

PALEO LAB

Professor: Teresa Greely, Ph.D

Welcome, students. Today, we're going to spend some time inside of the college of marine science in our paleoceanography lab. And here's where we have the opportunity to work with a couple researchers who are going to split a core for you and process it so you can come into the lab and see what we do once we've collected samples in the field-- out in the ocean itself-- and then what we do in the labs to process and glean as much information as we possibly can from those cores.

The example you're looking at today was collected as part of the Deepwater Horizon event-- part of our long-term monitoring of the recovery of the gulf of Mexico. So these cores that are actually a piece of the ocean floor record the history and show us what's happened over time since that event. We hope you enjoy your visit.

So what we're going to be looking at today is just a little bit of a sample preparation for a sediment core that we collected out in the Gulf of Mexico. These sediment cores were collected in August of 2014.

And basically, what we do with these sediment cores is we're looking for any traces of any hydrocarbons from the Deepwater Horizon oil spill that happened in 2010. It's been an ongoing process for four years now, and so we've collected these cores every year to check for traces of hydrocarbon content.

And so this is basically a way we extract the sediment core that we've collected, as you can see here. So the easiest way to do this is every turn on the extruder equals two millimeters increment. So I'm going to turn it once, and so that's two millimeters.

And so what that basically did is this got pushed up and it pushed up the sediment core. And now what I'm going to do is I'm going to scrape off two millimeters increment. So what I'm doing here is scraping off the top of the sediment core, and this is the site SL1040. This sediment core is collected about 25 miles outside the Mississippi delta.

And so I'm going to scrape it off. And you see here, there's basically two millimeters increment of sediment core. And so this is going to be scraped. And then Yagos is going to--

[INAUDIBLE].

And then it starts all over again. Turn it one more time, it'll be two millimeters, and start collecting again. And so eventually, when we're all done with this, we will be putting it back in the freezer until we're ready to analyze it for whatever project we're working on. Yagos is working on a couple things. I work with Isabel Romero and David Hollander. They're two well-known scientists at USF St. Pete, and we're looking at different parts of the oil spill components.