

analyzing 10 sites of deep-sea coral data that we were also asked to examine. LSU received \$430,000 for their part in the project, and NOAA received \$1,500 a day for each personnel. We realized that we wouldn't be funded, because they had already paid someone else for similar work after we had provided the background and proposal for something much larger in scale. Therefore, we made an invoice for the water samples that we delivered and gave it to NOAA.

Their final report, released in September 2011 by LSU, showed that NRDA looked at far less abundant and less productive coral colonies than we had proposed to NRDA. Their proposal included 10 sites where corals can be located; however they only examined the four sites that had the lowest priority on their list to study (the sites farthest from the Macondo well out of the 10 sites). Further, they only searched for the scarce species of coral living on the bottom of the seafloor at 5,000 feet, within 10 to 15 miles of the Macondo well eruption. Looking for deepwater coral is like looking for a needle in a haystack, because few coral species live down there. It's too deep for most reef forming Scleractinians, commonly known as stony corals. They did not look at the reefs or the abundant colonies of stony corals on the platforms. They didn't examine any fish or water samples with the \$4.3 million payment.


## 5. HEALTH PROBLEMS, BLOOD CONTAMINATED

After our early dives with NRDA, Steve's contact was still telling us the water was fine and the dispersants were safe to dive into. However, I was experiencing health problems, and I thought there was a connection to my diving. When I first began bringing NOAA our samples in June 2010, I told my two NOAA contacts that my skin was breaking out in itchy rashes. I asked if they were aware of other workers in the field who were also experiencing rashes or other health problems. They told me that they were not aware of this happening to other workers. My dive partners at EcoRigs and I didn't know how serious it was at the time, and no measures were taken by government contacts, including within NOAA, to check on our health.

From May to June 2010 I wore a wetsuit while diving. By the end of June I was wearing a dry suit. In June my dive partners were still skeptical about my symptoms; they did not think it was necessarily associated with my diving, and they continued to wear wetsuits. Most divers in the Gulf of Mexico do not have dry suits because it is fairly warm year-round. In a wetsuit they were more likely to have high dermal exposure from the chemicals while diving. While the dry suit kept me relatively dry, my face and ears and hands were still exposed to water. I was diving more than my dive partners and my health problems persisted. For the first time in my diving career I had a burning sensation that felt like chemical pneumonia in my chest. After each dive I began having chest colds, a burning throat, migraine headaches and itchy skin rashes. A lot of it has continued to this day (detailed below).

By July and August 2010 we were diving several times per month from below Mississippi to Cocodrie, Louisiana. We dove August 8, August 21 and August 23, 2010, which impacted my health more severely than the earlier dives. After the dive on August 8, I really began feeling





under the weather and it took over a week to recover. After each dive my chest would feel worse. At that point it took five to six days to get rid of the burning in my throat, but I stayed sluggish and lethargic and also had migraines. By then, I started to get worried about what I was diving in, and I increased efforts to contact any specialists, government officials and politicians who possibly could shed some light on what we were being exposed to.

In August 2010 I called Billy Nungesser, Plaquemines Parish President, to find out if Corexit was still being sprayed in his coastal parish. During that time, I was diving on oyster reefs in the area and wanted to know what I was being exposed to. His secretary claimed that they didn't know anything, and that I needed to call the state or Coast Guard to find out. Then she proceeded to say "I heard you were fine." I wasn't sure what she was referring to, and I responded that I was having health problems for a while after diving into and filming the dispersed oil plumes.


When we went diving on August 21, 2010 we could not dive the northern edge of the MC platforms around MC 194 because the dispersed oil plumes were too thick for filming or safe diving, and there was a thick green plume, what appeared to be an algal plume (a.k.a. algae plume). Since the conditions were not optimal for diving, we went about 15 miles southeast of MC 194 to MC 280A. We still experienced dispersed oil plumes as large as 40 feet deep and an algae plume. The algae plume was so thick that it blocked out most of the light in the shadow of the platform at the depth of 60 feet. It was so dark that underneath the rig at high noon I could not read my SCUBA gauges at 60 feet. Normally the water would be clear blue and light enough to read a book. After that dive I experienced full body cramps and extreme nausea.

We went back and dove on August 23 for Fox 8 local news. I saw extremely thick dispersed oil plumes during that dive. I had a bad reaction that day; I was violently vomiting over the side of the boat 15 minutes after the dive, and I had muscle cramps that became debilitating from 10:00 pm that night until 6:00 am the next day. I also had flu-like symptoms for over a week following this dive trip.

After the August 23 dive I stopped diving in this region for the rest of the year. I did snorkel, however. At the time, I had a BOEMRE grant to look for invasive coral, but I was also trying to locate evidence of effects from the dispersed oil. Paul Sammarco made the executive call on the BOEMRE grant that he would not allow his biologists to scuba dive in the vicinity of the spill, because he did not want to put us at risk from the oil and dispersants. In October 2010 we conducted an ROV examination of the rig legs on the Grand Isle (GI) blocks' platforms. That location was supposed to be clear and clean. Rather than dive, I snorkeled to study the barnacle reef populations that live at the first five meters of water depth and found an extremely high rate of mortality in the barnacles and reduced populations of blennies and cowfish which are sensitive to environmental changes over 80 miles to the southwest of the Deepwater Horizon site.

In the fall of 2010 we had just come in from a day research cruise with BOEMRE through LUMCON. I saw Louisiana Governor Bobby Jindal getting on the helicopter from LUMCON.





He told me, "We will get this area reopened for you." I responded, "If so, they can't be spraying Corexit." He told me to call him if I needed anything. At his office's request, we sent copies of our videos of the dispersed oil plumes. However, we don't know what he did with them, and we never heard from his office. I am a supporter of the governor, but I couldn't even get a response from his office on whether or not Corexit was still being sprayed in Louisiana. I tried to figure out: is Corexit still being used, and how much Corexit was used from May 2010 to September 2010? It was important because throughout that time NOAA said it was safe to dive, so I had continued to dive. However, my health was getting worse.

I stopped diving in *any* of the open Gulf waters from November 2010 through mid-April 2011. In January 2011 I had a Volatile Organic Compound (VOC) blood test performed to identify chemicals from the oil and Corexit. The test results found concentrations in my blood one to three times higher than the 95th percentile for ethyl benzene and above the 85th percentile for Isooctane. The VOC blood test results are included in this affidavit as Exhibit 9. To this day, I speak with divers who are experiencing similar health symptoms. In fact, since 2011 I have received reports from more divers about similar symptoms including skin rashes. My dive partners, who never wore dry suits, also took the VOC blood test in January 2011. Their blood levels turned out higher than mine. There are chemicals in the water and now we are finding the same chemicals in our bloodstreams in novel levels.

#### 6. THE ENVIRONMENTAL PARTITIONING PRINCIPLE: WHY TOXINS PERSIST IN THE ENVIRONMENT


Partitioning, the scientific principle concerning toxins in an environment, governs the movement of organic compounds through soil, water and air. In a broad sense, this concept states that water will hold more toxins than air, and the soil (or reef material in the marine environment) will hold more toxins than water. Also, partitioning explains that environmental toxins such as hydrocarbons are harder to remove from water than they are from air, and they are even still harder to remove from solid substrate. Soil and reef material have the capacity to capture and absorb the toxins, which are then rereleased back into the environment over time but at a slower pace. In effect, they continue to re-contaminate the water column. Based on the partitioning principle, it is not surprising that we continue to find residue of the oil from the Exxon Valdez spill showing up in various samples from Prince William Sound ranging from soil and sand samples as well as birds' eggs.<sup>7</sup>

Another example of partitioning is between oil and water, which don't mix well. Dispersants are used on oil to reduce partitioning and to help the oil dissolve into the water column, or in other words, to help it disperse into the environment. Because dispersants are dissolvable by water and dissolve oil, they break the oil down into smaller pieces of hydrocarbon chains which are then more easily suspended and dissolved into the water column. As a result, more of the hydrocarbon

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<sup>7</sup> *Wildlife Still Exposed to Exxon Valdez 20 Years After Disaster*, Science Daily, Apr. 13, 2010, <http://www.sciencedaily.com/releases/2010/04/100414111018.htm>.





chains dissolve into the water and become more readily available to the food web where it biologically accumulates. Different portions of a plume have thicker or thinner concentrations of micro-droplets of dispersed oil. We witnessed these plumes underneath the platforms in the northern Gulf of Mexico throughout the summer and fall of 2010 and into the spring and summer of 2011.

BP and the government should have told workers that they were breathing in the chemicals every day. A lot of workers did not even have a day to vent or off gas the volatiles from their bodies. They should have been educated that ethylbenzene and other organic compounds are small molecules that get into bloodstreams and mimic hormones. When they get in the bloodstream they can block Estrogen or Testosterone from getting into a receptor site. In effect, the body starts to age faster.

The compounds can also lock up in fat cells. One way you get them out is by exercising to release them. When released, the VOCs supposedly have a half-life of 90 minutes to two days. Therefore, for up to 48 hours, they can either attach to a hormone site or into fatty tissues or, hopefully, lipids in the bloodstream which can then be expelled from the body. This process can be facilitated by eating light unsaturated oil that helps to put more lipids into the blood that are easier to metabolize. The light oil is also available for bad compounds to hook up to in order to pass through blood and get filtered by liver or kidneys or to pass with stool and sweat.


## 7. MEDIA BLACKOUT

On April 8, 2011 I went diving for the first time that year, at MP 311. Rich Matthews from AP took me this time, along with a Texas biologist. The water looked better than my dive trips in 2010; however, there were still big waves of cloudy plumes coming through the reefs under the platforms. Immediately after diving I started throwing up on the back of the boat. I had to dive again after a short 45-minute break because I was the only one with a camera who could film underwater during that dive trip.

When I got back on the boat I overheard the other biologist say to Rich Matthews that everything was fine and back to normal in the aftermath of the spill. I qualified his assertion that the Gulf was fine, and I asked him, "How many times did you dive last year?" He responded that in 2010 he did not dive in the Gulf. He also did not have previous experience in the area we were diving in. I was diving in the same region of the Gulf before the spill, throughout the spill and after the spill with footage that proves conditions are nowhere near normal.

Despite our thorough coverage of the impact from the spill, with the exception of one time, the large news broadcasters did not provide EcoRigs credit for the footage that we provided. Further, mainstream news media would not report on the questions we raised about dispersants. In my interviews, news stations consistently edited the portions of the interview where I mentioned





dispersant or Corexit. I believe it is because they did not want to tell the whole story, which was a disservice to their viewers.

#### 10. SCREENING FOR OIL

An Ultraviolet (UV) light is like a metal detector for potential hydrocarbon contamination. It will make hydrocarbons fluoresce certain color spectrums. The more reputable of these lights come with a spectrum chart that shows the colors that hydrocarbons should fluoresce. For instance, the light can be used to identify hydrocarbons from the oil and dispersant that have washed up onto the beaches, have attached to reef corals, or are in seafood. Photos of oiled oysters under normal light and under the UV light are included in this affidavit as Exhibit 10. I have gear that still has oil on it; I couldn't get it cleaned and now I am able to use it and tarballs that we've collected as standards for screening samples. Everything that matches these fluorescent signatures has a high potential to match the oil produced by the Macondo well. Some of the other fluorescent colors for typical solvents and Corexit are also visible in the spectrum produced by samples in which they are present, but we need more data to understand these color patterns more accurately.

Sponges, corals and oysters are picking up the most hydrocarbons, and many of the oyster shells are glowing pastel yellow, orange and tannish brown. They are the same colors that I am seeing in the fresh tarballs that continue to surface in fisherman's nets. Photos of oyster shells and tarballs under normal light and under the UV light are included in this affidavit as Exhibit 11. As an environmental biologist, I have to address the potential of seafood contamination from the nation's largest oil spill in history. As an oyster biologist, I am telling people not to eat the oysters.

#### 8. CONCLUSION, OIL NOT GONE

Before I experienced it firsthand, I would have never believed that you could pollute the northern Gulf so much that it would be dangerous for me to swim in it. In March and April 2011, I called the governor's office, Plaquemines Parish press office and P.J. Hahn, director of Coastal Zone Management, and I asked them, "Are they still spraying Corexit?" I explained "I heard reports that they are still spraying, and I need to go diving but I don't want to if Corexit is still being used." However, no one could answer my question and I still cannot get a definitive answer to this day. I am concerned because we are still seeing dispersed oil at the surface of the northern Gulf on a consistent basis.

My goal now is to get the word out about that damage that has taken place. Nobody is talking about it right now; however, I cannot remain silent around the impact of the spill. Consider the immense impact of the spill on the ecosystem by looking at Valdez, Alaska, where the 1989 Exxon Valdez spill used a small fraction of the Corexit that we have used in the Gulf. You can't catch significant harvests of herring anymore in Prince William Sound; scientists believe that Corexit affected the reproductive cycle (they think it affects the cell wall of the eggs.) Corexit



might mutate the RNA or DNA. The effects are still unknown to the public and larger part of the scientific community.

After Hurricane Isaac came through, I went with Steve Kolian and another individual to Louisiana's southernmost port, Port Fourchon. When we first got out there I didn't see any large tarballs in sight. However, as we walked to the northern end of the beach the sand got darker, and I noticed these weird looking small mats scattered throughout the sand that look like cooled molten lava spilled onto the beach. They were more like sandy clay, however, when you touched them. Then I realized there were giant mats of this substance further up the beach. When I looked at it closely I could see sheen and a dark red precipitate settling out of the water running off of it, which resembled the tar patties we encountered during the spill. Photos from the oil sheen and tar mats at Port Fourchon after Hurricane Isaac are included in this affidavit as Exhibit 12. New data shows that the latest oil washing up on the Gulf shorelines is in fact BP MC 252 oil. I am not surprised by the presence of oil washing up after storms, based on our earlier dives in the Florida panhandle.

Other EcoRigs divers and I went diving in the Florida Panhandle in July 2011, to collect samples for the Surfrider Foundation. That area is known as the Emerald Coast, for its crystal clear water. When we went diving, however, the water had a brownish white haze that resembled what we saw in offshore Louisiana at 30 feet below sea level. When we dug into the sand in the Florida Panhandle we found anomalous material that resembled tar patties and oil. Photos of the seafloor during that dive trip are included in this affidavit as Exhibit 13. I have never witnessed anything like that since I began diving in the Emerald Coast 20 years ago. The seafloor is typically white sand. There is an area along the Florida coastline that has dark colored runoff (soil that has eroded) from the bays. However, the runoff is normally more isolated and is a black color. What we witnessed during the July 2011 dive was a reddish brown substance on the seafloor that resembled tar and spanned a much larger area than is typical of the natural runoff.

