

The Terrible Gulf Oil Spill: as of May 30

There are so many evidences that we are nearing the end! This spring 2010 Gulf Oil Spill is but one of them. Yet the consequences of it will be so serious, that this special report has been prepared. Because it is 8 pages in length, although we had lots of prisoner letters to share with you, we will omit *Songs in the Night* from this mailing; so we can get this information to you right away.

It is unlikely that the eventual capping of the well will change the terrible future in store for the largest fish and bird nurseries and sanctuaries in the United States. Our knowledge of the 22-year aftermath of the 1989 Valdez spill makes it certain that the blighting results will extend beyond the Second Coming of Christ; and, indeed, far into the millennium. This BP spill will permanently ruin a significant portion of the U.S. economy and ecology. (The previous name of BP was British Petroleum.)

Over one million gallons of thick, raw petroleum oil is being spewed out each day from three holes in the Gulf of Mexico, resulting from the initial explosion causing an oil well blowout on April 20, 2010.

At this time, more oil has poured out of those holes than has been released in all the other major or minor oil spills in American coastal waters—including the Valdez spill on March 24, 1989.

After only 40 days into the spill, this is already considered the worst disaster in U.S. history.

Why did the explosion occur? How could all this have possibly occurred? Why is there such a delay in solving the problem? Here are a number of astounding facts:

First: The rig was not stationary, but a floating boat! Thus it had less stability if it was violently shaken. In recent years, several oil platforms have been destroyed by hurricanes; yet no oil escaped from the bottom of the well. (We will learn that, repeatedly, proper precautions were omitted in order to save BP a little money.)

The Deepwater Horizon was a floating oil drilling platform, described as a semi-submersible *Mobile Off-shore Drilling Unit* (MODU). The platform was 396 feet (121 m) long and 256 feet (78 m) wide and could operate in waters up to 8,000 feet (2,400 m) deep, to a maximum drill depth of 30,000 feet (9,100 m). The \$560 million platform was built by Hyundai Heavy Industries, in South Korea and completed in 2001. It was owned by Transocean, and was under lease to BP until September 2013.

At the time of the explosion, the *Deepwater Horizon* was on *Mississippi Canyon Block 252*, referred to as the *Macondo Prospect*, in the United States sector of the Gulf

of Mexico, about 41 miles (66 km) off the Louisiana coast. **The platform commenced drilling, in February 2010,** at a water depth of approximately 5,000 feet (1,500 m). The planned well was to be drilled to 18,000 feet (5,500 m), and was to be plugged and suspended for subsequent completion as a subsea producer.

Second: The explosion occurred because of a foolish concern to shortcut, go faster, and thus economize. Not until weeks later was it discovered that, shortly before the explosion, methane gas was detected; but, when this was reported to the head officer, he declared that BP did not have time to shut down the engines and clear out that gas. But, when that gas reached those engines, a spark occurred.

The fire aboard the Deepwater Horizon reportedly started at 9:45 p.m. CDT on April 20, 2010. Survivors described the incident as a sudden explosion which gave them less than five minutes to escape as the alarm went off. A video of the fire shows billowing flames, taller than a multistory building. A captain of a rescue boat described the heat as so intense that it was melting the paint off the nearby boats. **After burning for more than a day, Deepwater Horizon sank on April 22, 2010.** The Coast Guard stated to CNN, on April 22, that they received word of the sinking at approximately 10:21 a.m. **At an April 30 press conference, BP said that they had no idea what might have caused the explosion.**

Adrian Rose, a vice president of Transocean, Ltd., said workers had been performing their standard routines and had no indication of any problems prior to the explosion. At the time of the explosion, the rig was drilling an exploratory well. Production casing was being run and cemented at the time of the accident. Once the cementing was complete, it was due to be tested for integrity and a cement plug set to temporarily abandon the well for later completion as a subsea producer. **Halliburton said that it had finished cementing 20 hours before the fire.** Transocean executive Adrian Rose said the event was basically a blowout.

According to interviews with platform workers conducted during BP's internal investigation, a bubble of methane gas escaped from the well and shot up the drill column.

The heavy drilling mud in the pipes initially held down the gas of the leaking well. **When managers believed they were almost done with the well, they decided to displace the mud with seawater; the gas was then able to overcome the weight of the fluid column and rose to the top. It was at this time that the gas odor was detected: and the decision was made that it would cause a delay to stop the engines and release that gas.**

Third: As part of the cost-cutting, BP decided not

2 *to use the best quality attachment at the base of the well, because it would cost a little more.*

Add to this the fact that *Minerals Management Service*, the federal agency in charge of overseeing the safety of these wells, had a cosy relationship with the oil companies. Officials were bought off with free tickets, trips, etc. More than one was hired by an oil company after approving an oil company plan.

In February 2009, BP filed a 52-page exploration and environmental impact plan for the Macondo well with the *Minerals Management Service* (MMS), the agency of the *United States Department of the Interior* that oversees offshore drilling. The BP plan stated that it was “unlikely that an accidental surface or subsurface oil spill would occur from the proposed activities.” It was also mentioned that, **in the event an accident did take place, the plan stated that, due to the well being 48 miles (77 km) from shore and the response capabilities that would be implemented, no significant adverse impacts would be expected.** The *Department of the Interior* exempted BP’s **Gulf of Mexico drilling operation from a detailed environmental impact study** after concluding that a massive oil spill was unlikely.

