

# ***ST. PETERSBURG TIMES***

## **Major study says oil plume in Gulf of Mexico not going away**

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Scientists on Thursday reported finding a plume of oil the size of Manhattan beneath the surface of the Gulf of Mexico, a plume that's sticking around a lot longer than anyone expected and that poses a threat to marine life.

The report from Woods Hole Oceanographic Institution in Massachusetts on the 22-mile-long plume is a further blow to the credibility of a government report released two weeks ago that said most of the oil from the Deepwater Horizon disaster was gone.

The find is also likely to renew debate over the wisdom of allowing BP to spray thousands of gallons of chemical dispersants directly at the wellhead, a move designed to spread the oil out and stop it from forming a huge slick on the surface. The expectation was that the dispersed oil would quickly break up or be consumed by microbes, the way it does in the warm surface waters.

"Many people speculated that subsurface oil droplets were being easily biodegraded," said Richard Camilli, chief scientist on the Woods Hole research mission that mapped the plume. "Well, we didn't find that. We found it was still there."

The Woods Hole study found that the slow pace at which the oil droplets break down in the cold, 40-degree water is at one-tenth the pace at which it breaks down at the surface. That means "the plumes could stick around for quite a while," said one of the report's co-authors, Ben Van Mooy.

The underwater oil plume — a confirmation of previous findings by University of South Florida oceanographers and other scientists — was measured close to BP's blown-out well, which is about 40 miles off the Louisiana coast. The plume started 3 miles from the collapsed rig and extended more than 20 miles to the southwest.

The plume meanders through the water at depths of 3,000 to 4,000 feet, far below the environment of popular gulf fish such as red snapper, tuna and mackerel. But it is not harmless. These depths are where small fish and crustaceans live.

The Woods Hole study echoes findings reported this week by USF marine scientists, who discovered what appears to be oil in the sediment of a vital underwater canyon while conducting experiments in an area where they previously found clouds of oil.

USF scientists discovered that oil droplets are scattered on sediment in the DeSoto Canyon, a spawning ground for commercially important fish species about 40 miles southeast of Panama City. They also found that the oil droplets were toxic to some phytoplankton, microscopic plants that form the base of the gulf's food chain.

When USF's scientists first reported in May that they had found evidence of underwater plumes of oil, federal officials openly scoffed. USF marine sciences dean William Hogarth said he was "lambasted" for announcing what his scientists had found, and one federal agency told him to retract his statements.

On Aug. 4, White House energy adviser Carol Browner and other Obama administration officials unveiled a report that Browner said showed that three-fourths of the oil was gone.

In congressional testimony Thursday, federal scientist Bill Lehr conceded that the report's math had "some level of uncertainty associated with it."

The Woods Hole study unveiled Thursday conclusively shows that an oil plume still exists, that it came from the BP well and that it probably never got close to the surface, Camilli said. It is probably even larger than 22 miles long, but scientists had to stop measuring because of Hurricane Alex, which churned through the western gulf in late June.

The plume is believed to be the result of spraying 1.8 million gallons of dispersants on the spill, an unprecedented amount. Some was sprayed underwater, something never tried before. Using dispersants kept oil from forming a slick on the surface, where there is noticeable and productive life, but there was a risk of longer-term problems for seldom-seen marine life far below.

The oil droplets in the plume are odorless and too small to be seen by the human eye.

"There's no visible evidence of oil in the samples; they look like clear water," Camilli said.

The scientists used complex instruments — including an underwater mass spectrometer — to detect the chemical signature of the oil.

Camilli said the plume is probably still around, moving west-southwest of the BP well site at about 4 miles a day.

Federal officials said there are signs the plume has started to break into smaller ones since the Woods Hole research ended. But scientists said that wouldn't lessen the overall harm from the oil.

"This is a highly sensitive ecosystem," said Steve Murawski, chief fisheries scientist for the National Oceanic and Atmospheric Administration. "The animals down at 3,300 to 3,400 feet grow slowly."

"I expect the hydrocarbon imprint of the BP discharge will be detectable in the marine environment for the rest of my life," Ian MacDonald, an oceanographer at Florida State University, told Congress in prepared testimony Thursday. "The oil is not gone and is not going away anytime soon."

*Information from the Associated Press was used in this report.* Craig Pittman can be reached at [craig@sptimes.com](mailto:craig@sptimes.com).