In the areas where the seafloor was covered with the tarlike substance, we noticed much less sea life. There were hardly any sand dollars or crabs and only some fish, whereas we would normally see an abundance of organisms. It was desolate, and reminded me of noticeable drop in sea life during our 2010 and 2011 Louisiana dives.

The most startling observation throughout my Gulf dives in the aftermath of the blowout is the toll of the spill on coral. I observed what appeared to be greater than 70 percent mortality in the offshore barnacle reefs in Louisiana, down to at least 20 feet below sea level. Photos of the damaged offshore coral are included in this affidavit at Exhibit 14. In December 2012, the scientific journal Gulf and Caribbean Research published a paper by Steve, me, Paul Sammarco, and highly respected oyster biologist Ed Cake. It examines BP MC 252 oil found in offshore



coral, and looks at how coral and other filter feeding organisms that live on offshore platforms can be used to determine the breadth and impact of the spill.<sup>8</sup>

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<sup>8</sup> Kolian, S. R.; Porter, S.; Sammarco, P. W.; Cake, E., *Depuration of Macondo (MC-252) oil found in heterotrophic scleractinian corals (Tubastrea coccinea and Tubastrea micranthus) on offshore oil/gas platforms in the Gulf of Mexico*. 25 Gulf and Caribbean Research 99 (2013), Available at <http://www.ecorigs.org/CoralDepurationBPoil.pdf>; EcoRigs Nonprofit Organization "BP\_CrudeOil\_Coral\_EcoRigs2." YouTube. Apr. 2, 2013. <http://www.youtube.com/watch?v=LrvNsJjAzoo>.



I have read the foregoing 18 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on April 5, 2013.

*Executed on April 15, 2013* 



Subscribed and sworn to before me  
this 15<sup>th</sup> day of April, 2013



Notary Public

My Commission expires on: For Life



Paula Ann Pontiff  
Notary Public # 49283  
Terrebonne Parish, LA  
Commissioned for Life



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## AFFIDAVIT

Our names are Shirley Tillman and Donald Tillman. We are submitting this statement without any threats, inducements or coercion to Shanna Devine, who has identified herself to us as an investigator with the Government Accountability Project. We are married, and have lived since 2006 in Pass Christian, Mississippi, which is located along the Gulf of Mexico, approximately 120 miles from the location of the Deepwater Horizon explosion. The Gulf, the Bay of St. Louis and the bayous and marsh areas that flow into it, surround where we live. We lived in Long Beach, the town over, for over 30 years. We were involved in the BP oil spill cleanup activities through the Vessels of Opportunity Program (VoO) program, which BP created to employ private boat owners and workers to clean up the offshore oil. During that time we were sprayed by what we believe to be the dispersant Corexit. We have since been coping with chronic health problems. Also during the time of the cleanup, we witnessed a lot of unusual activity, some contrary to cleaning up the oil. However, we did not receive cooperation from government officials when we tried to report these concerns. If in sharing our knowledge it would help one person get medical attention that suffered from the oil spill, that's what this is about. We give permission for this statement to be used.

*Donald Tillman (DT):* I'm a contractor for a company that builds waterfront properties. However, after the oil spill the jobs that we had lined up fell through, because no one wants to build waterfront property when you have an oil spill. In order to subsidize my income, my brother, who became ill, asked me to run his boat in the VoO program. Before I become a contractor I was a licensed tugboat captain for 35 years. I have worked in the water all my life. I had an unlimited OUTV (Operator of Uninspected Passenger Vessels) license, which is a Captain's License, for boats up to 1600 tons. My brother was under contract by BP, and I went on there as a captain to run his boat from June 13, 2010 through August 13, 2010. I was a captain for most of the time, however. In late July I got HAZWOPER training, and then cleaned up the oil directly for two months.

*Shirley Tillman (ST):* I would go out on the boat with my husband and work as a deckhand when one of the other deckhands needed a day off. In the beginning when the oil and dispersed oil would get on the boat, I would try to clean it but I could not; it would just smear so I stopped trying to clean it.

### 1 .DAILY ROUTINE

*DT:* My brother had already been working a month or so straight when he started having health problems in June 2010. He had to work every day. That's just like when I took over; at one point I worked 60 days straight, every day for 12 hours a day. I was getting up at 5:00 in the morning to get to work at Pass Christian Harbor. Parsons was the company running the cleanup site for BP that I worked at, and they would hold you at the site until 8:00 am or 9:00 am before you went out. We had morning briefings, where a safety guy would come. But all he talked about

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was drinking plenty of water and dehydrating. Then an official from the Coast Guard provided the weather forecast, and eventually he would tell you when to leave. Sometimes it might be weather related, but for the majority of the time it was to wait for these other boats to clear. They were from 17 to 24 foot skiff style boats. Most were Carolina Skiffs. We didn't ask questions, we thought we're here to clean up the oil and you do what you're told to do.

ST: I would occasionally go out with him on the boat, and in August we began noticing these other boats Donald mentioned. They looked like Carolina Skiffs, which are small motor powered boats with tanks on them that were supposed to be skimmers, according to the Coast Guard. A skimmer essentially is used to vacuum oil from the surface water. But if you'd looked at the tanks you would know that they had never skimmed oil, because you could see in the tanks. It was a clear white plastic. You could tell they didn't have oil in them, because once you got the oil on something you could hardly get it off. Also, these spray boats were zigzagging, and in one of the pictures that I took on August 8, 2010 you can see a helicopter directly above one of the boats. That photo is included in this affidavit as Exhibit 1. In the VoO program they would have helicopters go out and spot where oil was collecting, so that they could supposedly have crews go to that area to clean it up. So to me it appeared that the spray boats were just touching up oil areas with dispersant before they came in and we went out. Tanks were located toward the front of the boats. They were nearly clear plastic containers; if a tank had oil in it we would notice.

DT: BP would make changes to the rules and procedures daily. We didn't know why or ask why. For example, early in the VoO program we were required to have one HAZWOPER (Hazardous Waste Operations and Emergency Response) certified worker on every five boats, to pick up the contaminated oil. Then it changed to one HAZWOPER certified worker on each boat. Randomly safety representatives would join our boat to make sure we were following procedure, but they were not available until August, 2010. An air quality specialist from a private environmental company took air samples on our boat. He would strap equipment to wires on our boat and check it throughout the day; however, he did not share his findings. August 7 was his last day with us. We got sprayed by dispersant on August 8 (detailed below).

Most captains didn't have HAZWOPPER certification, so Parsons bused people in who were certified. They would bus these people in and line them up and tell the captains, "Pick who you want on your boat today." We chose a young man named Eric, and he asked me, "Out of all those people, why did you pick me?" I responded, "Because you're the only one who looks like you didn't just get out of prison." He started laughing and I asked him what was so funny and he said, "Most of those people did; even my supervisor just got out of prison."

We would go out in a task force with a group of 25, and then we would be broken into five groups, with one lead boat in it. You had to have at least one Coast Guard member in your group of at least five boats. Sometimes you would have a national guardsman on the boats too. But the Coast Guard told you when to leave the harbor, where to go, and how fast to go. Often which way they wanted to get you to go depended on which way these other boats were coming, so you



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wouldn't come in contact with them. That's what we determined later on, after we got sprayed and determined the boats were in a local holding location. We also concluded that they were likely spraying Corexit, because we could smell it as we went out. The dispersant was very pungent; it gave off a strong chemical smell. Before the spill, sometimes at Pass Christian Harbor there would be an oil sheen due to boat motors running and so forth, but we have never smelled anything like this.

## 2. INADEQUATE SAFETY EQUIPMENT

*DT:* When we went out in the boats, we had little to no safety gear. In the beginning they told us we had to wear hardhats, and you would move and the hardhat would fall off. If you go to grab your hardhat, were you going to fall overboard with it? Some of the things I could understand, but others were just totally ridiculous. Nobody had respirators; I wouldn't know a respirator if I saw it. We had to wear our life preservers at all time.

I got the HAZWOPER training in late July for three full days. After I received the training I was able to clean up the oil and pull boom. The boom used to clean up the oil before it hits shore is a large absorbent material tied together in sections, with mesh on the outside to keep the oil compacted. Some of the trainings, such as Hazmat, required safety equipment. Parsons should have given you big respirators, we learned subsequently, but they didn't even though we were out in the open and exposed. I brought a couple of paper respirators for myself, but they furnished none, not that I was given. When I was doing the boom, I used the ones I brought. We put on the little rubber gloves, a little suit, and we would tape them - all the stuff you're supposed to do when you're working with hazardous materials.

Parsons rarely had what you needed or were required to have on your boat, such as the boom. In the first week of August, when the air quality safety man was on the boat, there was so much oil that we had to bring boom from Pass Christian Harbor to Long Beach so that they could block areas off; oil mousse was floating into the Long Beach Harbor. However, all five boats had to stay together as a group. In effect, it took an hour for five boats to stay in a group and deliver boom, even though our boat was the only one in the group actually delivering the boom; we loaded 15 bags of boom to take to the harbor. It was a complete waste of time and resources, because the other boats could have been laying and pulling boom and actually cleaning the oil. It was a dog and pony show.

Once the well was sealed it was evident that BP was trying to finish the VoO program. The equipment supplier informed me that the contractors were supposed to furnish all of the equipment, but BP was cutting them back; they couldn't give it to you, such as the boom or duct tape. In effect, we couldn't clean the oil. Following procedure, when we pulled the boom up and placed the contaminated oil in a regular clear garbage bags we put duct tape around the bags and put coordinates on them. There was a supply instructor that had a tractor trailer that would distribute supplies each morning before we went out. However, we had to fight for garbage bags

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to put the contaminated oil in. We had to fight for suits, rolls of tape, rope. In the line at the supply station, they would have too many people waiting. When you got up there you'd tell the guy what you needed and he'd say, "Well I don't have that, you're not getting that, this is all you're going to get." It often happened with Hazmat suits. And sometimes if they had a suit, it wasn't the right size. You can't take and put a 300 pound guy in a medium or small suit. And we had some pretty good sized guys down there.

We even had trouble getting boom. If you go out and use six sets of boom and go back to replace it, they didn't even want to do that half the time. There would be times when they wouldn't even let you pull boom, and you'd ride around with boom on your boat for a week. But you always had to have boom available on your boat. One of the supply guy's positions was, "Well you don't need all that boom on your boat, you're not pulling it." But what if we came across oil we needed to cleanup? How are you going to pull boom if you don't have it? His response would be, "Well, you don't need that."

When we'd have our briefings in the morning workers would ask, "How come there's so much trouble getting supplies?" and Parsons would respond, "Don't worry, we're going to take care of it." But they never did. It was just, "Hurry up and get your stuff, get out of here. The Coast Guard is going to call you when it's time to leave the Harbor."

### 3. VOO INSTRUCTIONS: "DON'T CLEAN THE OIL"

*DT:* When I first started in the VoO program in June 2010 it wasn't quite as bad, because the oil hadn't reached us yet. About the end of June oil started showing up on a regular basis. The water started getting more sheen. It was not big heavy patches of what crude oil normally looks like. Rather, it was like lumped up stuff that already had been dispersed and everything. It looked like patties or tar balls. They call these tar patties, because some would be anywhere from two inches to eight feet wide.

However, the majority of the time throughout the cleanup we were told to just to call in the coordinates from where we identified the oil and keep up surveillance. In total, they probably allowed us to collect about four to five bags of oil, which each weighed thirty to forty pounds. We were told, "Don't touch anything." These instructions came from the head coast guard operation Seahorse. Every time we would call something in, Seahorse would tell us to go the other way.

*ST:* In the beginning in late June and July 2010 when we would go out working and see the oil in the water, it was called either oil moose or oil sheen because it had been dispersed so it wasn't the long strains of oil. Rather, oil would be in clumps and almost looked like rubbery like stuff. People would say, "I found oil, come here" and it would show up on the news; you know, the media would go and try to take it. The Coast Guard and the Mississippi Department of Marine Resources (DMR) would say, "Oh, that's just algae."



After the oil first reached Pass Christian, around late June and early July, its official identity changed from algae to fish oil, instead of oil mousse and oil sheen. Later, on August 1, 2010 we went out to the Gulf Port area and saw oil. Our Coast Guard contact on another boat in our group said, "Don't contain the oil, it is just fish oil." Two photos that I took that day are included in this affidavit as Exhibit 2. After he provided those instructions we were immediately sent back to Pass Christian Harbor. By living here all of our life, we know what we have seen in the past. We've had shrimp boats, we've had oyster boats, and from what you know, through experience, and then all of sudden to see what's washing up and what's floating by the boat, we had never seen anything like that before, stretches of oil the size of football fields. The government's response was insulting because we knew that it was not algae or fish oil, it was dispersed oil.

On more than one occasion my husband just begged to drop boom, but they wouldn't let him. We could smell it - football fields long of oil sheen with clumps of the oil in it. The following day we would be sent to a different location. One day in late July when we went out oil and sheen was everywhere. There was a man close by fishing for pleasure, and he asked us why we weren't cleaning the oil. This is what was so concerning: As happened previously, that day the Coast Guard directed us not to drop boom and instead sent us in the opposite direction of the oil. The following day Coast Guard Admiral Thad Allen stated that there was no more recoverable oil in the Gulf.

*DT:* I think I've got experience enough to know it was dispersed oil, because before I became a contractor I was a licensed tugboat captain for 35 years. I worked in the water all my life; I know what water looks like and what it's not supposed to look like. Boats leak, and sometimes when your engines run it might drip into the water. If you don't have a proper containment on your boat to catch the run off oil, it gets mixed up in the bilge water. Pumps automatically come on and pump the bilge water into the ocean, which can cause an oil sheen. You might be putting a quart of oil or diesel fuel into the water and the Coast Guard, DMR and the Mississippi Department of Environmental Quality will fine you heavily - hundreds or even thousands of dollars. All of the agencies are waiting to get their hands on the fine money. For instance, after the spill a young boy was working on his boat and the bilge pump kicked on and got some oil into the harbor. He had to pay thousands of dollars. So if they are going to fine me for pumping my bilge out, how come they didn't properly identify the oil sheen and dispersed oil and allow us to clean it up?

I spoke with a young man who worked on a skimmer boat and would vacuum the oil by the islands. After he stopped working, he shared with me that in August 2010 they would go out to Cat Island, but if it was too big of an oiled area, they boomed it off as best as they could, they put a bowie in the middle of the oiled location and the next day they would be dispatched out there to pick up the boom and the bowie, and all of the oil would be gone; it would just be foamy stuff.

There were instances when the Coast Guard would tell us, "Put the boom out," and five minutes later they were making us pick it up. What was that all about? Why wouldn't you let us mop up

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what we had here? They would not let us clean up the oil. There were several times when we identified oil in the water, and a lot of the fisherman down there made remarks, "Well, what are we doing down here if they're not going to let us clean up?" Often the Coast Guard would not let you drop boom; they would send you in another direction from the oil that we located.