The BP wellhead had been fitted with a blowout preventer (BOP), but it was not fitted with remote control or acoustically activated triggers for use in case of an emergency requiring a platform to be evacuated. It did have a dead man’s switch, designed to automatically cut the pipe and seal the well if communication from the platform is lost; but it was unknown whether the switch ever activated. **Regulators in both Norway and Brazil require acoustically activated triggers on all offshore platforms; but, when the Minerals Management Service considered requiring the remote device, a report commissioned by the agency, as well as drilling companies, questioned its cost and effectiveness.** In 2003, the agency determined that the device would not be required because drilling rigs had other backup systems to cut off a well.

Fourth: The result was an immense explosion that destroyed the oil rig and killed eleven men.

Many of the remaining 115 men were not released on land until after hours of questioning and being pressured to sign releases, so they could not sue.

The explosion killed 11 platform workers and injured 17 others; another 98 people survived without serious physical injury. Nine crew members on the platform floor and two engineers died during the explosion. According to officials, 126 individuals were on board; 79 of these were Transocean employees, six were from BP, and 41 were contracted. Of these, 115 individuals were evacuated. Most of the workers evacuated the rig and took diesel powered fiberglass lifeboats to a workboat that BP had hired to service the rig. Seventeen others were then evacuated from the workboat by helicopter. Most survivors were brought to Port Fourchon for a medical check-up and to meet their families. Although 94 workers were taken to shore with no major injuries, four were transported to another vessel and 17 were sent to trauma centers in Mobile, Alabama, and Marrero, Louisiana. Most were soon released. A group of BP executives were on board

the platform celebrating the project’s safety record when the blowout occurred; they were injured but survived. **Lawyers for some survivors of the blast claim that their clients were kept in boats and on another rig for 15 hours or more before being brought to shore. And, when they did get to shore, “they were zipped into private buses. Security was there, but no press, no lawyers allowed, nothing, no family members.” They were then driven to a hotel under escort, secluded at the hotel for several hours, questioned by company consultants and investigators, and then given a form to sign before being released.** These claims are denied by Transocean.

Fifth: Worst of all was the utter massiveness of the oil spill! The exact extent of it was hidden by BP for weeks, which alone had underwater cameras capable of accurately determining the amount of flow. To this day, BP has refused to release more than 30 seconds of that video footage (on May 12), so anyone could independently verify the amount of flow.

This had the effect of causing government officials to consistently underrate the flowage or the likelihood that the U.S. coast would be seriously damaged.

The *Deepwater Horizon* oil spill—also called the **BP Oil Spill, the Gulf of Mexico oil spill, or the Macondo blowout**—is a massive ongoing oil spill in the Gulf of Mexico. **It is now considered the largest offshore spill and biggest environmental disaster** in U.S. history. The spill stems from a seafloor oil gusher that started with an oil-well blowout on April 20, 2010. **The blowout caused a catastrophic explosion on the Deepwater Horizon offshore oil drilling platform that was situated about 40 miles (64 km) southeast of the Louisiana coast.**

The gusher originates from a deepwater oil well 5,000 feet (1,500 m) below the ocean surface. Estimates of the amount of oil being discharged range from **BP’s current estimate of over 5,000 barrels** (= 210,000 U.S. gallons; 790,000 litres) **to as much as 100,000 barrels** (4,200,000 U.S. gallons; 16,000,000 litres) of crude oil per day.

The exact spill flow rate is uncertain—partly because **BP has refused to allow independent scientists to perform accurate measurements.** This suppression is a matter of ongoing debate. In addition, **the proportion of natural gas in the mixture is not known.**

The resulting oil slick covers a surface area of at least 2,500 square miles (6,500 km²), with the exact size and location of the slick fluctuating from day to day, depending on weather conditions. **Scientists have also discovered immense underwater plumes of oil not visible from the surface.**

The “preliminary best estimate” that was released on May 27, by the semiofficial *Flow Rate Technical Group*, put the volume of oil flowing from the blown-out well at 12,000 to 19,000 barrels (500,000 to 800,000 U.S. gallons; 1,900,000 to 3,000,000 litres) per day. **If that low estimate is correct, the total is a massive 440,000 and 700,000 barrels (18,000,000 and 29,000,000 U.S. gallons; 70,000,000 and 111,000,000 litres) as of May 27.** Based on those figures, **the Deepwater Horizon spill is**

3 **believed to have surpassed the 1989 Exxon Valdez oil spill as the largest ever in U.S. territorial waters.**

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Experts fear that, due to factors such as petroleum toxicity and oxygen depletion, the spill will result in an environmental disaster, damaging the Gulf of Mexico fishing industry, the Gulf Coast tourism industry, and the habitat of hundreds of bird species. Crews are working to block off bays and estuaries, using anchored barriers, floating containment booms, and sand-filled barricades along shorelines. There are a variety of ongoing efforts, both short and long term, to contain the leak and stop spilling additional oil into the Gulf.

