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## **BP Engineers Making Little Headway on Leaking Well**

By CLIFFORD KRAUSS and JACKIE CALMES

HOUSTON — BP engineers struggled Friday to plug a gushing oil well a mile under the sea, but as of late in the day they had made little headway in stemming the flow.

Amid mixed messages about problems and progress, the effort — called a "top kill" — continued for a third day, with engineers describing a painstaking process of trying to plug the hole, using different weights of mud and sizes of debris like golf balls and tires, and then watching and waiting. They cannot use brute force because they risk making the leak worse if they damage the pipes leading down to the well.

Despite an apparent lack of progress, officials said they would continue with the process for another 48 hours, into Sunday, before giving up and considering other options, including another containment dome to try to capture the oil.

President Obama, who visited the Gulf Coast on Friday, spoke broadly about the government's response to the environmental disaster, saying that "not every judgment we make will be right the first time out."

He also added, seemingly capturing the mood of engineers working to plug the well: "There are going to be a lot of judgment calls here. There are not going to be silver bullets or perfect answers."

Nor were there perfect answers Friday about the status of the top kill effort. For the second day, public statements early in the day from BP and government officials seemed to suggest progress. Later in the day, they acknowledged that the effort was no closer to succeeding than when they started.

"We're going to stay with this as long as we need to," Doug Suttles, BP's chief operating officer for exploration and production, said late Friday afternoon. "We're not going to rush."

BP suspended pumping operations at 2:30 a.m. Friday after two "junk shot" attempts to plug the leak with rubber and other materials, said a technician working on the operation, who spoke on condition of anonymity because he was not authorized to speak publicly about it.

The technician said that engineers had come up with a variety of theories about why efforts have failed so far, and they were trying different sizes of objects. He said the process required trial and error — and sifting through various theories among engineers in the operation's control room — about the best way to clog the "internal geometry" of the damaged equipment.

BP said pumping operations resumed around 3:45 p.m. Friday.

The technician said that despite all the injections, at various pressure levels, engineers had been able to keep less than 10 percent of the injection fluids inside the stack of pipes above the well. He said that was barely an improvement on the results Wednesday, when the operation began and was suspended after about 10 hours.

"I won't say progress was zero, but I don't know if we can round up enough mud to make it work," said another technician on the project. "Everyone is disappointed at this time."

The technician also said that there were disagreements among engineers about why efforts had been unsuccessful so far, but that those disagreements were based on a lack of a clear understanding of what was happening inside the pipes on the sea floor.

Some public statements Friday suggested more certainty.

Adm. Thad W. Allen of the Coast Guard, the leader of the government effort, said on ABC's "Good Morning America": "They've been able to push the hydrocarbons and the oil down with the mud."

Tony Hayward, BP's chief executive, told CNN on Friday morning: "We have some indications of partial bridging, which is good news."

In the afternoon, Mr. Suttles gave a more cautious view. "We're doing things that are very difficult to do," he said. "Many of the things we have done have never been done before."

But he said the effort would continue for "as long as necessary until we are successful or convinced it will not succeed."

Meanwhile, anticipating that the top kill may not succeed, BP began preparations to try to place a second containment vessel over the leak. Mr. Suttles said BP was also preparing to replace the damaged blowout preventer.

In Grand Isle, La., President Obama promised to triple the federal personnel along the most threatened stretches of the coast.

"We're in this together," he said, gesturing to the three governors, two Louisiana senators, a congressman and other officials he had just met with for more than two hours.

They included several who, on national television in recent days, have been sharply critical of his administration's response, including the Louisiana governor, Bobby Jindal, and Billy Nungesser, the president of Plaquemines Parish, one of the Louisiana areas most affected.

Afterward, in an interview, Mr. Nungesser said he "felt real bad" about his complaints and added: "The president is doing a good job. It was a good meeting."

After the meeting at a Coast Guard station here overlooking calm and seemingly clean waters, with dolphins and shrimp boats on the horizon, Mr. Obama said the secretary of energy, Steven Chu, and a team of "the world's top scientists" had been working with BP on additional options if the top kill effort fails.

Even if the leak is stopped, "we face a long-term recovery and restoration effort," Mr. Obama added. "America has never experienced an event like this before," he said.

Such sentiment plainly was aimed at answering "the anger and frustration" that Mr. Obama acknowledged many residents and political leaders here are feeling, and at blunting charges that his administration had abandoned them as the Bush administration was accused of doing after Hurricane Katrina in 2005.

"I ultimately take responsibility for solving this crisis. I'm the president, and the buck stops with me," Mr. Obama said.

For the president, who has been on the defensive about his and his administration's role in trying to stop the spill and prevent oil from reaching the coasts, Friday's trip was his second since the explosion of BP's Deepwater Horizon rig on April 20.

Before the meeting, he inspected a beach in adjoining Lafourche Parish that was lined with coin-size tar balls attributed to oil from the BP leak.

Friday was to have been the first full day of a Memorial Day vacation for Mr. Obama with his family at their home in Chicago, their first there in more than a year. But he left Chicago in the morning and flew to New Orleans, where he was met by Admiral Allen, his national incident commander for the spill response.

They boarded the Marine One helicopter for Port Fourchon, a community of oil workers, and nearby Fourchon Beach, where tar balls were washed up against absorbent booms.

At one point during the day, as Mr. Obama's motorcade entered and exited a Coast Guard station, a man held up a homemade sign reading in black ink, "Clean Up the Gulf," with the words drawn as if dripping black oil.

Clifford Krauss reported from Houston and Jackie Calmes from Grand Isle, La.