We always thought when we were working that it was just a very unorganized project. But when you start taking it and adding everything up after the fact, they knew what they were doing. They were keeping us in that harbor for a reason. They were making us go at a certain speed to a certain place for a reason – to not come in contact with the unmarked boats that sprayed dispersant (detailed below). All these things started to add up. And all we wanted to do was clean up the oil. But we were not allowed to do very much of that. I put boom over board and just started to spread it and pull it and they'd say, "abort." Now, why would I put boom out on all this stuff and have to pick it up without collecting oil.

On August 13, 2010 we were one of the last groups to be laid off. I don't know how many hundreds of boats got laid off before we did, but they kept phasing it out until there were no more boats. It wasn't like they just laid us off because we did something wrong or anything like that. When they capped that well they started taking and cutting back on everything and winding it down.

#### 4. SPRAYED BY DISPERSANT

*ST:* Before getting laid off, on August 8, 2010 somebody must have got their connections crossed. As our boat was going out into the Gulf, these spray boats were coming in. But after they passed us I'd been taking pictures of the wildlife and the water, and I happened to zoom in on them and I saw them spraying something on the water. It was coming from a garden type hose but stronger. We were probably two football fields away, so I did not think about it coming back. However, these boats were up wind from us; as we were going west the stuff they were spraying came back on us.

A National Guardsman was on our boat that day. When my husband realized we were getting sprayed he ran into the cabin and closed the windows. Most of the people on the boat, including the National Guardsman, followed my husband into the cabin. I stayed on the deck to try and take pictures. The skiff photos were taken south of the Bay of St. Louis Bridge. The bridge is west of the Pass Christian Harbor. Three photos are included in this affidavit as Exhibit 3. I never would have stood out there to take pictures had I known what I do now about the effects of Corexit and the fact that it has never been tested on humans or animals. I did not think it was a public health threat, because it has been approved for use. I went into the cabin after I sprayed and tried to wash my face and hands but it was already in my eyes, nose and probably lungs by then. My husband immediately contacted the Coast Guard official who was in the group with us that day, but on a separate boat. Within minutes, the Coast Guard supposedly dispatched helicopters and a boat to investigate these boats. Most of the government representatives and

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safety people that rode on our boat were great people, doing their jobs like we tried to do ours. We didn't talk business, such as what the air quality specialist was finding or whether or why the Coast Guard wasn't monitoring the unmarked spray boats more closely. However, the next day after I was sprayed a Coast Guard official asked my husband for copies of the photos that I took. As soon as I handed him disk he told me that the unmarked boat I had identified was in the VoO program and was just rinsing its tank. This didn't add up, however, because the Coast Guard always told us when to leave the harbor, where to go and how fast to go. We had to have flags and transponders to identify us as part of the VoO program. I did not see a flag on the boats that were spraying, and even the Coast Guard officials did not seem to know anything about the boats when we reported them.

*DT:* The captain of that boat that was sent after these unmarked boats is dead now. All I know is that he passed in the summer of 2011. Within thirty minutes of trying to chase the boats he was called back; he couldn't catch up to them. We later discovered that they were going back to their dock at Henderson Point (detailed below), which was located in the direction they were going. We don't know anything about his health or the cause of his death. He got us in touch with Matt Guttman from ABC news. One time I spoke with a supervisor at a staging site for the Carolina Skiffs. I asked him, who originally opened it as a staging site and he said that it was U.S. Environmental Services and an additional company. In August 2010 I saw what appeared to be empty Corexit tanks at the staging site. Two photos of the tanks are included in this affidavit as Exhibit 3. I didn't even know what Corexit tanks looked like until weeks later; I just kept seeing these semi-clear plastic empty tanks.

*ST:* We knew the captain well, we grew up with him. He was a commercial fisherman, and I believe in his 50's. The Coast Guard sent his boat to chase, to try to see where this boat that we reported was going. The boats were zigzagging back and forth by the bridge down here, and when they saw that the Coast Guard sent this captain to turn around and go follow them, they took off. Most of these boats had 150 horsepower on the back. There was no way we could catch them in our boats. When we returned that afternoon from the whole episode, the Parsons supervisor told me that before that event they identified the boats and were trying to catch them, but they could not catch up. He told me one day he would write a book about all he was aware of. He was speaking in general terms, because he too got his orders from the Coast Guard, and they changed orders without reason or rhyme on a daily basis. For example, we would change routes unexpectedly, or be authorized to lay boom one day but not another.

The day that we were sprayed, when the Coast Guard turned us back around to go east you could see the white foam in the water where the spray boats had been. A photo of the white foam is included in this affidavit as Exhibit 5. In fact, the Coast Guard official told us to drop boom over it, but it was useless because we were collecting foam at that point, not oil, so he then changed his orders to just collect the boom. By the time we got in that afternoon, it was all over the harbor that we got sprayed. We would not give interviews for a long time after that, because we felt the government was supposed to be taking care of this and we weren't getting into it. Oddly, our

supervisor at Parson's was unaware of the incident. We informed him of what happened and he shared that he had been trying to identify the unmarked boats as well, but they were too fast and would always get away. I told him I took photos and he asked for copies. About 30 minutes later, after I had returned home, Donald called to tell me that the Coast Guard wanted a disk of the pictures.

## 5. COAST GUARD "INVESTIGATION"

ST: I made the Coast Guard a disk of the photos and took it down the next morning, on August 9. As soon as I handed the disk to the Coast Guard official presiding over the staging site that day, before even looking at the pictures he proceeded to tell me that they had investigated the incident, that the unmarked boats we reported were in the VoO program, that it had just not been documented - although he also stated that it hadn't been verified - and if I had seen them spraying anything into the water they were just rinsing out their tanks.

Why would a supposed skimmer boat be rinsing out their tanks? Were they putting the oil back into the water, because what I saw was not oil coming out of the sprayer, it was just like clear stuff. During that exchange, the Coast Guard official also asked me, "Don't you think that if they would have been spraying dispersants into the water, they would have been wearing safety equipment?" I told him, "From what I've seen around here, no". All they had were box fans on their boat, which meant they had a power source to skim oil or pump Corexit; they didn't have any kind of respirators or anything. That's obvious in my pictures. You know, they were just guys on the boat.

I have spoken to some people since then who did not have safety equipment when they worked and sprayed dispersant. They were working out of Louisiana, and one gentleman in particular was the supervisor on a cleanup crew and firsthand witnessed a lot of things. But most people are afraid to get involved in anything because of repercussions, you know. People were desperate for work. Most of the spray boats and the people who worked in Mississippi on the cleanup were from Louisiana and Alabama. Almost all of the tags were out of state tags for boats at staging sites. My friends from Louisiana told me the same thing; Louisiana workers were from Mississippi and Alabama. Why didn't BP let workers work in their own state? A lot of the beach cleanup crews were from all over the country. I think now, looking back, that these people would go back home, and if they go sick from the oil clean up, how would they know and who would they tell?

My husband and I have not been contacted by the Coast Guard since I provided the photos. And the funny thing was that the Coast Guard official claimed that they conducted an investigation within less than a day. However, they never asked me for a statement or my husband or any of the other five boats working with us that day. I think it's kind of funny that as thorough the government is usually on paperwork, they would have at least had us sign our name to something. So, what kind of an investigation was that?

## 6. HEALTH PROBLEMS

*ST:* Immediately after I was sprayed I started feeling the effects of this stuff. My eyes started watering, my nose was running and I was coughing. My husband's problems began a few days later, and then escalated. To our knowledge there was no kind of medical person at all on site when we returned from the water that afternoon. Our supervisor was not informed by the Coast Guard that we had been sprayed; when we checked out he was unaware of what had happened. Prior to the exposure we didn't have any eye problems; my husband and I both always have been healthy people. Now his whole eye is messed up, completely irritated and red. It wouldn't clear up with eye drops. Finally we broke down and went to doctor and got medication. Usually my eye problems are contained to one side of my eye. We don't even wear glasses except to read.

Before the oil spill I saw the doctor because I was sick maybe one time in five or six years. We had to give up our insurance right before the spill took place, because the premiums went up and we just, you know, couldn't afford them. Since our exposure, both Donald and I have been to eye doctors, because it just doesn't get better sometimes. You have to get antibiotics. The headaches are relentless. Everyone has headaches, but when you go from maybe one, two, or three a year to maybe two or three a week since the oil spill, it's like you know what's normal for you and what's not. I used to have migraines. These weren't like migraines; they were just horrible headaches where you hurt bad and get nauseated.

Two or three days after I was sprayed I had nausea and diarrhea. I couldn't breathe or my nose would run like a faucet; it was continuous. A few days after I was sprayed I developed itchy batches of rashes on my skin. I would have itchy batches on my skin, but I still went to the beach to take pictures. I put topical cream on it, and it would go away. I didn't break out in a bad rash until January 2012. These little fine bumps were all over my face and body. I had to go to a medical clinic, and the doctor told me that it was either an allergic or chemical reaction. I was given steroids and a topical cream. After three days the rash went away. Donald had the rash, too, and my daughter in law had a similar experience in the summer of 2011.

Now I have good days and I have bad days, you never know what you're going to feel like the next day. Donald and I still have upper respiratory and sinus problems. Fog makes our sinuses worse. If we wake up and can hardly breathe, we can tell that it is foggy outside. I have thrown up more in the last year than I probably have in the last 20 years. Some days it's so bad that it happens in not just one or two episodes but goes on all day long. And then other days it's just, you have no energy, you're just completely drained for no reason at all. You wake up more tired than when you went to sleep. Just common, everyday symptoms, but they're not normal symptoms for me, and never have been.

*DT:* The only health problem I had before the spill was your common winter cold symptoms and headaches that you don't normally get in the summer time. And basically all this stuff here is common sense. You know, the doctors want to treat you with antibiotics for cold symptoms that



you don't have during the summer. We're still all congested now. We went up North Mississippi in the summer of 2011, and this stuff cleared up. We came home and the health problems immediately returned. Three weeks later we went to Arkansas for a week, and all the congestion and stuff went away. We come home, and two days later it was back. This pattern continues.

ST: In addition to going on the boat with Donald, I would take pictures on the beach to document the oil spill in June 2010. But I haven't been to the beach in awhile, because every time you go down there, for the next two or three days it's like you pay for it with bad headaches, nausea or respiratory problems. But I decided in early August 2011 that I was going to go down there to Pass Christian Harbor and take more pictures. And then the very next morning I woke up and a vessel in my eye burst again for the third time. And it's taken like three days to get over that.

In January 2011 my husband and I got Volatile Solvent Profiles. By then it was several months after we had been working on the cleanup, however, the test still found traces of chemicals in our body. We're we continuing to be exposed somehow? From what I've learned, our levels are low compared to a lot of people who have fallen ill from the spill but high compared to the average person. In both of us, the test detected chemicals found in the crude oil or Corexit, including ethylbenzene, m,p-Xylene, 2-methylpentane and 3-methylpentane. It's been really hard to get an accurate diagnosis or treatment, because none of the local doctors will even admit there is a problem. So we have not been able to consult with a doctor candidly about the prospect of our illnesses being connected to the chemicals from the oil spill. Our grandson also got really sick after the oil spill, and the doctors ran us in circles trying to determine what the problem was. When his mother brought up concerns about it being related to the oil spill, they would not even consider that possibility. There's one friend of mine who happens to be a doctor, and he's very well aware of what's going on but is afraid to take a hard stand on it. He is an emergency room doctor.

We didn't become mad about how the spill has been handled and our health problems, until our two year old grandson's blood test came back positive for four chemicals found in the oil and Corexit: hexane, 2-methylpentane, 3-methylpentane and isooctane. His exposure surprised us, because since the spill he did not go to the beach or eat any seafood. However, when he began getting sick in September 2010 his life force left him. He went from running all over the place with high energy, to just lying on the floor some days, just so sick. His symptoms included frequent vomiting and ongoing respiratory and sinus problems. We felt like "Damn you BP," because we knew by then that BP had done this to our grandson. Prior to seeing how he was affected, we wouldn't conduct radio interviews or go on film. We wouldn't do any of that, until his test came back. Then our mentality shifted to, "We'll do whatever is needed to raise awareness around the public health impact from the oil spill."

Some people still don't know why they're sick. I mean, even neighbors, you'll be talking to them and they'll go, "I've been sick for months now, it goes away and comes back." And I'll go, "Did you smell a lot of the burning oil during the spill?" and they'll go, "Oh yeah, I smelled that every

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day for weeks” and I’ll go, “Well guess what, you probably have that in your body.” The smell was so bad around here when they were burning the oil for weeks in May and June. We would go outside and turn around and come right back in. I’d think, “Is that smell going to get into our home and in our clothes? How are we ever going to get rid of that?”

DT: It got in our bodies instead.

ST: Coast Guard Admiral Thad Allen said that the dispersants were only sprayed after July 15, 2010, on a case by case basis. Dahr Jamail of Al Jazeera was down here in October 2010 when we took water samples. The samples came back positive for dispersant and crude oil.<sup>1</sup> If the dispersants only last for 28 days, why was it still showing up in October?

## 7. UNMARKED BOATS AND SURVEILLANCE

DT: We didn’t realize odd patterns with these Carolina Skiffs until August 8, 2010, the day we got sprayed. Then, once the Coast Guard told us that we didn’t see what we saw, the very next day we located a staging site about two miles from our house that a VoO captain had told us about. We ultimately found three compounds – or staging sites – that sheriffs of the county would be monitoring heavily. The location close to our house was at Henderson Point. The second location was in Hancock County and the third staging site was located off the interstate in Gulfport, at corner of Canal Road and I-10. At least in Pass Christian Harbor, prior to the spill there was not security watching these boats, much less the sheriff’s department. We started documenting the sheriff’s department and their unusual behavior at these compounds after we got sprayed. From what we observed, the behavior of the boats and sheriffs continued at least from August 8, 2010 beyond September and October 2010.

At all of the locations there were one or more guards by the entrance and a sheriff’s department vehicle from the respective country situated next to the boats. I did not understand why they had this additional security, especially because some of the staging sites were already fenced in. The location on I-10 had an eight foot fence all the way around it. There was a guard at the gate and other guards all over the place, in addition to the sheriff’s department vehicle. What is so unique about these sites that you have to have law enforcement watching the inside of a compound that is already secured?