BP (formerly British Petroleum) is the operator and principal developer of **the Macondo Prospect, which was thought to hold as much as 50 million barrels ($7.9 \times 10^6 \text{ m}^3$) of oil prior to the blowout** (by BP's own estimate). **A major portion of that may already have gushed out before the well is eventually capped months from now.**

The *Deepwater Horizon* drilling platform had been leased by BP from its owner, Transocean Ltd. The U.S. Government has named BP as the responsible party in the incident; and officials have said the company will be held accountable for all cleanup costs resulting from the oil spill. BP has accepted responsibility for the oil spill and the cleanup costs, but they indicated they were not at fault because the platform was run by Transocean personnel. **The Deepwater Horizon blowout is the third serious incident at a BP-operated site in the United States in the last five years,** following the Texas City Refinery explosion in 2005 and the Prudhoe Bay oil spill in 2006. **These previous incidents, attributed to lapses in safety and maintenance,** have contributed to the damage to BP's reputation and market valuation since the spill.

On April 22, BP announced that it was deploying a remotely operated underwater vehicle to the site, to assess whether oil was flowing from the well. Other reports indicated that, amid much secrecy, BP was using more than one remotely operated underwater vehicle; and that the purpose was to attempt to plug the well pipe. **On April 23, a remotely operated underwater vehicle reportedly found no oil leaking from the sunken rig and no oil flowing from the well. Coast Guard Rear Admiral Mary Landry expressed cautious optimism of zero environmental impact,** stating that **no oil was emanating from either the wellhead or the broken pipes,** and that oil spilled from the explosion and sinking was being contained. (The following day, April 24, Landry announced that a damaged wellhead was indeed leaking oil into the Gulf and described it as "a very serious spill.")

BP initially estimated that the wellhead was leaking 1,000 barrels (42,000 U.S. gallons; 160,000 litres) a day. According to BP, estimating the flow is very difficult because there is no metering of the flow underwater. **The company has refused to allow scientists to perform more accurate, independent measurements of the flow, claiming that it isn't relevant to the response and such efforts might distract from the response.**

Early estimates of the flow by outside experts were

considerably higher than those of BP. Geologist and oil industry consultant John Amos said a more realistic figure was 20,000 barrels (840,000 U.S. gallons; 3,200,000 litres) a day. Oceanographer Ian MacDonald and other sources using satellite imagery put the number as high as 25,000 barrels (1,100,000 U.S. gallons; 4,000,000 litres) a day.

On May 12, BP released a 30 second video of the spill at the site of the broken pipe. Experts, contacted by *National Public Radio* and shown the footage, put the leak rate substantially higher than the early estimate of Timothy Crone, an associate research scientist at the **Lamont-Doherty Earth Observatory; he estimated at least 50,000 barrels** (2,100,000 U.S. gallons; 7,900,000 litres) **a day was leaking from the well by using another well-accepted method to calculate fluid flows.** Eugene Chaing, a professor of astrophysics at the University of California, Berkeley, estimated the leak to be **20,000–100,000 barrels** (840,000–4,200,000 U.S. gallons; 3,200,000–16,000,000 litres) a day. Steven Wereley, an associate professor at Purdue University, used particle image velocimetry to initially arrive at a rate of **70,000 barrels** (2,900,000 U.S. gallons; 11,000,000 litres) per day, with a margin of error of 20 percent. Wereley concluded the leak was likely much more than he initially estimated; after viewing the released footage of the leak, **he stated before Congress that the leak was likely 95,000 barrels** (4,000,000 U.S. gallons; 15,100,000 litres) a day.

On May 27, 2010, the government increased its official estimate to 12,000–19,000 barrels (500,000–800,000 U.S. gallons; 1,900,000–3,000,000 litres) a day. BP, the *United States House Select Committee on Energy Independence and Global Warming*, and United States Senator Bill Nelson are all hosting live streaming video feeds of the spill from 5,000 feet (1,500 m) below sea level, which are now permitting the public and scientists to see the spill volume and estimate the flow independently.

Sixth: The spill area just kept spreading and spreading; BP initially said that it probably would not travel far, and the coast was 41 miles away.

The spread of the oil was increased by strong southerly winds caused by an impending cold front. **By April 25, the oil spill covered 580 square miles** (1,500 km²) and was only 31 miles (50 km) from the ecologically sensitive Chandeleur Islands. **An April 30 estimate placed the total spread of the oil at 3,850 square miles** (10,000 km²). **The spill quickly approached the Delta National Wildlife Refuge and Breton National Wildlife Refuge,** where dead animals, including a sea turtle, were found. The *New York Times* is tracking the size of the spill over time, using data from the *National Oceanic and Atmospheric Administration* and the *U.S. Coast Guard*.

But, beneath the surface, the oil was spreading even faster. These were called "underwater oil plumes." —But when they reach land, they pollute the beaches and wildlife as badly as surface oil.

