

THE OIL IS DISAPPEARING!

Stephen L. Bakke – August 15, 2010

A True Tragedy and Potential Environmental Disaster

It would be wrong to imply that the Gulf oil spill was not a tragedy of major proportions. It would be irresponsible to suggest the withholding of resources from solving this problem because it just wasn't that bad. It was bad, and could have been much worse. The entire event saddens me and I believe it should not have happened – for a number of reasons.

It's All About Perspective

Several weeks ago, prior to “plugging” the Gulf oil leak, but after much of the flow had been stopped, I put together several computations relative to the oil spill. I'm not sure why I did it – perhaps just curiosity or maybe it resulted from my desire to always put things in perspective. I am revisiting this topic because I have seen precious little perspective on the topic and I believe we seem to be in danger of constantly considering improper solutions and policies because of little concern for perspective. After all, whenever some “stick-in-the-mud” says something like “before we jump to that conclusion, we must keep in mind that” they are accused of being “naysayers,” “deniers” or even much worse.

My point is quite simple. Unless an emergency is kept in the proper perspective, bad decisions are certain to be made, demagogues will be created, stones will be thrown, and things may even be made much worse in the long run.

What We Heard

- It was the largest oil spill in the history of the planet. (True.)
- It far outstripped the Exxon Valdez oil spill disaster in Alaska. (That depends.)
- It would ruin the Gulf of Mexico. (It did do major damage to certain wetlands.)
- It would spread east and south down the western coast of Florida. (Highly unlikely.)
- It would likely be picked up by the Gulf Stream and pollute the U.S. east coast. (Untrue.)
- It was solely the responsibility of British Petroleum (BP) having drilled too deep. (No.)
- The solution should be a firm and scolding U.S. posture against BP. (That's absurd.)
- Part of the solution is to immediately stop drilling in the gulf. (Politics at its worst.)
- Much of the spill is hiding in large “plumes” under the surface. (Maybe.)

What We Didn't Hear

The things we didn't hear were not miraculous solutions to the disaster. Nor would this information minimize the true nature of the problem. Rather, they were important to keep things in perspective and thereby increase the likelihood of optimal decisions and resolution to the problem. For example:

- The Gulf spill was “light crude”, while the Valdez spill was “heavy crude.” The only difference I know is the obvious – “light crude” evaporates quite quickly and is more susceptible to dilution and chemical dissipation.
- The Alaska spill, while much less in volume, was more harmful because the surrounding salt water environment was infinitesimal in volume compared with the Gulf of Mexico.
More on that measurement later.
- Much of the Alaska spill clean-up was difficult because the original spill was so close to shore and it is very difficult to clean up rocks and wild life marsh areas. Beaches, such as in much of the Gulf, are significantly easier to clean up.
- The government hampered, delayed, and ultimately limited, the efforts the Gulf States wanted to take to create artificial beaches in shallow areas of the gulf. Remember, beaches are easier to clean up than wetlands and rocky shore areas. It made sense.
- The government initially rejected sincere offers by other countries to send in equipment to help in the effort. An executive order could have temporarily waived the legal “protectionist” basis for this rule.
- BP was drilling in deep water because that is where the Federal government says they have to. BP was accused of drilling too deep, but were prevented from moving to shallower areas because of regulations – a “Catch 22.” This doesn’t minimize any penalties which should accrue to BP for negligent activities and decisions. But that’s a different issue.
- The proper posture of the administration should have been one of embracing BP with the attitude of “let’s solve this problem together and sort out the facts and details later.” Without such an attitude, optimal response was not possible and a great deal of energy was wasted on politics – witness the “Congressional investigation” which started shortly after the spill started and long before it was solved. It’s my opinion that pushing BP prematurely, in the manner they did, probably hampered mutual cooperation.
- The magnitude of the economic harm done to the Gulf area by ceasing drilling and exploration activities far outstrips the harm done to fishing and tourism industries. The lack of emphasis on this fact is evidence of the political nature of that move – it has implications on future energy and global warming legislative debates – agenda ridden and political all the way.
- The oil under the gulf constantly “leaks” into the water and over the millennia microorganisms have developed which thrive on the petroleum. I have heard, but have not verified, that the annual total of these leaks in the Gulf is in the same magnitude as the recent catastrophic spill.

But one of the most interesting things not reported and disclosed was the readily available information about objective evaluations and of the true proportions of the event and the true relative size of the oil spill. Only with such information would dependable evaluations made by our government and the public.

My Silly Little Project

Shortly after real progress seemed possible, some information and commentary “leaked out.”

- The oil is disappearing – perhaps only 25% remains, much having evaporated, dissipated by the Gulf’s natural forces and chemicals, and **significant quantities eaten by micro-organisms which thrive in the Gulf eating its “light crude.”**
- The concerns about oil plumes, Gulf Stream, type and magnitude of cleanup efforts were not consistent with the relative volume of the spill – so said some “experts.”

This confused me so I decided to put the spill in terms of something I could relate to – some measurements that I could visualize.

The following information assumes that 176,000,000 gallons of oil were spilled. I have seen estimates that are less and some greater. But this number is only about 10% less than the larger estimate – so I’m in the right magnitude using this average of estimates.

Think of the IDS office tower in Minneapolis. It is almost 800 feet tall. Given the overall dimensions of the IDS Building, ALL of the oil spilled in the Gulf would EASILY fit into it – just one building in this small city! By the way, remember all the “oil plums” that are thought to be hiding in the Gulf? Wouldn’t the IDS Building be about the size of a plume that some are imagining? Oh well!

Described another way, the spill was actually .016% of a cubic mile.

The spill was approximately 176,000,000 gallons. The gulf is 660,000,000,000,000,000 gallons (that’s quadrillions). Therefore, the spill volume is only .000000026667% of the gulf’s volume.

And if you can’t relate to those relationships, think about yourself sitting in a room that’s 10 feet by 12 feet with a 7 foot ceiling. The volume of the room represents the Gulf of Mexico. If someone said: “Hey, there’s an oil leak in the corner” and if you looked, what would you see? Probably nothing at all! The proportionate spill would be approximately .000387 of a cubic inch – or microscopic.

This was a devastating and disastrous event. But perspective is an important ingredient for making the right decisions and understanding why “The Oil is Disappearing!”