Throughout the cleanup, these boats were coming back in as we were going out at eight or nine in the morning. It didn’t make a lot of sense until it started occurring all the time. We believe that during the daytime you’d have other boats and helicopters locate oil plumes by stopping bowies and providing locations for them to go back and spray at nighttime. Then planes would touch up with dispersant at nighttime. Then the Carolina Skiffs would go out there and touch up in areas as well with dispersant. One worker who skimmed surface oil explained to me that when an oil

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<sup>1</sup> Dahr Jamail & Erika Blumenfeld, *The Tragic State of the Gulf of Mexico: Sampling Reveals Oil and Dispersants on Mississippi Coast*, Truthout, Jan. 12, 2011, <http://archive.truthout.org/the-tragic-state-gulf-mexico-sampling-reveals-oil-and-dispersants-mississippi-coast66726>.

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patch was too large to skim, he and the other workers would be instructed to boom the area and leave a bowie. The following day when they would collect the boom, they would see nothing but white foam, which is a sure tale sign of dispersant. This happened repeatedly. C-130's were spraying Corexit for months out there.

ST: You couldn't see anything at night when they'd spray. We tried videotaping them going back and forth in August or September 2010. Before the well was capped, the news reported that they only sprayed by the wellhead through subsurface spraying, which is not the case. They still have C130s at Stennis International Airport in Hancock County, Mississippi and Marine Spill Response Consortium (MSRC) planes, which are strictly for spraying dispersant. We would watch them at night out by the islands, which are about 10 nautical miles from the beach. We would watch them go back and forth and back and forth, flying at low altitudes between islands. On videotape all you could see was this little ball moving around on the tape. Before the spill I had never seen planes flying that low or directly over our heads. They would fly over our home or at the Pass Christian beach. We have pictures of them so low that we could see the people in the planes. A photo of a low flying helicopter is included in this affidavit as Exhibit 6. We are surrounded by water on three sides and we have an airport 15 miles east and another airport 15 miles west. Even now C130s, Coast Guard planes and helicopters continue to make loops repeatedly. It wasn't like this before the spill. To this day there is sheen on the water.

After a tropical storm in August 2010 BP took all of the recognizable spray boats out and moved them to a big staging site in Gulfport. You could recognize the boats, because in front of the consul of the boat there was a big white tank in a little cage structure. It was probably a two hundred gallon tank at least. I do have pictures of tanks at the same staging site with the sheriff's department car sitting right there by the boats. A photo of the sheriff's department car at the staging site is included in this affidavit as Exhibit 7. I've seen the same tanks and they are dispersant tanks. They are the 330 gallon white tanks from Snyder Industries that basically have pictures a friend of mine sent me indicating that's what the Corexit came in - tanks from Snyder's Industry's. Al Jazeera reporter Erica Bloomfield also came in October 2010 and got barcode numbers off of the tanks at the Gulfport staging site. However, when BP started relocating back to the Henderson Point staging site, it was a different type of boat - like pleasure boats and metal oil mop boats.

## 8. GOVERNMENT INVESTIGATIONS

ST: In October 2010 representatives from the National Oceanic Atmospheric Administration (NOAA) and the Department of Fishing and Wildlife (DFW) showed up at our door. They had been by earlier in the day and left a card at my door with a message to contact them. Their cards read special agents, and they said they were here investigating the use of Corexit in inland waters. They were very nice, but I believe they were overworked; they are just two agents responsible for three states. They told us that they had recently received complaints of Corexit being sprayed in inland waters. I had been working with other people collecting water samples

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the day before, and there were two identical samples taken from the same spot at the same time. I said to NOAA, "Well here, if you're investigating the use of Corexit, you take this sample with you, and we'll see if your test results come back the same as the other test results." I had to do the chain of custody, and I've got the receipt. They also contacted me about the dead turtles. In April 2011 I documented 39 dead turtles, and from January through April 2011 I documented 57 dead turtles.

After speaking with them for several hours it became clear that they were most interested in the photos I had taken. They were investigating the use of Corexit, and they wanted to see the photos of the spray boats and Corexit tanks and planes. At that time I probably had 5,000 to 10,000 pictures. They were all mixed up because I had no idea this is what they were interested in. I have pictures of the dead birds, marine life and wildlife that are usually only found in the marshes. Six photos that I took of oiled animals are included in this affidavit as Exhibit 8. In the spring of 2011 I found a dead armadillo on Long Beach. In May 2011 I found a dead raccoon in two to three inches of water, muskrats, possums and one wild pig in Hancock County. In September 2011 after tropical Storm Lee there were places on Pass Christian beach where I couldn't walk within 10 feet without witnessing a dead bird. I heard from friends that it was that way everywhere along the coast. Maybe we would see an occasional dead bird before storm, but after the storm the tide washed up their bodies and they lined the beach. Rescue people were swarmed with calls. What was peculiar is that all these animals lived in the marshes. It was unusual to see these dead out there. I am concerned that the spill has also affected the wildlife that lives around the bayous in the marshes.

The special agents and I were talking as I scrolled through the photos for them. They kept saying things like, "We just found out about reports of spraying inland" and so forth. I asked them, "Wouldn't it be easy for you all to get the records from the Corexit manufacturer Nalco for how many gallons BP has bought from them to use to spray down here? Wouldn't that be a lot easier, since they've admitted to spraying 1.8 million gallons?" They responded, "Oh no, we can't do that, it's way too early in the investigation."

From that point on I felt they were just here to see what pictures I had. I would show them a picture of a Corexit sprayer or the skimmer boats, piles of foam from when we were working on the VoO program, which was what the water looked like the day when we were sprayed by the unmarked boats. After three hours they had another appointment, so they asked for a copy of some key photos that I agreed to provide them, specifically the Corexit tanks and the boats that contained the tanks. The following day, a friend of mine called me from Ocean Springs and said, "There are big piles of white foam washing up here that look like dispersed oil." I said that I knew just who to call. I called the special agents with NOAA and Fishing and Wildlife a few times and neither contact answered. I called again a little while later to tell them about the fresh samples that they could obtain, but they never called me back. They never followed up to obtain their photos or return my call.

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## 9. FACEBOOK RETALIATION

*ST:* I didn't know a BP America (BPA) Facebook site existed, until a friend told me that lies were being spread about me on the BPA Facebook page. She told me that people were posting comments that the photos I had documented of dead turtles were not authentic, and that I was taking dead turtles to beach and photographing them and trying to make money off of the photos. I went on the BPA Facebook page and confronted the people making these false statements about me, and I also responded that I post my photos for the public for free. In addition to monitoring comments about the spill's devastation on the marine life, the attackers all comment that no one is sick from the spill and Corexit is harmless.

If someone gets on the BPA Facebook page and says "I am sick from the spill," a handful of people attack the individual that person. They have made comments that the people who claim they are sick or who take the Volatile Solvent Profile blood test are trying to make money off of the spill. I have a friend with a young son who has fallen sick since the spill. He got on the BPA Facebook page and wrote that he and other people are sick, and he was attacked. One attacker looked at his profile, identified his friends and family and sent them nasty messages. Based on other people I have compared experiences with, anyone who takes a stand against BPA Facebook page is attacked. The people making these unfounded attacks have Facebook pages but they do not have profiles, so it is unclear whether or not they are real people.

At one point the BPA Facebook page was promoting Gulf seafood. I made a comment that I choose not to eat it. One of the trolls replied that the Food and Drug Administration (FDA) has tested the seafood and found that it is safe for consumption. I responded that the last time I saw that FDA had only tested for 16 out of 60 compounds, and I choose not to eat the seafood. The next day I was blocked from the BPA Facebook page. According to Facebook's own guidelines, someone can be blocked for personal attacks and foul language, but it doesn't list anything about stating one's opinion on seafood safety as grounds for being blocked. When I was removed from the page, all of my posts were deleted as well.

## 10. CONCLUSION

*DT:* In addition to the resistance surrounding medical problems resulting from the spill, we still have oil washing up. To this day, there is oil out by Cat Island, Ship Island and Hound Island. In Bay St. Louis you can go on one of the bridges right now. When the tide is running in and out you can still see the oil slick. Where are the people who are supposed to be protecting us from all of this?

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I have read the foregoing 14 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on June 14, 2012.

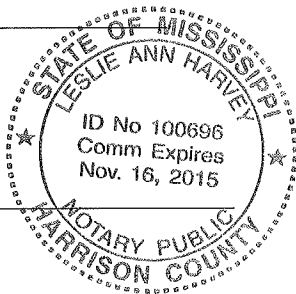
Donald S. Tillman Sr.  
Donald S. Tillman Sr.

Shirley W. Tillman  
Shirley W. Tillman

Subscribed and sworn to before me  
this 23<sup>rd</sup> day of August, 2012

Leslie Ann Harvey  
Notary Public

My Commission expires on: \_\_\_\_\_



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AFFIDAVIT

My name is Steve Kolian. I am submitting this statement, without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am the founder of EcoRigs, a nonprofit group that's mission is to assess the environmental damage resulting from the Deepwater Horizon spill. EcoRigs is composed of a team of divers. We were asked by NOAA to collect water biological samples close to the spill site, in exchange for test results and presumable compensation. NOAA assured me that it was safe for us to dive into the dispersed oil, which we quickly discovered was false. NOAA did not follow through on its end of the bargain, and cut off communication without providing any test results or funds for the sampling trips we had conducted at their request. Once I realized the health threats associated with Corexit, I alerted the diving community, so that other divers would not have to endure what my team and I have been through.

### 1. BACKGROUND

I earned a Bachelor of Arts from Augsburg College in Minneapolis and a Master of Science at Tulane University in environmental science. I was an AAUS (American Academy of Underwater Sciences) diver with scientific diving certification between the years 2004 through 2007. I have been PADI (Professional Association of Diving Instructors) diving certified for 10 years. However, before that I snorkeled frequently for the last 30 years on oil rigs. I grew up in Minnesota, and would come down and shrimp in the Gulf of Mexico during the summers. I grew up as a commercial fisherman; I was a shrimper for seven years off and on, and then I practiced longline fishing for tuna and shark. I have been working as an environmental scientist since 1997 providing environmental and natural resource consulting to the government and private sector. My day to day work focuses on National Environmental Policy Act (NEPA) documentation and modeling environmental events. I am also a water quality and fishery specialist.

I founded EcoRigs.org ("EcoRigs") in 1999. We are composed of a team of scientists and divers whose mission is to save retired platforms from removal for use in sustainable fisheries and renewable energy. However, since the spill we have been collecting and analyzing water samples from the Gulf of Mexico to be "fingerprinted" for biomarkers of BP MC 252 oil. A biomarker is an organic compound used to identify the source of crude oil. Fingerprinting crude oil was necessary to validate the source of crude oil. Crude oil is composed of a diverse mix of organic compounds and the composition of the crude varies from field to field which allows the fugitive oil to be fingerprinted and its source identified.

After the Deepwater Horizon explosion, we were one of the first groups to go offshore and sample the subsurface plume from the MC 252 field. We collected surface and subsurface water samples and marine life that live on offshore oil and gas platforms. The reason that we're interested in those organisms is that they occupy a vertical profile; by analyzing the organisms,

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we can determine the distribution of the oil in the water column from the surface through the subsurface.

From EcoRigs, I dive the most with Scott Porter and Michael Boatright. Scott has over 6,000 dives, and Michael has forensic and safety licensees. Dr. Paul Sammarco from the Louisiana Universities Marine Consortium (LUMCON) is another diver and scientist with EcoRigs whom I work closely with. I have authored or coauthored 15 to 20 publications, some of which are peer reviewed.<sup>1</sup> The self-published EcoRigs reports are doing very well, and often get more exposure than peer review journals do.

## 2. ECORIGS

EcoRigs is a small, self-funded nonprofit. Our main charter is to save some of the 4,000 oil and gas platforms after they retire. There are 4,000 platforms in the Gulf, and 1,200 are going to be removed in the next five years. The government wants to remove the platforms, because they can pose navigational liabilities. However, 20 years ago we started advocating saving platforms and before the spill we were whistleblowers; our position is that when a platform is removed the oil and gas companies are violating the National Environmental Policy Act (NEPA), because protected corals live on the platform pilings. The removal of platforms violates the Magnusson Stevens Act, which protects coral and fish; and the Endangered Species Act, because endangered sea turtles sleep and feed on the platforms.

The platforms' benefits are twofold; they benefit marine life by providing sustainable fisheries, and they offer a platform for renewable energy through wind, solar, waves, and currents.<sup>2</sup> They also make great places to sequester greenhouse gases; Massachusetts Institute of Technology (MIT) identified offshore platforms as the safest place on the planet to store greenhouse gases.<sup>3</sup> To sequester greenhouse gases you would inject them into the vacant geological formations that the well had just produced, and then seal off the well.

We are advocating rebuilding populations of fish in the Gulf of Mexico with the retired platforms because they are excellent nursery habitats. This is especially important now because there will be mass mortalities resulting from the spill. We could help rebuild the habitats by collecting larvae offshore, put them in a tank, grow them until they are large enough to fend for themselves and then release them. Organisms are floating by a platform all the time. We could grow the fish that are very difficult to grow, like the highly protected Blue Fin Tuna. We have not performed any surveys but we have observed lower populations of their prey species and know that their larvae are bound to be affected. All this takes a lot of research we need money.

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<sup>1</sup> Press, Media and Publications – EcoRigs, <http://www.ecorigs.org/Press.htm>.

<sup>2</sup> Alternate Uses of Offshore Oil and Gas Platforms – EcoRigs, <http://ecorigs.org>.

<sup>3</sup> Howard Herzog and Dan Golomb, *Carbon Capture and Storage from Fossil Fuel Use*, Encyclopedia of Energy 277-87 (2004).

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We have accomplished a lot and have published numerous articles without receiving government funding or donations from oil companies.

### 3. DIVING IN OIL PLUMES

Our first dive was May 7, 2010. We wanted to see how the oil was impacting the marine life, the corals and other invertebrates such as sponge, tunicates, and hydroids that inhabit the pilings of the offshore platforms. I anticipated that the splash zone (upper 15 feet of the water column) would all be black and the attached organisms would be dead due to exposure from surface oil. We went offshore to Mississippi Canyon Block 194 to look at organisms on the Cognac platform, 26 miles northeast of the spill. On our way we didn't see as much wildlife as we normally do on our offshore trips. We saw a lot of patches of the rusty red floating oil.

The Cognac platform was located in 1,110 feet of water, and we went down to 90 feet below the surface under the platform for 30 minutes. When we arrived we only saw sheen on the water, which is un-emulsified oil. The oil evaporates and the heavier compounds start clumping together, which is pre-tar ball, pre-sinking oil. When we dove into the water we saw a subsurface plume and took video footage.<sup>4</sup> The subsurface plume is composed of small droplets of oil that sink. Their density is slightly greater than seawater. The objective of dispersants is to create small droplets of oil that sink.

The organisms that were on the splash zone of the pilings were not affected, because they were excreting some mucus and preventing the oil from sloshing up and attaching to them and killing them. They were in defense mode. That occurred for the top 15 to 20 feet, so they did not look impaired on our first visit.