On May 13, Robert Bea, who serves on a *National Academy of Engineering* panel on oil pipeline safety, said,

4 “There’s an equal amount that could be subsurface too,” and that the oil below the surface “is impossible to track.” Also, on May 13 Garland Robinette, from New Orleans, reported on *NBC News* that tarballs about the size of softballs—12 inches (30 cm) circumference—were washing up on the shores of three Louisiana parishes and may be coming in from under the surface of the water.

On May 15, researchers from the University of Southern Mississippi aboard the research vessel, *RV Pelican*, identified **enormous oil plumes in the deep waters of the Gulf of Mexico, including one as large as 10 miles (16 km) long, 3 miles (4.8 km) wide, and 300 feet (91 m) thick in spots.** The shallowest oil plume the group detected was at about 2,300 feet (700 m), while the deepest was near the seafloor at about 4,200 feet (1,300 m). Other researchers from the University of Georgia have found that the oil may occupy multiple layers “three or four or five layers deep.” *The New York Times* speculates that the undetermined amount of hydrocarbons in these underwater plumes may explain why satellite images of the ocean surface have calculated a flow rate of only 5,000 barrels (210,000 U.S. gal) a day; whereas studies of the video of the gushing oil well have variously calculated that it could be flowing at a rate of 25,000–80,000 barrels (1,100,000–3,400,000 U.S. gal) a day.

In an interview on May 19, marine biologist Rick Steiner said that the likelihood of extensive undersea plumes of oil droplets should have been anticipated from the moment the spill began, given that **such an effect from deepwater blowouts had been predicted in the scientific literature for more than a decade and had been confirmed in a test off the coast of Norway.** He criticized the *National Oceanic and Atmospheric Administration* for not setting up an extensive sampling program to map and characterize the plumes in the first days of the spill.

On May 27, marine scientists discovered a second plume of what they believe to be **oil deep beneath the Gulf of Mexico, stretching 22 miles (35 kilometers) from the leaking wellhead toward Mobile Bay, Alabama.** The oil has dissolved into the water and is no longer visible; and **researchers say they are worried these undersea plumes may be the result of the unprecedented use of chemical dispersants to break up the oil under the sea at the site of the leak.**

Some scientists predict that the Gulf Stream could pick up the oil from these underwater plums and carry it around Florida to the East Coast. Winds would eventually take the oil into the Loop Current in the Gulf,—and from there into the Gulf Stream which travels up past the East Coast and thence to Europe.

Dr. Ruoying He, of *North Carolina State University* and head of the *Ocean Observing and Monitoring Group*, said **if the oil reached the Gulf Stream, then south Florida, including the Keys, would likely be affected.** Whether it comes ashore farther north depends on local winds; but, fortunately, **the Gulf Stream moves away from the coast southeast of Charleston, South Caro-**

lina, at a formation called the Charleston Bump. Susan Lozier of Duke University said, in late spring, the winds off the Carolinas might blow it away from the shore.

On May 19, scientists monitoring the spill with the *European Space Agency* radar satellite (the *Envisat*) stated that **oil has already reached the Loop Current, which flows clockwise around the Gulf of Mexico toward Florida and may reach Florida within 6 days.** The scientists warn that, because the Loop Current is a very intense, deep ocean current, its turbulent waters will accelerate the mixing of the oil and water in the coming days. ‘This might remove the oil film on the surface and prevent us from tracking it with satellites, but **the pollution is likely to affect the coral reef marine ecosystem.**’ *National Oceanic and Atmospheric Administration* acknowledged, on May 19, that ‘a small portion of the oil slick has reached the Loop Current in the form of light to very light sheens.’

Seventh: As fears deepened, charges against BP increased. Wildlife and environmental groups accused BP of holding back information about the extent and impact of the growing slick; and they urged the White House to order a more direct federal government role in the spill response. In prepared testimony for a congressional committee, *National Wildlife Federation* President Larry Schweiger said BP had failed to disclose results from its tests of chemical dispersants used on the spill, and that BP had tried to withhold the video showing the true magnitude of the leak.

Finally, on May 20, 2010—30 days after the oil spill began (a spill which President Obama said last week he has been “on top of since its beginning”), **U.S. Secretary of the Interior Ken Salazar indicated that the U.S. Government has decided that it will verify how much oil has leaked into the Gulf of Mexico.** On the same day, the heads of the *Environmental Protection Agency* and the *United States Department of Homeland Security* told BP chief executive Tony Hayward, in a letter, that the company had “fallen short” of its promises to keep the public and the federal government informed about the spill. **After all this time, they finally issued an order that BP “must make publicly available any data and other information related to the Deepwater Horizon oil spill that you have collected.”** *Environmental Protection Agency* Administrator Lisa P. Jackson and *U.S. Secretary of Homeland Security* Janet Napolitano **asked for the results of tests looking for traces of oil and dispersant chemicals in the waters of the Gulf.** BP did not respond Thursday to requests for comment about the letter, the *Washington Post* reported in a story, titled “Estimated rate of oil spill no longer holds up.”

