



PRESENTS

# THE LOOP

---

## EPISODE 7: THE IXTOC SPILL: REFLECTIONS

---

<music up>

**Levin:** You're listening to The Loop, an audio series about the mud, microbes, and mammals in the Gulf of Mexico. I'm David Levin. The Deepwater Horizon oil spill happened just a few years ago. But it might be possible to predict its impact on the Gulf by studying another major spill – one that happened 35 years ago.

**Wes Tunnell:** These are the two largest spills in the world's history as far as blowouts go, and they were both in the Gulf of Mexico.

**Levin:** Wes Tunnell is a marine biologist who is looking at the aftermath of both spills. It's almost like he's looking at the same crime scene, separated by more than three decades.

How? Stay tuned

<music out>

[AMBI: Traffic and street sounds in Ciudad del Carmen]

**Levin:** It's late afternoon in Mexico's Ciudad del Carmen, and rush hour's already started. Thick traffic like this is sort of a new thing here. For most of its history, Carmen was just a sleepy fishing town. That was before the 1970s, when the Mexican government found oil nearby. Over the last four decades, oil has transformed Carmen into a city of more than 160 thousand people. But that growth started with trouble.

[AMBI OUT]

**News Report 1:** In the Gulf of Mexico, oil workers are trying to handle a much larger oil spill; a burning offshore oil well is dumping 30,000 barrels of crude a day into the Gulf...

**News Report 2:** There is now a distinct possibility that oil spilling from that runaway Mexican well could spread as far as the Gulf coast of Florida, that from an official of the EPA...

**Levin:** In June, 1979, just 15 miles offshore from Carmen, a well platform called Ixtoc 1 blew out in 150 feet of water. It caused one of the biggest spills ever to hit the Gulf, and for more than nine months, crews couldn't plug the leak. The resulting oil slick stretched for hundreds of miles, washing up on beaches from the Yucatan to Texas.

**John Farrington:** I believe my exclamation at the time was “what an unholy mess.”

**Levin:** John Farrington is the dean emeritus at the Woods Hole Oceanographic Institution. When oil started coming ashore, the US government sent him and a team of researchers to study the source of the spill. They spent the next two weeks gathering samples off the coast of Ciudad del Carmen.

**Farrington:** There was a lot of oil going into the water, a lot of oil and gas, so we had an idea that this was very large spill, no doubt about it. We didn't have any good sense of what the impact was on the shoreline other than the oil and tar coming ashore on the coast of Texas.

**Levin:** The U.S. team wanted to measure that impact. They wanted to know how the oil was affecting marine life, and how fast it would degrade. But before they could finish their cruise, a series of powerful storms crashed into the Texas coast. It washed the oil right off the beaches—and cut their work short.

**Tunnell:** To the unaided eye, someone could go out there and say, well, all the oil is gone.

**Levin:** Wes Tunnell is a marine biologist at the Harte Research Institute. He was part of the team studying Ixtoc in 1979.

**Tunnell:** So word got around that the storms had cleaned the beaches, that currents had reversed and sent oil back to Mexico. So the funding for all our research basically ended when that word got back to Washington.

**Levin:** Again, John Farrington.

**Farrington:** A lot more could have been learned, but was not learned, because of a decision made, perhaps correctly so for budgetary reasons, that we'd learned about as much as we'd needed to learn, it was a Mexican spill, and that was the end of it.

**Levin:** So Farrington's team packed up and sailed back to US waters, and American involvement in the spill stopped. A few Mexican teams made sporadic studies over the next few years, but their reports haven't been widely available outside the country. And Ixtoc more or less faded into memory. Until 2010.

**News clip #1:** 126 workers were doing routine drilling on the oil platform before it was engulfed by smoke and flames.

**News clip #2:** “I woke up and then I heard an explosion, I just heard a loud boom.”

**News clip #3:** It was the first in a series of explosions that set the rig aflame, claiming 11 lives...

**Levin:** Thirty one years after Ixtoc, the Deepwater Horizon blowout dumped millions of barrels of oil into the northern Gulf. The spill lasted almost four months. And although it was slightly larger than Ixtoc, the two disasters were eerily similar. Both were underwater blowouts. Both happened just offshore. And both left huge amounts of oil in the water. Even the shape of the ocean floor below the two is the same.

[SPLICE IN AN “IXTOC”]

**Steve Murawski:** [“Ixtoc”] this site is perched on the edge of a marine canyon, like Deepwater Horizon is—Deepwater Horizon was at the bottom of a marine canyon.

**Levin:** Steve Murawski is one of the lead scientists for C-IMAGE – an international team of researchers studying the effects of Deepwater Horizon. He says all the research on the recent spill is only telling scientists how oil is affecting the environment right *now*. It’s way harder to predict what the impact will be in the future. But since Ixtoc’s so similar, and it happened 35 years ago—he thinks returning to the Mexican site now could tell scientists what to expect near the Deepwater Horizon in the years ahead.

Wes Tunnel joined Murawski’s team to finish the work he started in the 70s. He says studying Ixtoc today is like stepping into a time machine.

**Tunnel:** It was kind of a “back to the future” kind of thinking. Could we go down there and find any remnants of oil or beyond that, any effect or impact on the environment that might be used to look at Deepwater Horizon spill and think forward then 30 years.

**Levin:** Right now, the C-IMAGE team is planning a series of research cruises near the Ixtoc well. They’re using both American and Mexican ships, and for the first time in three decades, they’ll be collaborating with Mexican scientists. Together, the international teams will study marine life and sediments on the ocean floor, looking to see whether the ecosystem has bounced back—and if so, how. Steve Murawski.

**Murawski:** We envisioned it as a true partnership. // Clearly the oceanography and animals in the Gulf of Mexico don’t respect boundaries of Mexico and the U.S. Neither should we. We should take advantage of creating a “one gulf” look at the ecosystem.

**Levin:** It’s a goal that Joel Ortega-Ortiz supports. He trained as a marine biologist in Mexico, and spent time in Ciudad del Carmen as a grad student. Today, he works closely with Murawski at the University of South Florida.

**Ortega-Ortiz:** The Gulf of Mexico is a shared basin. It’s a large marine ecosystem // and I think everybody understands that the more comprehensive studies that we can do, which obviously will require collaboration, the better we’ll be able to understand the ecosystem of the Gulf of Mexico.

**Levin:** Ortega-Ortiz grew up seeing the effects of the spill. But he also grew up with the economic bonanza all that oil caused in southern Mexico. He thinks this new study will be essential for understanding an old and delicate balance in the Gulf—Oil wells like Ixtoc or

Deepwater Horizon can inject money into coastal communities. But that same oil can also devastate fisheries, and destroy key parts of the ecosystem.

**Ortega-Ortiz:** To me, being part of this project will help me reconcile those two things. That we benefit from natural resources, but the use we make of them comes with risks. And those risks need to be evaluated very carefully, very objectively. // I think we will be able to get a more objective image of what's going on in the environment after this accident, and learn so we are better prepared for next one. And there *will* be next one.

Levin: The C-IMAGE team and their Mexican counterparts have several more research cruises planned in the area. By studying both Ixtoc and the Deepwater Horizon, they're hoping to see what the Gulf's past has to say about its future.

**Levin:** For The Loop, I'm David Levin.

<Music up>

Funding for the Loop, and for C-IMAGE, is provided by grants from BP and the Gulf of Mexico Research Initiative. The Loop is a production of the University of South Florida.

