first days of the Gulf spill.ⁱ
- * Shell's spill response plans contain unproven assumptions – such as Shell will remove upwards of 90 percent of an oil spill in the open water through mechanical recovery – a number that has never come close to being achieved in practice (offshore mechanical containment and recovery rates for the Deepwater Horizon spill were 3 percent, and for the Exxon Valdez spill were 8-9 percent. Both spills were in calmer waters close to infrastructure.)
- * Shell's plans don't adequately address an uncontrolled blowout under their worst case scenario, despite what happened in the Gulf.
- * Shell developed a worst case scenario based on conditions in August – a month that tends to have optimal conditions in the Arctic. Yet, Shell requested authorization to operate through the end of October, when temperatures are lower, weather is less predictable and sea ice is forming. What's more, they assume that if an oil spill is not contained before winter freeze-up, they will just leave that oil uncontained until spring.
- * While Shell proposes burning spilled oil, their plans do not address the impacts of ice on the proposed burning. It is well-known fact that ice can severely hamper burning because the oil can get trapped underneath ice and in its cracks and crevices. Furthermore, even if Shell's proposed burning was successful, their plans do not say anything about the potential environmental impact of that burning.
- * Shell's exploration plans do not address the impacts of ice breakers on bowhead whales – specifically the vulnerable bowhead cows and calves.
- * Shell's prototype Arctic containment structure has not yet been tested under Arctic conditions – even after the containment structure failed in the Gulf.

- * Shell's plans don't adequately address the impacts of air quality from drilling operations and increased vessels, which would emit many tons of carbon dioxide, carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide and black carbon.

The Bottom Line

Hastily-made decisions that expedite oil drilling plans could lead to permanently destructive consequences for the Beaufort Sea marine environment. Shell must be required to submit a new oil spill contingency plan for the Beaufort Sea that adequately describes and proves how Shell expects to clean-up a very large oil spill in the Arctic's adverse conditions. August

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ⁱ See Shell Beaufort Sea spill response plan at Secs. 1.6.6, 1.6.7, and 1.6.13, which cross references the Alaska Clean Seas Manual for details on mechanical recovery. The Alaska Clean Seas Manual addresses mechanical recovery methods for broken ice in Tactic L-6 (page 161 of 185 – rope mop and drum brush) and in Tactic R-31 (page 80 of 185 – illustrating skimming methods).