The media has complained that the Coast Guard and BP have prevented them from viewing affected areas. On May 18, 2010, CBS reporter Kelly Cobiella tried to visit the beaches in the Gulf of Mexico, to report on the disaster. **She was met by BP contractors and American Coast Guard officers who threatened her with arrest if she did not leave.** The Coast Guard officials speci-

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fied that they were acting under the authority of BP. **On May 25, a scheduled flyover was denied** permission after BP officials learned that a member of the press would be on board. It would almost seem that the order of the day was “Do not disturb the public, until after the damage is permanent.”

Eighth: All efforts to date to stop the massive oil flow have failed.

The rig’s blowout preventer, a fail-safe device fitted at source of the well, did not automatically cut off the oil flow as intended when the explosion occurred. BP attempted to use remotely operated underwater vehicles to close the blowout preventer valves on the wellhead 5,000 feet (1,500 m) below sea level, a valve-closing procedure taking 24–36 hours. BP engineers predicted it would take six attempts to close the valves. As of May 2, 2010, they had sent six remotely operated underwater vehicles to close the blowout preventer valves; but all attempts have totally failed.

Oil was known to be leaking into the Gulf from three different locations. On May 5, BP announced that the smallest of three known leaks had been capped. This did not reduce the amount of oil flowing out, but it did allow the repair group to focus their efforts on the two remaining leaks.

BP engineers next tried to place a subsea oil recovery system over the wellhead. This involved placing a **125-ton (280,000 lb) container dome over the largest of the well leaks and piping it to a storage vessel on the surface.** This option was untested at such depths. **BP deployed the system on May 7–8; but it failed** when gas leaking from the pipe combined with cold water to form methane hydrate crystals that blocked up the steel canopy at the top of the dome. The excess buoyancy of the crystals clogged the opening at the top of the dome, where the riser was to be connected.

Following the failure, **a smaller containment dome, dubbed a “top hat,” was lowered to the seabed.** The dome was lowered on May 11, but it is currently being kept away from the leaking oil well. The dome is meant to funnel some of the escaping oil to a waiting tanker on the surface. Like the first containment dome, the dome has been deployed successfully in the past but not at such a depth. The 4 feet (1.2 m) wide and 5 feet (1.5 m) tall “top hat” dome is much smaller than the first containment dome, which was 40 feet (12 m) tall and 125 tons (280,000 lb). The “top hat” dome originally was planned as BP’s next attempt to control the spill, and there has been no explanation for why BP engineers decided to try the insertion tube first.

On May 14, **engineers began the process of positioning a riser insertion tube tool at the largest oil leak site. After three days, BP reported the tube was working.** Collection rates varied daily between 1,000 and

5,000 barrels (42,000 and 210,000 U.S. gallons; 160,000 and 790,000 litres), the average being 2,000 barrels (84,000 U.S. gallons; 320,000 litres) a day, as of May 21. The collected gas rate ranges between 4 and 17 million cubic feet per day. The gas was flared and oil stored on board the drillship, *Discoverer Enterprise*. 924,000 U.S. gallons (22,000 barrels) of oil was collected. **—But then the tube was removed, so other shutdown efforts could begin.**

BP tried to shut down the well completely, using a technique, called “top kill.” The process involves pumping heavy drilling fluids through two 3-inch (7.6 cm) lines into the blowout preventer that sits on top of the wellhead. This would first restrict the flow of oil from the well, which then could be sealed permanently with cement. The top kill procedure commenced at 1 p.m. CDT on May 26; and, according to BP sources, while failure could be evident in minutes or hours, it may take “a day or two” before its success could be determined. **On May 29, BP announced that the attempt to plug the ruptured oil well had failed.**

After three consecutive failed attempts at the top kill, on May 29 BP moved on to their next contingency option. It is the Lower Marine Riser Package (LMRP) Cap Containment System. The operational plan first involves cutting and then removing the damaged riser from the top of the failed BlowOut Preventer (BOP), to leave a clean-cut pipe at the top of the BOP’s LMRP. The cap is designed to be connected to a riser from the *Discoverer Enterprise* drillship and placed over the LMRP with the intention of capturing most of the oil and gas flowing from the well. The LMRP cap is already on site and it may be connected. But removing the riser will increase the oil spill flow by 20% until August, when relief wells are completed.

BP eventually began drilling relief wells into the original well, to enable them to block it. Once the relief wells reach the original borehole, the operator will pump drilling mud into the original well to stop the flow of oil. Transocean’s *Development Driller III* started drilling a first relief well on May 2 and was at 12,090 feet as of May 29. *Development Driller II* also started drilling a second relief on May 23 and was at 8,576 feet as of May 29. **This operation will take two to three months to stop the flow of oil and will cost about U.S.\$100 million per well. (BP confirmed, in late May, that they did not expect the relief well to operate before August)**

Ninth: Then there are the cleanup efforts. There is earnest work by many concerned folks, but little results. When Louisiana tried to become more involved in the cleanup, they were denied permission.

BP initially downplayed the entire problem. CEO Tony Hayward called the oil spill “relatively tiny” in comparison with the size of the “ocean.” During an interview with UK-based satellite news television channel Sky News, broadcast on 17 May 2010, Hayward

6 stated that the environmental impact of the Gulf spill would likely be “very very modest.”

