The New York Times Reprints

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers here or use the "Reprints" tool that appears next to any article. Visit www.nytreprints.com for samples and additional information. Order a reprint of this article now.

PRINTER-FRIENDLY FORMAT SPONSORED BY

April 25, 2010

Oil Leaks Could Take Months to Stop

By CAMPBELL ROBERTSON and LESLIE KAUFMAN

NEW ORLEANS — Officials worked Sunday to try to stop oil leaks coming from the deepwater well drilled by a rig that sank last week near Louisiana, but they acknowledged that it could be months before they are able to stem the flow of what is now about 42,000 gallons of oil a day pouring into the Gulf of Mexico.

The response team is trying three tacks: one that could stop the leaks within two days, one that would take months and one that would not stop the leaks but would capture the oil and deliver it to the surface while permanent measures are pursued.

Officials determined through weather patterns that the sheen of oil and water, now covering 600 square miles, would remain at least 30 miles from shore for the next three days. But states along the Gulf Coast have been warned to be on alert.

"We have been in contact with all the coastal states," Rear Adm. Mary E. Landry, the commander of the Eighth Coast Guard District, said at a news conference on Sunday. Emphasizing that the sheen was not estimated to hit shore anytime soon, Admiral Landry said contingency plans were being put in place.

"Everyone is forward-leaning and preparing for coastal impact," she said.

Louisiana is erecting containment booms around sensitive coastal areas as a precautionary measure.

At the rate of 42,000 gallons of oil a day, the leak would have to continue for 262 days to match the 11-million-gallon spill from the Exxon Valdez in 1989, the worst oil spill in United States history.

The leaks were discovered Saturday in the riser, the 5,000-foot-long pipe that extended from the wellhead to the drilling platform. The riser detached from the platform after it exploded and sank, and it is now snaking up from the wellhead and back down to the sea floor. It is leaking in

two places, both at the sea floor. The bends in the riser, like kinks in a garden hose, have apparently prevented a gush of oil. When the platform was on the ocean's surface and the riser was still attached last week, oil and gas were shooting up through the riser, creating plumes of flame.

On Sunday morning, officials began using remote-controlled vehicles to try to activate the blowout preventer, a 450-ton valve sitting at the wellhead, 5,000 feet below the ocean's surface. The blowout preventer can seal off the well, and is designed to do just that to prevent sudden pressure releases that possibly led to the first explosion on the oil rig on Tuesday night.

The authorities said it was still unclear what had caused the explosion. Eleven crew members are missing and presumed dead. If successful, engaging the blowout preventer could seal the well in 24 to 36 hours. But Doug Suttles, the chief operating officer for exploration and production at BP — which was leasing the drilling platform and is responsible for the cleanup under federal law — cautioned that the operation was "highly complex."

"It may not be successful," Mr. Suttles said.

Another effort described by officials Sunday — drilling relief wells nearby — would take two to three months to stop the flow.

BP is mobilizing two rigs that could drill the relief wells, which could send heavy mud and concrete into the cavity of oil and gas that drilling apparently punctured by accident.

If the blowout preventer does not seal off the well, officials intend to place a large dome directly over the leaks to catch the oil and route it up to the surface, where it could be collected.

This has been done before, but only in shallow waters, Mr. Suttles said.

"It's never been deployed in 5,000 feet of water," he said. "But we have the world's best experts working on that right now."

Rough seas halted the cleanup efforts on Saturday and most of Sunday. But as the weather cleared Sunday afternoon, aircraft resumed dumping dispersant, or chemicals that break down the oil. By evening, 15 vessels were headed to the area to resume skimming the oil off the surface of the ocean.

The Coast Guard said 48,000 gallons of oil-water mix had been collected by Sunday.

Doug Helton, a fisheries biologist who coordinates oil spill responses for the National Oceanic and Atmospheric Administration, said the oil emanating from the riser was taking the shape of

a giant ice cream cone as it drifted toward the surface. He said there were no reports of dead animals yet, although that was expected to change if the leaks were not sealed.

Mr. Helton added that wind data allowed officials to predict that the spill would not hit shore within three days, but that it was moving north.

"Louisiana is the closest area," he said. "There is a potential for other Gulf states if the release continues unabated, but we have no indication in our trajectories that shorefall will happen in the next three days."

Sea life that congregates at the surface and has no mobility of its own — like plankton and fish eggs — is the most vulnerable to the slick. A large-scale destruction of eggs could affect fish populations in the future.

Officials are monitoring the environmental effects of the spill by boat and planes.

"It will be more severe over time," Mr. Helton said.