CBS News saw our video and asked us to go back out to the same location on May 9, 2010. During the second dive, there was a lot of water with sheen. During that dive, 40% to 50% of the organic compounds had evaporated and the oil was still on the surface, starting to mix with water. We saw a lot of organic materials falling from the surface and subsurface plume, and the subsurface plume was 15 to 20 feet thick.<sup>5</sup>

During those dives we wore standard equipment; air tanks fins, snorkel, gloves, a 2mm wetsuit, and a hood. Even though we had our bodies completely covered, it didn't help protect us from the oil at all because we were diving with a wetsuits going down to 90 feet below the surface. However, we were not concerned about the exposure at the time, because the EPA said publicly that it was ok to dive. After those first two trips I wrote reports and put them on the EcoRigs website and submitted them to NOAA coral listserv and they got a lot of attention.<sup>6</sup>

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<sup>4</sup> Video Data: Surface Oil Slick on May 7<sup>th</sup> – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>5</sup> Video Data: Marine Life on May 9<sup>th</sup> MC 194 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>6</sup> Report May 7<sup>th</sup> and 9<sup>th</sup>, 2010 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.



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Approximately two weeks later the NOAA Natural Resources Damage Assessment (NRDA) contacted us.

#### 4. NOAA: "DIVE IN; ITS SAFE"

I started commercial fishing in the Gulf of Mexico 30 years ago, but I have never seen anything like the conditions we were diving in. Occasionally, I've seen small patches of oil and sheen on the surface water, but not the red stuff. They were spraying Corexit around the time we started diving. After those first two dives, I asked NRDA staff specifically if the Corexit was toxic, and they said "Corexit only has a 90 minute half life." This was reassuring to hear because that meant that the water would not be toxic; as long as we were not seeing any planes flying around we thought we would be ok. On top of that, NOAA told us later in August 2010 Corexit would not be sprayed in the areas where we were conducting our research because the well was capped (July 15, 2010).

I don't like pointing fingers at NRDA staff. I think management endorsed a policy to deny the toxicity of Corexit, because they didn't say anything to anybody about the associated risks. In fact, they purposely misled people. NOAA, EPA, FDA and NRDA knew that Corexit and oil was a very toxic combination. There are numerous publications on the subject and there is historical data from the Alaskan Valdez spill. Why they chose to adopt this policy is really confusing. In late July 2010 BP announced that it stopped spraying dispersant for the cleanup. However, we have a video of fresh Corexit in the water from August 21, 2010 and August 18, 2011 (detailed below).<sup>7,8</sup>

I was first contacted by NOAA through an email from a NRDA contact. He asked us to collect samples and submit a research proposal for surface water samples and subsurface water samples, and then a second proposal to collect the marine invertebrates and fish that inhabit oil and gas platforms. We conducted 36 dives for NOAA. During the time that we worked with NRDA we continued to post our material on the NOAA Coral Listserv. We were seeing things that other people were not documenting. Further, I have emails between several NOAA staff, their lab personnel and BP regarding the samples we provided. We collected samples for NRDA from mid-July to mid-September, 2010. After repeated requests, in April 2012 NOAA provided us the Chain of Custody for the samples that we provided them.<sup>9</sup>

Arkansas State University also tested our July 2010 samples for Total Petroleum Hydrocarbons (TPHs) and metals; they could not afford to test Total Aromatic Hydrocarbons (TAHs) or

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<sup>7</sup> Video Data: Subsurface Oil and Dispersant South Pass August 21, 2010 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

<sup>8</sup> Video Data: New EcoRigs Sampling Event 13 miles offshore of Long Beach MS on August 18, 2011 – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>. [Hereinafter Sampling Event 13 miles offshore].

<sup>9</sup> Documentation of federal government correspondence will be provided to responsible, authorized investigators with a need to know the contents.

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Polycyclic Aromatic Hydrocarbons PAHs. TPH is a term used for any mixture of hydrocarbons found in crude oil. NRDA told us they would give us the lab results from our samples. However, they never did.

## 5. NOAA RADIO SILENCE

At first everything seemed to be going fine with NRDA. We sent them two research proposals before we collected samples. They told us they looked good, and to proceed. We were speaking with four to six different scientists. However, when we started producing and sending samples in, the dynamic shifted. In August 2010, we brought about 15 samples from two sampling events to NRDA staff located at the Houma BP Command Center and delivered them by hand. In the beginning they would reply to my email regarding confirmation of the delivery. NRDA told us for several weeks that we were going to receive results. We had two more sampling events in the freezer that we were going to give them. When they stopped giving us results but continued to tell us to go out, we started to hold our samples.

I sent in a written request to NRDA several times for the certificate of analysis. They were testing for PAHs and TPHs and we wanted to know the results. I think they were going to fingerprint biomarkers as well. However, we only received a verbal response that some of the samples were positive for oil, and they did not identify it as BP's MC 252 oil. That was the extent of it. After they did not respond to our written requests, we started to figure that NRDA was going to screw us in some way. It was very very disappointing not to receive more information, after all of the conversations, preparation and dives that we invested in. EcoRigs later analyzed surface water samples from some of our NRDA's dive for PAHs and biomarkers specific to the MC 252 blowout crude oil. Concentrations of PAHs were found to be up to a thousand times greater than the U.S. EPA water quality benchmarks for human exposure. Some samples were fingerprinted and the critical difference analysis of biomarkers showed that the sample correlated with the crude oil from the MC 252 well.

There was one event that foreshadowed how NRDA planned to renege on its end of the deal. In the summer of 2010 they had a meeting in St. Petersburg, Florida to begin funding the main universities in Florida, Alabama, Mississippi, and Louisiana. At the time of the meeting we had conducted three to four sampling events for NRDA, and they did not even bother to tell us about the meeting. After that meeting, NRDA stopped communicating with us, and has not paid us to this day. For the NRDA samples, our invoice is for \$113,000. That includes hazardous pay, such as diving in the oil.

Scott was diving more than me and his health problems began in July 2010; mine began in September 2010. I don't recall if we informed NRDA we were getting sick. At that time we didn't know it was from the Corexit and oil. We were in disbelief; NRDA had told us it was safe to dive. We were suffering symptoms like nausea, headaches, fatigue, memory loss, blood in the

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stool (detailed below). In October 2010 I started to formalize my understanding of the relationship between our health and diving.

## 6. DIVER SAFETY SOS

In November 2010, I began writing a paper on our health problems. On March 11 2011, I submitted it to [offshoredivers.com](http://offshoredivers.com), because I wanted other divers to know what was going on in the Gulf of Mexico.<sup>10</sup> I also submitted it to the Louisiana Environmental Action Network (LEAN).<sup>11</sup> I had previously asked Marylee Orr, the Executive Director of LEAN, if I could reference her organization to assist divers that may be suffering from the same symptoms. After she read the paper, she asked if she could put it on her website. It focused on our symptoms and exposure. I provided a link to the videos of what we saw when diving, and explained “If you think you were in this, you better get your blood tested.”<sup>12</sup>

LEAN paid for Volatile Solvent Profile tests through Metamatrix Lab, to test the blood for compounds found in the oil and dispersant. My blood was tested January 21, 2011 and levels were extremely high. The Volatile Organic Compounds (VOCs) entered through our skin when we dove. In effect, we had dermal exposure to the VOCs. The test screens for the lighter organic compounds, such as benzene, toluene, ethylbenzene and a few others. . Research shows dermal exposure symptoms correlate with the symptoms I documented: the VOCs got into our liver, kidney and fat cells. Further analysis shows that they can affect DNA replication, and potentially lead to cancer ten to fifteen years from now, as the evidence from the Exxon Valdez spill confirms. Presently, I just found out my liver is partially damaged due to exposure to oil and I suffer from chronic dermatitis on my face. My face is the only part of my body that was exposed while I was diving.

Also, the exposure has affected my cognitive abilities. I describe the symptoms as “BP on the brain.” I am the scientist. I have to think every day, and it really affects me. I have lost my memory, and it is very, very frustrating. I construct my sentences with the thought in mind that I will not know what I need to say by the time I get to the end of my sentences. If I am thinking about data and expressing references, and calculations in my head, now I prepare myself for my limitations. I noticed in November 2010, that my writing ability, ability to do calculations, and express complicated thoughts was noticeably impaired. I am not as prolific as I was before. I used to work every night and weekend and get a lot done but after being exposed, my

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<sup>10</sup> Posting of BP Oil and Corexit Found in Science Diver’s Blood to [http://www.offshorediver.com/content/index.php?option=com\\_content&view=article&id=1381:bp-oil-and-corexit-found-in-scientific-divers-blood&catid=50:the-stack&Itemid=219](http://www.offshorediver.com/content/index.php?option=com_content&view=article&id=1381:bp-oil-and-corexit-found-in-scientific-divers-blood&catid=50:the-stack&Itemid=219) (Mar. 11, 2011, 7:50 CST).

<sup>11</sup> Steve Kolian, EcoRigs, Gulf Divers Experiencing Health Problems, Blood Contaminated with Petroleum Hydrocarbons (2011), <http://leanweb.org/our-work/community/public-health/gulf-divers-experiencing-health-problems-blood-contaminated-with-petroleum-hydrocarbons>.

<sup>12</sup> Video Data – EcoRigs, <http://www.ecorigs.org/EcoRigsOilSpill.html>.

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productivity declined steadily. I have a difficult time concentrating for any amount of time in the evenings.

## 7. DETOXIFICATION PROGRAM, FRESH OIL

Fortunately in October and November 2011 I went through the Gulf Coast Detoxification Program, which is managed by Dr. Mike Robichaux, LEAN and Jim Woodworth, former director of the 9/11 detoxification program. It has helped clear some of my memory loss, and my writing and productivity is improving although these cognitive symptoms are resurfacing

October 10, 2010 was my last dive of 2010. However, Scott continued to dive throughout the winter. I dove three times in the spring and summer of 2011, and collected corals and surface water samples at the platforms on Grand Isle Block 93. In August 2011 there were several reports of oil slicks from the Macondo well. Regardless of the source, we knew there was a lot of fresh oil. On August 18, 2011 a captain took me to collect samples from Ship Island, Mississippi, 103 miles north of the Macondo well. We saw stretches of fresh oil.<sup>13</sup> I also saw what looked like dispersed oil. I was not diving, but I collected surface water samples; I had taken probably 70 surface water samples since the spill started, and this was one of the best sets. On September 12, 2011 I took samples at the end of the Houma Navigational Channel, 23 miles offshore of South Timbalier Island and about 130 miles from the Macondo well. That slick was seven miles wide, and I don't know how long it was.

Since September 2010, Scott and I have taken many samples and split them. If we had funding, I'd be analyzing those samples now. We went through the detoxification program and are giving our bodies a break. However, evidence shows that the Macondo well, MC 252, is still leaking. Pilot Bonny Shumaker with On Wings of Care is conducting flyovers and documenting large fresh oil plumes close to the Macondo well. I believe that there is a chronic leak that sometimes discharges at an even rate which changes periodically and the rate of discharge significantly increases. I fear that the leak could continue to flow for another 10 to 20 years.

## 8. PUBLICATIONS REJECTED

Six scientists, including myself and EcoRigs staff, including marine scientist Dr. Paul Sammarco, chemist Dr. Wilma Subra, environmental toxicologist Dr. Jennifer Bolin, analytical chemist Richard Warby, biologist Scott Porter, and I submitted a report on the impacts of the BP spill on human blood, seafood, biota, sediments, and water to Science, the Proceedings of the National Academy of Science (PNAS), and Environmental Science and Technology. It was turned down all three publications. The report concludes that the levels of contaminants in water, seafood, biota, and sediments are all higher than previously announced levels by NOAA and

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<sup>13</sup> Sampling Event 13 miles offshore, *supra* note 8.

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other federal agencies and universities. It took PNAS a long time to decide whether or not to publish it.

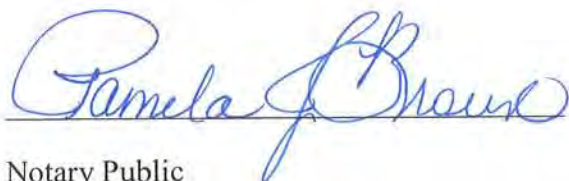
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I have read the foregoing eight page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on May 8, 2012.



Subscribed and sworn to before me  
this 18 day of May, 2012

  
Notary Public

My Commission expires on: at my death

**PAMELA J. BROWN**  
**NOTARY PUBLIC**  
**NOTARY ID # 59733**  
**STATE OF LOUISIANA**  
**PARISH OF EAST BATON ROUGE**  
My Commission is for Life.

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## AFFIDAVIT

My name is Sydney Schwartz. I am giving this statement freely and voluntarily, without any threats, inducements or coercion to Tom Devine, who has identified himself to me as an investigator and the legal director of the Government Accountability Project (GAP).

I was hired through the Vessels of Opportunity (VoO) program out of Dog River, Alabama from May 12 to July 21, 2010. I was the Task Force leader at the time, and I had 25 boats under me. I am giving this statement to make a record of how British Petroleum's (BPs) response to the Deepwater Horizon spill skipped the usual ways to truly clean up oil spills. Despite contrary government reassurances that the oil was being cleaned up, the effort was based on chemical dispersants to make it seem like the oil had disappeared.

I live on the city limit of Mobile, Alabama, and I have worked on shrimp boats since I was three. I am now 51. As a boy, my father would tie me to the mast, the same as I have done with my son and grandson. By the 10<sup>th</sup> grade I was captaining boats. In 2000 I received my captain's license from the Coast Guard. During the past ten years I also have worked for the oil industry during the off season or when shrimp harvests were weak. I also run boats supplying offshore operations with fuel and feed.

### 1. LOCATE OIL, BUT DON'T CLEAN IT

As part of the VoO program, my boat was assigned to do surveillance and locate where there were oil slicks. In May I began as a one man boat with a team leader. It wasn't but a few days until my team leader talked me into being a team leader and then I had several boats under me. Toward the end of June the VoO program tried to create more structure, as opposed to running us out randomly, by adding Coast Guardsmen to the Task Force boats. At that point, we were not even given permission to clean the oil until the Coast Guard was on our boat. When the Coast Guard took over, they made me a Task Force leader. I was suddenly in charge of 25 boats; however, my pay did not increase. When I inquired with the Coast Guard why I did not receive a higher salary, they indicated that was just the way it was, and that I could take it or leave it. I didn't have the option of leaving it, because I was unable to make my livelihood shrimping due to the oil spill.

The VoO program had a morning group and evening group of boats, and each group had three Task Force leaders. I was part of the morning group. We were divided into three zones, and each zone was assigned a fleet of 25 boats. Each Task Force leader had five Strike Force boats, which were in charge of additional boats. If one of the boats under a Strike Force boat found oil, the captain would report it to the Strike Force leader who would then report it to me. I would report it to the Coast Guard and then we would have to report back to my home base leader. It was very frustrating for me to be in the position of Task Force leader, because I was regularly told by the Coast Guard officials that I could not direct the boats to clean up the oil that they spotted.