But then BP decided to start a cleanup operation.

At times, the oil cleanup has been hampered by high waves. **On April 28, the U.S. military thought the time had come to join the cleanup operation.** It tested how much environmental damage a small, controlled burn of 100 barrels (4,200 U.S. gallons; 16,000 litres) did to surrounding wetlands; but they could not proceed with an open seas burn, due to poor conditions.

On April 30, President Barack Obama decided to announce that the government would get more involved. He did this by sending four government leaders to walk on some beaches in Louisiana (the Secretaries of the *Department of Interior* and *Homeland Security*, as well as the Administrator of the *Environmental Protection Agency* and the *National Oceanic and Atmospheric Administration*).

Eventually, **clouds of smoke began billowing up from controlled burns** taking place in the Gulf of Mexico. *Containment booms* are being deployed along the coast. **But, on May 2, high winds and rough waves rendered oil-catching booms largely ineffective—and still more oil poured onto the coast.**

As of April 30, approximately 2,000 people and 79 vessels were involved in the response; and BP claimed that more than 6,300,000 U.S. gallons (150,000 barrels) of oil-water mix had been recovered. **But then, on May 26, all of the commercial fishing boats helping in the cleanup and recovery process were ordered ashore.** A total of 125 commercial vessels, which had been outfitted with equipment for oil recovery operations, were recalled after **some workers began experiencing health problems. It was later decided that the cause was fumes from the oil and the dispersant. The label on dispersant bottles say masks must always be worn. But BP officials had decided that they would not be needed.** Another cost-saving measure.

The type of oil involved is also a major problem.

Most of the oil drilled off Louisiana is a lighter crude type. Because the leak is deep under the ocean surface, **the leaking oil is a heavier blend which contains asphalt-like substances;** and, according to Ed Overton, who heads a federal chemical hazard assessment team for oil spills, **this type of oil emulsifies well, making a “major sticky mess.” Once it becomes that kind of mix, it no longer evaporates as quickly as regular oil, does not rinse off as easily, cannot be eaten by microbes as easily, and does not burn as well.** “That type of mixture essentially removes all the best oil cleanup weapons,” Overton and others said.

On May 21, 2010, Plaquemines Parish (county) president Billy Nungesser publicly complained about the federal government’s hindrance of local mitigation efforts. **State and local officials had proposed building sand berms off the coast, to catch the oil before it reached the wetlands; but the emergency permit request had not been answered for over two weeks. The following day Nungesser complained that the plan had been vetoed,** while the Army Corps of Engineer officials claimed

that the request was still under review. Gulf Coast Government officials have released water via the Mississippi River diversions, in an effort to create an outflow of water that would keep the oil off the coast. The water from these diversions comes from the entire Mississippi watershed. Even with this approach, **the National Oceanic and Atmospheric Administration is predicting a “massive” landfall to the west of the Mississippi River,** at Port Fourchon.

On May 23, 2010, Louisiana Attorney General Buddy Caldwell wrote a letter to Lieutenant General Robert L. Van Antwerp of the U.S. Army Corps of Engineers, stating that Louisiana has the right to dredge sand, to build barrier islands to keep the oil spill from its wetlands without the Corps’ approval; as **the 10th Amendment to the U.S. Constitution does not grant the federal government the authority to deny a state the right to act in an emergency.** He also wrote that, if the Corps “persists in its illegal and ill-advised efforts” to prevent the state from building the barriers, he would advise Louisiana Governor Bobby Jindal to proceed with the plans and challenge the Corps in court.

Tenth: And then there is the dispersants.

On May 1, two United States Department of Defense C-130 Hercules aircraft were employed to spray oil dispersant. *Corexit EC9500A* and *Corexit EC9527A* are the main oil dispersants being used. These contain propylene glycol, 2-butoxyethanol, and a proprietary organic sulfonic acid salt. On May 7, Secretary Alan Levine, of the *Louisiana Department of Health and Hospitals*; *Louisiana Department of Environmental Quality* Secretary Peggy Hatch; and *Louisiana Department of Wildlife and Fisheries* Secretary Robert Barham **sent a letter to BP outlining their concerns related to potential dispersant impact on Louisiana’s wildlife and fisheries, environment, aquatic life, and public health.** Officials are also requesting BP release information on the effects of the dispersants they are using to combat the oil spill in the Gulf of Mexico.

It so happens that *Corexit EC9500A* and *Corexit EC9527A* are not the least toxic or the most effective among the dispersants approved by the Environmental Protection Agency; and they are banned from use on oil spills in the United Kingdom. **Twelve other products received better toxicity and effectiveness ratings,** but BP says it chose to use *Corexit* because it was available the week of the rig explosion. (The others may be more expensive.) Critics contend that the major oil companies stockpile *Corexit* because of their close business relationship with the manufacturer, Nalco. By 20 May, BP had applied 600,000 U.S. gallons (2,300,000 liters) of *Corexit* on the surface and 55,000 U.S. gallons (210,000 liters) underwater.

Independent scientists have suggested that the underwater injection of Corexit into the leak might be responsible for the plumes of oil discovered below the surface. However, National Oceanic and Atmospheric Administration administrator Jane Lubchenco said that there was no information supporting this conclusion.

On May 19, the Environmental Protection Agency gave

7 BP 24 hours to choose less toxic alternatives to Corexit. To make a long story of delays and excuses short, BP has refused to do it or to use anything else. Day after day passed during this ongoing battle between government agencies and BP, which claims that it believes *Corexit* to be the best.

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3 **Public opinion polls, taken on May 24-25, found that 60% said the federal government has done a poor or very poor job while 35% rate it good or very good.** A CBS News poll, conducted May 20-24, also found a negative reception with Obama; and 45% disapproved compared to 35% who approved, with 20% undecided. BP had worse polling numbers, with 73% in the Gallup poll describing its response as poor or very poor, while 24% say it has been good or very good. In the CBS survey, 70% disapproved of BP's response compared to 18% who approved and 12% undecided.

Eleventh: And now we come to the ecological consequences. The permanent (permanent) destruction of wildlife—fish, birds, insects, animals in those wetland breeding grounds will be horrific.

All the coastal, state, and national wildlife refuges will be turned into oily wastelands. Already about 34,000 dead birds have been counted—including gulls, pelicans, roseate spoonbills, egrets, terns, and blue herons, plus 222 dead sea turtles and 24 dead dolphins. Samantha Joye, of the University of Georgia, indicated that the oil could harm fish directly; and microbes used to consume the oil would also add to the reduction of oxygen in the water, with effects being felt higher up the food chain. While wildlife experts bitterly complained, **on Tuesday May 18, 2010, BP chief executive Tony Hayward insisted the environmental impact of the oil spill in the Gulf of Mexico will be “very, very modest.”**

When the Loop Current carries the oil into the Gulf Stream, oil will be spread into the Atlantic Ocean. **All along the U.S. East Coast, wildlife will be killed, even without the oil reaching the beaches.** Seabirds, mammals, turtles, fish, and dolphins will also be affected. **Ninety percent of North Carolina's commercially valuable sea life spawn off the coast and could be contaminated if oil reaches the area.** Steve Ross, of *UNC-Wilmington*, said coral reefs off the East Coast will be smothered by too much oil.

As of May 25, the areas which were closed by the federal government to fishing includes 54,096 square miles (140,110 km²). On April 29, 2010, **Governor of Louisiana Bobby Jindal declared a state of emergency** in the state after weather forecasts predicted the slick would reach the Louisiana coast. By April 30, the Coast Guard received reports that **oil had begun washing up to wildlife refuges and seafood grounds** on the Louisiana Gulf Coast. **On May 19, heavy oil from the spill began to make landfall along fragile Louisiana marshlands.** **By May 20, oil had reached populated areas of the Louisiana coast.** **On May 24, the federal government declared a fisheries disaster for the states of Alabama, Mississippi, and Louisiana.**

Oyster and blue crab beds, along with fin fisheries,

are gradually being closed to fishing.

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Twelfth: We do not want to underestimate the financial losses. Initial cost estimates to the fishing industry were **\$2.5 billion**, while the impact on tourism along Florida's Paradise Coast could be **\$3 billion**.

On May 25, BP reported that its own expenditures on the oil spill had reached **\$760 million**, a figure that excludes claims from fishermen and other affected industries. The price tag for the spill was rising by at least **\$10 million a day**. An April 30 Merrill Lynch report found that five companies connected to the disaster—*BP, Transocean, Anadarko Petroleum, Halliburton, and Cameron International*—had lost a total of **\$21 billion** in market capitalization since the explosion.

Analysts for *Swiss Re* have estimated that the total insured losses from the accident could reach **\$3.5 billion**. However, according to *United Bank of Switzerland*, the final bill could be as much as **\$12 billion**. But BP does not seem to be worried. At noon today, the BP president said that BP has a yearly profit of \$4 billion, and expects the total costs will be \$10 billion—and that, “on appeal, they will have it reduced to \$5 billion.”

Thirteenth—And then there are the lawsuits. On April 22, the families of two missing workers filed lawsuits in federal and state courts in Louisiana against BP and Transocean, alleging negligence and failure to meet federal regulations. Since then, **more than 130 lawsuits relating to the spill have been filed.**

According to Michael Stag, a lawyer for the *Louisiana Environmental Action Network*, the cases are likely to be combined into one court (as a multidistrict litigation) for evidence gathering and pretrial decisions. *BP, Transocean, Cameron International, and Halliburton Energy Services* have all been named in one or more of the lawsuits. Because the spill has been largely lingering offshore, the plaintiffs who can claim damages so far are mostly out-of-work fishermen and tourist resorts that are receiving cancellations. The oil company says 23,000 individual claims have already been filed, of which 9,000 have so far been settled. BP and Transocean want the cases that will be heard in Houston to be seen as friendly to the oil business.

And, lastly, a multitude of investigations have been started. On April 22, 2010, the *United States Coast Guard* and the *Minerals Management Service* launched an investigation of **the possible causes of the explosion**. On May 11, 2010, the Obama administration requested the *National Academy of Engineering* to conduct an independent technical investigation, to determine **the underlying causes of the disaster**; so that corrective steps could be taken to address the mechanical failures underlying the accident. The *U.S. House Committee on Energy and Commerce* asked Halliburton to brief it, as well as provide any documents it might have related to its work on the Macondo well.