My zone went south from Dog River and mainly north of Dauphin Island in Mobile Bay. We stayed in state waters in the bay; we never went into the Gulf. To illustrate what I was finding, on June 13, 2010 there was an oil slick three miles long and a half mile wide. We were told not to clean up any oil we reported, however. We didn't have anything on the boat to clean it up. We

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were just spotting oil. I was angry and protested. I knew BP had the equipment - such as boom - but they were not putting it on the boats, because I had seen it on the sites. I raised noise, got other fisherman involved and threatened to contact media if they would not provide us the tools to properly contain and clean the oil.

In response, BP put oil booms and rags on the boat to clean it, but when we went back to clean the stretch of oil that we had previously identified, all we could find were bubbles. The evening before, they had contacted me and wanted a GPS number of each end of the slick. I didn't put two and two together until the next day when we saw the bubbles and realized that they bombed it with the dispersants that night. The next morning I received permission to lay boom, but the oil was all gone despite there being almost no wind. All that could be seen were black bubbles and foam.

## 2. DISPERSED OIL

I almost always saw a lot of sheen and bubbles, but at least five times I saw slicks of heavy weathered oil. The weathered oil is a brownish dark color that puts off a lot of sheen, and it has a gooey peanut butter like substance like a heavy crude oil with water mixed in that makes it. They were different sizes, but the largest slick I saw was on June 13, when I was told not to clean it. Toward July, we began to see less weathered oil and more dispersed oil. I heard from several fishermen that the VoO boats were intentionally placed in the dispersed oil to ride over it and disperse it further. Just at Dog River, there were regularly 150 boats in the water throughout the cleanup, and 170 boats at its peak.

In mid July 2010 one of the Strike Force leaders in Mobile Bay and in my zone reported oil in shallow water. They could see it; it was black in the water but they couldn't get the sorbent boom to hold it or for it to stick. We don't have that problem with undispersed oil, so we figured it was oil that had been dispersed. They could only attain about a bag of sorbent boom from VoO to clean it up. We never did hear any explanation about what it was. Since all we saw were black bubbles, we assumed a plane and some large boats had been spraying a dispersant on the oil. That is why it could not be cleaned normally.

Toward the beginning of the VoO program there was a heavily-attended public meeting at the Mobile, Alabama Civic Center with the Coast Guard. There were people from the Coast Guard, as well as senators and a lot of environmental representatives who were concerned about the use of dispersant. The Coast Guard official said there would be only limited use of dispersants, in the hundreds of thousands of gallons, and only where there would be no human contact. That is not what happened. Other workers in my zone reported to me that they saw dispersant being applied regularly from boats in all areas, and public reports confirm there were millions of gallons used. When they witnessed spraying, I asked them to take pictures so that we could document it. They were never able to get close enough to take pictures, however, because the boats would leave.

BP hired a firm called Sea Tow out of New York to do a lot of the spraying from large aluminum boats. Normally the Sea Tow boats are used as response boats if you breakdown or have an emergency. They are big boats with a lot of horsepower and they have the capacity of carrying tanks and spraying dispersant. These boats were stationed at a compound in Deer River, located

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I have read the foregoing four page statement, and it is true, accurate and complete to the best of my knowledge and belief.

Executed on July 6, 2012.

Sidney L Schwartz Sr  
Sidney Lee Schwartz Sr

Subscribed and sworn to before me  
this 7 day of 27, 2012

F. Vickers

Notary Public

**F. Vickers**  
Notary Public  
Alabama State At Large  
My Commission Expires  
March 21, 2016

My Commission expires on: \_\_\_\_\_

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## AFFIDAVIT

My name is Wilma Subra. I am submitting this statement, without any threats, inducements or coercion, to Shanna Devine, who has identified herself to me as an investigator with the Government Accountability Project. I am president of Subra Company, a chemistry lab and environmental consulting firm located in New Iberia, Louisiana. Throughout the BP oil spill cleanup I have advocated for greater worker protections and sound science around the impact of the spill on the gulf ecosystem and public health.<sup>1</sup> I am providing this statement because of the health needs of the impacted communities all along the coastal areas. There are no limitations on the use of this statement.

I was born and raised in Morgan City, Louisiana. I have lived my adult life in New Iberia, Louisiana; however, I work all over the United States and in some foreign countries. I have a master's degree in chemistry and microbiology from the University of Southwestern Louisiana. After I finished graduate school in 1966 I worked for Gulf South Research Institute (GSRI) for 14 years. We conducted cancer studies, and developed toxicology programs and methodologies before they were available in universities. Our programs were eventually developed at the national level. From that aspect I have been practicing toxicology since it was in its infancy.

After working at GSRI I founded the Subra Company in 1981. I created it specifically to provide technical assistance to community groups dealing with environmental issues, and to help them understand what was going on with chemicals to which they were exposed. Since that time I have also worked as a chemist for the Louisiana Environmental Action Network (LEAN). Before the Subra Company was formed, specialists would come into communities and evaluate particular public health threats, and then the communities would be given summaries. But no one would ever be able to sit down with the community and explain, "This is what the data really showed, and this is what you need to be looking into in your community." For thirty years I have been providing that resource.

I received the MacArthur Genius Award in 1999, based on working with, educating and empowering communities with the information they need to address environmental issues. Then they are the ones who make the difference. Since that time I've continued that work night and day, often 7 days a week and sometimes up to 20 hours a day. I was selected in 2011 as one of the 'Lifetime Remarkable Woman,' and most recently I was awarded the 2011 Global Exchange, Human Rights Award for my ongoing work with the BP Oil Spill and the communities affected by it.

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<sup>1</sup> *Local Impact of the Deepwater Horizon Oil Spill, Human Health and Environmental Impacts Associated with the Deepwater Horizon Crude Oil Spill Disaster: Hearing Before the Subcomm. on Oversight and Investigations of the H. Energy and Commerce Comm., 111th Cong. (2010) (statement of Dr. Wilma Subra, Chemist of Subra Company, Louisiana Environmental Action Network and the Lower Mississippi Riverkeeper),*  
<http://democrats.energycommerce.house.gov/documents/20100607/Subra.Testimony.06.07.2010.pdf>

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I recently completed a seven year term as vice-chair of the EPA National Advisory Council for Environmental Policy and Technology, a five year term on the National Advisory Committee of the U.S. Representative to the Commission for Environmental Cooperation and a six year term on the EPA National Environmental Justice Advisory Council (NEJAC) where I served as a member of the Cumulative Risk and Impacts Working Group of the NEJAC Council, and chaired the NEJAC Gulf Coast Hurricanes Work Group.

## 1. LESSONS LEARNED FROM KATRINA

I have a local parish emergency response pass that I acquired as the chair of the Iberia Parish Emergency Response Committee. The pass is valid throughout Louisiana, and in 2005 after Hurricane Katrina I went into the community every day, even when the dead bodies were still floating in the waters, and did damage assessment and needs assessment. I would sample the sediment sludge that was washed in shore as part of the tidal surge from Katrina. I would come back at night and get in touch with LEAN director Marylee Orr and tell her, "This is the place and community and supplies that they desperately need." She would work on getting those supplies into the community. Then I would go into another community and do damage assessment and needs assessment, sampling the sediment and sludge, and repeat the process.

What I found were high levels of heavy metals, organics, Polycyclic Aromatic Hydrocarbons (PAHs), and gram positive and gram negative bacteria (detailed below). When residents were allowed to return they were coming into contact with these chemicals without protection. We had about three million people come into the gulf coast to volunteer after Katrina and Rita, to gut houses and to tear down structures. They were all getting severely contaminated, and then going home without the knowledge of what had happened to them. Then they were sick one year to five years later from the exposure. There was nobody in their community to trace patterns of exposure and identify the cause by asking, "Did you go down to the gulf and volunteer?" Some of the pregnant women who had exposure later had birth defects and there were high miscarriage rates. There were abnormal pre-cancer and cardiovascular impacts.<sup>2</sup>

Marylee and I were out there informing as many people as we could that these are the health impacts associated with your environmental exposure. But how do you protect the people when state and local health agencies said it was safe to go back in to their now toxic communities and homes? We felt that was a huge exposure that occurred and was going to go unrecorded. We were really putting pressure on the federal and state health agencies to monitor what the effects were through long term tracking of the health impacts from this exposure.

## 2. FAST FORWARD TO BP SPILL; EDUCATION AND RETALIATION

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<sup>2</sup> Wilma Subra, Presentation to the Church World Service, Forum on Domestic Disasters Ministry, Princeton Theological Seminary: Environmental and Human Health Impacts of the 2005 Katrina and Rita Hurricane Season (Mar. 26, 2006), <http://data.leanweb.org/katrina/wilmadata.html>.

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The same thing occurred after the BP oil spill, regarding dangerous levels of exposure among workers, volunteers and residents. In late April 2010, before the crude made it to the Louisiana shore, which took nine days, the aerosol came on shore all the way across from Louisiana to Mississippi and Alabama to the Florida panhandle. The aerosol was dispersed crude oil. It came from the slick of the gulf and was dispersed into the air from the heavy winds of the high seas. It caused severe nausea, headaches and respiratory problems.

In May 2010 I went out and started conducting workshops for workers and their wives on health risks associated with exposure to the toxins and fumes. The people knew they were sick but they didn't know what it was from, and the media was reporting, "The oil hasn't hit the shore yet." At first the perception was that there were no health impacts. However, community groups would put the message out that I was providing the workshops, and people would quickly come out to learn what was going on. A lot of larger and national groups need a board to approve these actions, and it goes through a lengthy process which can delay our response time; I have been on boards and experienced this firsthand. Marylee and I get out there instantly. We don't worry about how we're going to pay for it until afterwards. We continue to offer these workshops.

There were two affected populations from very early on: those on the coastal area exposed to the aerosol and then to the crude as it moved in shore, and the worker population who were on the frontlines of the cleanup. The fishers couldn't go back out and fish, because the fishing grounds were closed. So quickly they wanted the jobs with BP, because they felt they knew the marshes and estuaries the best; that was their resource and they thought they could protect it the best. These workers were exposed every day, without proper training or proper protective gear.

Throughout the oil spill cleanup, worker safety trainings were insufficient to protect the health of the workers. The Occupational Safety and Health Administration (OSHA) and BP reduced the 40 hour HAZMAT trainings to four hour trainings for most of the workers. Some workers did not receive any training. Still, as part of the cleanup they came in contact with the oil and often dispersant and put out the booms. They would come home at night very sick, but desperate and needing the work. Then they would go back out in the morning and get sick all over again with headaches, nausea, respiratory problems and skin rashes; these are just some of the symptoms associated with exposure to the crude oil and dispersant. Health problems got worse from there (detailed below).

LEAN attorney Stuart Smith took BP to federal court in early May 2010, and the judge ruled that BP was not providing the cleanup workers with adequate protection and adequate training. BP signed the agreement that it would provide adequate training and adequate protection to the workers.<sup>3</sup> From that point forward the workers and their health should have been protected. BP and the government's ability and responsibility to protect these workers is not anything new. The

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<sup>3</sup> *Fisherman Win Another Round: For The Second Time, Court Requires BP To Amend Its Responder Contract To Protect Responders In Oil Cleanup*, LEAN, May 10, 2010, <http://leanweb.org/our-work/water/bp-oil-spill/fishermen-win-another-round>.

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people in Louisiana deal with chemicals and chemical toxicity in a workplace environment all the time. To allow workers to be exposed and made sick in response to an oil spill is inexcusable. We have rules and regulation on the book. We have requirements, planning, and instructions for worker safety that need to be enforced. However, even after the court ruling to enforce worker safety, as discussed below BP did not comply with the regulations and allowed the workers to be made sick.

BP and BP contractors were not providing workers with respirators, or allowing them to wear additional safety equipment on their own accord. The workers would go out, and Marylee instantly ordered protective gear. She ordered Tyvek suits, gloves, respirators and goggles and started distributing them in May 2010. However, workers told us they were not allowed to use them. When the workers on BP's Vessels of Opportunity (VoO) Program would take them out on the boats, we were informed on several occasions by workers that BP officials would threaten, "You're fired if you wear the respirators." When I was doing the workshops all day long, the wives would come because their husbands were out on the boats, and suddenly they became very concerned because they realized why their husbands were getting sick. The wives started speaking out and the workers were told if their wives don't shut up, then they were going to be fired. This was shared with me repeatedly along the coast. LEAN did convey the information to state and federal government agencies. The agencies listened to the information, but did not provide responses.

On June 22, 2010 Maureen Lichtveld, Chair of Environmental Policy at Tulane University School of Public Health, held a meeting about the health impacts associated with the spill and invited me to give a presentation. The conference was very well attended from experts throughout the country who came to speak and listen. I spoke about the health impacts and the threats to the workers and their wives. I made the statement that it is totally inappropriate for workers in a workplace environment to be made sick in 2010.<sup>4</sup>

### 3. OSHA DIRECTIVES INADEQUATE

On June 22, 2010 before the conference began, I had lunch with Dr. David Michaels, Director of OSHA. I told him about what was happening with the workers, and what the response was from BP and BP contractors. He said, "We have a problem, we have to do something about it," and I said "Yeah, I know we have a problem, and OSHA is supposed to be in charge." He said, "Well Wilma, OSHA doesn't have jurisdiction in the outer-continental shelf, offshore in federal waters. We just have jurisdiction out three miles from the coast, because that is still state waters." In turn, he argued that OSHA was not able to take corrective action where many of the VoO

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<sup>4</sup>Transcript of Presentation by Dr. Wilma Subra at 228-230, *Assessing the Human Health Effects of the Gulf of Mexico Oil Spill: An Institute of Medicine Workshop*, The National Academies, Jun. 22, 2010, available at <http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/OilSpillHealth/OilSpillHealth%20Day%201%20Transcripts.pdf>.

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workers were exposed to dangerous work environments without sufficient safety equipment. I responded that OSHA still should be protecting the health of the workers.

During our lunch, the main issue he pushed back on involved the use of respirators. He said, "If we make the workers wear respirators, then you, Wilma, will be causing them to have heat strokes." He framed it as if, by my advocating for their use of respirators, I'm causing the workers harm. I responded that the fishers participating in the VoO program said it was much harder on them not to wear the respirator and to breathe the fumes. They were the cleanup workers pulling in the booms loaded with oil that was running down their arms and their suits, and they were inhaling it. I have organized a lot of emergency response activities, and I know that if the wearing of a respirator induces heat stress then alternatively you put the body in a cool air system suit. This way the workers do not get overheated, and they do not breathe in the dangerous chemicals that are in their workplace environment.