Attention has focused on **the cementing procedure and the blowout preventer**, which failed to fully engage. A number of significant problems have been identified

with the blowout preventer: There was a leak in the hydraulic system that provides power to the shear rams. **The underwater control panel had been disconnected from the bore ram, and instead connected to a test hydraulic ram.**

The blowout preventer schematic drawings, provided by Transocean to BP, do not correspond to the blowout preventer that is on the ocean bottom. The shear rams are not designed to function on the joints where the drill pipes are screwed together or on tools that are passed through the blowout preventer during well construction. The explosion may have severed the communication line between the rig and the subsurface blowout preventer control unit, so that the blowout preventer would have never received the instruction to engage. Before the backup dead man's switch could engage, communications, power, and hydraulic lines must all be severed; but it is possible hydraulic lines were intact after the explosion. Of the two control pods for the deadman's switch, **the one that has been inspected so far had a dead battery.** A rigorous investigation will reveal the series of errors that came together to cause the blowout; preliminary findings from BP's internal investigation, released by the *House Committee on Energy and Commerce* on May 25, indicated **several serious warning signs in the hours just prior to the explosion.**

There have been 39 fires or explosions offshore in the Gulf of Mexico in the first five months of 2009, the last period with statistics available. **There had been numerous previous spills and fires on the Deepwater Horizon,** which had been issued citations by the Coast Guard 18 times between 2000 and 2010. **The previous fires were not considered unusual for a Gulf platform (!)** and have not been connected to the April 2010 explosion and spill. In addition, **the Deepwater Horizon had other serious incidents,** including a 2008 incident where 77 people were evacuated from the platform, when it listed over and began to sink after a section of pipe was accidentally removed from the platform's ballast system.

According to a report by *60 Minutes*, **the blowout preventer was damaged in a previously unreported accident four weeks before the April 20 explosion.** Add to that the fact that **BP repeatedly overruled the drilling operator on key operations,** BP declined to comment on the report. The *American Bureau of Shipping* last inspected the rig's failed blowout preventer in 2005. **Just hours before the explosion, a BP representative overruled Transocean employees and insisted on displacing protective drilling mud with seawater.** This permitted the methane gas to rise in the tube.

When it was first detected, the BP official in charge was told about it. He said to ignore it, as a cost-cutting measure—for it would involve a delay of a couple hours while the engines were shut down, so the methane could be bled out. Within half an hour massive explosions occurred as the gas in the air entered the engine's oxygen chambers.

One of the BP representatives on board who was re-

As we go to press: BP's latest attempt to contain the gushing well in the Gulf hits a snag as machinery gets stuck in busted pipe and tries to saw through.

sponsible for making the final decision, Robert Kaluza, refused to testify, on the Fifth Amendment grounds, that he might incriminate himself; Donald Vidrine, another BP representative, cited medical reasons for his inability to testify, as did James Mansfield, Transocean's assistant marine engineer on board.

On May 22, President Obama signed an executive order, establishing a bipartisan *National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling*, with former Florida Governor; Senator Bob Graham; and former Environmental Protection Agency Administrator William K. Reilly, serving as cochairs. The purpose of the commission is to "consider the root causes of the disaster and offer options on safety and environmental precautions."

Meanwhile, the *Deepwater Horizon* disaster has given new impetus to a number of Congressional Representatives to pressure the *Minerals Management Service* to investigate safety practices on BP's *Atlantis PQ* offshore platform in the *Atlantis Oil Field*.

A whistle-blower report to the Minerals Management Service, in March 2009, stated that **"over 85 percent of the Atlantis Project's Piping and Instrument drawings lacked final engineer-approval," as legally required.** Furthermore, the report suggested that "the project be immediately shut down until those documents could be accounted for and independently verified."

BP and other oil industry groups wrote letters objecting to a proposed Minerals Management Service rule last year that would have required stricter safety measures. The Minerals Management Service changed rules in April 2008 in order to exempt certain projects in the central Gulf region, allowing BP to operate in the Macondo Prospect without filing a blowout plan. —And that is the one which has now caused this immense oil spill.

Does something seem strange and unexplained about all this? I will tell you what it is:

The lobbyists, with their ongoing campaign bribe money control Congress and the White House—whether Democratic or Republican. **The Oil Industry makes far more profit than anyone else, and is the biggest contributor.** It is because of their heavy contributions to senators, representatives, the president, and government officials—that **Big Oil is able to write the government regulations which govern its industry.** It also contributes heavily to state governments, representatives, and local judges.

It is only as a result of extreme pressure from the public that President Obama has finally changed his position somewhat, and finally ordered an investigation. But nothing will ultimately come from it. **The ongoing bribe money will continue through forthcoming years, and the situation will return to what it was earlier.** In 2009, Obama presented a Safety Award of Merit to the president of BP, in spite of its repeated safety violations.

Truly, my friends, we are nearing the end. —vf