A few positive things resulted from my conversation with Dr. Michaels. In July 2010 OSHA finally came out with a directive that the workers near the well site needed to wear respirators when they were spraying the dispersant Corexit. This did not apply to other workers, however. Additionally, in July 2010 the amount of time workers were allowed to work in the sun without a break was reduced. Prior to that directive, some of the workers on the beaches that were required to wear Tyvek suits would get so hot (due to the material, the suits retain heat) that they wore them tied around their waists and some workers didn't have them on at all. But after our conversation OSHA restricted their work time; they could only work 20 minutes out of a 60 minute period and the contractor was required to provide them shade and liquid during the 40 minutes. Sometimes the tents weren't adequate and they would still be exposed to the sun, but the break really helped them work.

OSHA's additional directives were better, but not appropriate for the exposure. Workers still weren't being provided with enough, or in some cases any, protective gear. The crude oil is in the environment, it's on the water, it's in the water column, it's in the sediment sludge, and it's on the beaches as a result. Any worker of BP or a BP contractor is going to come in direct contact with oil because they are out there to "clean up the oil." The routes of exposure of those workers are: inhalation by breathing in the fumes from the crude and/or dispersant if it was applied to the crude; ingestion because they spend their shift out there in contact with the crude and that is when they eat and they drink; and then dermal exposure, or skin contact, because a lot of them were not provided with adequate gloves or suits to cover their bodies, or when their gear ripped it would often not be replaced.

There are companies all along the Gulf coast that deal with oil spills all the time and they know the safety measures that must be taken. The whole process is already set up within these companies, and yet BP was allowed to hire cleanup workers without proper training or protective gear, and put them in harm's way through direct contact with the crude and the crude mixed with

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the dispersants. No matter how "emergency" it was, they knew how to protect those workers and they didn't.

#### 4. HEALTH IMPACT, CANCER ALLEY FORSHADOWING

Often when you assess a health site there are a particular set of chemicals that you are dealing with and they have specific health impacts that you look at. We learned many lessons from "cancer alley," which is along the Mississippi River between Baton Rouge and New Orleans, Louisiana. It is important that we learn from cancer alley in our response to communities impacted by the oil spill, because the long term health impacts will be very similar. Cancer alley gained notoriety in the late 1980's due to abnormally high cancer rates along both sides of the river. The facilities on cancer alley are petrochemical bases, and in 1987 the EPA's Toxic Release Inventory came out and showed cancer causing agents being released from those facilities, including the PAH and volatile organic compounds, (VOC or volatiles).

A lot of the industrial facilities on cancer alley didn't have proper worker protections for decades. The petrochemical industry conducted blood and urine tests of workers on an ongoing basis, but never made that data available to the workers. However, someone with a workers union would get local data on urine and blood analysis. Through the union, I had access to the kinds of chemicals that workers were being exposed to. I could match that information with the results in their urine and their blood and it clearly would associate.

To this day, people who live in close proximity to the industrial facilities on cancer alley have increased levels of these chemicals in their blood and health impacts associated with the particular chemicals at those facilities. In Mossville, located in St. Charles, Louisiana they live in close proximity to 14 industrial facilities, the majority which release bino-chloride and dioxins and furans. Residents of Mossville have three times the blood levels of dioxin that the rest of the population in the United States has. This is due to their exposure from the air emissions, from the deposition and from the bioaccumulation, as well as the impact on the aquatic and terrestrial organisms and the fruits and vegetables.

The widespread and long lasting contamination results in long term exposure. The older people have much higher chemical concentrations in their blood. Even though the industrial facilities have reduced their emissions overtime, the bioaccumulation is continuing. It's not like you are exposed to something, get a cold, then go to the doctor, get an antibiotic and it goes away. These are longer term exposures that build up in the body and then debilitate the whole community – just destroy the quality of life of the community.

Unfortunately the impact on the community from cancer alley has not been sufficiently tracked, and it is important that the same mistake is not made with those impacted by the oil spill. The cancer registry puts the cancer rate data out based on parish. If you look at the industrial corridor along the Mississippi River, the parishes are large but the portion on the river is small. From cancer alley you have this severely impacted community along the river, and then you have a

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large part of the parish that is not in close proximity. They combine all of that and give you a parish number instead of selecting the sections closest to the industrial facilities and coming up with those cancer rates.

In addition, most of the impacted communities are comprised of poor and minority populations, with a lack of access to health care. A lot of towns where cancer is prevalent don't get reported. You have to go to the doctor and the doctor has to take the initiative to report the incidents. And a lot of these people can't even go to the doctor because they don't have money for the gas to get to the doctor.

Marylee and I quickly employed the blood test method with the sick workers and residents in the aftermath of the BP spill (detailed below). I also developed two worksheets early in the oil spill cleanup process; a list of health impacts associated with Louisiana Sweet Crude, which is the type of oil that leaked during the spill, and a list of health impacts associated with the Corexit dispersants.<sup>5</sup> The combined short term health symptoms for include acute respiratory problems, skin rashes, cardiovascular impacts, gastrointestinal impacts, and short term loss of memory. Long term impacts include cancer, decreased lung function, liver damage, and kidney damage

When you combine the crude oil from the BP spill – Louisiana Sweet Crude - and the dispersant, the mixture toxicity is more than the additive amount; the more that they mix together, the greater the combined toxicity.<sup>6</sup> The issue is how well the dispersant was mixed with the crude in each specific location that these people were working. We compared the health impacts identified on the worksheets with the types of health impacts associated with the workers. From the beginning of the cleanup, the workers called Marylee and me on nights and weekends, and they were reporting all of the same health impacts; respiratory impacts, nauseas, severe headaches, cardiovascular problems, and huge skin lesions because of the skin contact with the oil and dispersed oil, and decreased memory. They began sharing these symptoms from the first day they went to work with BP, and by May 7 we had the court hearing with attorney Stuart Smith over the health impacts experienced by the workers.

Most of the cleanup workers were hired by a huge number of BP contractors. If any of the workers claimed they were sick, their employers would send them to a first aid station, or if they were severely ill they would send them to a hospital. However, after they became really sick and couldn't work anymore, they would be laid off. When they were still employed they would call us discreetly at night to report their health problems, but then they really started to speak out when they realized there no longer was anything to lose since they had been fired for being

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<sup>5</sup> *Health Impacts Associated with Dispersants and Louisiana Sweet Crude*, LEAN, Jun. 14, 2010, <http://leanweb.org/our-work/water/bp-oil-spill/health-impacts-associated-with-dispersants-and-louisiana-sweet-crude>.

<sup>6</sup> Richard Denison, *EPA data show dispersants plus oil are more toxic than either alone*, Environmental Defense Fund, Jun. 14, 2010, available at <http://blogs.edf.org/nanotechnology/2010/06/14/epa-data-show-dispersants-plus-oil-are-more-toxic-than-either-alone/>.

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victims. They were too sick to work, and had no medical or disability benefits. There are still thousands of workers employed by BP and BP contractors all along the gulf coast, and we continue to receive calls from them regarding health problems.

Since the oil spill, we also get calls from scores of sick residents that mirror the health problems reported by workers. Based on my experience with cancer alley, this was not surprising, and I am concerned about future cancer rates among gulf residents who have been impacted by the spill. The more vulnerable populations in any toxic environment are the elderly and the children. This is of greater concern in association with the BP spill than cancer alley, because a lot of the coastal community populations depend on fishing both for a livelihood and to feed their families.

Large Vietnamese, Native American and African American populations live along the coastal areas. Before the spill they had the ability to feed their families based on what they harvested. Now suddenly they don't. A lot of the organisms have been depleted and contaminated as a result of the spill. In a lot of cases these people are hungry because they can't eat the seafood or they don't want to poison their family by eating it and they have no other source of food. Fishermen have shared these concerns with me directly. In the marshy areas you can't plant a garden. All of a sudden their vulnerability has increased exponentially because they don't have access to food.

## 5. PAH, BLOOD TESTS

LEAN and I, working with Dr. Michael Robichaux, have taken excess of 100 whole blood samples on workers and residents who have reported health problems in the aftermath of the spill. The blood samples have analyzed for VOCs, the compounds found in the crude oil and dispersant. The results demonstrate an increase in the blood concentrations of those chemicals as a result of being exposed to the crude and dispersants. The findings have been consistent with the first six blood tests that we released on January 5, 2011.<sup>7</sup> When levels exceed the 95<sup>th</sup> percentile, it exceeds the level that the general population range is, so it clearly shows that exposure occurred. People who have not been exposed to the crude and dispersants have much lower levels in their bodies, way below the 95 percentile.

When you look at the overall data from the blood testing, the highest concentrations were in current workers and former workers who could not have had current exposure; they are in excess of the 95<sup>th</sup> percentile. The divers are just below that; they actually went out and dove through the slick when it was in the gulf, and in the marshy areas. The populations living and recreating along the coast are still in excess of the 95<sup>th</sup> percentile, because there is still ongoing exposure through their environment.

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<sup>7</sup> Wilma Subra, *Evaluation of the Results of Whole Blood Solvents Testing*, LEAN, Jan. 5, 2011, <http://leanweb.org/our-work/community/public-health/bp-spill-blood-test-results-louisiana-residents>.

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We started the blood testing in late December 2010, but we already had data from Mississippi and Alabama and Florida for blood tests which informed our initial analysis. We did a survey of what their occupation was or how they thought they were exposed. I have developed an instrument of surveying health impacts. In the case of the oil spill, it surveyed health symptoms specific to exposure from the crude oil and dispersant because after the spill a lot of the communities wanted it in order to have their symptoms reported. However, when they received it they were scared that BP would somehow get that survey result and it would hurt in their BP claims, so they were very reluctant to fill it out.

Based on our findings for approximately 100 surveys, in addition to approximately 800 interviews, individuals reported being ill often, on an ongoing basis, everyday and daily. Of the individuals surveyed, 45% of the individuals reported working in the BP oil spill cleanup efforts and being exposed to the crude oil and dispersants. In addition to the cleanup workers, the coastal residents completing the survey identified being exposed to crude oil and dispersants from the BP spill. The routes of exposure identified by all of the individuals surveyed consisted of contaminated air, contaminated water, contaminated wetlands and beaches and contaminated tissue. The description of the specific exposure pathways described by the cleanup workers that were surveyed consisted of: crude oil on surface of the water in the Gulf and Bay systems; crude oil offshore; oil soaked booms; crude oil and dispersants on beaches and wetlands; sprayed with dispersants while working on the oil spill cleanup; exposed to chemical solutions used to clean equipment in association with the oil spill cleanup; and smoke from burning of crude oil. The description of the specific exposure pathways described by the coastal community members consisted of: crude oil and dispersants on beaches and wetlands; smoke from burning of crude oil; washing contaminated clothing; and consuming contaminated oysters.<sup>8</sup>

Historically worker community groups don't have any money, so if we find a contaminated area we do a few samples, demonstrate what is happening, and usually the state or the federal agency comes in and does additional sampling or require the company to do additional sampling. That way the community has identified the issue, and the agencies then help us clearly define the issue. In this case, we're identifying the issues and yet the agencies aren't stepping in and taking a broader look. Exposure from the oil spill is affecting a huge portion of the population along the coastal areas. The federal agencies have claimed that they don't have the resources to come in and evaluate the chemicals in the blood of these sick populations. So we're evaluating it.

Each blood test costs approximately \$500; \$400 for the test and \$100 to take it to the lab. We have to pay for the costs, because the people we are testing are mainly sick and unemployed and can't afford it. We're doing just a few at a time, and we're still looking for additional resources

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<sup>8</sup> *Results of the Louisiana Environmental Action Network (LEAN) Survey of the Human Health Impacts Due to the BP Deepwater Horizon Disaster*, LEAN, Apr. 20, 2012, <http://leanweb.org/our-work/water/bp-oil-spill/results-of-the-louisiana-environmental-action-network-lean-survey-of-the-human-health-impacts-due-to-the-bp-deepwater-horizon-disaster>.

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so that we can do more testing. Even though it is expensive, the easiest approach was to test for the VOCs. Critics of this test, such as the Center for Disease Control (CDC), argue that the volatiles disappear quickly. If that is the case, there is real cause for alarm. Yet, the crude supposedly stopped flowing in the middle of July 2010, but exposure is continuing to this day. *Either they don't disappear quickly, or the oil is still contaminating the region.*

The government and BP also have taken the stance that we do not need to be concerned about exposure to Corexit, because it has a 90 minute half life, which means that after 90 minutes half of the components evaporate and the other half of the concentration remains, making it less dangerous. That is not fully accurate in this case, because the compounds from the dispersant come in contact with the crude and get interconnected. In effect, the degradation does not occur like that. The real half life and range depends on the environmental conditions. The BP oil spill is really a test case, since such a large amount of dispersant has not been used before in such quantities with the large amount of crude oil. When the remaining oil and dispersants are disrupted, the compounds rise to the surface. When divers went into plumes, they were exposed.

Every time I check, there is still oil on the beaches and in the estuary systems and in the wetlands and the marshes. People go to the beaches and swim in the gulf, and report to me that they still come up stained with a brownish tan color that they believe is oil. There are still tar balls and mats and strings washing on shore every single day all along Louisiana, Mississippi, Alabama and the panhandle in Florida. Grand Isle, Louisiana gets bowling ball size tar bars, and is still full of oiled birds that are dead and dying. If you open a tar bar that washed on shore, the volatiles are still being released. This exposure extends to anyone who took home tar balls in a Ziploc bag or on the airplane. From May 2010 through early 2011, I received a large number of complaints from the baggage screeners, or inspectors at the airports because passengers had to put the tar balls in their checked baggage when the inspectors found them in their carryon bags. The inspectors had to handle the tar balls and they were concerned that they were being exposed as well; they wear latex gloves, which would not protect them from exposure to the chemicals present in the tar balls.

Anyone who recreates, fishes, is in the marsh and hunts or traps in the gulf, is still coming in contact with the crude on an ongoing basis. I took samples from Mobile Bay, Alabama in July 2011, and the whole time we were out the fishermen on the various radios were calling in about the oil. The water there was like 85 and 88 degrees, so there was constantly oil coming up and making a sheen. There were constantly mats and tar balls and oil washing in to the barrier islands. But fishermen were really concerned about that sheen, because anything they harvested and picked up through it became contaminated with the oil. It's still very prevalent.

Many of the VOCs do go away quickly. However, the oil is still very prevalent in the environment. It's not over. The main VOCs are xylene, ethyl benzene and hexane. They were known to be in the crude, to move on shore, and to be off-gassing from the crude as it floats on the surface of the Gulf and as it is in the wetlands and the beach. These are known suspected

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cancer causing agents that also cause acute respiratory problems and gastrointestinal problems and decrease lung function type issues. The health impacts and the concentrations in the blood are to be expected from this level of exposure. For those who are living a normal life but not cleanup workers, the two ways that you can be most exposed to VOCs are from filling your car with gas and smoking. However, that exposure is much smaller than what we were finding in the blood tests. In fact, we have five and six year old children who had high levels of VOCs in their blood, and they don't go out and fill their car with gas, or smoke. Five to seven percent of the individuals we have sampled are children.

We tried to get the medical labs interested in doing analysis of the blood for the PAH, since it is a major component of the crude oil. To this day we have been unable to find a lab willing to provide the analysis, although PAHs are known and suspected cancer causing agents, and these are the components that last a long time in the environment. To demonstrate, I examine a lot of creosote facilities that primarily let off PAHs in the community. These facilities impregnate wood with creosote to preserve it. Some of these facilities have been shut down for thirty years, and the people in the communities around them still have high levels of PAHs in their blood that match the fingerprint of the PAHs from the facilities. The PAHs that form the dispersant and crude oil will be present for decades.

Because we are testing for VOCs, the government agencies are going to be constantly pushing back on us and saying bad things about our data based on the aforementioned reasons. Yet they are not coming in and taking over. Traditionally I help get testing off the ground in affected communities, and then the CDC and state's department of health services get involved to help implement the response on a larger scale. That was not the case in the aftermath of the BP oil spill. However, the National Institute for Environmental Health and Sciences (NIEHS) has \$20 million – \$10 million from the federal government and \$10 million from BP - for its Gulf Study.

## 6. NIEHS GULF STUDY

From the beginning of the planning, mid-summer of 2010, I sat in on the conference calls that were developing the scope of the NIEHS Gulf Study to examine the health of people who helped clean up the oil spill. Because there was not a tracking system under Hurricanes Katrina and Rita, I was happy that they were going to create a health tracking system early on. But they said they were going to limit it to workers and volunteers. I replied, "There is this whole population on the coast that you just excluded – the residents." Then they came up with only 55,000 workers, and I replied, "But there's a whole population of workers and coastal communities that aren't included." They responded, "Well yes Wilma, but you know, we don't have the money."

As it developed, we talked about the different aspects of the Gulf Study. They were going to contact people and monitor their health symptoms. The first year they were going to track 55,000 people. The next year they were going to cut it down to 50,000. In actuality, during a conference call Dr. Dale Sandler, Chief of Epidemiology and Principal Investigator for the Gulf Study,

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stated that for the duration of the study they would only track 16,200 individuals. I responded to their proposal, "You were going to ask people what health symptoms they had but you weren't then going to say, 'we'll get you to the doctor and get you medical care.'" I said, "It's completely inappropriate to ask them what their health symptoms are, but then to not get them medical care." They replied, "Well, Wilma, you know we don't have the money."

Finally, about three months ago they changed the study terms to say, "And we'll refer you for medical care." I know that all of the agencies are not going to have the resources to make referrals. But then, four universities received these community involvement grants, one of which was University of Texas Medical Branch in Galveston (UTMB).<sup>9</sup> They have developed the analytical method, similar to the Metamatrix blood test, used to look for the PAHs in the blood and the urine of the people that they're going to be covering in their study; the people who live in the coastal areas and consume seafood from the coastal areas. We are going to be assisting UTMB and sampling the seafood to be analyzed for the PAHs. We're going to be able to test for the PAHs in what they eat, and in their body and in their blood and their urine. These are going to be the PAHs that gulf coastal residents are bioaccumulating.

## 7. FDA ON SEAFOOD SAFETY

We have done a large amount of testing of the seafood.<sup>10</sup> The minute we get our results, within three to four hours that information is available to the community through the LEAN website and provided to the federal and state agencies. The PAHs that we are finding in the seafood actually match the fingerprint of the BP crude, so it's clearly from the BP spill. Through EPA conference calls that I participated in on an ongoing basis, I knew that early in the spill the National Oceanic Atmospheric Administration (NOAA) took a few samples for Corexit. Shortly thereafter to my knowledge they dropped it. After the well was plugged they stated that the final Corexit application was July 19, and treated the testing of Corexit as a nonissue. They didn't establish criteria for the dispersants, only for PAHs in specific seafood (detailed below). Our data matches the data that the federal agencies have collected; however, when the FDA did its concentration calculation, it was based on flawed assumptions.<sup>11</sup> When we do those types of calculations, the concentrations in the seafood exceed the acceptable levels for safe consumption. We have gone around and around with the FDA on that issue.

The FDA developed criteria for specific PAHs in shrimp, crab and oysters. Their findings were based a 175 pound person. They ignored the vulnerable populations – the young, the elderly, the

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<sup>9</sup> *Announcing GC-HARMS: UTMB's Study of PAH's in Seafood and People*, LEAN, Dec. 1, 2011, <http://leanweb.org/our-work/water/bp-oil-spill/seafood-safety/lean-partnering-with-utmb-for-gc-harms-study-of-pah-s-in-people-and-seafood>.

<sup>10</sup> *BP Oil Spill Seafood Sampling Projects Results Overview*, LEAN, Jan. 3, 2011, <http://leanweb.org/our-work/water/bp-oil-spill/seafood-safety/bp-oil-spill-seafood-sampling-project-results-overview>.

<sup>11</sup> *Deepwater Horizon Oil Spill Reopening Samples: PAH and DOSS Results Summary From FDA Testing Labs*, available at <http://www.fda.gov/downloads/Food/FoodSafety/Product-SpecificInformation/Seafood/UCM231696.pdf>.

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people on chemotherapy and HIV patients. They also based their conclusions on an average consumption rate of the United States, of four shrimp for one meal a week. No one along the coast only eats four shrimp. And they don't eat one meal a week of it; they eat it on a very frequent basis.

The other aspect is that the FDA and local and state wildlife and fisheries use that data to establish when they can reopen a fishing ground, and they work with the state agency to determine what kind of buffer zone from the marsh; how much of the water should be closed versus the rest of the lake estuaries open. In fall 2010 I was standing in this very oily marsh, and there was a shrimp boat right offshore trawling for shrimp. The shrimper didn't know what the buffer zone was; he was right up against shore. I knew that if I went off the bank 10 or 20 feet and took a sediment sample, it was visibly oil, and yet that is the area he was trawling in. To this day, if you talk to the fishermen they will talk to you about bringing up trawls and nets and cages full of oil. But they don't want to speak about it publicly, because the rest of the community is going to be screaming at them and saying that "you are destroying our livelihood" by raising concerns about the safety of Gulf seafood.

On top of the FDA's flawed safety assumptions, BP is giving huge monies to the seafood industry in each state to promote seafood. The federal government is a cheerleader for this false advertising. NOAA Administrator Dr. Jane Lubchenco stood at a press conference on September 15, 2010 in Kenner with all of the seafood bigwigs standing up behind her, and she said, over and over and over again, "The seafood is not contaminated, the seafood is not contaminated, the seafood is not contaminated."<sup>12</sup> That's what the industry and BP wanted the message to be.

After that event, I sent Dr. Lubchenco a message that stated "The seafood is contaminated with PAHs, and according to the FDA's calculations it is below the acceptable level you have established; your own data shows that 40% to 60% of the oysters are contaminated and the shrimp are contaminated." Shortly thereafter NOAA changed its message to "The seafood is contaminated but it is below the levels we have established as unsafe."<sup>13</sup> However, Dr. Lubchenco's first message was the message that BP and the seafood industry wanted to hear, and that was the message delivered in a public forum and that continued to be repeated publicly. She knew better.

It is a matter of finding the reality that is out there and the lack of transparency in the reality. We are trying to get the message out: "This is the real situation, now you make your own decision."

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<sup>12</sup> Transcript: Press Briefing and Teleconference by National Incident Commander Admiral Thad Allen and NOAA Administrator Dr. Jane Lubchenco. RestoreTheGulf.gov, Sept. 15, 2010, *available at* <http://www.restorethegulf.gov/release/2010/09/15/transcript-press-briefing-and-teleconference-national-incident-commander-admiral->

<sup>13</sup> Press Release, NOAA, NOAA and FDA Announce Chemical Test for Dispersant in Gulf Seafood; All Samples Test Within Safety Threshold (Oct. 29, 2010), *available at* [http://www.noaanews.noaa.gov/stories2010/20101029\\_seafood.html](http://www.noaanews.noaa.gov/stories2010/20101029_seafood.html).

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## 8. EPA APPROVES COREXIT

When EPA administrator Lisa Jackson directed BP to come up with a less toxic alternative to Corexit, and the deadline hit on May 21, 2010, we asked for the response. BP said it needed to be confidential, so it took a number of more days for all the lawyers to release it. I got it on a Saturday afternoon and my colleagues wanted to know, "What does it say and mean?" It essentially said "Yes there were less toxic alternatives, but the supply was not available. Therefore, we, BP, will continue to use Corexit, because the supply is available for the quantity we need to apply."<sup>14</sup>

On May 26, 2010, Administrator Jackson responded that BP must reduce the amount of Corexit used by 75%.<sup>15</sup> Subsurface application of the dispersant continued and BP did not have to justify its use under the terms of the directive. Surface application was supposed to be eliminated, but BP could justify its use due to weather or if it identified an oil slick. On a daily basis BP received exemptions to apply the dispersant by plane. EPA would go in the spotter plane planes in the morning and look at all the slicks that BP was proposing to spray. By noon, they would tell BP which ones they were allowed to spray and then the spraying would occur. To me, the justification by EPA was that while they did not have a less toxic dispersant, BP was spraying less. Marylee and I worked extensively with the EPA throughout this process and would share community complaints about the use of dispersant, such as concerns of being sprayed, and EPA representatives informed us that they would try to verify the complaints.

I have worked with the coastal areas for my whole professional career, so the communities that reported to me during the spill are the same ones that I worked with before Hurricanes Katrina and Rita. I'm a known entity there. I know who is reliable within the community, and who is not. During the time that BP was spraying from the blowout through mid August 2010, I kept getting a lot of calls from workers offshore reporting that they were being sprayed; not the workers who were the BP contractors around the wellhead on boats and ships, but workers from other rigs that did not have protective gear. They reported respiratory problems and nausea. On an ongoing basis I would speak with EPA and share, "I've received information that these workers on the offshore rigs are being sprayed." They would look into it and come back and say, "No they are not Wilma. We are not spraying where there are workers, and we are not spraying where there are dolphins." Then I would get more complaints and I would tell the EPA again, the workers offshore are being sprayed. And they would respond, "No, they're not."

From early in the cleanup, residents inshore contacted me to report spraying as well. The last call I received was in July 2011. From the beginning, everybody ran to Venice, Louisiana, because

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<sup>14</sup> Letter from Douglas J. Suttles, Chief Operating Officer, British Petroleum, to Mary Landry, Rear Admiral, Commander, Eight Coast Guard District, Samuel Coleman, P.E., Superfund Division, U.S. EPA Region 6, (May 20, 2010), *available at* <http://www.epa.gov/bpspill/dispersants/5-21bp-response.pdf>.

<sup>15</sup> Directive from EPA and the Coast Guard on Reducing the Use of Dispersants to BP (May 26, 2010), *available at* <http://www.epa.gov/bpspill/dispersants/directive-addendum3.pdf>.

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that was where the oil was going to come in. Residents and cleanup workers would repeatedly call me and report, "We are being sprayed on land in Venice." Venice is way inshore. I would tell them "It's mosquito control; I've been sprayed in Venice by the trucks and planes for mosquito control." In the first month it was primarily mosquito control. By law, dispersants cannot be applied closer than three miles to shore. But after the first month into the spill, BP started spraying inshore. A lot of people would send me photographs of Corexit in totes that were land based. EPA stated that Corexit was not being applied inshore, but went on to explain that through state exemptions it could be sprayed in shore.

From May 2010 through fall 2011, community members reported to me that they would go out and see a slick, that night hear the planes, and then the next day the slick was gone from the inshore and estuary areas. People inshore would continue to report how much they were being sprayed. Elderly would be sitting on their porches in their summer homes and get sprayed and wind up in the hospital for respiratory problems. I would call in the EPA and the feds to report that EPA was spraying people on shore, including the coastal estuary areas and beach area. They would respond "We have a federal criminal investigation and we can't talk to you about it, this is enforcement sensitive." I have had the kind of relationship with EPA where I can inform them about an environmental or health problem but the EPA cannot directly respond, therefore I understand if something is enforcement sensitive. I get the message to them and hope that they do the right thing.

EPA told me that there is a Louisiana state exemption that allows BP to spray inshore without keeping records of it, which is a historical problem that we have with pesticide use. In Louisiana we could never get a requirement for the state to record what pesticides are being sprayed, how much and when. In turn, farmers can go out and spray whatever they want, whenever they want, and I can't go back and find the file that says, "On that field across the street these chemicals were applied in these amounts on this date." That exemption applies inshore with Corexit use; because it is state waters, the company applying the dispersant does not have to report that they have sprayed dispersants. It doesn't make sense, but it is reality. Due to this loophole, you cannot find out who sprayed what, when, where, and yet I have all these people reporting that they have been sprayed.

We are a coastal parish and we have marsh and tons of mosquitoes, so mosquito control sprays by truck. When it gets really bad a federal plane comes in to spray. We worked with the Parish to the point where they now notify all of the sensitive populations before they spray, so that they can choose to leave the area. Further, they put it in the newspaper, so the broader population can know when they are going to spray from the planes. It's not dispersant but it's very toxic. Until this is implemented at the federal level, it is only a partial solution. If I'm not in every parish, I can't get the warning implemented everywhere. The problem is worse with dispersant use, because there is no requirement that BP has to record where it sprayed, and there was frequent denial by BP that they were spraying inshore.

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## 9. CONCLUSION

We knew that the BP spill was Louisiana Sweet Crude. We knew its major components, and that its toxicity level increased when mixed with Corexit. BP was spraying the more toxic Corexit 9527 and shortly into the spill they switched to a slightly less toxic 9500, which was still more toxic than alternative EPA approved dispersants. EPA and BP knew of the health impacts associated with it, even though BP wasn't forthcoming with all of the elements. The issue was responding to an oil spill of this magnitude, with unprecedented quantities of Corexit, including novel subsurface application. Gulf coastal communities, and individuals who consume gulf seafood or recreate in the gulf, are the guinea pigs left to deal with the consequences and will be feeling the full effect in years to come.

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I have read the foregoing 16 page statement, and declare that it is true, accurate and complete to the best of my knowledge and belief.

Executed on June 12, 2012.

Wilma A. Steele

Subscribed and sworn to before me  
this 18<sup>th</sup> day of JUNE, 2012

Clint E. Hubma #11630

Notary Public

My Commission expires on: 2-13